



CARTRIDGE VALVES · MANIFOLDS · SPECIAL APPLICATIONS

Edizione 2019



GB

TECHNICAL CATALOGUE

EDITION 2019



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VALVE TYPE	INDEX	VALVE TYPE	INDEX	VALVE TYPE	INDEX
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CAB 20	05.010	DPA 50	04.142	ELP 30/P3	11.040
CAB 20/M-CSL 57	05.200	DPA 70	04.144	ELP 30/Q1	11.010
CAB 28	12.150	DPE 30	04.200	ELP 30/Q2	11.100
CAB 30	05.020	DPE 50	04.205	ELP 30/Q3	11.040
CAB 30/M-CSL 57	05.210	DPC 20	06.090	ELP 30/Q4	11.130
CAE 20	05.050	DPC 30	06.100	ELP 50/D2	11.080
CAE 20/M-CFT 57	13.400	DPC 30/..-HF	06.105	ELP 50/D3	11.080
CAE 20/M-CSL 57	05.220	DPC 50	06.120	ELP 50/P1	11.020
CAE 28	12.151	DPZ 30	06.110	ELP 50/P3	11.050
CAE 30	05.060	DPZ 50	06.130	ELP 50/Q1	11.020
CAE 30/M-CSL 57	05.230	EAC 30	05.065	ELP 50/Q3	11.050
CAE 50	05.070	ECD 20/2202	08.075	ELP 70/D2	11.090
CAE 50/FDS 01	14.400	ECD 20/22B1	08.070	ELP 70/D3	11.090
CAE 50/FDT 01	14.500	ECD 20/22B2	08.070	ELP 70/P1	11.030
CAE 50/M-CSL 57	05.240	ECD 20/22U1	08.070	ELP 70/P3	11.060
CAE 70	05.080	ECD 20/22U2	08.070	ELP 70/Q1	11.030
CAP 20	05.100	ECD 20/3204	08.095	ELP 70/Q3	11.060
CAP 20/..-L	05.140	ECD 28/2202	12.182	ELPS 30/Q1	11.140
CAP 30	05.110	ECD 28/2202-R	12.181	EPP 30/22B1	08.040
CAP 30/3.4	05.111	ECD 28/22B1	12.170	EPP 30/22B2	08.040
CAP 50	05.120	ECD 28/22B2	12.170	EPP 30/22C1	08.040
CAS 20	06.025	ECD 28/22U1	12.170	EPP 30/22C2	08.040
CAT 20	05.090	ECD 28/22U2	12.170	EPP 32-B/22B2	12.090
CAT 30	05.091	ECD 28/3204	12.190	EPP 32-B/22C2	12.090
CB 20	05.005	ECD 29/2202	12.180	EPP 32-P/22B2	12.090
CCE 20	05.320	ECD 30/2201	08.080	EPP 32-P/22C2	12.090
CCI 20	05.300	ECD 30/2202	08.080	EPP 50/22B1	08.050
CCI 20/FDR 29	14.235	ECD 30/3204	08.100	EPP 50/22B2	08.050
CCI 30	05.310	ECD 30/3204S	08.100	EPP 50/22C1	08.050
CDE 20	05.330	ECD 32-B/2202	12.110	EPP 50/22C2	08.050
CDP 30	05.150	ECD 32-P/2202	12.110	EPP 70/22B1	08.060
CMB 20	07.090	ECD 50/2202	08.090	EPP 70/22B2	08.060
CMB 20/CSL 25	07.220	ECP 20/22B1	08.010	EPP 70/22C1	08.060
CMB 20/PP	07.190	ECP 20/22B2	08.010	EPP 70/22C2	08.060
CMC 30	07.100	ECP 20/22C1	08.010	ETD 20/2201	09.010
CMC 50	07.110	ECP 20/22C2	08.010	ETD 20/2202	09.010
CML 30-PO	13.830	ECP 28/22B1	12.160	ETD 20/3203	09.040
CML 30-P3	13.832	ECP 28/22B1-R	12.161	ETD 20/3204	09.040
CMQ 30	07.060	ECP 28/22B2	12.160	ETD 20/4205	09.070
CMQ 30/CSL 25	07.200	ECP 28/22B2-R	12.161	ETD 20/4206	09.070
CMQ 30/CSL 26	07.240	ECP 28/22C1	12.160	ETD 20/4207	09.100
CMQ 30/FDR 22	14.200	ECP 28/22C1-R	12.161	ETD 20/4208	09.100
CMQ 30/FDR 23	14.210	ECP 28/22C2	12.160	ETD 20/4306	09.130
CMQ 30/FDR 25	14.220	ECP 28/22C2-R	12.161	ETD 20/4307	09.160
CMQ 30/FDR 26	14.230	ECP 30/22B1	08.020	ETD 20/4308	09.160
CMQ 30/FDR 31	14.240	ECP 30/22B2	08.020	ETD 20/4309	09.130
CMQ 30/PP	07.192	ECP 30/22C1	08.020	ETD 28/2201	12.210
CMQ 50	07.070	ECP 30/22C2	08.020	ETD 28/2202	12.210
CMQ 50/CSL 25	07.210	ECP 32-B/22B1	12.100	ETD 28/3203	12.220
CMQ 50/CSL 26	07.250	ECP 32-B/22B2	12.100	ETD 28/3204	12.220
CMQ 50/PP	07.194	ECP 32-B/22C1	12.100	ETD 28/4205	12.230
CMS 20	07.010	ECP 32-B/22C2	12.100	ETD 28/4206	12.230
CMS 30	07.020	ECP 32-P/22B1	12.100	ETD 28/4306	12.250
CMS 50	07.030	ECP 32-P/22B2	12.100	ETD 28/4309	12.250
CMS 70	07.040	ECP 32-P/22C1	12.100	ETD 30/2201	09.020
CMT 30-PO	13.805	ECP 32-P/22C2	12.100	ETD 30/2202	09.020
CMT 30-P1	13.800	ECP 50/22B1	08.030	ETD 30/3203	09.050
CMT 30-P2	13.801	ECP 50/22B2	08.030	ETD 30/3204	09.050
CMT 30-P3	13.802	ECP 50/22C1	08.030	ETD 30/4205	09.080
CPA 30	05.350	ECP 50/22C2	08.030	ETD 30/4206	09.080
DCC 30	06.150	ELP 30/D2	11.070	ETD 30/4207	09.110
DCC 50	06.160	ELP 30/D3	11.070	ETD 30/4208	09.110

VALVE TYPE	INDEX	VALVE TYPE	INDEX	VALVE TYPE	INDEX
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ETD 30/4307	09.170	LPE 20/CSL 03	02.215	RDB 30	06.020
ETD 30/4308	09.170	LPE 20/CSL 06	02.335	RDC 20	06.050
ETD 30/4309	09.140	LPE 28	12.130	RDC 20/CSL 10	06.180
ETD 50/2201	09.030	LPI 30	02.120	RDC 30	06.060
ETD 50/2202	09.030	LPI 30/CSL 06	02.360	RDC 30/..-HF	06.065
ETD 50/3203	09.060	LPI 30/FDR 01	14.130	RDC 30/CSL 10	06.190
ETD 50/3204	09.060	LPI 30/FDR 02	14.160	RDC 50	06.080
ETD 50/4205	09.090	LPI 30/FDR 03	14.130	RDI 20	06.030
ETD 50/4206	09.090	LPI 30/FDR B1	14.190	RDI 30	06.040
ETD 50/4207	09.120	LPI 30/FDR B2	14.190	RDZ 30	06.070
ETD 50/4208	09.120	LPI 50	02.130	RDZ 30/CSL 10	06.200
ETD 50/4306	09.150	LPI 50/CSL 06	02.370	RDZ 50	06.085
ETD 50/4307	09.180	LPI 70	02.140	RLD 20	03.060
ETD 50/4308	09.180	LPI 70/CSL 06	02.380	RLP 30	03.070
ETD 50/4309	09.150	LPQ 30	04.010	RLP 50	03.080
FMP 20	18.100	LPQ 30/CSL 10	04.080	RLP 70	03.090
FPO-OCTAL	10.258	LPQ 50	04.020	RLY 30	03.030
FPO-UNDECAL	10.259	LPQ 50/CSL 10	04.090	RLY 30/CSL 11	03.110
FRP/01	10.270	LPQ 70	04.030	RLY 50	03.040
FRP/02	10.272	LPQ 70/CSL 10	04.100	RLY 50/CSL 11	03.120
FRP2	10.280	LPQY 30	04.042	RLY 70	03.050
LCS 20	04.075	LPS 20	02.020	RLY 70/CSL 11	03.130
LPA 10	02.050	LPS 20/20	02.030	RMB 20	05.520
LPA 20	02.060	LPS 20/20-CSL 03	02.210	RMB 20/B	05.515
LPA 20/CSL 03	02.220	LPS 20/20-CSL 10	04.150	RMB 30	05.530
LPA 20/CSL 06	02.340	LPS 20/20-FDM 01	14.010	RPA 20	03.020
LPA 20/CSL 10	04.160	LPS 20/20-FDM 03	14.010	RPA 20/CSL 11	03.100
LPA 20/FDM 01	14.020	LPT 30	02.160	VDT 20/2201-PS	05.800
LPA 20/FDM 03	14.020	LPY 30	04.040	VDT 20/2202	04.032
LPA 20/FDR 01	14.100	LPY 30/CSL 10	04.110	VDT 20/2202-PS	05.800
LPA 20/FDR 02	14.140	LPY 50	04.050	VDT 20/3201	05.670
LPA 20/FDR 03	14.100	LPY 50/CSL 10	04.120	VDT 20/3202	05.670
LPA 20/FDR B1	14.170	LPY 70	04.060	VDT 20/3203	05.600
LPA 20/FDR B2	14.170	LPY 70/CSL 10	04.130	VDT 20/3203-IB	05.601
LPA 30	02.070	LSV 30	06.140	VDT 20/3203-N	05.605
LPA 30/CSL 03	02.230	LSV 30B	06.145	VDT 20/3204-PS	05.810
LPA 30/CSL 06	02.350	MCD 28/2202	12.155	VDT 20/4203	05.740
LPA 30/CSL 10	04.170	MCD 32/2202	12.080	VDT 20/4205	05.780
LPA 30/FDR 01	14.120	MEI 600	18.540	VDT 20/4211	05.780
LPA 30/FDR 02	14.150	MEX 600	18.540	VDT 30/2201-PS	05.802
LPA 30/FDR 03	14.120	MTV 30	05.900	VDT 30/2202	04.034
LPA 30/FDR B1	14.180	OCD 20/2202-PN	05.380	VDT 30/2202-PS	05.802
LPA 30/FDR B2	14.180	OCD 20/2202-PN7	05.385	VDT 30/3201	05.690
LPB 10	02.078	OCD 32/2202	12.083	VDT 30/3202	05.690
LPB 20	02.080	OCD 32/2202-PN	12.084	VDT 30/3203	05.610
LPB 20/CSL 03	02.240	P06-MP 38/..	13.820	VDT 30/3306	05.650
LPB 20/CSL 04	02.300	PLP 30	10.130	VDT 30/4203	05.750
LPB 20/FDM 01	14.030	PLP 50	10.140	VDT 30/4205	05.790
LPB 20/FDM 03	14.030	PLY 30	10.080	VDT 30/4205-PS	05.830
LPB 20/FDR 01	14.110	PMI 600	18.500	VDT 30/4211	05.790
LPB 20/FDR 03	14.110	PPI 30	10.020	VDT 50/3203	05.620
LPB 30	02.090	PPI 50	10.030	VDT 50/4205-PN	05.798
LPB 30/CSL 03	02.250	PPI 70	10.040	VPC	10.250
LPB 30/CSL 04	02.310	PPP 30/3	10.195		
LPB 30/FDR 01	14.125	PPQ 30/2	10.170		
LPB 30/FDR 03	14.125	PPQ 30/3	10.180		
LPB 50	02.100	PPQ 30/3-Q4	10.185		
LPB 50/CSL 03	02.260	PPS 20	10.010		
LPB 50/CSL 04	02.320	PSS 30	10.160		
LPB 70	02.110	RDA 20	06.030		
LPB 70/CSL 03	02.270	RDA 30	06.040		
LPB 70/CSL 04	02.330	RDB 20	06.011		



ITALY

ALPHABETIC INDEX OF STANDARD PRODUCTS

00.003

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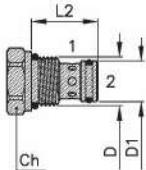
01.15

VALVE TYPE	INDEX
STANDARD COILS B20-B28-B30-B50	
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SEALING SYSTEM	18.050
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T 28 PLUGS	18.020
T 30 PLUGS	18.020
T 32 PLUGS	18.020
T 50 PLUGS	18.020
T 70 PLUGS	18.020

Sizes:

This page represents the four Standard Size, the Special Versions and the Ports number.

2 way

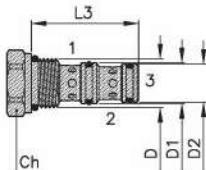


Size	Dimensions (mm)			
	D	D1	Ch	L2
④ 20	M 18x1.5	15	22	24.5
⑤ 28	3/4-16 UNF	12.7	24	27
⑤ 29	3/4-16 UNF	15.8	24	26.5
④ 30	M 22x1.5	19	27	28
⑤ 32	M 20x1.5	15	24	25
④ 50	M 33x2	28	38	39
④ 70	M 42x2	38	50	48

④ Standard Flucom sizes (ISO 6149)

⑤ Other sizes

3 way

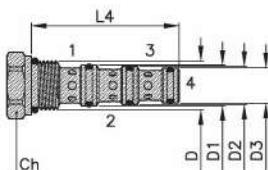


Size	Dimensions (mm)				
	D	D1	D2	Ch	L3
④ 20	M 18x1.5	15	14	22	39.5
⑤ 28	3/4-16 UNF	15.8	14.2	24	40.5
④ 30	M 22x1.5	19	18	27	46
④ 50	M 33x2	28	27	38	63
④ 70	M 42x2	38	36	50	79

④ Standard Flucom sizes (ISO 6149)

⑤ Other sizes

4 way



Size	Dimensions (mm)					
	D	D1	D2	D3	Ch	L4
④ 20	M 18x1.5	15	14	13	22	54.5
⑤ 28	3/4-16 UNF	15.8	14.2	12.7	24	55
④ 30	M 22x1.5	19	18	17	27	64
④ 50	M 33x2	28	27	26	38	88
④ 70	M 42x2	38	36	-	50	-

④ Standard Flucom sizes (ISO 6149)

⑤ Other sizes

ALPHABETIC INDEX AND VALVE CODES

INFORMATIONS

PRESSURE RELIEF VALVES

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DIRECTIONAL CONTROL VALVES

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SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

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FEATURES :

The features showed on catalogue represent the average value obtained from a series of tests carried out on some valves. It's not possible to assure that all products will have the same performances and a tolerance of $+/- 10\%$, if not different indicated, is allowed.

NOMINAL FLOW AND MAX. FLOW :

The nominal flow showed in all valve's technical sheet, is to be considered as a flow value which can be used continuously. This value may intermittent coincide with max. pressure.

The max. applicable flow, is showed in any chart, as range bottom flow value or as break of performance line.

The max. flow, if exceptionally used, does not compromise the valve working.

Max. pressure never coincides with max. flow.

We remind that sometimes, the max. flow is not the plant feeding pump flow.

On regenerative circuits where accumulators or cylinder high differential are present, the real flows crossing the valves are much more higher.

MAX. PRESSURE :

Has to be considered as an absolute limit that may never be exceeded, even for very short periods.

We suggest to operate with a value under 25% in order to obtain a long lasting live of components.

USE LIMITS :

Some catalogues show, on diagram side, combination values between flow and pressure.

These values are to be considered as max. values which may never be exceeded.

Flucom's product designs and manufacturing facilities have been specifically developed to provide products for commercial, industrial and mobile hydraulic applications and Flucom's products are only warranted for this type of use.

Customer is expressly prohibited from using the products for purposes other than those specified in the offer, catalogues or technical documentation.

Specifically, Flucom Dealers are not authorized to approve the use of Flucom valves for the following applications:

- Any passenger or goods carrying road vehicle or equipment subject to Highway Safety Standards and Directives, such as steering or brake systems;
- Aircraft or space vehicles;
- Ordnance equipment;
- Medical and health products, including life support equipment or vehicles;
- Systems to be used under any Nuclear Regulatory Act or Regulation;
- Systems for use in explosive or otherwise hazardous environments.

If the Customer intends to use the valves supplied for any applications falling into one or more of the above categories, or for any applications other than those expressly described in the documentation, he must require prior specific authorization directly from Flucom and proceed only after such authorization has been issued in writing.

LEAKAGE :

All poppet-type valves test is executed with high precision instruments aid and stiff connections.

This allows to state that all valves passing this test have null leakage. It doesn't prevent working condition from being determining for leakage. Impurity particles present in hydraulic oil, heavy duty service, etc... may change the correct valve working and may influence the seal.

WORKING PRINCIPLE :

In contests at the beginning of each section, each valve is represented in schematic section. Near the valve the allowed directions of flows are showed by arrows. We recommend to respect always these indications.

IDENTIFICATION :

All cartridge valves are stamped with Mark, Valve Code and Date of production.

All standard valve bodies are stamped with ports standard numbering and are stamped directly on body itself or on a special label with Mark, Body Code and Date of production. Special Blocks are stamped with Ports Code and, directly on body or on a special label, with Mark, Group Code and Date of production.

SPECIAL AND STANDARD TEST :

All cartridge valve are tested at 100% with a nominal flow and max. pressure. If they are control equipped, they are set, if not otherwise required, at a standard pressure value showed in the choice code of each valve.

By solenoid valves, all coils are tested and the strength and insulation valves are pointed out.

Special integrated blocks are dimensionally tested and, on request, block different functions may be tested.

More over it is possible to customize test, to fix methods and test parameter in accordance with our Customers and on request we grant certifications.

ORDERING CODE :

The choice variants showed in each catalogues allow to combine an ordering code easy to use.

At each available ordering code side, appear the corresponding Code of Complete Group.

SPARE PARTS :

At the end of Complete Group Code of any valves, the external spear Kit seals Code are quoted.

INHIBITING TREATMENT :

All cartridges are zinc plated (without hexavalent chromium); solenoid mechanical parts are protected by phosphatizing.

All aluminium body are anodized; all steel body are galvanized (without hexavalent chromium).

SOLENOIDS USE :

All solenoids are made by high quality material, according to standard VDE 0580.

They are built in three size, 20-30-50 series, different voltage AC-DC, with connections DIN 43650 - KOSTAL M 27x1 - AMP JUNIOR.

Seats for O-Ring seals fitting up in order to protect the tube are foreseen, complete with serigraphy showing the main plate data. The coils can be feed by direct current with standard connectors aid, and by alternating current using connectors provided with incorporated rectifier bridge.

Voltage range +/ - 10%.

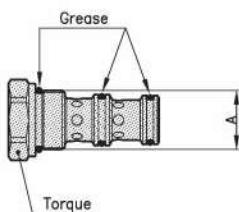
For performances and dimensions see catalogue 09.900 - 09.901 - 09.902 - 09.903 (coils) and catalogue 09.910 (connectors).

All standard coils allow continuous use (ED 100%) and a safety protection range of IP 65.

RECOMMENDED TORQUES :

The schedule represents the recommended torques.

Before to assembly we suggest to grease showed points for seals longlife.



Series	A	Nm
20	M 18x1.5	35-40
30	M 22x1.5	50-60
50	M 33x2	100-120
70	M 42x2	180-210

Series	A	Nm
28	3/4-16 UNF	40-45
32	M 20x1.5	42-47
38	7/8-14 UNF	50-60

Some valves may have different clamping torque. Always verify the exactly value showed on technical schedules.

FLUCOM STANDARD CONDITIONS FOR SUPPLY OF HYDRAULIC AND PNEUMATIC EQUIPMENT

1 – SUBJECT AND SCOPE OF APPLICATION OF THESE STANDARD CONDITIONS

1.1 – These standard conditions shall govern all present and future contractual and pre-contractual relations between parties concerning the supply of hydraulic and pneumatic components, equipment and systems. They shall be coordinated with any special conditions agreed in writing by the parties or inserted in the Flucom's written confirmation of acceptance of order.

1.2 - Unless specifically approved in writing by Flucom, deviant general or special conditions included or referred to by the Customer in his communications to Flucom shall however be deemed null and void.

2 – FORMATION OF CONTRACT

2.1 – The supply contract comes into force upon written confirmation of acceptance of order by Flucom.

2.2 – However, if the conditions indicated in the Customer's order differ from those in Flucom's written confirmation, the latter shall count as a new proposal and the contract shall be deemed completed at the moment in which the Customer starts to execute it or accepts the products supplied without express written reservation.

2.3 – Every further Flucom's offer shall be deemed valid only within the period of time it states and exclusively for the complete supply the offer rates.

3 – TECHNICAL DATA, DRAWINGS AND DOCUMENTS PERTAINING TO THE SUPPLIES

3.1 – The data and illustrations resulting from the catalogues, brochures, circulars or other illustrative documents from Flucom shall be of an indicative nature. This data shall have no commitment value unless expressly mentioned as such in the confirmation of order.

3.2 – Flucom reserves the right to make any modifications to his own products at any moment as he deems appropriate, giving notice to the Customer if they affect the installation.

3.3 – If the Customer proposes modifications so that it becomes compulsory to implement them, there shall be full written agreement between the parties on the variations which such modifications may cause to prices and delivery periods previously established. Moreover, the prices could vary in case the ordered quantities should be reduced or the Customer should ask for a more prompt delivery.

3.4 – The Customer shall expressly undertake not to use, for purposes other than those envisaged in the supply contract, the drawings, technical information and discoveries relating to the supply which shall remain Flucom's property and which the Customer shall not be able to deliver to third parties nor reproduce without written permission.

3.5 – Should there be any particular normative law to respect in the Country of destination of the Supply, the Customer is bound to inform Flucom before the stipulation of the contract.

4 – EXCLUSIONS

4.1 – Unless otherwise agreed in writing, the plan of the system, the installation of equipment supplied, special testing, manuals and trading courses, assistance with start-up and all services and costs not mentioned in the Flucom's written confirmation of acceptance of the order shall not be included in the supply.

4.2 – Likewise the costs of packing, taxes, stamp duties, customs expenses, duties and any other extra expenses shall not be included in the prices unless otherwise stated in the Flucom's written confirmation of acceptance of order.

5 – DELIVERY

5.1 – Unless there is agreement to the contrary, the supplies shall be deemed to be goods supplied ex works, without packing.

5.2 – With handover of the equipment to the Customer or carrier the Flucom shall be released from the obligation to deliver and all risks on the equipment itself shall pass to the Customer even in the event where the Flucom is responsible for the despatch or assembly for working.

5.3 – The delivery deadlines shall be regarded as an indication and shall be reckoned in working days.

5.4 – Unless otherwise agreed by the parties, the deadlines shall start to run from the moment of conclusion of the contract, unless the Customer has to meet part of the price on an account basis because then the elapse of the deadlines shall be suspended until he has paid this.

5.5 - It shall be understood that the delivery deadlines are automatically extended:

- 1) if the Customer does not supply in reasonable time the data or equipment necessary to the supply or requests changes during execution or, even, delays in meeting the request for approval of the drawings or working diagrams;
- 2) if causes independent of the goodwill and diligence of the Flucom, including delays of sub-contractors, impede or render excessively difficult delivery in the terms established.

5.6 – In the event the Customer is not in order with payments relating to other supplies, the elapse of the deadlines shall be suspended and Flucom may delay delivery until the Customer has paid the sums due.

5.7 – It shall be understood that the delivery deadlines are set to favour Flucom; the Customer may not therefore refuse to take delivery of products before the date set.

5.8 – Unless prescribed under Art. 11 below, in the event of failure to take delivery of products by the Customer for reasons for which is he is to blame or, in any case, for a reason independent of the Flucom's goodwill, the Customer shall bear the risks and expanses for their safe keeping.

5.9 – If the parties have agreed that, in the event of delayed delivery, Flucom is obliged to pay a sum as a penalty, the Customer may not ask for sums in excess of the penalty as compensation for damages suffered because of the delay.

6 – TESTING AND ASSEMBLY WORK

6.1 – Special testing which may be provided in the written confirmation of acceptance of order shall be carried out at the Customer's expense on the premises indicated by Flucom.

6.2 – Assembly and working testing, if requested, shall be carried out by Flucom at the Customer's expense as.

7 – PAYMENTS

7.1 – Unless otherwise agreed, payments shall be made by the Customer within the terms provided in the written confirmation of acceptance of order at the Flucom's domicile or with the Bank indicated by him: in the event of delay, the Customer shall be bound to pay interest on arrears, in any case reserving to the Flucom the option to request compensation for greater damage suffered and termination of the contract as per Art. 11 below.

7.2 – Any disputes which may arise between the parties shall not release the Customer from the obligation of observing the payment terms and conditions.

8 – GUARANTEE

8.1 – Flucom shall guarantee conformity of the products supplied, which shall mean that they are without defects in their materials and/or processing and that they correspond to the provisions of the specific contract agreed to by both parties.

8.2 – The duration of the guarantee shall be twelve months counting from the delivery of the products and, for substituted products or components, from the day of their substitution.

8.3 – Within this period Flucom to whom the Customer has reported in writing the existence of evident defects no later than eight days from their delivery and the existence of hidden defects no later than eight days from their discovery shall undertake, at his choice, to repair or substitute free the products or parts thereof which have proved to be defective. The return of non conforming goods shall be always authorized in writing by Flucom and shall have to keep the original packaging.

8.4 – The substitutions or repairs shall as a rule be carried out ex-works: the costs and risks for transport of faulty products shall be at the Customer's expense. However, if Flucom, in agreement with the Customer, deems it more appropriate to carry out the necessary work for substitution or repair on the Customer's premises, the latter shall bear the travelling and accommodation expenses of the technical staff made available by the Flucom and shall supply all means and auxiliary staff requested for carrying out the operation in the quickest and safest way.

8.5 – The guarantee shall cease whenever products have not been correctly assembled or used, or have received insufficient maintenance or have been modified or repaired without Flucom's permission. Moreover, Flucom shall not be held responsible for the conformity defects of the products caused by the ordinary wear of those parts which are normally subject to continuous and rapid wear.

9 – LIABILITY OF FLUCOM

9.1 – Flucom shall be solely responsible for the good operation of the hydraulic and pneumatic equipment supplied as regards features and performances expressly indicated by himself. He shall not, however, assume any liability for any faulty operation of machines or systems made by the Customer or third

parties with hydraulic and pneumatic components from Flucom even if the individual hydraulic and pneumatic equipment have been assembled or connected according to diagrams or drawings proposed by Flucom, unless such diagrams and drawings have been the subject of separate remuneration, in which case the liability of Flucom shall in any case be limited to what is contained in the above/mentioned drawings or diagrams.

9.2 – In any case, outside the strict and imperative cases provided by current legislation regarding the liability of Flucom, and except what provided by the art. 1229 of the Italian Civil Code, the Customer shall not be able to request compensation for direct and indirect damage, loss of profits or production, nor shall he be able to claim entitlement to compensation of sums in excess of the value of the equipment supplied.

10 – RESERVATION OF OWNERSHIP

10.1 – Flucom shall retain ownership of the products supplied until full payment of the price agreed.

11 – TERMINATION CLAUSE AND RESOLUTORY CONDITION

11.1 – The contract for supply shall be terminated automatically, according to art. 1456 of the Italian Civil Code, through simple written declaration by Flucom that he wishes to avail himself of this express termination clause if the Customer:

- 1) omits or delays payments due;
 - 2) delays or fails to take delivery of the products in the times provided under art. 5 above;
 - 3) does not fulfil the obligations of confidentiality provided under art.
- 3.4.

11.2 – The contract shall be deemed terminated automatically if the Customer is put into liquidation or is subject to any bankruptcy proceedings.

12 – WITHDRAWAL BY AGREEMENT

12.1 – If the Customer reduces the guarantees he had given or does not provide the guarantees he had promised, Flucom shall have the option of withdrawn from the contract.

13 – LAW APPLICABLE

13.1 – Every supply contract entered into among the parties, even with foreign countries, shall be regulated by these standard conditions and governed by the Italian law.

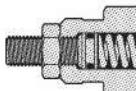
14 – COMPETENT COURT

14.1 – For any dispute pertaining to the execution, interpretation, validity, termination or cessation contracts entered into between the parties, if the action is brought by the Customer, Flucom's Court exclusively shall be competent; if, however, the action is brought by Flucom, as well as the Court of Flucom himself, any other Court established by law shall be competent.

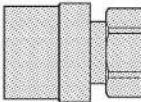
SPECIAL AND STANDARD ADJUSTMENT :

Here are showed the main adjustments available for mainly cartridge valves.

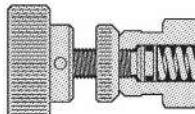
For different solutions please ask our Seals Department. All regulations showed are seal-adjustments.



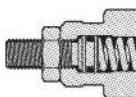
Type **N** Standard adjustment – External screw with lock nut.



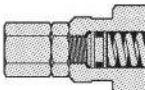
Type **P** Standard adjustment – N type with tamper proof, irremovable after calibration.



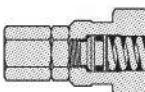
Type **V** Standard adjustment – Handknob with lock ring.



Type **L** Special adjustment – External integral screw with overset protection and lock nut.
(For some valves an air vent-hole in spring-chamber is foreseen)



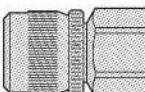
Type **NB** Special adjustment – N type with prevention cap.



Type **LB** Special adjustment – L type with prevention cap.



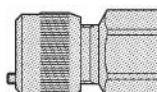
Type **F** Special adjustment – Fixed setting (by factory).



Type **HG** Standard adjustment – With lock ring.
The rotation effort keeps unchanged even at high pressure.



Type **HG-G** HG type with graduated handknob.



Type **HF** Standard adjustment – As H type, with lock screw.



Type **HF-G** HF type with graduated handknob.

(flow control valves)

DRIVES DIRECTIONAL CONTROL VALVES :

Manual drive



Hydraulic pilot

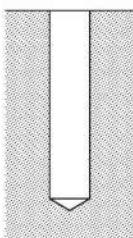


Pneumatic pilot

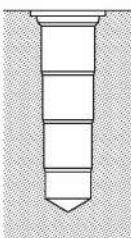
USE OF FORMING TOOLS :

Here are showed the four working phases in order to obtain an unified cavity. We recommend to respect concentricity marked in schedules n. 17.000 - 17.001 - 17.002.

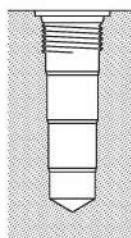
In the under mentioned code-table are marked the cavities code and pre-drilled diameters.



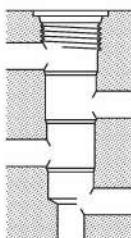
Pre-drilled hole



Forming tool



Tapping



Radial holes

Cavity type	Cavity code	Pre-drilled hole	Forming tool code	Tap type
20 2 way	S 20/2	Ø max. 14	89 328 101	M 18x1.5
20 3 way	S 20/3	Ø max. 13	89 328 102	
20 4 way	S 20/4	Ø max. 12	89 328 103	
29 2 way	S 29/2	Ø max. 14	89 328 140	3/4-16 UNF
28 2 way	S 28/2	Ø max. 11	89 328 113	
28 3 way	S 28/3	Ø max. 13	89 328 141	
28 4 way	S 28/4	Ø max. 11	89 328 142	
30 2 way	S 30/2	Ø max. 18	89 328 104	M 22x1.5
30 3 way	S 30/3	Ø max. 17	89 328 105	
30 4 way	S 30/4	Ø max. 16	89 328 106	
50 2 way	S 50/2	Ø max. 27	89 328 107	M 33x2
50 3 way	S 50/3	Ø max. 26	89 328 108	
50 4 way	S 50/4	Ø max. 25	89 328 109	
70 2 way	S 70/2	Ø max. 37	89 328 110	M 42x2
70 3 way	S 70/3	Ø max. 35	89 328 111	
70 4 way	S 70/4	Ø max. 33	89 328 112	

SEALS :

On all standard valves are used special polyurethane seals which do not require back-up rings and grant an effective seal till static pressure of 600 bar.

Seals used on thread are in accordance with ISO 6149 and are manufactured with compounding Buna N 70 or 90 Shore A. Standard seals bear a temperature range from -35 °C to +110 °C.

On request seals with different compounding may be assembled; please ask our Technical Department.

FLUIDS AND FILTRATION :

Standard seals are suitable for being used with usual hydraulic oils with mineral base type HM and HV according to ISO 6074. On technical schedules of each valve are showed the beared viscosity range as well as the required filtration level.

We recommend to respect these limits in order to obtain an high reliability and a long lasting life of components.

ALPHABETIC INDEX AND VALVE CODES
INFORMATIONS

PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

ACCESSORIES

SCHEDULES

00

01

02

03

04

05

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07

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09

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11

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13

14

15

16

17

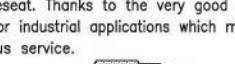
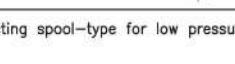
18

19

20

Pressure relief valves.

They are indispensable in most of all hydraulic applications in order to limit the pressure, to prevent shocks and to protect from overload. They are classified in direct acting and pilot operated valves and are manufactured in many models. The following schedule reports the main technical and use features: for further informations please look up in the technical detailed schedules.

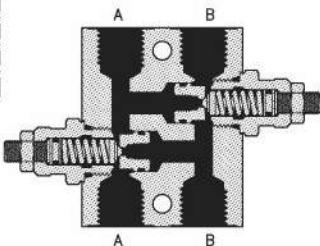
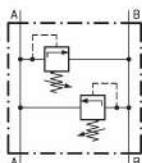
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
LPS 20 series – direct acting ball-type. They have good reseat without pressure peak. Are used for remote control of valves or logical elements and for infrequent duty relief or thermal expansion relief.	LPS 20	2	420	02.020
   	LPS 20/20	12	420	02.030
LPE series – direct acting guided conical poppet-type. They have a pressure peak, the pressure-flow trend is good. Generally are used as main pressure relief valve for continuous service or in dual cross-over valves in frequent intermittences applications.	LPE 20	30	210	02.040
 	LPA 10	15	350	02.050
 	LPA 20	20	350	02.060
 	LPA 30	50	350	02.070
LPB series – direct acting differential poppet-type. They can stand high back pressure and have fast act with low pressure peak. Mainly are used as dual cross-over valves in frequent intermittences applications.	LPB 10	20	350	02.078
 	LPB 20	50	350	02.080
 	LPB 30	90	350	02.090
 	LPB 50	160	350	02.100
	LPB 70	360	350	02.110
LPI series – pilot operating spool-type. They distinguish themselves by their first-rate stability, their large passing orifice and their good reseat. Thanks to the very good flow-pressure trend, they are recommended for industrial applications which may result particularly heavy and for continuous service.	LPI 30	90	420	02.120
	LPI 50	160	420	02.130
	LPI 70	320	420	02.140
LPT series – direct acting spool-type for low pressure settings.	LPT 30	30	50	02.160

Main features

Type

Q max.
(l/min.)P max.
(bar)Technical
schedule**LPS 20/20 series CSL 03 circuit.**

They assemble two relief valves, series LPS 20/20 and are utilized to prevent shocks or are used as protection from thermal expansions. They can only be used on hydraulic motors or on actuators having the same displacement on both parts.

LPS 20/20
CSL 03

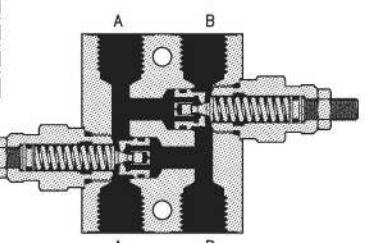
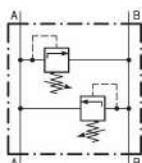
12

315

02.210

LPE and LPA series CSL 03 circuit.

They assemble two relief valves, series LPE or LPA and are used to control pressure on both line A and line B. They can only be used on hydraulic motor or on actuator having the same displacement on both parts.

LPE 20
CSL 03

30

210

02.215

LPA 20
CSL 03

20

210

02.220

LPA 30
CSL 03

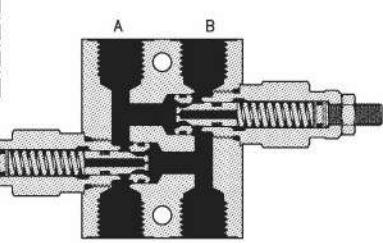
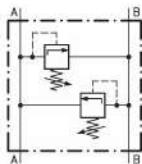
50

210

02.230

LPB series CSL 03 circuit.

They assemble two relief valves, series LPB, are used as dual cross over valve on both lines. They can only be used on hydraulic motors or on actuators having the same displacement on both parts.

LPB 20
CSL 03

50

350

02.240

LPB 30
CSL 03

90

350

02.250

LPB 50
CSL 03

160

350

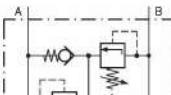
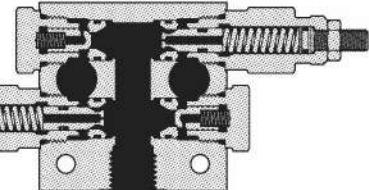
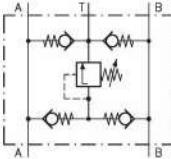
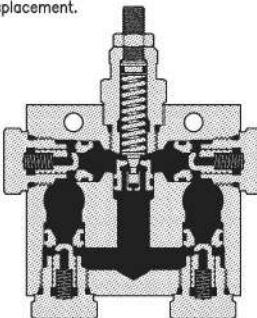
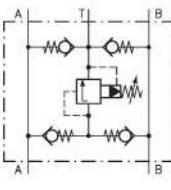
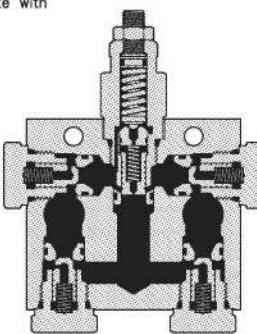
02.260

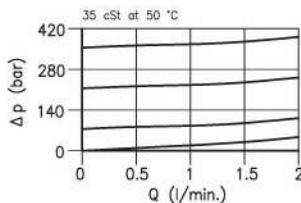
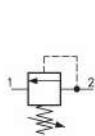
LPB 70
CSL 03

360

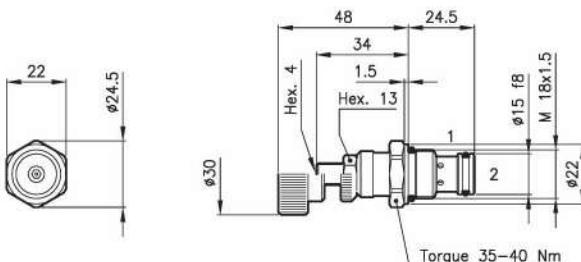
350

02.270

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
LPB series CSL 04 circuit. They assemble two pressure relief valves series LPB and two check valves. Generally are used as dual relief make-up check valves in hydraulic motors or in cylinders having also different displacement. The T port must be connected with under oil level tank with a tube having a suitable section which can guarantee the required make-up flow.	LPB 20 CSL 04	50	350	02.300
 	LPB 30 CSL 04	90	350	02.310
	LPB 50 CSL 04	160	350	02.320
	LPB 70 CSL 04	360	350	02.330
LPE and LPA series CSL 06 circuit. They assemble one pressure relief valve series LPE or LPA and four check valves. Generally are used as dual relief make-up check valves in hydraulic motors or in cylinders having also different displacement. The T port must be connected with under oil level tank with a tube having a suitable section which can guarantee the required make-up flow.	LPE 20 CSL 06	30	210	02.335
 	LPA 20 CSL 06	20	350	02.340
	LPA 30 CSL 06	50	350	02.350
LPI series CSL 06 circuit. They have functional features like LPE and LPA-CSL 06 series, the pilot valves series LPI use, allows to operate with higher flows and pressures.	LPI 30 CSL 06	90	420	02.360
 	LPI 50 CSL 06	160	420	02.370
	LPI 70 CSL 06	320	420	02.380

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	2
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.075
Cracking pressure 95% of setting value		
Reseat pressure 90% of setting value		
Cracking pressure defined with 0.1 l/min.		
Standard setting obtained with 0.5 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPS 20/D-N**

LPS 20 = Valve type



Standard springs

Type Setting range Factory set

O = 3 - 30 bar 12 bar

D = 7 - 210 bar 140 bar

Q = 105 - 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

LPS 20/0-N 11 011 114

LPS 20/D-N 11 011 100

LPS 20/Q-N 11 011 101

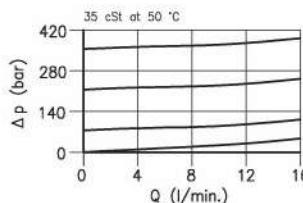
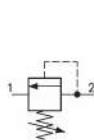
LPS 20/0-V 11 011 113

LPS 20/D-V 11 011 103

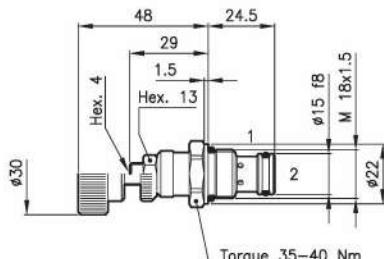
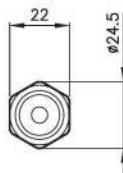
LPS 20/Q-V 11 011 102

External seals kit 90 620 100

LPS 20 valves can be assembled
on standard bodies 20-L0 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	12
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.075
Cracking pressure	95% of setting value	
Reseat pressure	90% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 5 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 μ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPS 20/20-D-N**

LPS 20 = Valve type



Standard springs

Type Setting range Factory set

D = 7 – 210 bar 140 bar

Q = 105 – 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

LPS 20/20-D-N 21 011 102

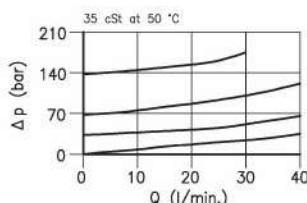
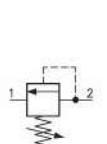
LPS 20/20-Q-N 21 011 103

LPS 20/20-D-V 21 011 100

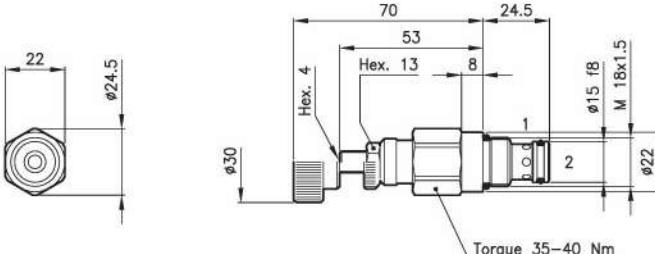
LPS 20/20-Q-V 21 011 101

External seals kit 90 620 100

LPS 20/20 valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	30
Max. inlet pressure	(bar)	210
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.125
Cracking pressure	90% of setting value	
Reseat pressure	80% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 5 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 μ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPE 20/D-N**

LPE 20 = Valve type



Standard springs

Type	Setting range	Factory set
U	10 - 90 bar	35 bar
D	35 - 140 bar	70 bar
T	70 - 210 bar	140 bar

Adjustment type

N = Standard adjustment



V = Handknob adjustment

Codes:

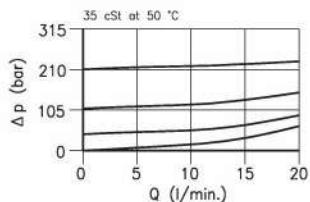
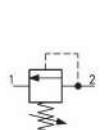
LPE 20/U-N	21 011 215
LPE 20/D-N	21 011 216
LPE 20/T-N	21 011 217

LPE 20/U-V	21 011 218
LPE 20/D-V	21 011 219
LPE 20/T-V	21 011 220

External seals kit 90 620 100

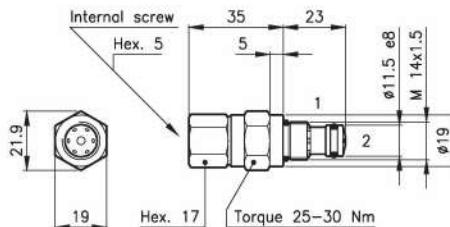
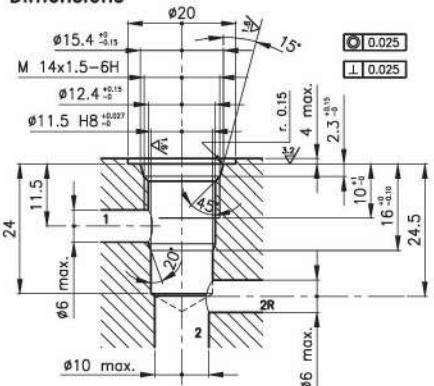
LPE 20 valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

Technical features



Max. flow	(l/min.)	15
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.110
Cracking pressure	90% of setting value	
Reset pressure	80% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 5 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 μ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions



Ordering informations

LPA 10/D-I

LPA 10 = Valve type



Standard springs

Type	Setting range	Factory set
U	7 – 70 bar	35 bar
D	35 – 175 bar	105 bar
T	70 – 350 bar	210 bar
Q	105 – 420 bar	315 bar

Adjustment type

I = Special adjustment



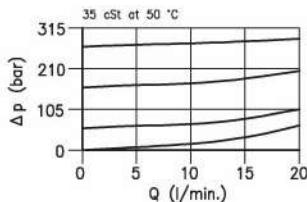
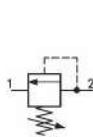
Codes:

LPA 10/U-I	11 011 109
LPA 10/D-I	11 011 110
LPA 10/T-I	11 011 111
LPA 10/Q-I	11 011 112

External seals kit 90 620 121

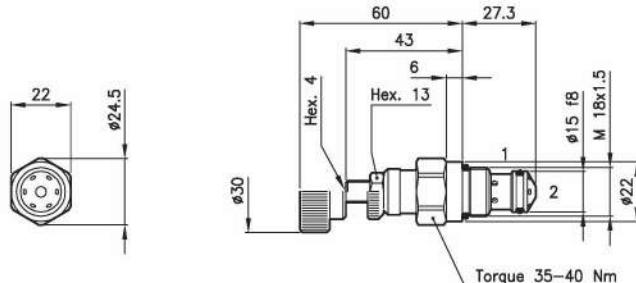
LPA 10 valves can be assembled
on standard bodies 10-L0 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	20
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Cracking pressure 90% of setting value		
Reseat pressure 80% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 5 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPA 20/D-N

LPA 20 = Valve type



Standard springs

Type Setting range Factory set

O = 3 - 30 bar 18 bar

U = 10 - 105 bar 70 bar

D = 70 - 210 bar 140 bar

T = 140 - 350 bar 280 bar

Q = 105 - 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

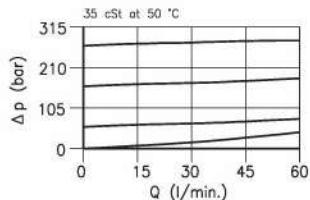
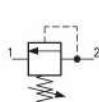
LPA 20/0-N	21 011 288
LPA 20/U-N	21 011 104
LPA 20/D-N	21 011 105
LPA 20/T-N	21 011 106
LPA 20/Q-N	21 011 286

LPA 20/0-V	21 011 289
LPA 20/U-V	21 011 119
LPA 20/D-V	21 011 120
LPA 20/T-V	21 011 121
LPA 20/Q-V	21 011 287

External seals kit 90 620 100

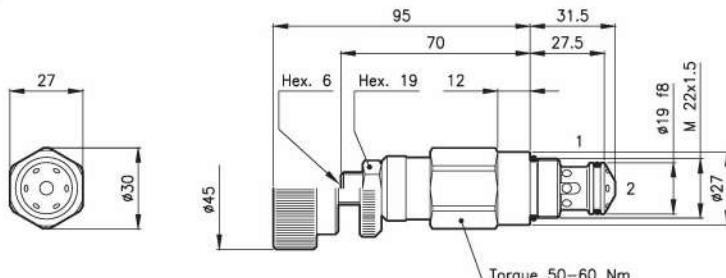
LPA 20 valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	50
Max. inlet pressure	(bar)	350
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.270
Cracking pressure	90% of setting value	
Reseat pressure	80% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 µ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions



Ordering informations

LPA 30/D-N

LPA 30 = Valve type



Standard springs

Type	Setting range	Factory set
O	0.5 - 36 bar	15 bar
U	10 - 105 bar	70 bar
D	70 - 210 bar	140 bar
T	140 - 350 bar	280 bar

Adjustment type

N = Standard adjustment

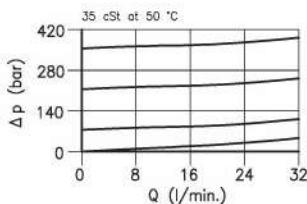
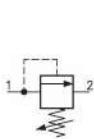


V = Handknob adjustment

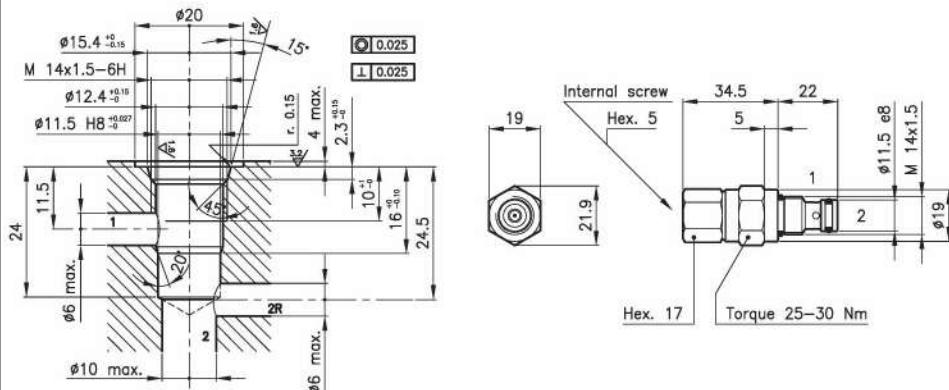
Codes:

LPA 30/0-N	31 011 288
LPA 30/U-N	31 011 107
LPA 30/D-N	31 011 108
LPA 30/T-N	31 011 109
LPA 30/0-V	31 011 289
LPA 30/U-V	31 011 122
LPA 30/D-V	31 011 123
LPA 30/T-V	31 011 124
External seals kit	90 620 103

LPA 30 valves can be assembled on standard bodies 30-L0 series; for dimensions see catalogue 16.010

Technical features

Max. flow	(l/min.)	25
Max. inlet pressure	(bar)	315
Max. pressure on line 2	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.110
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 5 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPB 10/D-C-I**

LPB 10 = Valve type



Standard springs

Type Setting range Factory set

D = 20 - 140 bar 70 bar

Q = 70 - 315 bar 210 bar

Compact

Adjustment type

I = Special adjustment



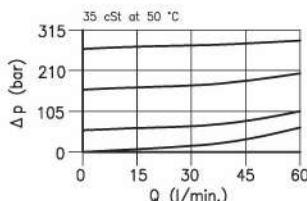
Codes:

LPB 10/D-C-I 11 011 115

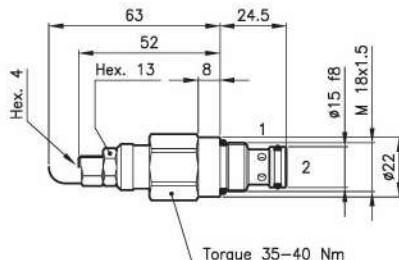
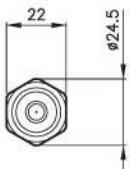
LPB 10/Q-C-I 11 011 116

External seals kit 90 620 121

LPB 10 valves can be assembled
on standard bodies 10-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	50
Max. inlet pressure	(bar)	350
Max. pressure on line 2	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.125
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPB 20/D-N**

LPB 20 = Valve type



Standard springs

Type Setting range Factory set

U = 10 - 105 bar 70 bar

D = 70 - 210 bar 140 bar

T = 140 - 350 bar 280 bar

Adjustment type

N = Standard adjustment

NB = Cover Cap adjustment

(not available for setting range U type)

Codes:

LPB 20/U-N 21 011 107

LPB 20/D-N 21 011 108

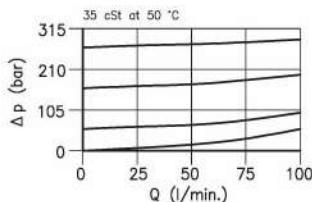
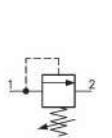
LPB 20/T-N 21 011 109

LPB 20/D-NB 21 011 154

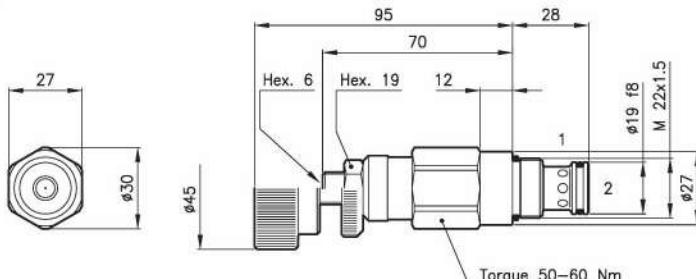
LPB 20/T-NB 21 011 155

External seals kit 90 620 100

LPB 20 valves can be assembled
on standard bodies 20-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	90
Max. inlet pressure	(bar)	350
Max. pressure on line 2	(bar)	350
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.270
Cracking pressure	95% of setting value	
Reseat pressure	75% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 µ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPB 30/D-N**

LPB 30 = Valve type



Standard springs

Type	Setting range	Factory set
U	10 – 105 bar	70 bar
D	70 – 210 bar	140 bar
T	140 – 350 bar	280 bar

Adjustment type

N = Standard adjustment

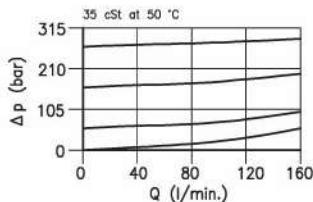


V = Handknob adjustment

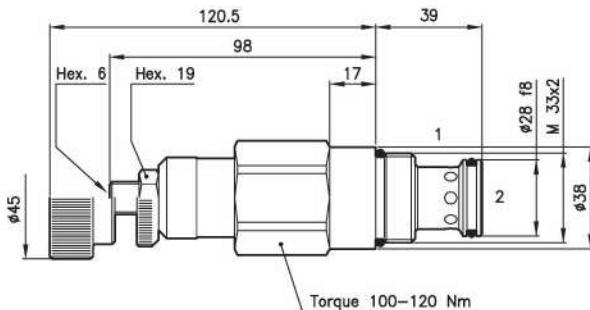
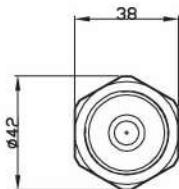
Codes:

LPB 30/U-N	31 011 104
LPB 30/D-N	31 011 105
LPB 30/T-N	31 011 106
LPB 30/U-V	31 011 245
LPB 30/D-V	31 011 247
LPB 30/T-V	31 011 248
External seals kit	90 620 103

LPA 30 valves can be assembled
on standard bodies 30-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	(l/min.)	160
Max. inlet pressure	(bar)	350
Max. pressure on line 2	(bar)	350
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.910
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPB 50/D-N**

LPB 50 = Valve type



Standard springs

Type Setting range Factory set

U = 10 – 105 bar 70 bar

D = 70 – 210 bar 140 bar

T = 140 – 350 bar 280 bar

Codes:

LPB 50/U-N 51 011 100

LPB 50/D-N 51 011 101

LPB 50/T-N 51 011 102

LPB 50/U-V 51 011 169

LPB 50/D-V 51 011 170

LPB 50/T-V 51 011 171

External seals kit 90 620 106

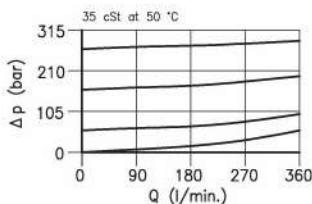
Adjustment type

N = Standard adjustment

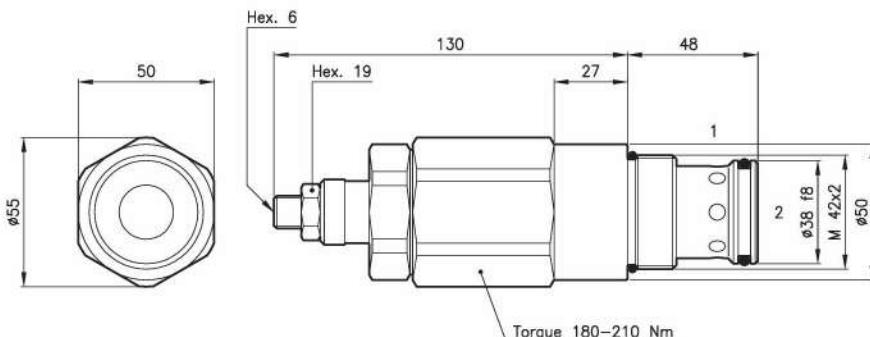


V = Handknob adjustment

LPB 50 valves can be assembled
on standard bodies 50-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 70/2
Max. flow	(l/min.)	360
Max. inlet pressure	(bar)	350
Max. pressure on line 2	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.100
Cracking pressure	95% of setting value	
Reseat pressure	75% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 μ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPB 70/D-N**

LPB 70 = Valve type



Standard springs

Type Setting range Factory set

U = 10 - 105 bar 70 bar

D = 70 - 210 bar 140 bar

T = 140 - 350 bar 280 bar

Codes:

LPB 70/U-N 71 011 118

LPB 70/D-N 71 011 119

LPB 70/T-N 71 011 120

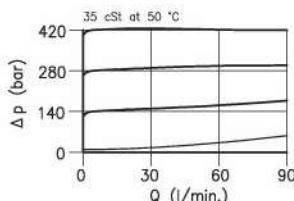
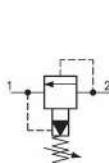
External seals kit 90 620 106

LPB 70 valves can be assembled on standard bodies 70-L0 series; for dimensions see catalogue 16.010

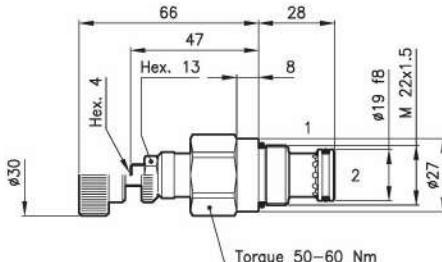
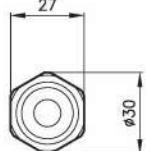
Adjustment type

N = Standard adjustment



Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	90
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm³/min.)	25
Mass	(kg)	0.180
Cracking pressure 95% of setting value		
Reseat pressure 85% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPI 30/D-N**

LPI 30 = Valve type



Standard springs

Type Setting range Factory set

D = 14 – 210 bar 140 bar

Q = 105 – 420 bar 315 bar

Codes:

LPI 30/D-N 31 011 101

LPI 30/Q-N 31 011 102

LPI 30/D-V 31 011 117

LPI 30/Q-V 31 011 118

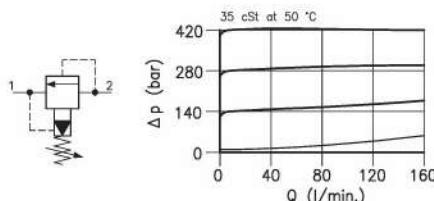
External seals kit 90 620 103

Adjustment type

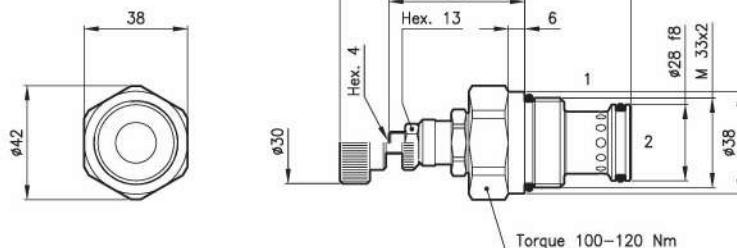
N = Standard adjustment

V = Handknob adjustment

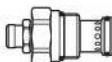
LPI 30 valves can be assembled
on standard bodies 30-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	(l/min.)	160
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	25
Mass	(kg)	0.310
Cracking pressure 95% of setting value		
Reseat pressure 85% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPI 50/D-N**

LPI 50 = Valve type



Standard springs

Type Setting range Factory set

D 14 – 210 bar 140 bar

Q 105 – 420 bar 315 bar

Adjustment type

N = Standard adjustment



V = Handknob adjustment

Codes:

LPI 50/D-N 51 011 103

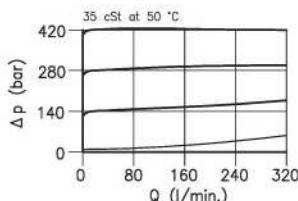
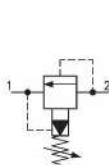
LPI 50/Q-N 51 011 104

LPI 50/D-V 51 011 105

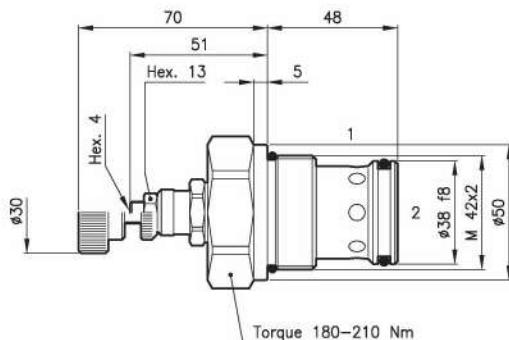
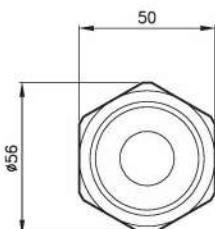
LPI 50/Q-V 51 011 106

External seals kit 90 620 106

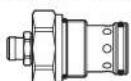
LPI 50 valves can be assembled
on standard bodies 50-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 70/2
Max. flow	(l/min.)	320
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm³/min.)	50
Mass	(kg)	0.550
Cracking pressure 95% of setting value		
Reseat pressure 85% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

LPI 70 = Valve type

**LPI 70/D-N**

Standard springs

Type Setting range Factory set

D = 14 - 210 bar 140 bar

Q = 105 - 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

LPI 70/D-N 71 011 100

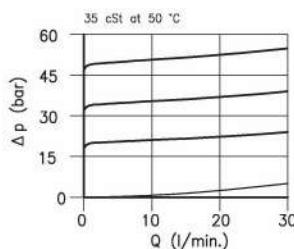
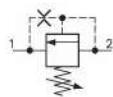
LPI 70/Q-N 71 011 103

LPI 70/D-V 71 011 104

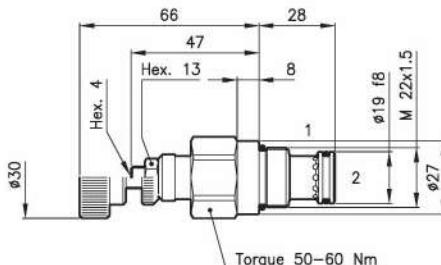
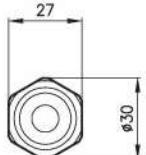
LPI 70/Q-V 71 011 105

External seals kit 90 620 109

LPI 70 valves can be assembled
on standard bodies 70-L0 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	30
Max. inlet pressure	(bar)	55
Drain at max. pressure	(cm³/min.)	800
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.180
Cracking pressure	90% of setting value	
Reseat pressure	80% of setting value	
Cracking pressure	defined with 2 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 µ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPT 30/D-N**

LPT 30 = Valve type



Standard springs

Type	Setting range	Factory set
U	3.5 - 21 bar	15 bar
D	7 - 35 bar	20 bar
T	14 - 50 bar	35 bar

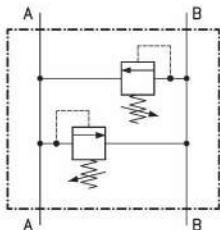
Adjustment type

N = Standard adjustment**V** = Handknob adjustment

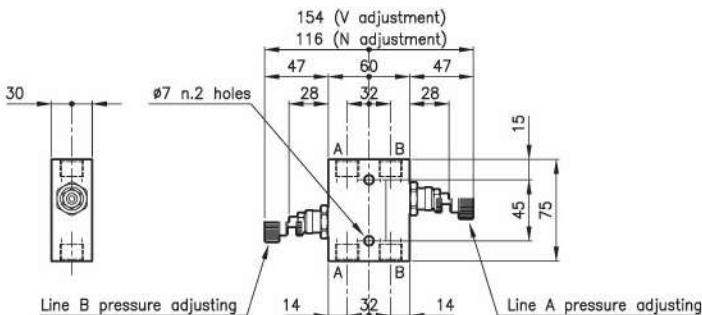
Codes:

LPT 30/U-N	31 011 211
LPT 30/D-N	31 011 212
LPT 30/T-N	31 011 213
LPT 30/U-V	31 011 214
LPT 30/D-V	31 011 215
LPT 30/T-V	31 011 216
External seals kit	90 620 103

LPT 30 valves can be assembled on standard bodies 30-LO series; for dimensions see catalogue 16.010

Technical features

Valves	(For features see catalogue 02.030)	LPS 20/20
Max. flow	(l/min.)	12
Max. pressure	(bar)	210/420
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.650
Cracking pressure	95% of setting value	
Reseat pressure	90% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained 5 l/min.	
Hydraulic fluid	mineral oil HM and HV	ISO 6074
Recommended filtration	19/15 ISO 4466 (25 µ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPS 20/20-D-N-CSL 03-B05**

Valves type _____

Standard springs

Type Setting range

D = 7 - 210 bar

*Q = 105 - 420 bar

Adjustment type

N = Standard adjustment



V = Handknob adjustment



Version _____

Standard ports

B05 = G 1/4 ISO 228

B06 = G 3/8 ISO 228

Codes:

LPS 20/20-D-N-CSL 03-B05 21 011 137

*LPS 20/20-Q-N-CSL 03-B05 21 011 138

LPS 20/20-D-V-CSL 03-B05 21 011 139

*LPS 20/20-Q-V-CSL 03-B05 21 011 140

LPS 20/20-D-N-CSL 03-B06 21 011 141

*LPS 20/20-Q-N-CSL 03-B06 21 011 142

LPS 20/20-D-V-CSL 03-B06 21 011 143

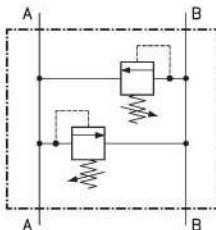
*LPS 20/20-Q-V-CSL 03-B06 21 011 144

Only body codes:

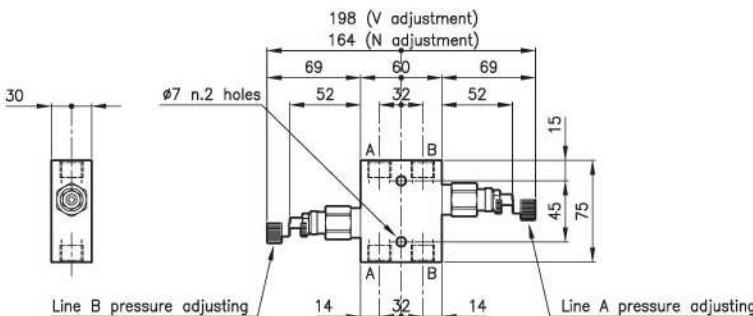
Body type 20-CSL 03-B05 28 144 107

Body type 20-CSL 03-B06 28 144 108

* Max. pressure of 420 bar is admitted in special applications only (for advice please ask our technical department).

Technical features

Valves	(For features see catalogue 02.040)	LPE 20
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.750
Cracking pressure	90% of setting value	
Reseat pressure	80% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 5 l/min.	
Hydraulic fluid	mineral oil HM and HV	ISO 6074
Recommended filtration	19/15 ISO 4466 (25 μ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPE 20/D-N-CSL 03-B05**

Valves type

Standard springs

Type Setting range

U = 10 - 90 bar

D = 35 - 140 bar

T = 70 - 210 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard ports

B05 = G 1/4 ISO 228

B06 = G 3/8 ISO 228

Codes:

LPE 20/U-N-CSL 03-B05 21 011 228

LPE 20/D-N-CSL 03-B05 21 011 229

LPE 20/T-N-CSL 03-B05 21 011 230

LPE 20/U-V-CSL 03-B05 21 011 231

LPE 20/D-V-CSL 03-B05 21 011 232

LPE 20/T-V-CSL 03-B05 21 011 233

LPE 20/U-N-CSL 03-B06 21 011 234

LPE 20/D-N-CSL 03-B06 21 011 235

LPE 20/T-N-CSL 03-B06 21 011 236

LPE 20/U-V-CSL 03-B06 21 011 237

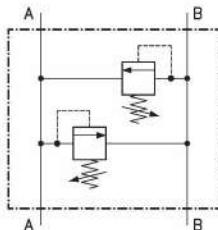
LPE 20/D-V-CSL 03-B06 21 011 238

LPE 20/T-V-CSL 03-B06 21 011 239

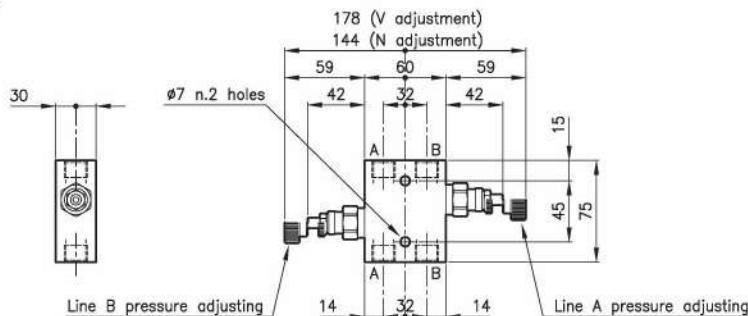
Only body codes:

Body type 20-CSL 03-B05 28 144 107

Body type 20-CSL 03-B06 28 144 108

Technical features

Valves	(For features see catalogue 02.060)	LPA 20
Max. flow	(l/min.)	20
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.740
Cracking pressure 90% of setting value		
Reset pressure 80% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 5 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPA 20/D-N-CSL 03-B05**

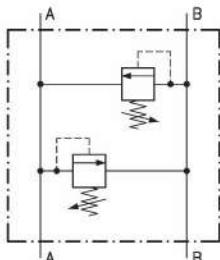
Valves type	_____
Standard springs	_____
Type	Setting range
U	= 10 - 105 bar
D	= 70 - 210 bar
Adjustment type	_____
N	= Standard adjustment
V	= Handknob adjustment
Version	_____
Standard ports	_____
B05	= G 1/4 ISO 228
B06	= G 3/8 ISO 228

Codes:

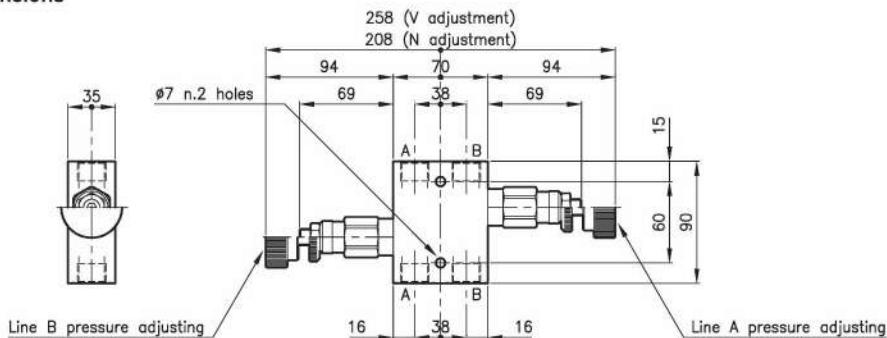
LPA 20/U-N-CSL 03-B05	21 011 129
LPA 20/D-N-CSL 03-B05	21 011 130
LPA 20/U-V-CSL 03-B05	21 011 131
LPA 20/D-V-CSL 03-B05	21 011 132
LPA 20/U-N-CSL 03-B06	21 011 133
LPA 20/D-N-CSL 03-B06	21 011 134
LPA 20/U-V-CSL 03-B06	21 011 135
LPA 20/D-V-CSL 03-B06	21 011 136

Only body codes:

Body type 20-CSL 03-B05	28 144 107
Body type 20-CSL 03-B06	28 144 108

Technical features

Valves	(For features see catalogue 02.070)	LPA 30
Max. flow	(l/min.)	50
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.150
Cracking pressure	90% of setting value	
Reseat pressure	80% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 µ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPA 30/D-N-CSL 03-B08**

Valves type _____

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version _____

Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Code:

LPA 30/U-N-CSL 03-B06 31 011 143

LPA 30/D-N-CSL 03-B06 31 011 144

LPA 30/U-V-CSL 03-B06 31 011 145

LPA 30/D-V-CSL 03-B06 31 011 146

LPA 30/U-N-CSL 03-B08 31 011 147

LPA 30/D-N-CSL 03-B08 31 011 148

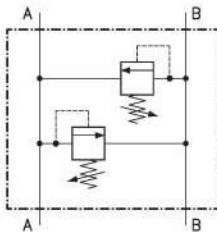
LPA 30/U-V-CSL 03-B08 31 011 149

LPA 30/D-V-CSL 03-B08 31 011 150

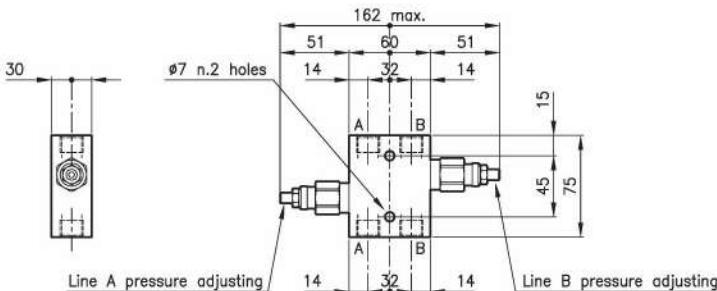
Only body codes:

Body type 30-CSL 03-B06 38 144 122

Body type 30-CSL 03-B08 38 144 123

Technical features

Valves	(For features see catalogue 02.080)	LPB 20
Max. flow	(l/min.)	50
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.750
Cracking pressure	95% of setting value	
Reseat pressure	75% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 µ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPB 20/D-N-CSL 03-B06**

Valves type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

B05 = G 1/4 ISO 228

B06 = G 3/8 ISO 228

Codes:

LPB 20/U-N-CSL 03-B05 21 011 123

LPB 20/D-N-CSL 03-B05 21 011 124

LPB 20/T-N-CSL 03-B05 21 011 125

LPB 20/U-N-CSL 03-B06 21 011 126

LPB 20/D-N-CSL 03-B06 21 011 127

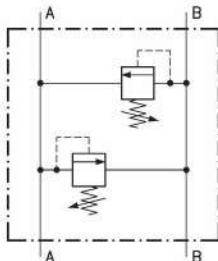
LPB 20/T-N-CSL 03-B06 21 011 128

Only body codes:

Body type 20-CSL 03-B05 28 144 107

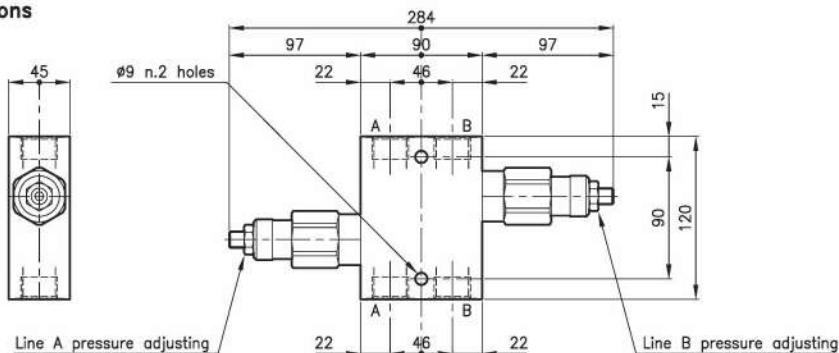
Body type 20-CSL 03-B06 28 144 108

Technical features



Valves	(For features see catalogue 02.100)	LPB 50
Max. flow	(l/min.)	160
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	3.180
Cracking pressure	95% of setting value	
Reset pressure	75% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 μ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions



Ordering informations

LPB 50/T-N-CSL 03-B12

Valves type _____

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Adjustment type

N = Standard adjustment



Version _____

Standard ports

B08 = G 1/2 ISO 228

B12 = G 3/4 ISO 228

Codes:

LPB 50/U-N-CSL 03-B08 51 011 122

LPB 50/D-N-CSL 03-B08 51 011 123

LPB 50/T-N-CSL 03-B08 51 011 124

LPB 50/U-N-CSL 03-B12 51 011 125

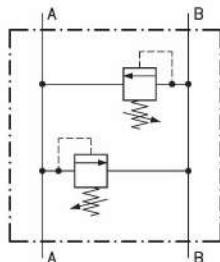
LPB 50/D-N-CSL 03-B12 51 011 126

LPB 50/T-N-CSL 03-B12 51 011 127

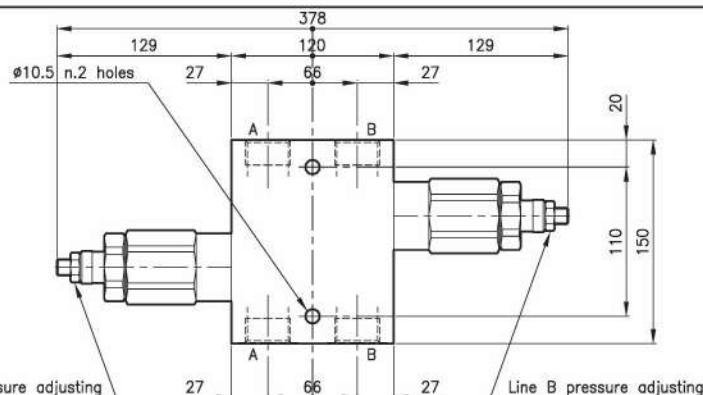
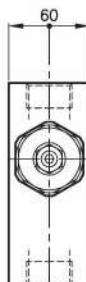
Only body codes:

Body type 50-CSL 03-B08 58 144 113

Body type 50-CSL 03-B12 58 144 114

Technical features

Valves	(For features see catalogue 02.110)	LPB 70
Max. flow	(l/min.)	360
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	5.220
Cracking pressure	95% of setting value	
Reseat pressure	75% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 µ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions

Line A pressure adjusting

Line B pressure adjusting

Ordering informations**LPB 70/T-N-CSL 03-B20**

Valves type _____

Codes:

LPB 70/U-N-CSL 03-B16 71 011 124

LPB 70/D-N-CSL 03-B16 71 011 125

LPB 70/T-N-CSL 03-B16 71 011 126

Standard springs

Type Setting range

U = 10 - 105 bar

LPB 70/U-N-CSL 03-B20 71 011 127

D = 70 - 210 bar

LPB 70/D-N-CSL 03-B20 71 011 128

T = 140 - 350 bar

LPB 70/T-N-CSL 03-B20 71 011 129

Adjustment type

Only body codes:

N = Standard adjustment

Body type 50-CSL 03-B16 78 144 104

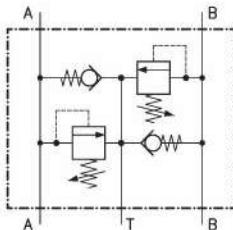
Version _____

Body type 50-CSL 03-B20 78 144 105

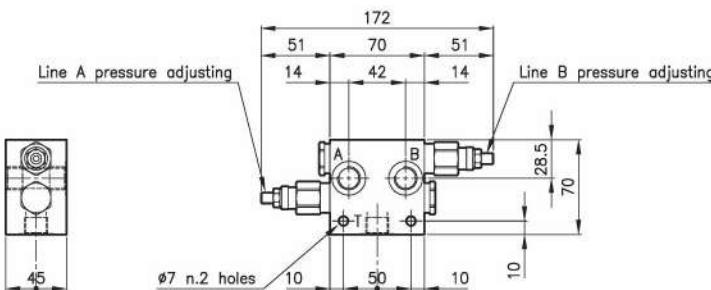
Standard ports

B16 = G 1 ISO 228 _____

B20 = G 1.1/4 ISO 228 _____

Technical features

Valves	(For features see catalogue 02.080)	LPB 20
	(For features see catalogue 05.050)	CAE 20/P
Max. flow	(l/min.)	50
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.730
Cracking pressure	95% of setting value	
Reseat pressure	75% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 μ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPB 20/D-N-CSL 04-B06**

Valves type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

B06 = G 3/8 ISO 228

Codes:

LPB 20/U-N-CSL 04-B06 21 011 145

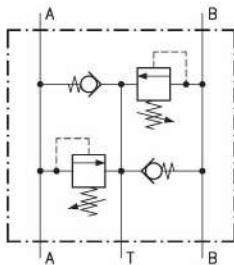
LPB 20/D-N-CSL 04-B06 21 011 146

LPB 20/T-N-CSL 04-B06 21 011 147

Only body code:

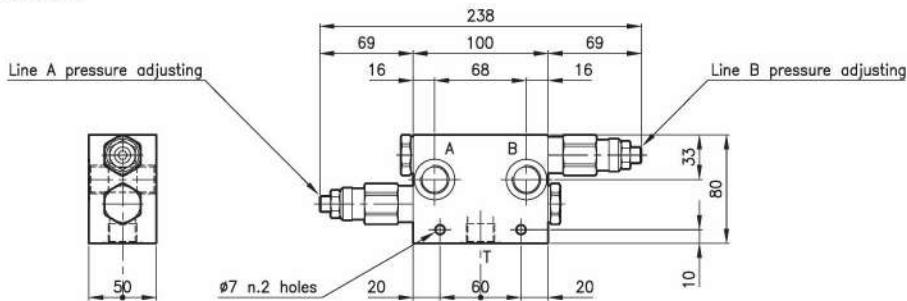
Body type 20-CSL 04-B06 28 144 111

Technical features



Valves	(For features see catalogue 02.090)	LPB 30
	(For features see catalogue 05.060)	CAE 30/P
Max. flow	(l/min.)	90
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.930
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPB 30/T-N-CSL 04-B08

Valves type _____

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Adjustment type

N = Standard adjustment

Version _____

Standard ports

B08 = G 1/2 ISO 228 _____

Codes:

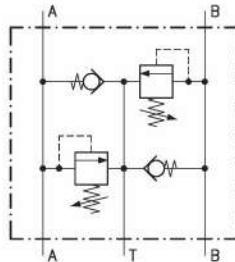
LPB 30/U-N-CSL 04-B08 31 011 134

LPB 30/D-N-CSL 04-B08 31 011 135

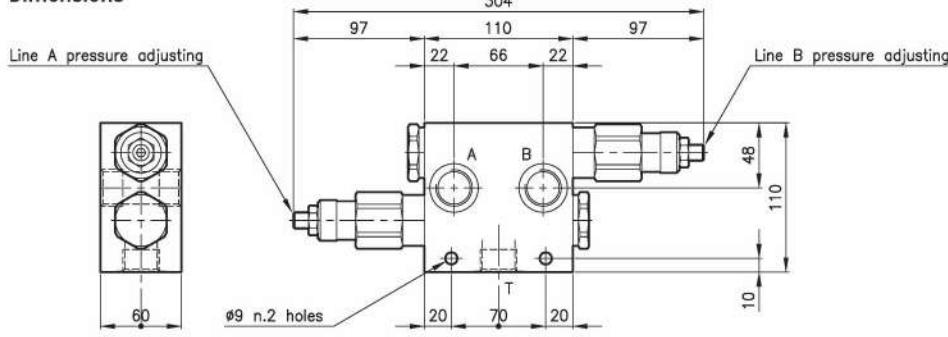
LPB 30/T-N-CSL 04-B08 31 011 136

Only body code:

Body type 30-CSL 04-B08 38 144 109

Technical features

Valves	(For features see catalogue 02.100)	LPB 50
	(For features see catalogue 05.070)	CAE 50/P
Max. flow	(l/min.)	160
Max. Pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	4.380
Cracking pressure	95% of setting value	
Reseat pressure	75% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 µ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPB 50/T-N-CSL 04-B12**

Valves type _____

Codes:

LPB 50/U-N-CSL 04-B12	51 011 119
LPB 50/D-N-CSL 04-B12	51 011 120
LPB 50/T-N-CSL 04-B12	51 011 121

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Only body code:

Body type 50-CSL 04-B12 58 144 115

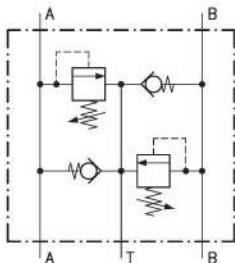
Adjustment type

N = Standard adjustment

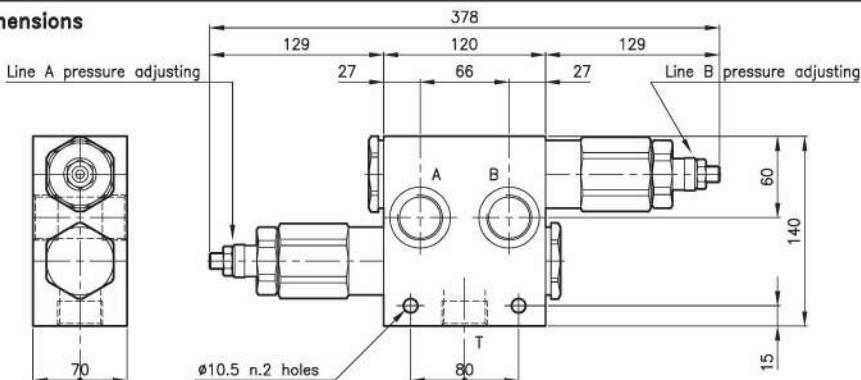
Version _____

Standard ports

B12 = G 3/4 ISO 228

Technical features

Valves	(For features see catalogue 02.110)	LPB 70
	(For features see catalogue 05.080)	CAE 70/P
Max. flow	(l/min.)	360
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	6.450
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPB 70/T-N-CSL 04-B16**

Valves type

Codes:

Standard springs

LPB 70/U-N-CSL 04-B16 71 011 121

Type Setting range

LPB 70/D-N-CSL 04-B16 71 011 122

U = 10 - 105 bar

LPB 70/T-N-CSL 04-B16 71 011 123

D = 70 - 210 bar

Only body code:

T = 140 - 350 bar

Body type 70-CSL 04-B16 78 144 106

Adjustment type

N = Standard adjustment

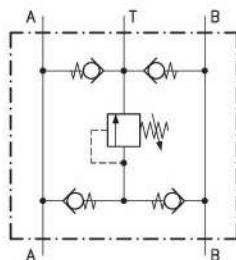


Version

Standard ports

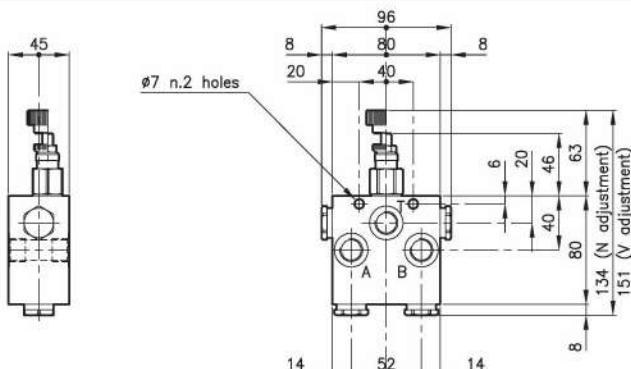
B16 = G 1 ISO 228

Technical features



Valves	(For features see catalogue 02.040)	LPE 20
	(For features see catalogue 05.050)	CAE 20/P
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.160
Cracking pressure 90% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPE 20/D-N-CSL 06-B06

Valve type _____

Standard springs

Type Setting range

$$U = 10 - 90 \text{ bar}$$

$$D = 35 - 140 \text{ bar}$$

T = 70 - 210 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard vector

B06 23/2/2023

Codes:

LPE 20/U-N-CSL 06-B06 21 011 240

LPE 20/D-N-CSL 06-B06

LPE 20/T=N=CSL 06=B06

LPE 20/U-V-CSL 06-B06 21 011 243

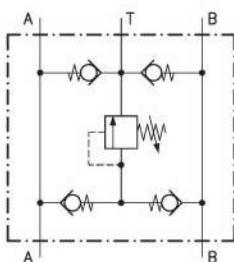
LPE 20/D-V-CSL 06-B06

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LPE 20/T-V-CSI 06-B06 21 011 245

Only body code:

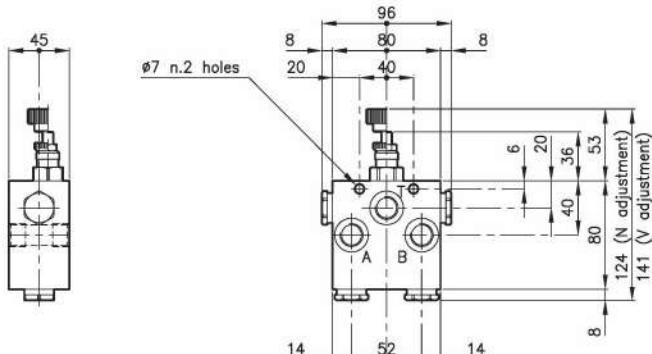
Body type 20-CSL 06-B06 28 144 117

Technical features



Valves	(For features see catalogue 02.060)	LPA 20
	(For features see catalogue 05.050)	CAE 20/P
Max. flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.150
Cracking pressure 90% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPA 20/D-N-CSL 06-B06

Valve type _____

Standard springs

Type Setting range

$$U = 10 - 105 \text{ bar}$$

$$D = 70 - 210 \text{ bar}$$

T = 140 - 350 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Vannier

Standard ports

B06 - C 3/8 ISO 228

Codes:

LPA 20/U-N-CSL 06-B06 21 011 203

LPA 20/D-N-CSV 06-B06 21 011 204

LPA 20/T=N=CSI 06=B06

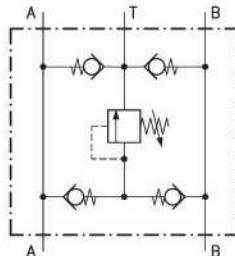
IPA 20/U-V-CSI 06-B06

LPA 20/B-V=CSI 06-B06

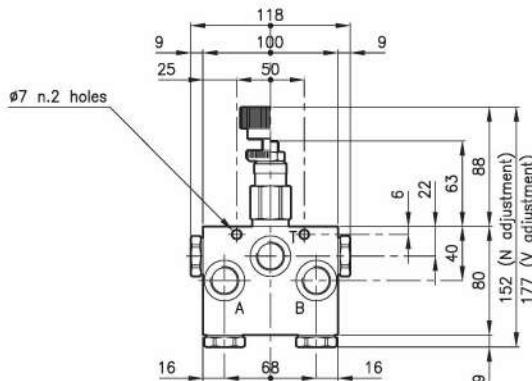
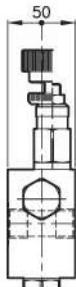
LPA 20/T-V-CSI 06-B06 21 011 208

Only body code:

Body type 20-CSL 06-B06 28 144 117

Technical features

Valves	(For features see catalogue 02.070)	LPA 30
	(For features see catalogue 05.060)	CAE 30/P
Max. flow	(l/min.)	50
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.790
Cracking pressure	90% of setting value	
Cracking pressure	defined with 1 l/min.	
Standard setting	obtained with 10 l/min.	
Hydraulic fluid	mineral oil HM and HV ISO 6074	
Recommended filtration	19/15 ISO 4466 (25 μ absolutes)	
Standard seals	in Polyurethane and Buna N	

Dimensions**Ordering informations****LPA 30/D-N-CSL 06-B08**

Valve type _____

Codes:

LPA 30/U-N-CSL 06-B08	31 011 192
LPA 30/D-N-CSL 06-B08	31 011 193
LPA 30/T-N-CSL 06-B08	31 011 194
LPA 30/U-V-CSL 06-B08	31 011 195
LPA 30/D-V-CSL 06-B08	31 011 196
LPA 30/T-V-CSL 06-B08	31 011 197

Standard springs

Only body code:

Type Setting range

Body type 30-CSL 06-B08 38 144 124

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Adjustment type

N = Standard adjustment

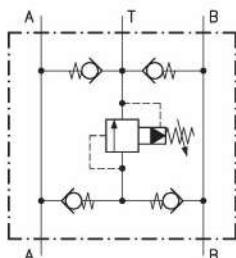
V = Handknob adjustment

Version _____

Standard ports

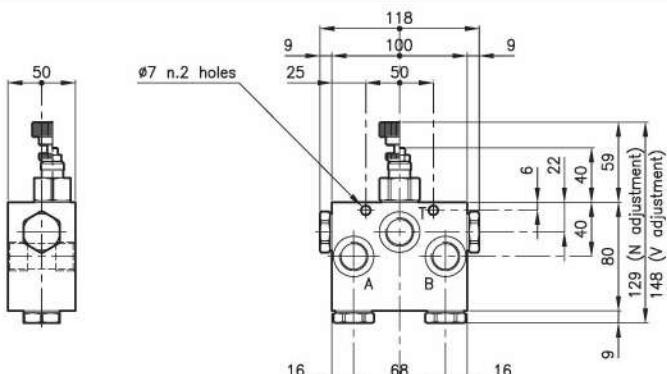
B08 = G 1/2 ISO 228

Technical features



Valves	(For features see catalogue 02.120)	LPI 30
	(for features see catalogue 05.060)	CAE 30/P
Max. flow	(l/min.)	90
Max. pressure	(bar)	420
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.700
Cracking pressure 95% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPI 30/D-N-CSL 06-B08

Valve type

Standard springs

Type Setting range

D = 14 - 210 bar

Q = 105 - 420 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard ports

B08 = G 1/2 ISO 228

Codes:

LPI 30/D-N-CSL 06-B08 31 011 183

LPI 30/Q-N-CSL 06-B08 31 011 184

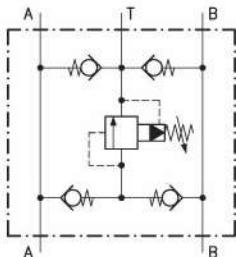
LPI 30/D-V-CSL 06-B08 31 011 185

LPI 30/Q-V-CSL 06-B08 31 011 186

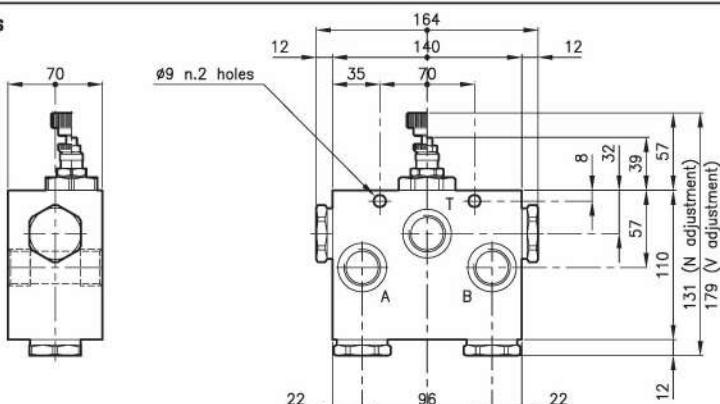
Only body code:

Body type 30-CSL 06-B08 38 144 124



Technical features

Valves	(For features see catalogue 02.130)	LPI 50
	(For features see catalogue 05.070)	CAE 50/P
Max. flow	(l/min.)	160
Max. pressure	(bar)	420
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	4.250
Cracking pressure 95% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**LPI 50/D-N-CSL 06-B12

Valve type

Standard springs

Type Setting value

D = 14 - 210 bar

Q = 105 - 420 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard ports

B12 = G 3/4 ISO 228

Codes:

LPI 50/D-N-CSL 06-B12 51 011 148

LPI 50/Q-N-CSL 06-B12 51 011 149

LPI 50/D-V-CSL 06-B12 51 011 150

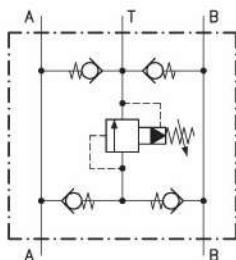
LPI 50/Q-V-CSL 06-B12 51 011 151

Only body code:

Body type 50-CSL 06-B12 58 144 116

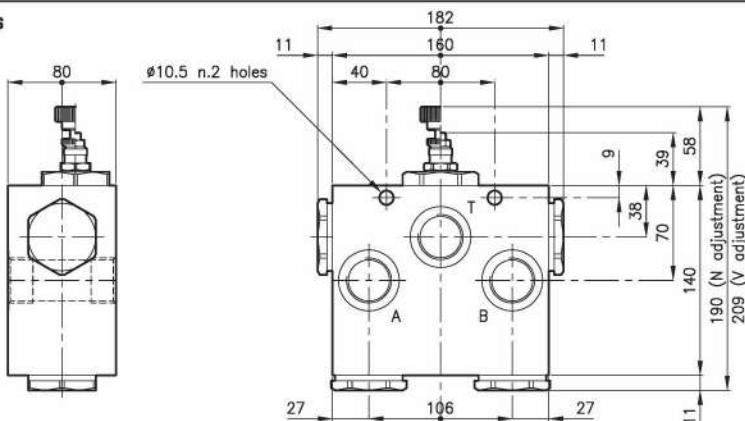


Technical features



Valves	(For features see catalogue 02.140)	LPI 70
	(For features see catalogue 05.080)	CAE 70/P
Max. flow	(l/min.)	320
Max. pressure	(bar)	420
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	7.480
Cracking pressure 95% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPI 70/D-N-CSL 06-B16

Valve type

Standard springs

Type Setting range

D = 14 - 210 bar

Q = 105 - 420 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard ports

B16 = G 1 ISO 228

Codes:

LPI 70/D-N-CSL 06-B16 71 011 150

LPI 70/Q-N-CSL 06-B16 71 011 151

LPI 70/D-V-CSL 06-B16 71 011 152

LPI 70/Q-V-CSL 06-B16 71 011 153

Only body code:

Body type 70-CSL 06-B16 78 144 107



ALPHABETIC INDEX AND VALVE CODES

INFORMATIONS

PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

ACCESSORIES

SCHEDULES

00

01

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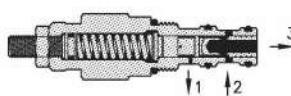
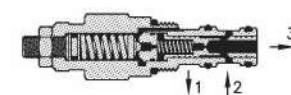
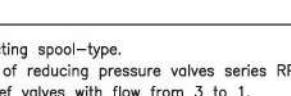
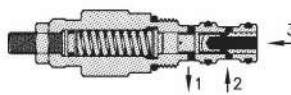
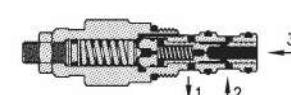
Pressure reducing valves.

They are indispensable when it's necessary to operate with different pressure in one-pump circuit.
Are divided into two execution-types: direct acting and pilot operated.

DIRECT ACTING: They are produced only in series 20 and are suitable for narrow flows and reduced maximal pressure of 105 bar. They distinguish themselves by their very low leakage and good tolerance at oil contaminations.

PILOT OPERATED: Are used when higher flows or high pressure are required; more sensitive at oil contaminations have constant drain flow of 0.4–0.6 l/min.

03

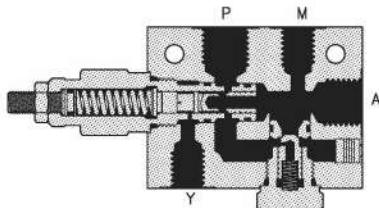
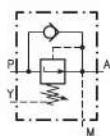
Main features	Type	Q max. (l/min.)	P / Pr (bar)	Technical schedule
RPA series – direct acting spool-type. Fast acting, good stability, impurity endurance, particularly suitable for narrow flows and reduced low pressure (max. 80 bar).	RPA 20	20	420/80	03.020
 				
RLY series – pilot operated spool-type. Very good stability, large ports for high flows and applications with wide range of reduced pressure regulation.	RLY 30	40	420/210	03.030
 				
 	RLY 50	90	420/210	03.040
 	RLY 70	160	420/210	03.050
RLD series – direct acting spool-type. Have the same features of reducing pressure valves series RPA 20, but they act as pressure relief valves with flow from 3 to 1.	RLD 20	16	420/80	03.060
 				
RLP series – pilot operated spool-type. Have the same features of reducing pressure valves series RLY, but they act as pressure relief valves with flow from 3 to 1.	RLP 30	40	420/210	03.070
 				
 	RLP 50	90	420/210	03.080
 	RLP 70	160	420/210	03.090

Main features

Type

Q max.
(l/min.)P / Pr
(bar)Technical
schedule**RPA 20 series CSL 11 circuit.**

They are assembled in one body and combined with one check valve which allows the freeflow itself to move in direction from A to P.

**RPA 20
CSL 11**

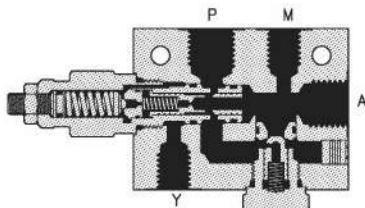
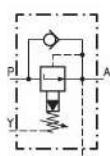
20

420/90

03.100

RLY series CSL 11 circuit.

They are assembled in one body and combined with one check valve which allows the free-flow itself to move in direction from A to P.

**RLY 30
CSL 11**

40

420/210

03.110

**RLY 50
CSL 11**

90

420/210

03.120

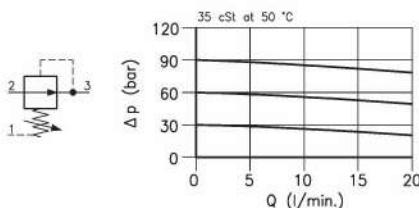
**RLY 70
CSL 11**

160

420/210

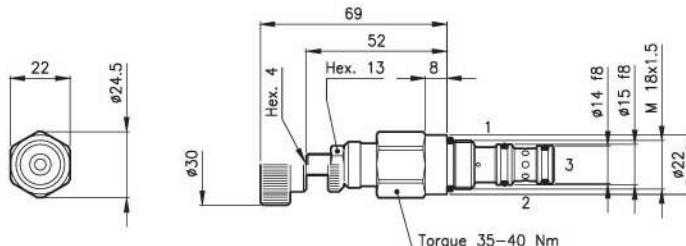
03.130

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	20
Max. inlet pressure	(bar)	420
Pressure setting range	(bar)	5 - 140
Max. drain	(l/min.)	0.05
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

RPA 20/D-N

RPA 20 = Valve type



Standard springs

Type	Setting range	Factory set
U	= 5 - 30 bar	20 bar
D	= 14 - 60 bar	40 bar
T	= 35 - 90 bar	70 bar
O	= 50 - 140 bar	100 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

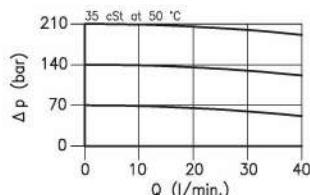
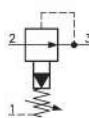
10

Codes:

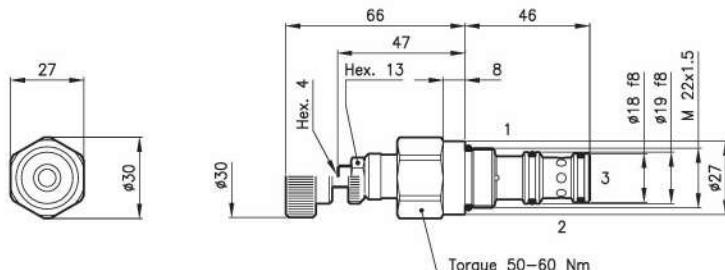
RPA 20/U-N	21 011 113
RPA 20/D-N	21 011 114
RPA 20/T-N	21 011 115
RPA 20/Q-N	21 011 291
RPA 20/U-V	21 011 116
RPA 20/D-V	21 011 117
RPA 20/T-V	21 011 118
RPA 20/Q-V	21 011 339

External seals kit 90 620 101

RPA 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	40
Max. inlet pressure	(bar)	420
Pressure setting range	(bar)	10 - 210
Max. drain	(l/min.)	0.4 - 0.6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.200
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RLY 30/D-N**

RLY 30 = Valve type



Standard spring

Type Setting range Factory set
D = 10 - 210 bar 140 bar

Adjustment type

N = Standard adjustment

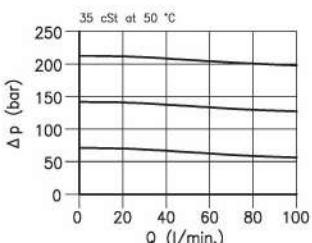
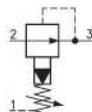
V = Handknob adjustment



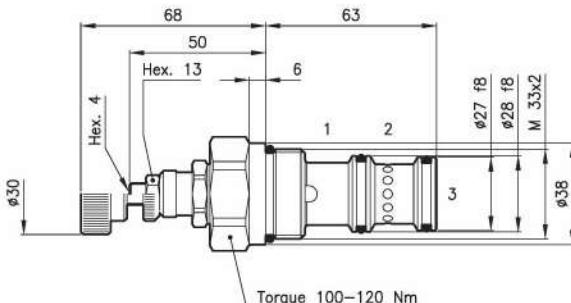
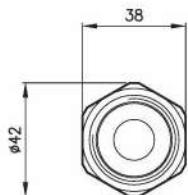
Codes:

RLY 30/D-N 31 011 120
RLY 30/D-V 31 011 129
External seals kit 90 620 104

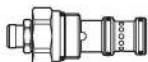
RLY 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	90
Max. inlet pressure	(bar)	420
Pressure setting range	(bar)	10 - 210
Max. drain	(l/min.)	0.4 - 0.6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.400
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RLY 50/D-N**

RLY 50 = Valve type



Standard spring

Type Setting range Factory set
D 10 - 210 bar 140 bar

Adjustment type

N = Standard adjustment



V = Handknob adjustment

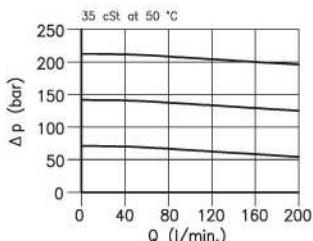
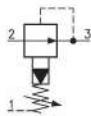
Codes:

RLY 50/D-N 51 011 107

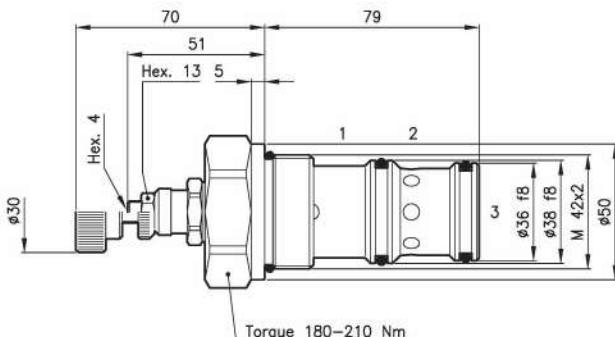
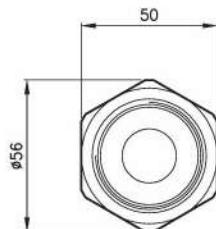
RLY 50/D-V 51 011 108

External seals kit 90 620 107

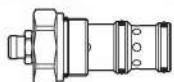
RLY 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 70/3
Max. flow	(l/min.)	160
Max. inlet pressure	(bar)	420
Pressure setting range	(bar)	10 - 210
Max. drain	(l/min.)	0.4 - 0.6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.700
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RLY 70/D-N**

RLY 70 = Valve type



Standard springs

Type Setting range Factory set
D 10 - 210 bar 140 bar

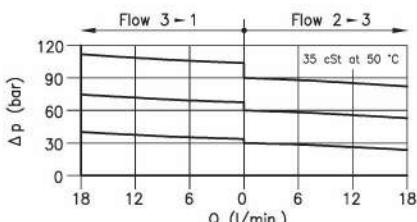
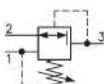
Adjustment type

N = Standard adjustment**V** = Handknob adjustment

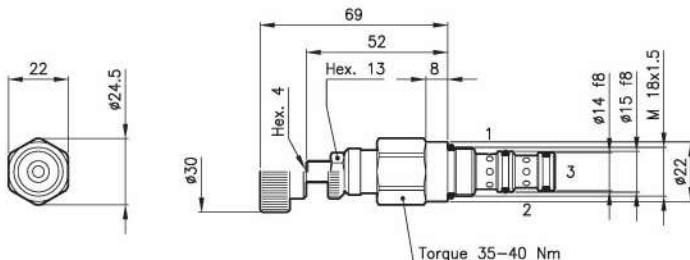
Codes:

RLY 70/D-N	71 011 106
RLY 70/D-V	71 011 107
External seals kit	90 620 120

RLY 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	16
Max. inlet pressure	(bar)	420
Pressure setting range	(bar)	5 - 90
Max. drain	(l/min.)	0.1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

RLD 20/D-N

RLD 20 = Valve type



Standard springs

Type Setting range Factory set

U = 5 - 30 bar 20 bar

D = 14 - 60 bar 40 bar

T = 35 - 90 bar 70 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

RLD 20/U-N 21 011 148

RLD 20/D-N 21 011 149

RLD 20/T-N 21 011 150

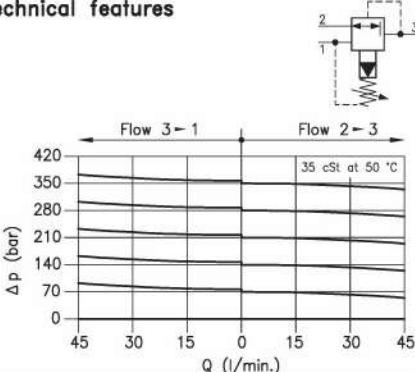
RLD 20/U-V 21 011 151

RLD 20/D-V 21 011 152

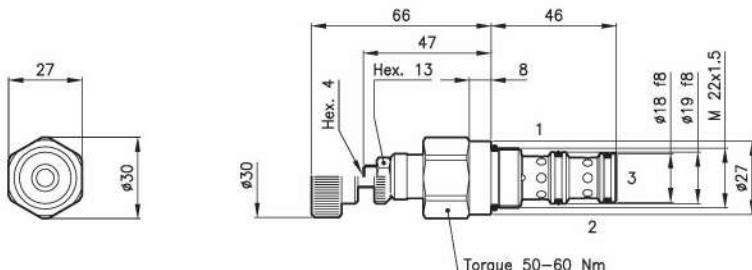
RLD 20/T-V 21 011 153

External seals kit 90 620 101

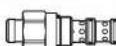
RLD 20 valves can be assembled
on standard bodies 20-C3 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	40
Max. inlet pressure	(bar)	420
Pressure setting range	(bar)	10 - 420
Max. drain	(l/min.)	0.4 - 0.6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.200
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RLP 30/D-N**

RLP 30 = Valve type



Standard spring

Type Setting range Factory set

D = 10 - 210 bar 140 bar

Q = 105 - 420 bar 315 bar

Codes:

RLP 30/D-N 31 011 115
RLP 30/Q-N 31 011 239RLP 30/D-V 31 011 116
RLP 30/Q-V 31 011 244

External seals kit 90 620 104

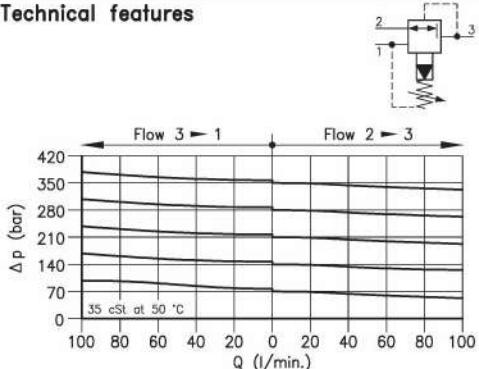
Adjustment type

N = Standard adjustment

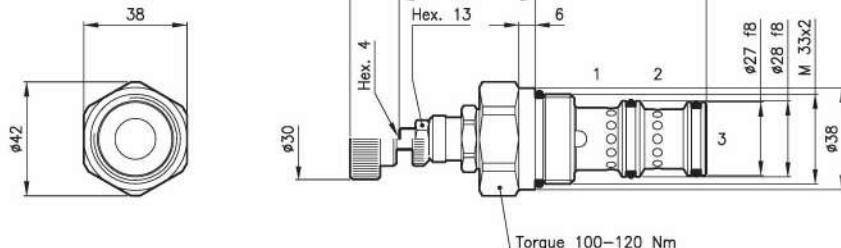


V = Handknob adjustment

RLP 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

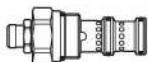
Technical features

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	90
Max. inlet pressure	(bar)	420
Pressure setting range	(bar)	14 - 420
Max. drain	(l/min.)	0.4 - 0.6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.400
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

RLP 50/D-N

RLP 50 = Valve type



Standard spring

Type Setting range Factory set

D = 14 - 210 bar 140 bar

Q = 105 - 420 bar 315 bar

Codes:

RLP 50/D-N 51 011 109

RLP 50/Q-N 51 011 159

RLP 50/D-V 51 011 110

RLP 50/Q-V 51 011 160

External seals kit 90 620 107

Adjustment type

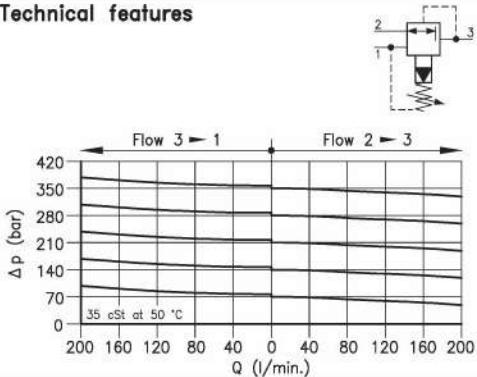
N = Standard adjustment



V = Handknob adjustment

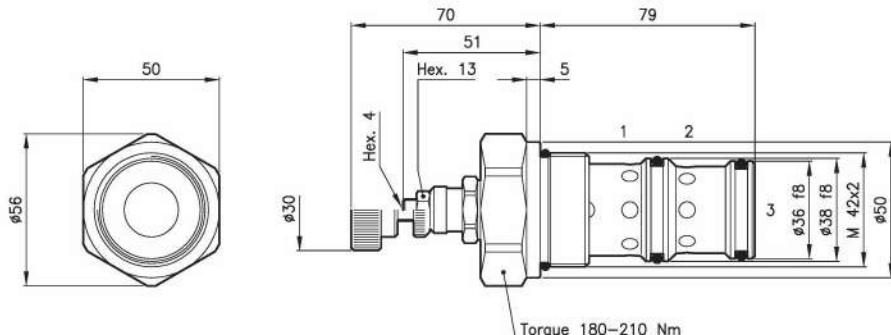
RLP 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 70/3
Max. flow	(l/min.)	160
Max. inlet pressure	(bar)	420
Pressure setting range	(bar)	14 - 420
Max. drain	(l/min.)	0.4 - 0.6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.700
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

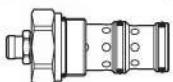
Dimensions



Ordering informations

RLP 70/D-N

RLP 70 = Valve type



Standard spring

Type Setting range Factory set

D = 14 - 210 bar 140 bar

Q = 105 - 420 bar 315 bar

Codes:

RLP 70/D-N 71 011 108

RLP 70/Q-N 71 011 160

RLP 70/D-V 71 011 109

RLP 70/Q-V 71 011 161

External seals kit 90 620 120

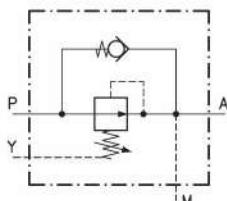
Adjustment type

N = Standard adjustment

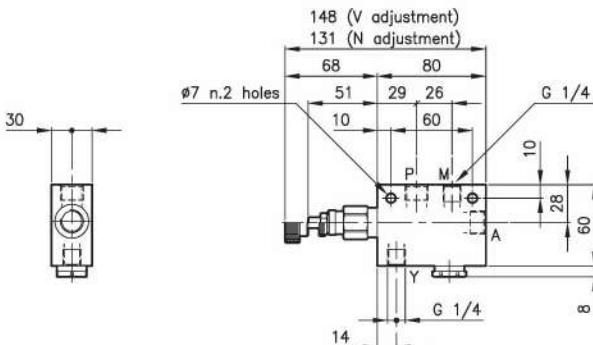


V = Handknob adjustment

RLP 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 11.010

Technical features

Valves	(For features see catalogue 03.020)	RPA 20
	(For features see catalogue 05.050)	CAE 20/P
Max. flow	(l/min.)	20
Max. pressure in P	(bar)	420
Pressure setting range	(bar)	5 - 90
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.620
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM e HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RPA 20/D-N-CSL 11-B06**

Valve type

Standard springs

Type Setting range

U = 5 - 30 bar

D = 14 - 60 bar

T = 35 - 90 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard parts (P-A)

B05 = G 1/4 ISO 228

B06 = G 3/8 ISO 228

Codes:

RPA 20/U-N-CSL 11-B05 21 011 159

RPA 20/D-N-CSL 11-B05 21 011 160

RPA 20/T-N-CSL 11-B05 21 011 161

RPA 20/U-V-CSL 11-B05 21 011 162

RPA 20/D-V-CSL 11-B05 21 011 163

RPA 20/T-V-CSL 11-B05 21 011 164

RPA 20/U-N-CSL 11-B06 21 011 165

RPA 20/D-N-CSL 11-B06 21 011 166

RPA 20/T-N-CSL 11-B06 21 011 167

RPA 20/U-V-CSL 11-B06 21 011 168

RPA 20/D-V-CSL 11-B06 21 011 169

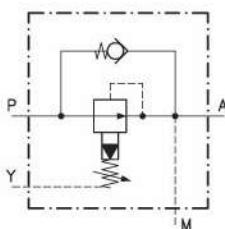
RPA 20/T-V-CSL 11-B06 21 011 170

Only body codes:

Body type 20-CSL 11-B05 28 144 114

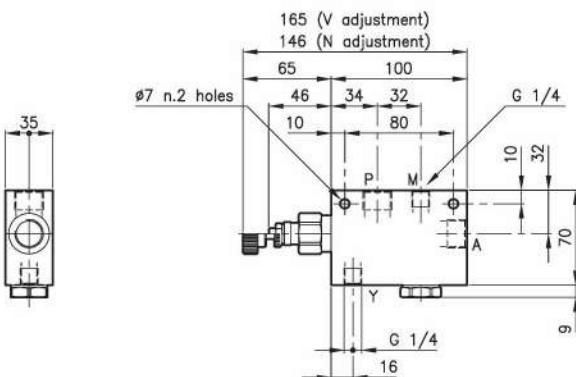
Body type 20-CSL 11-B06 28 144 115

Technical features



Valves	(For features see catalogue 03.030)	RLY 30
	(For features see catalogue 05.060)	CAE 30/P
Max. flow	(l/min.)	40
Max. pressure in P	(bar)	420
Pressure setting range	(bar)	10 - 210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.980
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

RLY 30/D-N-CSL 11-B08

Valve type _____

Standard spring

Type Setting range

$$D = 10 = 210 \text{ bar}$$

Adjustment type

N = Standard adjustment



Version

Standard ports (P-A)

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Codes:

RLY 30/D-N-CSI 11-B06 31 011 167

RLY 30/D-V-CSI 11-B06 31 011 168

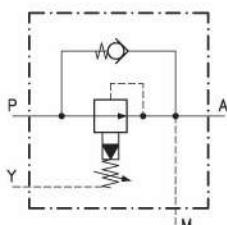
BIM 39 /S. N. SCL 41 BSC 74 644 162

PLX-32/P-N-22L-14-P22

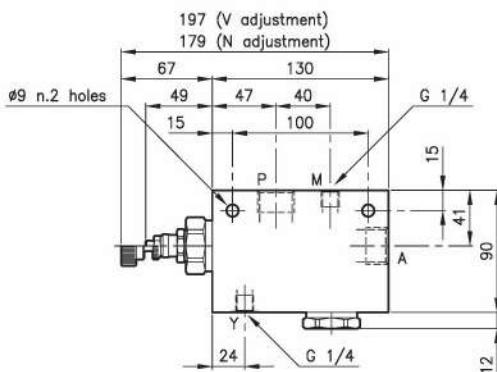
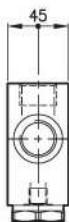
Only body codes:

Body type 30-CSL 11-B06 38 144 125

Body type 30-CSL 11-B08 38 144 126

Technical features

Valves	(For features see catalogue 03.040)	RLY 50
	(For features see catalogue 05.070)	CAE 50/P
Max. flow	(l/min.)	90
Max. pressure in P	(bar)	420
Pressure setting range	(bar)	10 - 210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	2.100
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RLY 50/D-N-CSL 11-B12**

Valve type _____

Codes:

RLY 50/D-N-CSL 11-B08 51 011 144

Standard spring

RLY 50/D-V-CSL 11-B08 51 011 145

Type Setting range

RLY 50/D-N-CSL 11-B12 51 011 146

D = 10 - 210 bar

RLY 50/D-V-CSL 11-B12 51 011 147

Adjustment type

Only body codes:

N = Standard adjustment

Body type 50-CSL 11-B08 58 144 117

V = Handknob adjustment

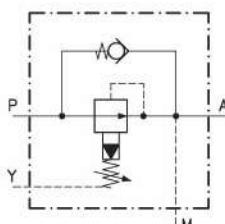
Body type 50-CSL 11-B12 58 144 118

Version _____

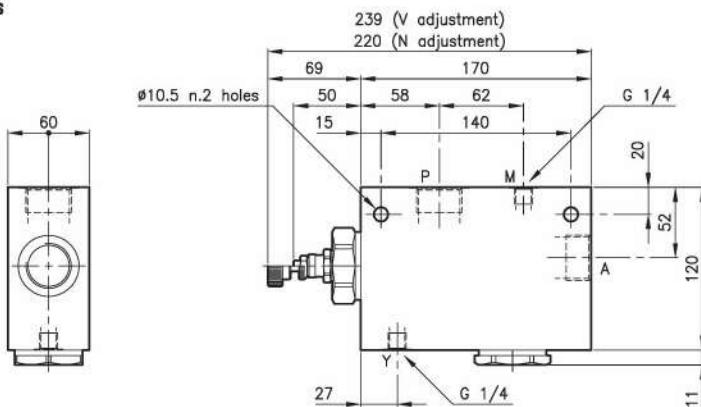
Standard ports

B08 = G 1/2 ISO 228

B12 = G 3/4 ISO 228

Technical features

Valves	(For features see catalogue 03.050)	RLY 70
	(For features see catalogue 05.080)	CAE 70/P
Max. flow	(l/min.)	160
Max. pressure in P	(bar)	420
Pressure setting range	(bar)	10 - 210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	4.600
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RLY 70/D-N-CSL 11-B20**

Valve type _____

Standard spring

Type Setting range

D = 10 - 210 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version _____

Standard ports

B16 = G 1 ISO 228

B20 = G 1.1/4 ISO 228

Codes:

RLY 70/D-N-CSL 11-B16 71 011 146

RLY 70/D-V-CSL 11-B16 71 011 147

RLY 70/D-N-CSL 11-B20 71 011 148

RLY 70/D-V-CSL 11-B20 71 011 149

Only body codes:

Body type 70-CSL 11-B16 78 144 108

Body type 70-CSL 11-B20 78 144 109

ALPHABETIC INDEX AND VALVE CODES

INFORMATIONS

PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

ACCESSORIES

SCHEDULES

00

01

02

03

04

05

06

07

08

09

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19

20

Sequence and unloading valves, secondary-pressure insensitive.

They are manufactured in different models suitable for unloading or sequence functions; the LPQ and LPY types are used in many applications where pressures addition is not allowed.

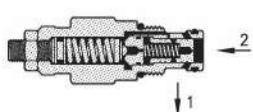
04

Main features

Type	Q max. (l/min.)	P max. (bar)	Technical schedule
------	--------------------	-----------------	-----------------------

LPQ series - pilot operated spool-type.

Are used to unload a line under pressure or as sequence valve. At setting pressure achievement the valve opens itself allowing the free passage with a very low pressure drop. The valve closes when pressure falls under a 7 bar value.



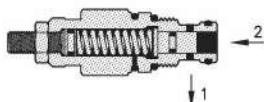
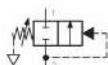
LPQ 30	70	420	04.010
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LPQ 50	160	420	04.020
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LPQ 70	320	420	04.030
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VDT ../2202 series - spool-type.

Internal pilot sequence valves adjusting through a connected atmospheric pressure spring, indifferent to circuit's pressure.



VDT 20/2202	20	350	04.032
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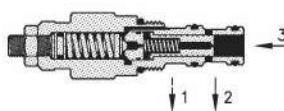
VDT 30/2202	40	350	04.034
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LPY - LPQY series - pilot operated spool-type.

LPY are relief pilot operated valves with external drain.

The line 1 (drain), directly connected with return line (T), makes the valve insensitive to pressure of chamber 2 allowing to maintain the valve's setting and features.

Moreover, at setting pressure achievement, LPQY valve opens itself allowing the free passage with a very low pressure drop. The valve closes when pressure falls under a 7 bar value.



LPY 30	70	420	04.040
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LPQY 30	70	420	04.042
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LPY 50	160	420	04.050
---------------	-----	-----	--------

LPY 70	320	420	04.060
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Main features

Type

Q max.
(l/min.)P max.
(bar)Technical
schedule**LCS 20** series - direct acting differential.

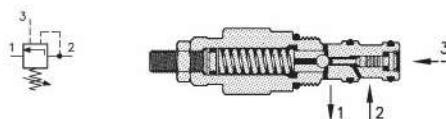
Differential Area Unloading relief valves, are mainly used to charge accumulators or for pump unloading in high-low pressure circuits.

They allow the automatic pump's by-pass as the circuit pressure reaches the setting value. The valve closes when this value drops at 88% and pump starts charging the accumulator.

The valve LCS 20 series must be combined with logical elements of ELP series :

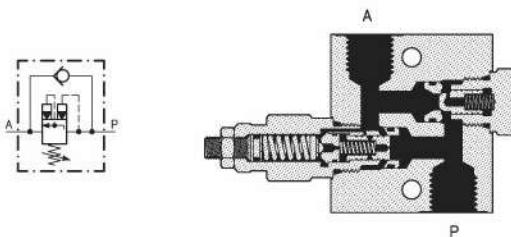
- version ELP .. P1 (high-low pressure)
- version ELP 30/D3-1.23 (accumulators)

For advice please ask our technical department.

**LPQ series CSL 10** circuits.

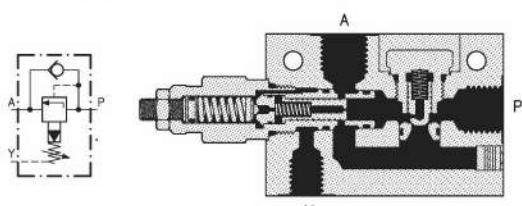
They are used as sequence valves. At reaching the setting value, the valve opens and allows the fluid free-flow passage.

When pressure drop under a value lower than 7 bar, the valve closes again. The annexed by-pass valve allows the free-flow in direction from A to P.

**LPY series CSL 10** circuits.

They are sequence pilot operated valves with external drain. The line Y (drainin line) which is directly connected with return line (T), makes the valve indifferent to port A pressure, keeping the setting features unchanged.

The annexed by-pass valve allows the free-flow in direction from A to P.

**LCS 20**

1.5

350

04.075

**LPQ 30
CSL 10**

70

420

04.080

**LPQ 50
CSL 10**

160

420

04.090

**LPQ 70
CSL 10**

320

420

04.100

**LPY 30
CSL 10**

70

420

04.110

**LPY 50
CSL 10**

160

420

04.120

**LPY 70
CSL 10**

320

420

04.130

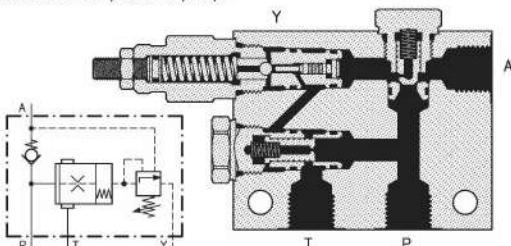
Main features

Type	Q max. (l/min.)	P max. (bar)	Technical schedule
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DPA series

These valves are used to unloading an pump once a certain pressure has been reached in the main circuit.

They are either used an accumulator circuit unload the pump when the accumulator charge pressure has been reached or in a two pump circuit to unload the low pressure pump.



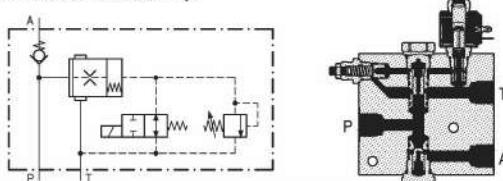
DPA 30 60 315 04.140

DPA 50 135 315 04.142

DPA 70 300 315 04.144

DPE series

These valves are used to unloading an pump once a certain pressure has been reached or electrically.



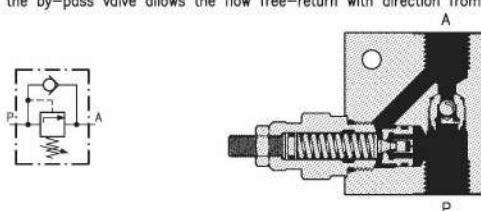
DPE 30 60 420 04.200

DPE 50 135 420 04.205

LPS 20/20 - LPA 20 series **CSL 10** circuit.

They are a simple unexpensive version for high pressure applications. Ideal solution for narrow flows, they have got a very good oiltight with total pressure peak absence.

The pressure required from secondary circuit adds to the setting pressure and the by-pass valve allows the flow free-return with direction from A to P.

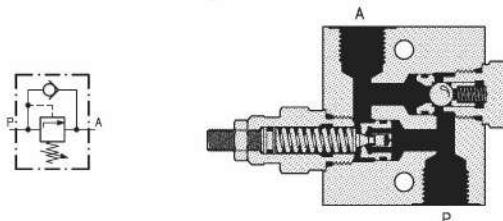


**LPS 20/20
CSL 10** 12 420 04.150

**LPA 20
CSL 10** 20 350 04.160

LPA 30 series **CSL 10** circuit.

The use of valve size 30 makes this series suitable for flows till 50 l/min. This series uses the same body LPQ 30 - CSL 10.

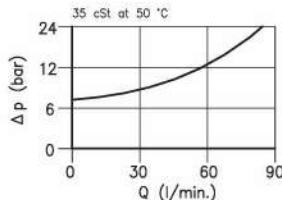
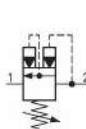


**LPA 30
CSL 10** 50 350 04.170

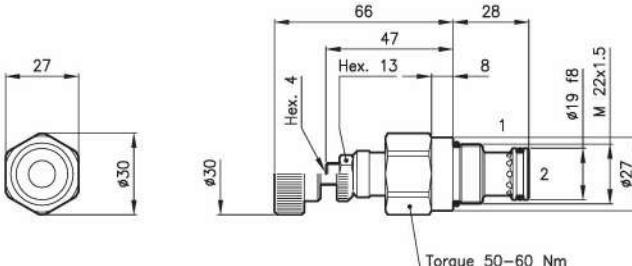
Technical features

LPQ 30 valves are used to unload a line under pressure or as sequence valve. At setting pressure achievement the valve opens itself allowing the free passage with a very low pressure drop.

The valve closes when pressure falls under a 7 bar value.



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	70
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. reseat pressure	(bar)	7
Max. leakage	(cm³/min.)	25
Mass	(kg)	0.260
Cracking pressure 95% of setting value		
Cracking pressure defined with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

LPQ 30/D-N

LPQ 30 = Valve type



Standard springs

Type Setting range Factory set

D = 14 - 210 bar 140 bar

Q = 105 - 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

LPQ 30/D-N 31 011 125

LPQ 30/Q-N 31 011 126

LPQ 30/D-V 31 011 127

LPQ 30/Q-V 31 011 128

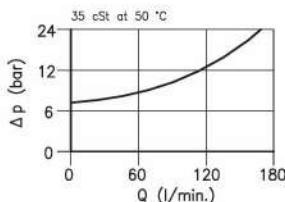
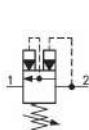
External seals kit 90 620 103

LPQ 30 valves can be assembled
on standard bodies 30-L0 series;
for dimensions see catalogue 16.010

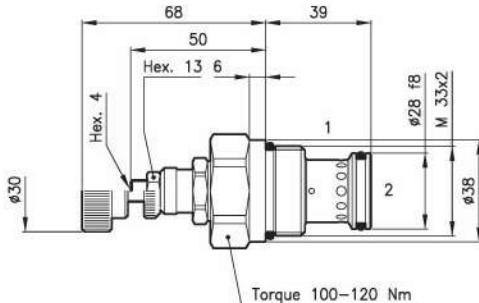
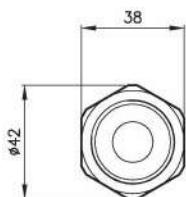
Technical features

LPQ 50 valves are used to unload a line under pressure or as sequence valve. At setting pressure achievement the valve opens itself allowing the free passage with a very low pressure drop.

The valve closes when pressure falls under a 7 bar value.



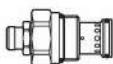
Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	(l/min.)	160
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. reseat pressure	(bar)	7
Max. leakage	(cm³/min.)	25
Mass	(kg)	0.500
Cracking pressure	95% of setting value	
Cracking pressure	defined with 1 l/min.	
Hydraulic fluid	mineral oil HM and HV	ISO 6074
Recommended filtration	19/15 ISO 4466	(25 µ absolutes)
Standard seals in	Polyurethane and Buna N	

Dimensions

Torque 100–120 Nm

Ordering informations**LPQ 50/D-N**

LPQ 50 = Valve type



Standard springs

Type Setting range Factory set

D = 14 – 210 bar 140 bar

Q = 105 – 420 bar 315 bar

Adjustment type

N = Standard adjustment



V = Handknob adjustment

Codes:

LPQ 50/D-N 51 011 111

LPQ 50/Q-N 51 011 112

LPQ 50/D-V 51 011 113

LPQ 50/Q-V 51 011 114

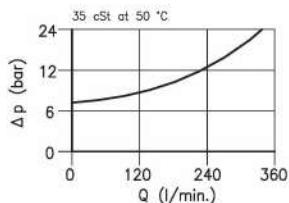
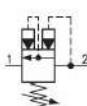
External seals kit 90 620 106

LPQ 50 valves can be assembled on standard bodies 50-L0 series;
For dimensions see catalogue 16.010

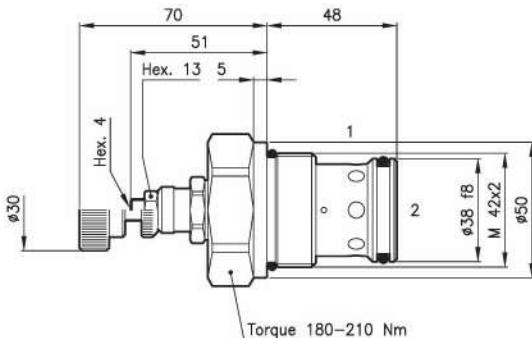
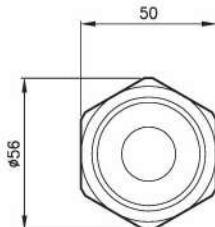
Technical features

LPQ 70 valves are used to unload a line under pressure or as sequence valve. At setting pressure achievement the valve opens itself allowing the free passage with a very low pressure drop.

The valve closes when pressure falls under a 7 bar value.

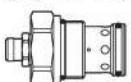


Cavity	(For dimensions see catalogue 17.000)	S 70/2
Max. flow	(l/min.)	320
Max. inlet pressure	(bar)	420
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. reseat pressure	(bar)	7
Max. leakage	(cm³/min.)	50
Mass	(kg)	0.800
Cracking pressure 95% of setting value		
Cracking pressure defined with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

LPQ 70/D-N

LPQ 70 = Valve type



Standard springs

Type	Setting range	Factory set
D	14 - 210 bar	140 bar
Q	105 - 420 bar	315 bar

Adjustment type

N = Standard adjustment

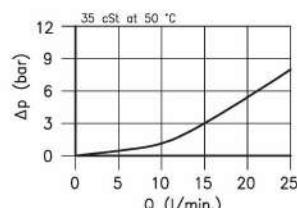
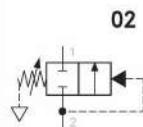


V = Handknob adjustment

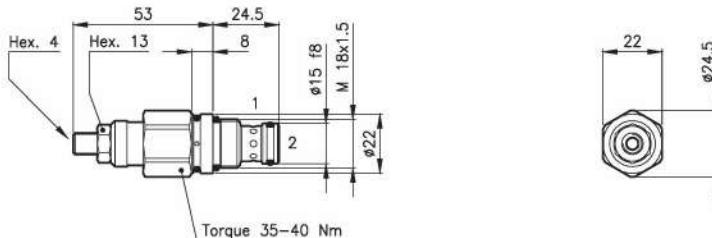
Codes:

LPQ 70/D-N	71 011 110
LPQ 70/Q-N	71 011 111
LPQ 70/D-V	71 011 112
LPQ 70/Q-V	71 011 113
External seals kit	90 620 109

LPQ 70 valves can be assembled on standard bodies 70-LO series; for dimensions see catalogue 16.010

Technical features

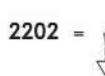
Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 µ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 20/2202-D-N**

VDT 20 = Valve type



Circuits



Standard springs

Type Setting range

U 5 - 30 bar

D 14 - 60 bar

T 35 - 90 bar

Q 50 - 140 bar

Adjustment type

N Standard adjustment



Codes:

VDT 20/2202-U-N 22 011 189

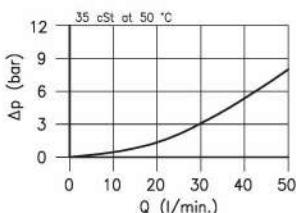
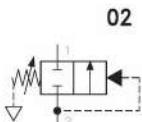
VDT 20/2202-D-N 22 011 190

VDT 20/2202-T-N 22 011 191

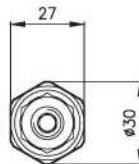
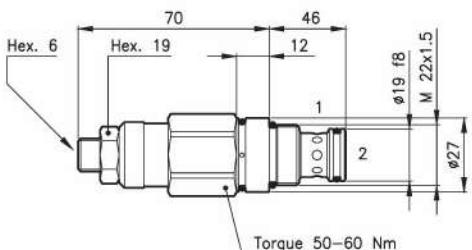
VDT 20/2202-Q-N 22 011 192

External seals kit 90 620 100

VDT 20 valves can be assembled
on standard bodies 20-LO series;
for dimensions see catalogue 16.010

Technical features

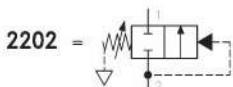
Cavity	(For dimensions see catalogue 17.000)	S 30/2
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.280
Hydraulic fluid; mineral oil HM and HV		ISO 6074
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 30/2202-0-N**

VDT 30 = Valve type



Circuits



Standard springs

Type Setting range

0 = 30 – 120 bar

Q = 70 – 210 bar

Adjustment type

N = Standard adjustment



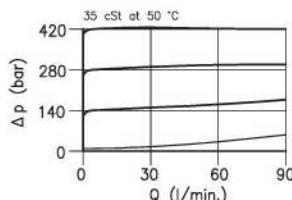
Codes:

VDT 30/2202-0-N 32 011 162

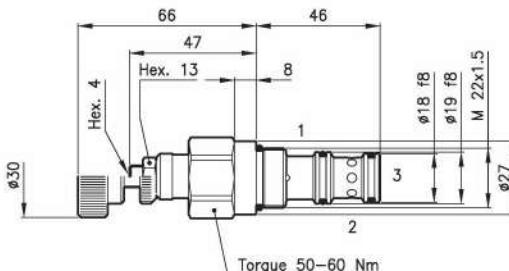
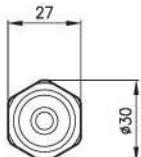
VDT 30/2202-Q-N 32 011 172

External seals kit 90 620 103

VDT 30 valves can be assembled
on standard bodies 30-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	70
Max. inlet pressure	(bar)	420
Max. pressure on line 2	(bar)	420
Max. drain on line 1	(l/min.)	1.2
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.200
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

LPY 30/D-N

LPY 30 = Valve type



Standard springs

Type Setting range Factory set

D 10 – 210 bar 140 bar

Q 105 – 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

LPY 30/D-N 31 011 130

LPY 30/Q-N 31 011 131

LPY 30/D-V 31 011 132

LPY 30/Q-V 31 011 133

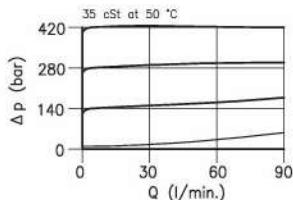
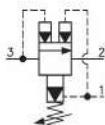
External seals kit 90 620 104

LPY 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

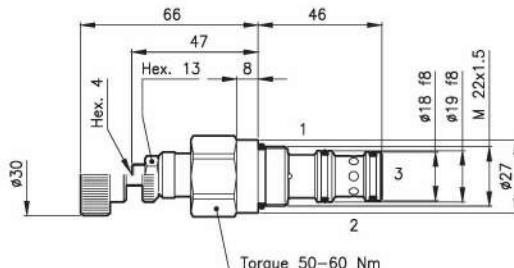
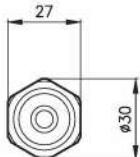
Technical features

LPQY 30 valves are used to unload a line under pressure or as sequence valve. At setting pressure achievement the valve opens itself allowing the free passage with a very low pressure drop.

The valve closes when pressure falls under a 7 bar value.



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	70
Max. inlet pressure	(bar)	420
Max. pressure on line 2	(bar)	420
Max. drain on line 1	(l/min.)	1.2
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. reseat pressure	(bar)	7
Max. leakage	(cm³/min.)	25
Mass	(kg)	0.260
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPQY 30/D-N**

LPQY 30 = Valve type



Standard springs

Type Setting range Factory set

D = 14 - 210 bar 140 bar

Q = 109 - 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

LPQY 30/D-N 31 011 312

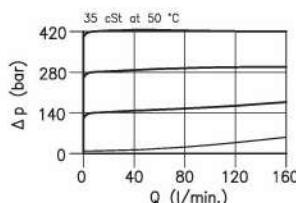
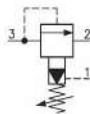
LPQY 30/Q-N 31 011 313

LPQY 30/D-V 31 011 314

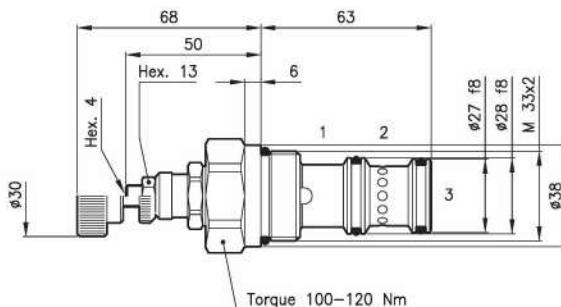
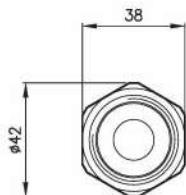
LPQY 30/Q-V 31 011 315

External seals kit 90 620 104

LPQY 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	160
Max. inlet pressure	(bar)	420
Max. pressure on line 2	(bar)	420
Max. drain on line 1	(l/min.)	1.2
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.400
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPY 50/D-N**

LPY 50 = Valve type



Standard springs

Type Setting range Factory set

D = 10 – 210 bar 140 bar

Q = 105 – 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

LPY 50/D-N 51 011 115

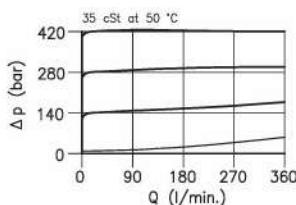
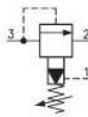
LPY 50/Q-N 51 011 116

LPY 50/D-V 51 011 117

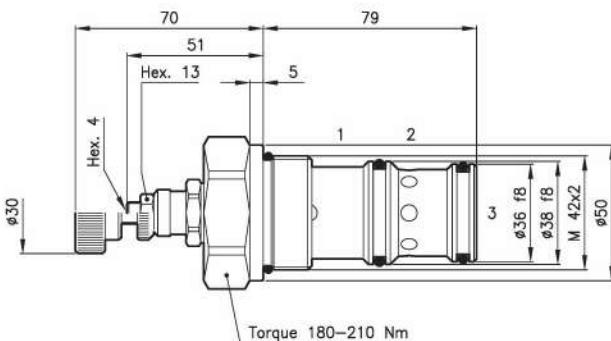
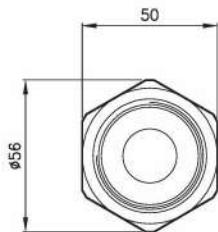
LPY 50/Q-V 51 011 118

External seals kit 90 620 107

LPY 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

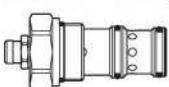
Technical features

Cavity	(For dimensions see catalogue 17.000)	S 70/3
Max. flow	(l/min.)	320
Max. inlet pressure	(bar)	420
Max. pressure on line 2	(bar)	350
Max. drain on line 1	(l/min.)	1.2
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.700
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

LPY 70/D-N

LPY 70 = Valve type



Standard springs

Type	Setting range	Factory set
D	10 – 210 bar	140 bar

Q	105 – 420 bar	315 bar
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Adjustment type

N = Standard adjustment



V = Handknob adjustment

Codes:

LPY 70/D-N	71 011 114
LPY 70/Q-N	71 011 115

LPY 70/D-V	71 011 116
LPY 70/Q-V	71 011 117

External seals kit 90 620 120

LPY 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 16.010

Technical features

LCS 20 valve are mainly used to charge accumulators or for pump unloading in high-low pressure circuits.

They allow the automatic pump's by-pass as the circuit pressure reaches the setting value. The valve closes when this value drops at 88% and pump starts charging the accumulator. LCS 20 valve also act as pressure relieving on main circuit and always must be combined with logical elements:

- version ELP .. P1 (high-low pressure)
- version ELP 30/D3-1.23 (accumulators)

Calculation of Pr value



$$Pr = \frac{P_d}{100}$$

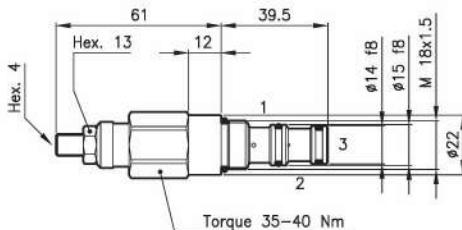
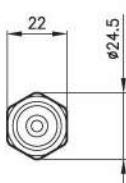
Where:

Pr = Reset pressure (bar)

P = Setting pressure (bar)

d = Differential area

Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	1.5
Max. pressure	(bar)	350
Adjustment range	(bar)	10 - 315
Differential area (d)	%	88 ± 1.5%
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Standard setting obtained with 1 l/min.		
Hydraulic flow; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LCS 20/D-N**

LCS 20 = Valve type



Codes:

LCS 20/D-N 21 011 268

LCS 20/Q-N 21 011 269

External seals kit 90 620 101

Standard springs

Type Setting range Factory set

D = 10 - 210 bar 140 bar

Q = 70 - 315 bar 210 bar

LCS 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

Adjustment type

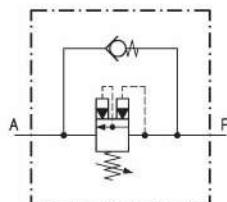
N = Standard adjustment



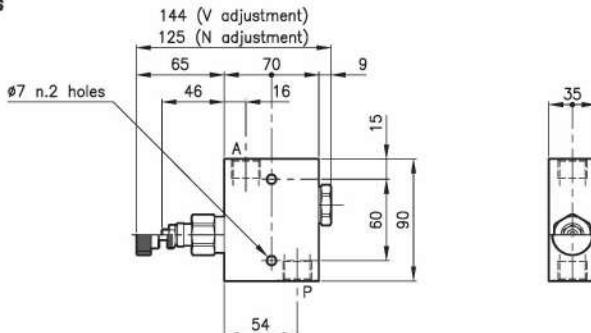
Technical features

They are used to unload a line under pressure or as sequence valve.

At setting pressure achievement the valve opens itself allowing the fluid free-flow passage. When pressure drop under a value lower than 7 bar, the valve closes again. The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 04.010)	LPQ 30
	(For features see catalogue 05.060)	CAE 30/P
Max. flow	(l/min.)	70
Max. pressure in P	(bar)	420
Max. pressure on A	(bar)	350
Max. reseat pressure	(bar)	7
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.980
Cracking pressure 95% of setting value		
Cracking pressure defined with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPQ 30/D-N-CSL 10-B08**

Valve type _____

Standard springs

Type Setting range

D = 14 - 210 bar

Q = 105 - 420 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version _____

Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Codes:

LPQ 30/D-N-CSL 10-B06 31 011 151

LPQ 30/Q-N-CSL 10-B06 31 011 152

LPQ 30/D-V-CSL 10-B06 31 011 153

LPQ 30/Q-V-CSL 10-B06 31 011 154

LPQ 30/D-N-CSL 10-B08 31 011 155

LPQ 30/Q-N-CSL 10-B08 31 011 156

LPQ 30/D-V-CSL 10-B08 31 011 157

LPQ 30/Q-V-CSL 10-B08 31 011 158

Only body codes:

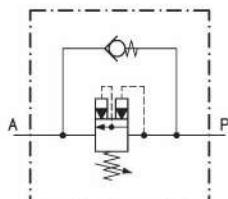
Body type 30-CSL 10-B06 38 144 127

Body type 30-CSL 10-B08 38 144 128

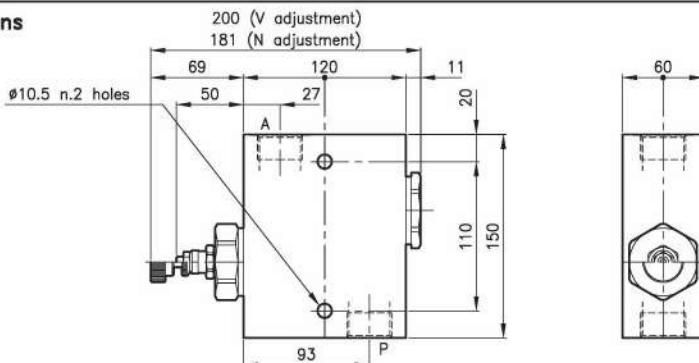
Technical features

They are used to unload a line under pressure or as sequence valve.

At setting pressure achievement the valve opens itself allowing the fluid free-flow passage. When pressure drop under a value lower than 7 bar, the valve closes again. The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 04.030)	LPQ 70
	(For features see catalogue 05.080)	CAE 70/P
Max. flow	(l/min.)	320
Max. pressure in P	(bar)	420
Max. pressure on A	(bar)	350
Max. reseat pressure	(bar)	7
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	4.300
Cracking pressure 95% of setting value		
Cracking pressure defined with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPQ 70/D-N-CSL 10-B20**

Valve type _____

Standard springs

Type Setting value

D = 14 - 210 bar

Q = 105 - 420 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version _____

Standard ports

B16 = G 1 ISO 228

B20 = G 1.1/4 ISO 228

Codes:

LPQ 70/D-N-CSL 10-B16 71 011 130

LPQ 70/Q-N-CSL 10-B16 71 011 131

LPQ 70/D-V-CSL 10-B16 71 011 132

LPQ 70/Q-V-CSL 10-B16 71 011 133

LPQ 70/D-N-CSL 10-B20 71 011 134

LPQ 70/Q-N-CSL 10-B20 71 011 135

LPQ 70/D-V-CSL 10-B20 71 011 136

LPQ 70/Q-V-CSL 10-B20 71 011 137

Only body codes:

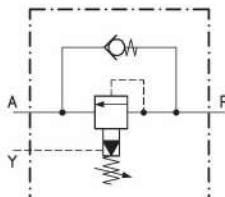
Body type 70-CSL 10-B16 78 144 110

Body type 70-CSL 10-B20 78 144 111

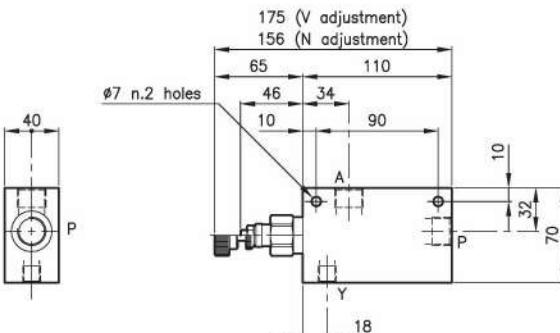
Technical features

The line Y (drainin line directly connected with the tank) makes the valve indifferent to port A pressure, keeping the setting features unchanged.

The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 04.040)	LPY 30
	(For features see catalogue 05.060)	CAE 30/P
Max. flow	(l/min.)	70
Max. pressure in P	(bar)	420
Max. pressure on A	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.990
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPY 30/D-N-CSL 10-B08**

Valve type

Standard springs

Type Setting range

D = 10 - 210 bar

Q = 105 - 420 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Codes:

LPY 30/D-N-CSL 10-B06 31 011 159

LPY 30/Q-N-CSL 10-B06 31 011 160

LPY 30/D-V-CSL 10-B06 31 011 161

LPY 30/Q-V-CSL 10-B06 31 011 162

LPY 30/D-N-CSL 10-B08 31 011 163

LPY 30/Q-N-CSL 10-B08 31 011 164

LPY 30/D-V-CSL 10-B08 31 011 165

LPY 30/Q-V-CSL 10-B08 31 011 166

Only body codes:

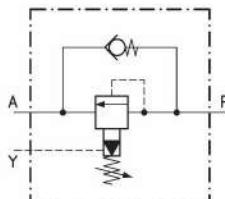
Body type 30-CSL 10Y-B06 38 144 129

Body type 30-CSL 10Y-B08 38 144 130

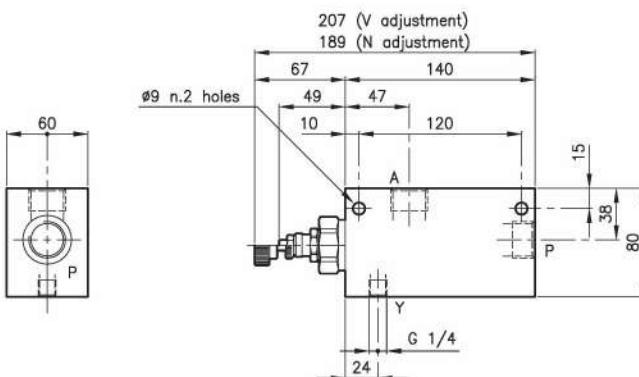
Technical features

The line Y (drainin line directly connected with the tank) makes the valve indifferent to port A pressure, keeping the setting features unchanged.

The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 04.050)	LPY 50
	(For features see catalogue 05.070)	CAE 50/P
Max. flow	(l/min.)	160
Max. pressure in P	(bar)	420
Max. pressure on A	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	2.500
Standard setting obtained with 10 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPY 50/D-N-CSL 10-B12**

Valve type

Standard springs

Type Setting range

D = 10 - 210 bar

Q = 105 - 420 bar

Adjustment type

N = Standard adjustment



V = Handknob adjustment



Version

Standard ports

B08 = G 1/2 ISO 228

B12 = G 3/4 ISO 228

Codes:

LPY 50/D-N-CSL 10-B08 51 011 136

LPY 50/Q-N-CSL 10-B08 51 011 137

LPY 50/D-V-CSL 10-B08 51 011 138

LPY 50/Q-V-CSL 10-B08 51 011 139

LPY 50/D-N-CSL 10-B12 51 011 140

LPY 50/Q-N-CSL 10-B12 51 011 141

LPY 50/D-V-CSL 10-B12 51 011 142

LPY 50/Q-V-CSL 10-B12 51 011 143

Only body codes:

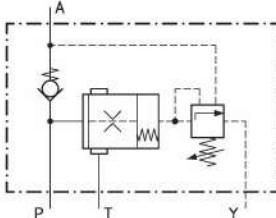
Body type 50-CSL 10Y-B08 58 144 121

Body type 50-CSL 10Y-B12 58 144 122

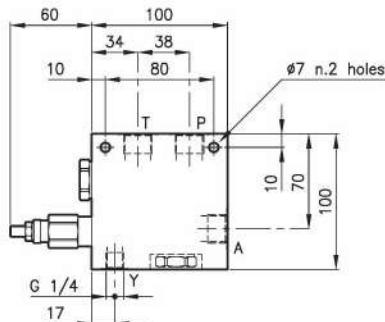
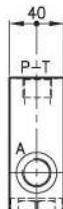
Technical features

They are used to unload an pump once a certain pressure has been reached in the main circuit.

They are either used on accumulator circuit unload the pump when the accumulator charge pressure has been reached or in a two pump circuit to unload the low pressure pump.



Valves	(For features see catalogue 04.075)	LCS 20
	(For features see catalogue 11.010)	ELP 30/P1
	(For features see catalogue 05.060)	CAE 30/P
Max. flow	(l/min.)	60
Max. pressure in P	(bar)	315
Max. pressure on A	(bar)	420
Differential area	%	88 ± 1.5 %
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.500
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****DPA 30/D-N-B08**

Valve type _____

Codes:

DPA 30/D-N-B06 31 011 231
DPA 30/Q-N-B06 31 011 232

Standard springs (LCS 20)

Type Setting range

D = 10 - 210 bar

DPA 30/D-N-B08 31 011 234
DPA 30/Q-N-B08 31 011 235

Q = 70 - 315 bar

Adjustment type

N = Standard adjustment

Only body codes:

Body type 30-DPA-B06 38 144 178
Body type 30-DPA-B08 38 144 179

Standard ports

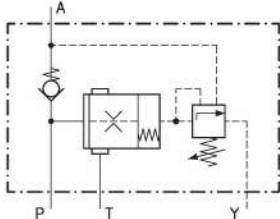
B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Technical features

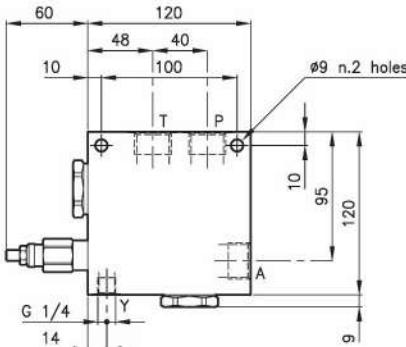
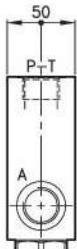
They are used to unload an pump once a certain pressure has been reached in the main circuit.

They are either used on accumulator circuit unload the pump when the accumulator charge pressure has been reached or in a two pump circuit to unload the low pressure pump.



Valves	(For features see catalogue 04.075)	LCS 20
	(For features see catalogue 11.020)	ELP 50/P1
	(For features see catalogue 05.070)	CAE 50/P
Max. flow	(l/min.)	135
Max. pressure in P	(bar)	315
Max. pressure on A	(bar)	420
Differential area	%	88 ± 1.5 %
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	2.650
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

DPA 50/D-N-B12

Valve type

Standard springs (LCS 20)

Type Setting range

D = 10 - 210 bar

Q = 70 - 315 bar

Adjustment type

N = Standard adjustment

Standard ports

B08 = G 1/2 ISO 228

B12 = G 3/4 ISO 228

Codes:

DPA 50/D-N-B08 51 011 153

DPA 50/Q-N-B08 51 011 154

DPA 50/D-N-B12 51 011 156

DPA 50/Q-N-B12 51 011 157

Only body codes:

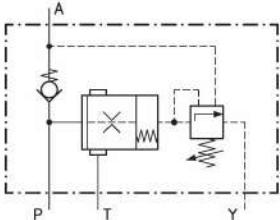
Body type 50-DPA-B08 58 144 136

Body type 50-DPA-B12 58 144 137

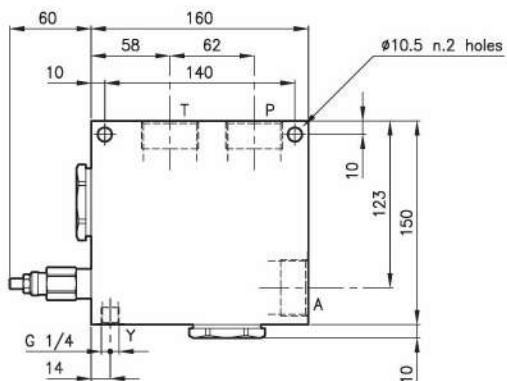
Technical features

They are used to unload an pump once a certain pressure has been reached in the main circuit.

They are either used on accumulator circuit unload the pump when the accumulator charge pressure has been reached or in a two pump circuit to unload the low pressure pump.



Valves	(For features see catalogue 04.075)	LCS 20
	(For features see catalogue 11.030)	ELP 70/P1
	(For features see catalogue 05.080)	CAE 70/P
Max. flow	(l/min.)	300
Max. pressure in P	(bar)	210
Max. pressure on A	(bar)	420
Differential area	%	88 ± 1.5 %
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	5.330
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****DPA 70/D-N-B20**

Valve type

Standard springs (LCS 20)

Type Setting range

D = 10 - 210 bar

Q = 70 - 315 bar

Adjustment type

N = Standard adjustment

Standard ports

B16 = G 1 ISO 228

B20 = G 1.1/4 ISO 228

Codes:

DPA 70/D-N-B16 71 011 155
DPA 70/Q-N-B16 71 011 156DPA 70/D-N-B20 71 011 158
DPA 70/Q-N-B20 71 011 159

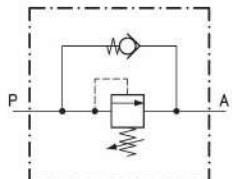
Only body codes:

Body type 70-DPA-B16 78 144 118
Body type 70-DPA-B20 78 144 119

Technical features

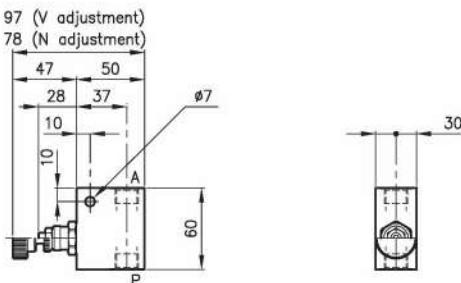
The main valve keeps closed till reaching set pressure, as this value gets over the valve opens and feeds the secondary circuit. The pressure required from secondary circuit adds to the setting pressure.

The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 02.030)	LPS 20/20
	(For features see catalogue 05.005)	CB 20
Max. flow	(l/min.)	12
Max. pressure in P	(bar)	420
Max. pressure on A	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.330
Cracking pressure 95% of setting value		
Reseat pressure 90% of setting value		
Cracking pressure defined with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPS 20/20-D-N-CSL 10-B06

Valve type

Standard springs

Type Setting range

D = 7 – 210 bar

Q = 105 – 420 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard ports

B06 = G 3/8 ISO 228

Codes:

LPS 20/20-D-N-CSL 10-B06 21 011 177

LPS 20/20-Q-N-CSL 10-B06 21 011 178

LPS 20/20-D-V-CSL 10-B06 21 011 179

LPS 20/20-Q-V-CSL 10-B06 21 011 180

Only body code:

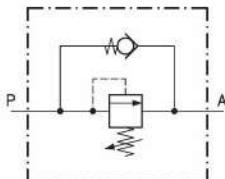
Body type 20-CSL 10-B06 28 144 116



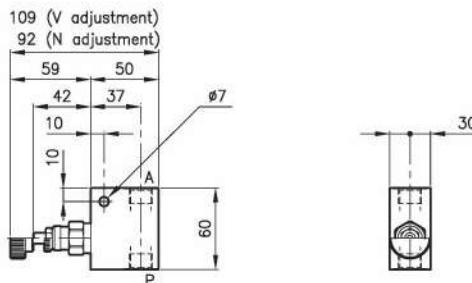
Technical features

The main valve keeps closed till reaching set pressure, as this value gets over the valve opens and feeds the secondary circuit. The pressure required from secondary circuit add to the setting pressure.

The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 02.060)	LPA 20
	(For features see catalogue 05.005)	CB 20
Max. flow	(l/min.)	20
Max. pressure in P	(bar)	350
Max. pressure on A	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.380
Cracking pressure 90% of setting value		
Reseat pressure 80% of setting value		
Cracking pressure defined with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPA 20/D-N-CSL 10-B06**

Valve type _____

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version _____

Standard ports

B06 = G 3/8 ISO 228

Codes:

LPA 20/U-N-CSL 10-B06 21 011 171

LPA 20/D-N-CSL 10-B06 21 011 172

LPA 20/T-N-CSL 10-B06 21 011 173

LPA 20/U-V-CSL 10-B06 21 011 174

LPA 20/D-V-CSL 10-B06 21 011 175

LPA 20/T-V-CSL 10-B06 21 011 176

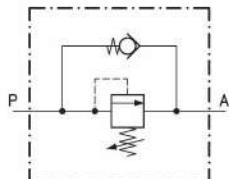
Only body code:

Body type 20-CSL 10-B06 28 144 116

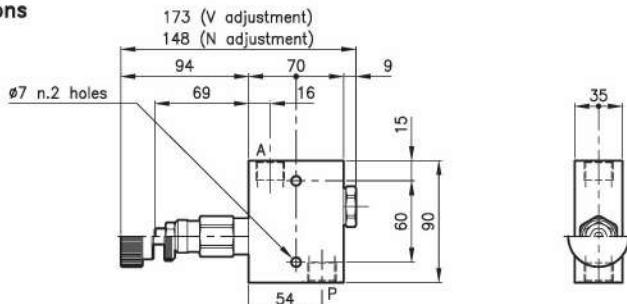
Technical features

The main valve keeps closed till reaching set pressure, as this value gets over the valve opens and feeds the secondary circuit. The pressure required from secondary circuit adds to the setting pressure.

The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 02.070)	LPA 30
	(For features see catalogue 05.050)	CAE 30/P
Max. flow	(l/min.)	50
Max. pressure in P	(bar)	350
Max. pressure on A	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.990
Cracking pressure 90% of setting value		
Reseat pressure 80% of setting value		
Cracking pressure defined with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPA 30/D-N-CSL 10-B08**

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar**D** = 70 - 210 bar**T** = 140 - 350 bar

Adjustment type

N = Standard adjustment**V** = Handknob adjustment

Version

Standard ports

B06 = G 3/8 ISO 228**B08** = G 1/2 ISO 228

Codes:

LPA 30/U-N-CSL 10-B06 31 011 171

LPA 30/D-N-CSL 10-B06 31 011 172

LPA 30/T-N-CSL 10-B06 31 011 173

LPA 30/U-V-CSL 10-B06 31 011 174

LPA 30/D-V-CSL 10-B06 31 011 175

LPA 30/T-V-CSL 10-B06 31 011 176

LPA 30/U-N-CSL 10-B08 31 011 177

LPA 30/D-N-CSL 10-B08 31 011 178

LPA 30/T-N-CSL 10-B08 31 011 179

LPA 30/U-V-CSL 10-B08 31 011 180

LPA 30/D-V-CSL 10-B08 31 011 181

LPA 30/T-V-CSL 10-B08 31 011 182

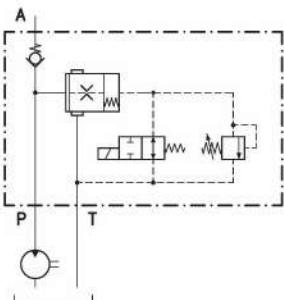
Only body codes:

Body type 30-CSL 10-B06 38 144 127

Body type 30-CSL 10-B08 38 144 128

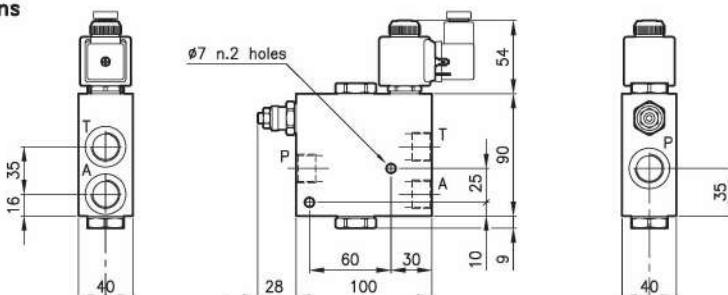
Technical features

They are used to unload a pump once a certain pressure has been reached or electrically.



Valves	(For features see catalogue 02.030)	LPS 20/20
	(For features see catalogue 11.010)	ELP 30/P1
	(For features see catalogue 05.060)	CAE 30/P
	(For features see catalogue 09.010)	ETD 20/2201
Max. flow	(l/min.)	60
Max. pressure in P	(bar)	420
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.500
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration;	19/15 ISO 4466 (25 µ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

DPE 30/D-N-12C-18H-HA-B08

Valve type

Standard ports

Standard springs (LPS 20/20)

B08 = G 1/2 ISO 228

Type Setting range

Connector DIN 43650

D = 7 - 210 bar

HA = standard for coils C

Q = 105 - 420 bar

HR = rectifier for coils A

Adjustment type

Coil type

N = Standard adjustment

18H = standard 18 Watt

V = Handknob adjustment



Voltage

12C = 12 Volt DC

Only body code:

24C = 24 Volt DC

Body type 30-DPE-B08

38 144 206

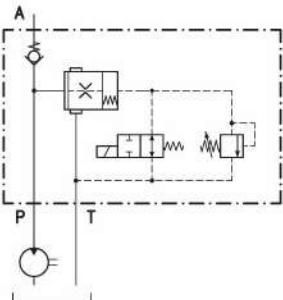
24A = 24 Volt 50/60 Hz

110A = 110 Volt 50/60 Hz

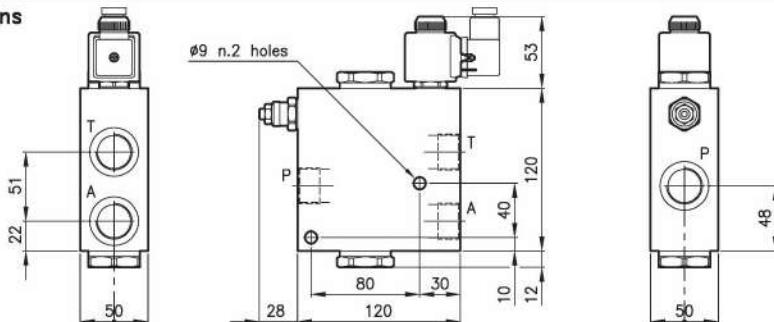
220A = 220 Volt 50/60 Hz

Technical features

They are used to unload an pump once a certain pressure has been reached or electrically.



Valves	(For features see catalogue 02.030)	LPS 20/20
	(For features see catalogue 11.020)	ELP 50/P1
	(For features see catalogue 05.070)	CAE 50/P
	(For features see catalogue 09.010)	ETD 20/2201
Max. flow	(l/min.)	135
Max. pressure in P	(bar)	420
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	2.750
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****DPE 50/D-N-12C-18H-HA-B12**

Valve type

Standard springs (LPS 20/20)

Type Setting range

D = 7 - 210 bar

Q = 105 - 420 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Voltage

12C = 12 Volt DC

24C = 24 Volt DC

24A = 24 Volt 50/60 Hz

110A = 110 Volt 50/60 Hz

220A = 220 Volt 50/60 Hz

Standard ports

B12 = G 3/4 ISO 228

Connector DIN 43650

HA = standard for coils C

HR = rectifier for coils A

Coil type

18H = standard 18 Watt

Only body code:

Body type 50-DPE-B12 58 144 146

ALPHABETIC INDEX AND VALVE CODES

INFORMATIONS

PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

ACCESSORIES

SCHEDULES

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Check valves.

The check valves are available into two different executions: ball-type and poppet-type.

The first one is an unexpensive version suitable for light uses, while the second one version with pilot piston offers larger lasting and good oiltight guarantee.

05

Main features

Type Q max. (l/min.) P max. (bar) Technical schedule

CB series - ball-type.

They are little check valves, suitable for easy execution of cavity setting. They have a very good oiltight and are mainly used in pilot systems and hydraulic installations with narrow flows.

B → F

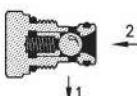


CB 20/D05 20 350 05.005

CAB series - guided ball-type.

They have a very good oiltight, are used as by-pass, anti-cavitation valves, on pump's turn or as check valves in circuits with average pressure and for duty-cycle work.

1 → WO 2



CAB 10 2 210 05.008

CAB 20 25 210 05.010

CAB 30 40 210 05.020

CAE series - guided conical poppet-type.

They have a very good oiltight, ideal solution for a continuous service with frequent flows reverse, high pressures and low pressure drop.

1 → WO 2



CAE 20 35 420 05.050

CAE 30 60 420 05.060

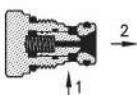
CAE 50 135 420 05.070

CAE 70 300 420 05.080

EAC series - guided conical poppet-type.

They have a very good oiltight, ideal solution for a continuous service with frequent flows reverse, high pressures and low pressure drop.

2 → WO 1



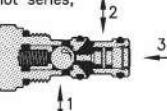
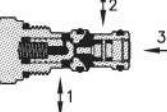
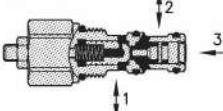
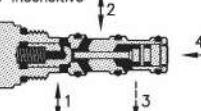
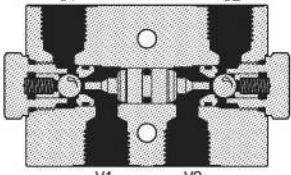
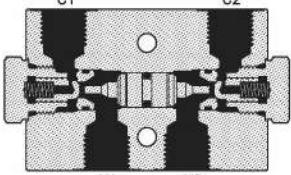
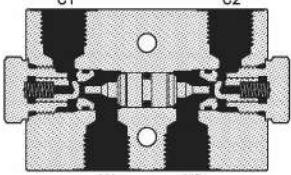
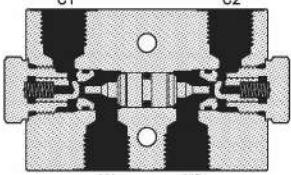
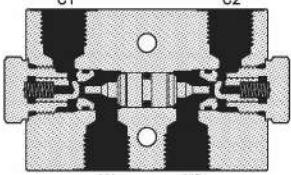
EAC 30 60 420 05.065

Pilot check valves.

The directional pilot poppet-type valves are available into two executions: poppet-type and ball-type.

On piloting piston of every valves there is a seal which can be removed by request.

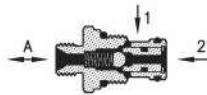
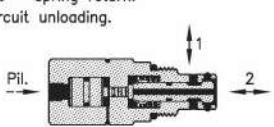
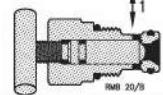
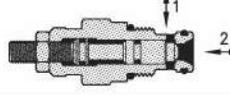
For pilot ratios and pressure drop see technical detailed schedules.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
CAT pilot series - guided ball-type. They are the most unexpensive version of pilot series; as the CAB series are to be utilized in applications with overage pressure and for duty-cycle work.	CAT 20	20	210	05.090
				
CAP pilot series - guided conical poppet-type. Reccomended version for heavy applications and high pressure; they have good performances and long life.	CAP 20	30	350	05.100
				
CAP pilot series - with stroke limiting to open. They allow to limiting poppet stroke to open.	CAP 20/L	30	350	05.140
				
CDP vented pilot check valve are made insensitive at back pressure between the check port and any downstream restrictions by sealing the poppet and adding a drain port.	CDP 30	50	350	05.150
				
CAB ..-CSL 57 series - guided ball-type. They have a very good oiltight but limited performances; are used in average pressure circuits and for light duty-cycle work, the body valve is realized in aluminium alloy.	CAB 20/CSL 57	20	210	05.200
				
CAB ..-CSL 57 series - guided conical poppet-type.	CAB 30/CSL 57	35	210	05.210
				
CAE ..-CSL 57 series - guided conical poppet-type. They have a very good oiltight, ideal for continuous work with frequent flow reverse and high pressures.	CAE 20/CSL 57	30	350	05.220
				
CAE ..-CSL 57 series - guided conical poppet-type.	CAE 30/CSL 57	50	350	05.230
				
CAE ..-CSL 57 series - guided conical poppet-type.	CAE 50/CSL 57	100	350	05.240
				

Shuttle valves.

The shuttle valves are available in different executions and accomplish many cyclical functions.

The guided ball or poppet type guarantees a perfect oiltight; these valves are used in piloting distributors and valves' systems, in hydraulic brakes automatic release system and in unit power.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
CCI series – guided ball-type. They are shuttle valves with two way-in and one way-out. The high pressure way-in is always automatically connected with the way-out, while the second way-in keeps tight closed.	CCI 20	25	350	05.300
		50	350	05.310
CCE series – guided conical poppet-type. They have a very good oiltight, ideal for hydraulic brakes control. The return line of port A always happens through line 1.	CCE 20	16	210	05.320
				
CDE series – guided poppet-type. The shuttle valves and the unloading valves are a very simplified version of directional automatic valve. The inlet flow happens through chamber 2 and flow is automatically sent to port A; when the flow from chamber 2 stops there is the commutation and the return line of port A happens through line 1.	CDE 20	16	210	05.330
				
CPA series – pilot to closed, guided conical poppet-type. They are pilot to closed check valves normally open in one direction; they close when enough pressure is applied on piloting line.	CPA 30	50	350	05.350
				
OCD 32/2202 pneumatic pilot – spring return. Directional valves poppet-type for circuit unloading.	OCD 20/2202-PN	25	315	05.380
	OCD 20/2202-PN7	25	315	05.385
RMB series. They are manual valves total shut off with conical seat. Also available with handknob control, can be used as choker when a fine regulation is not required. The flow direction is indifferent. (RMB 20/B – Guided ball-type – External parts in stainless steel and brass).	RMB 20/B	50	315	05.515
	RMB 20	50	315	05.520
	RMB 30	100	315	05.530

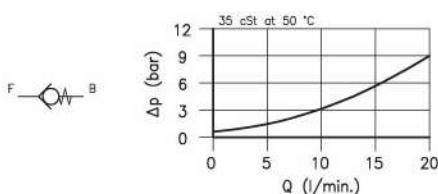
Directional spool-type valves.

They are spool-type valves thought of to change over automatically the flow direction in relation to piloting. Available in two different executions they satisfy many needs simplifying the hydraulic circuits realization.

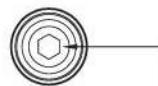
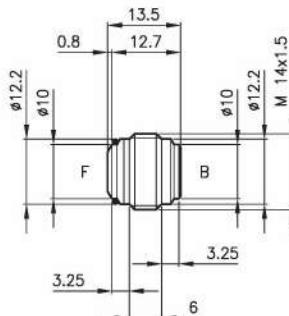
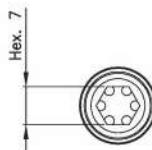
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
VDT .. /3203 series. They are a fixed setting version typically used for regenerative circuits realization or as automatic selector valve combined with solenoid poppet-type valves for single acting cylinders control.	VDT 20/3203	25	350	05.600
	VDT 30/3203	50	350	05.610
	VDT 50/3203	100	350	05.620
VDT 20/3203-IB series. They are a version which contemplates the regulation for pressure setting.	VDT 20/3203	25	350	05.601 05.605
VDT .. /3306 series. Shuttle valves for hydrostatic transmissions in closed circuits.	VDT 30/3306	40	420	05.650
VDT .. /32.. series – normally open or closed. Hydraulic pilot directional valves adjusting through a connected atmospherical pressure spring, indifferent to circuit's pressure.	VDT 20/3201	25	350	05.670
	VDT 30/3201	50	350	05.690
	VDT 20/3202	25	350	05.670
	VDT 30/3202	50	350	05.690
VDT .. /4203 series – shuttle valves. Hydraulic pilot directional valves adjusting through a connected atmospherical pressure spring, indifferent to circuit's pressure.	VDT 20/4203	25	350	05.740
	VDT 30/4203	50	350	05.750

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
VDT .. /42.. series. Directional shuttle valves with external hydraulic pilot. (4211 - regenerative circuit).	VDT 20/4205 VDT 30/4205 VDT 20/4211 VDT 30/4211	20 40 20 40	350 350 350 350	05.780 05.790 05.780 05.790
VDT 50/4205 series. Directional shuttle valves with external pneumatic pilot.	VDT 50/ 4205-PN	80	315	05.798
VDT .. /22..-PS series. Manual directional control valves.	VDT 20/ 2201-PS VDT 30/ 2201-PS VDT 20/ 2202-PS VDT 30/ 2202-PS	20 40 20 40	350 350 350 350	05.800 05.802 05.800 05.802
VDT .. /3204-PS series. Manual directional control valves for pressure gauge.	VDT 20/ 3204-PS	20	350	05.810
VDT .. /4205-PS series. Manual directional control valves.	VDT 30/ 4205-PS	30	350	05.830
MTV series. Directional shuttle valves with external hydraulic pilots.	MTV 30	50	350	05.900

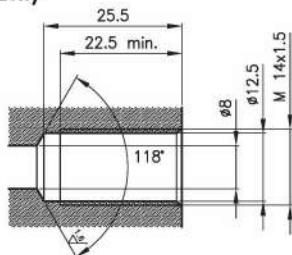
Many other circuits are available on request.

Technical features

Cavity	(For dimensions see underlying space)	M 14x1.5
Nominal flow	(l/min.)	18
Max. pressure	(bar)	350
Cracking pressure	(bar)	1
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.010
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Buna N		

Dimensions

Don't use this hexagon
for assembly

Cavity

Torque 10 Nm

Ordering informations

CB 20/D05-P

CB 20 = Valve type



Codes:

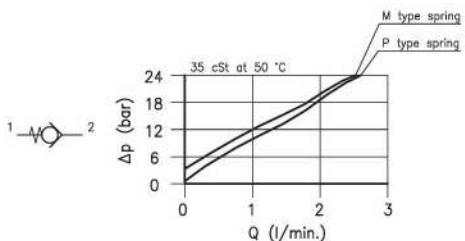
CB 20/D05-P 27 011 100

External O-Ring 90 607 107

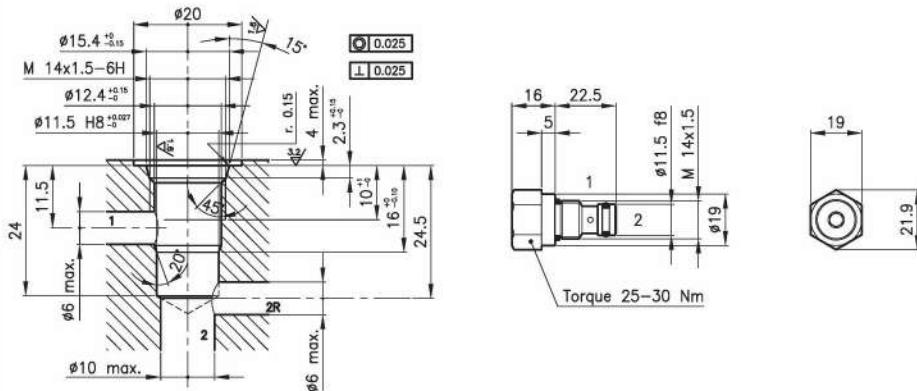
D05 = M 14x1.5

Standard spring

P = 1 bar

Technical features

Nominal flow	(l/min.)	2
Max. pressure	(bar)	210
Cracking pressure	(bar)	0.3-3
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.045
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAB 10/P-1**

CAB 10 = Valve type



Standard springs

P = 0.3 bar

M = 3 bar

1 = Hole ø1 mm

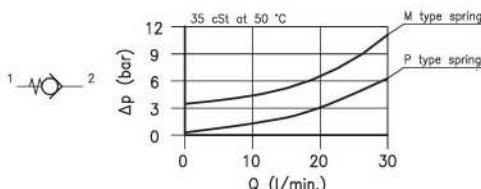
Codes:

CAB 10/P-1 12 011 100

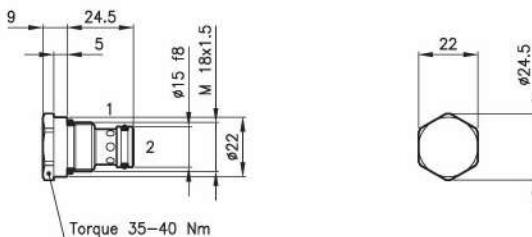
CAB 10/M-1 12 011 101

External seals kit 90 620 121

CAB 10 valves can be assembled on standard bodies 10-L0 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	25
Max. pressure	(bar)	210
Cracking pressure	(bar)	0.35-3.5
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.050
Hydraulic fluid; mineral oil HM and HV		ISO 6074
Recommended filtration; 19/15 ISO 4466	(25 μ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAB 20/M**

CAB 20 = Valve type



Codes:

CAB 20/P 22 011 100

CAB 20/M 22 011 101

External seals kit 90 620 100

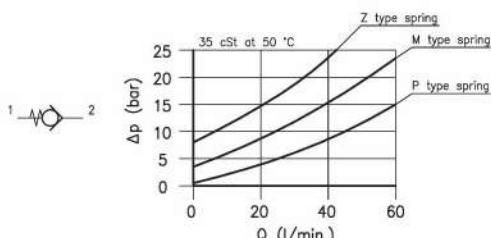
Standard springs

P = 0.35 bar

M = 3.5 bar

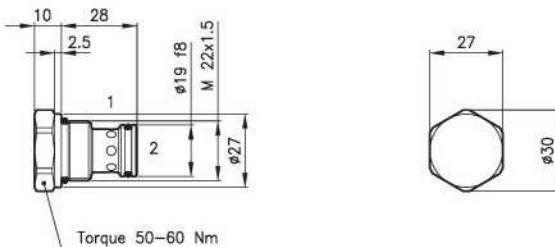
CAB 20 valves can be assembled
on standard bodies 20-LO series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Nominal flow	(l/min.)	40
Max. pressure	(bar)	210
Cracking pressure	(bar)	0.35-3.5-8
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.090
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAB 30/M

CAB 30 = Valve type



Standard springs

P = 0.35 bar

M = 3.5 bar

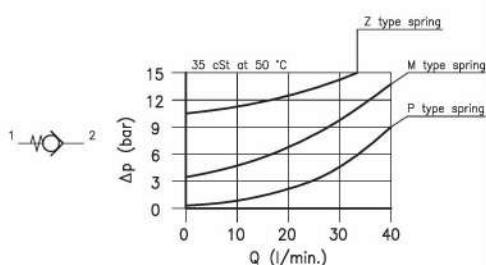
Z = 8 bar

Codes:

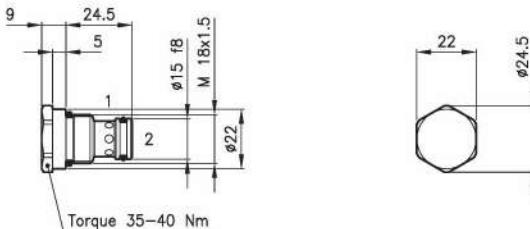
CAB 30/P	32 011 100
CAB 30/M	32 011 101
CAB 30/Z	32 011 123

External seals kit 90 620 103

CAB 30 valves can be assembled
on standard bodies 30-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	35
Max. pressure	(bar)	420
Cracking pressure	(bar)	0.35–3.5–11
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.055
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAE 20/P**

CAE 20 = Valve type



Standard springs

P = 0.35 bar

M = 3.5 bar

Z = 11 bar

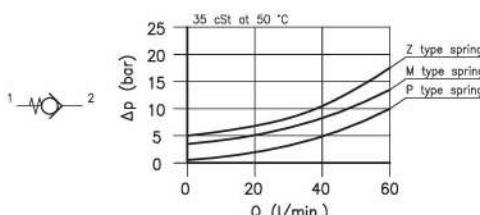
Codes:

CAE 20/P	22 011 106
CAE 20/M	22 011 107
CAE 20/Z	22 011 164

External seals kit 90 620 100

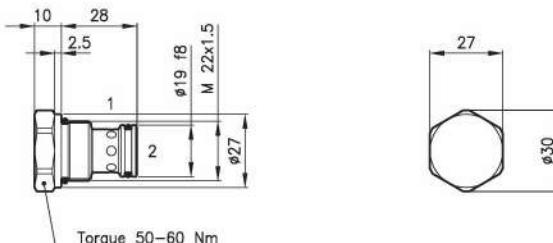
CAE 20 valves can be assembled
on standard bodies 20-LO series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Nominal flow	(l/min.)	60
Max. pressure	(bar)	420
Cracking pressure	(bar)	0.35-3.5-5
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.100
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAE 30/P

CAE 30 = Valve type



Standard springs

P = 0.35 bar

M = 3.5 bar

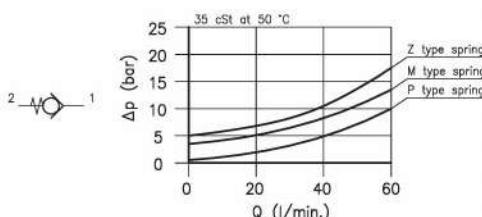
Z = 5 bar

Codes:

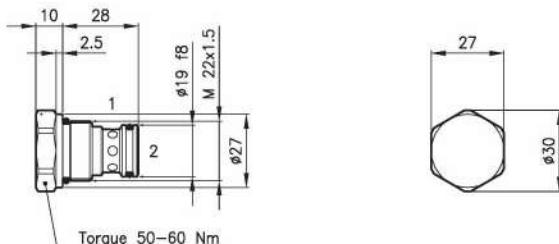
CAE 30/P	32 011 102
CAE 30/M	32 011 103
CAE 30/Z	32 011 158

External seals kit 90 620 103

CAE 30 valves can be assembled on standard bodies 30-L0 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Nominal flow	(l/min.)	60
Max. pressure	(bar)	420
Cracking pressure	(bar)	0.35–3.5–5
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.100
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 μ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****EAC 30/P**

EAC 30 = Valve type



Standard springs

P = 0.35 bar

M = 3.5 bar

Z = 5 bar

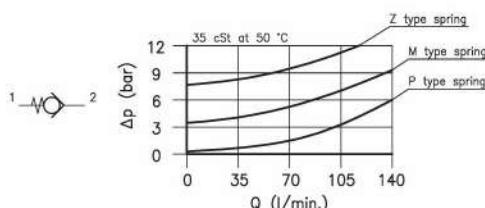
Codes:

EAC 30/P	32 011 176
EAC 30/M	32 011 177
EAC 30/Z	32 011 178

External seals kit 90 620 103

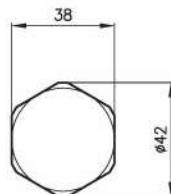
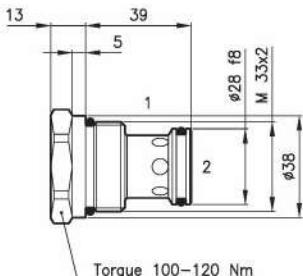
EAC 30 valves can be assembled
on standard bodies 30-LO series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 50/2
Nominal flow	(l/min.)	135
Max. pressure	(bar)	420
Cracking pressure	(bar)	0.35–3.5–8
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.230
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAE 50/P

CAE 50 = Valve type



Standard springs

P = 0.35 bar

M = 3.5 bar

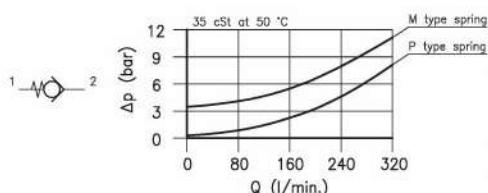
Z = 8 bar

Codes:

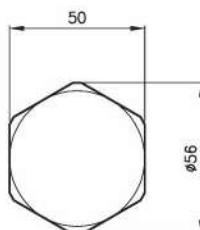
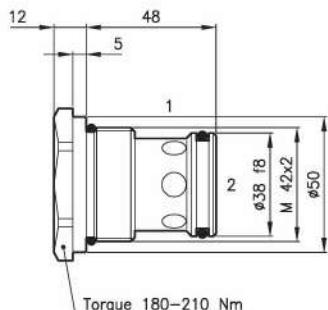
CAE 50/P	52 011 100
CAE 50/M	52 011 101
CAE 50/Z	52 011 116

External seals kit 90 620 106

CAE 50 valves can be assembled
on standard bodies 50-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 70/2
Nominal flow	(l/min.)	300
Max. pressure	(bar)	420
Cracking pressure	(bar)	0.35-3.5
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.480
Hydraulic fluid; mineral oil HM and HV		ISO 6074
Recommended filtration; 19/15 ISO 4466	(25 μ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAE 70/P**

CAE 70 = Valve type



Standard springs

P = 0.35 bar

M = 3.5 bar

Codes:

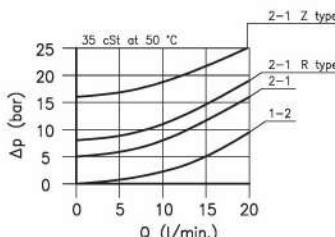
CAE 70/P 72 011 100

CAE 70/M 72 011 101

External seals kit 90 620 109

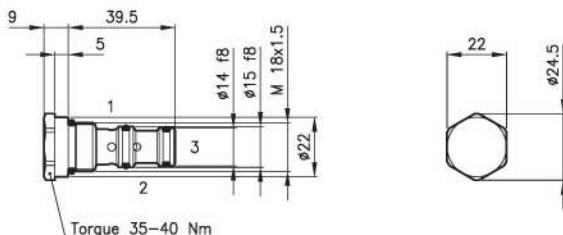
CAE 70 valves can be assembled on standard bodies 70-LO series; for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	15
Max. pressure	(bar)	210
Pilot ratio		2.5:1
Pilot volume	(cm ³)	0.05
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.060
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAT 20/M-S

CAT 20 = Valve type



Standard spring

M = 5 bar

R = 8 bar

Z = 17 bar

S = Without O-Ring on the pilot piston
(Omit in Standard version)

Codes:

CAT 20/M 22 011 120

CAT 20/M-S 22 011 121

CAT 20/R 22 011 168

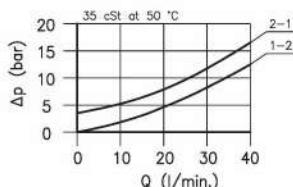
CAT 20/R-S 22 011 169

CAT 20/Z 22 011 161

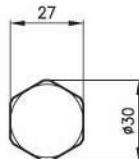
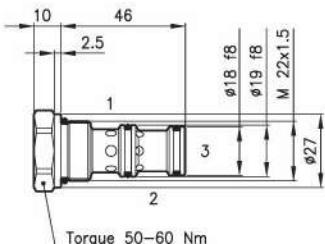
CAT 20/Z-S 22 011 162

External seals kit 90 620 101

CAT 20 valves can be assembled on standard bodies 20-C3 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	30
Max. pressure	(bar)	210
Pilot ratio		2.5:1
Pilot volume	(cm ³)	0.10
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.110
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAT 30/M-S****CAT 30** = Valve type

Standard spring

M = 3.5 bar**S** = Without O-Ring on the pilot piston
(Omit in Standard version)

Codes:

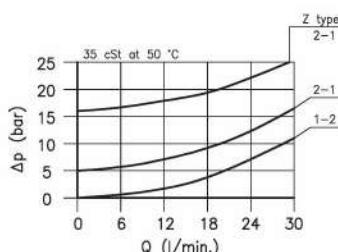
CAT 30/M 32 011 124

CAT 30/M-S 32 011 125

External seals kit 90 620 104

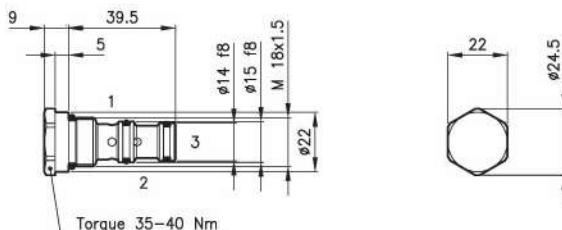
CAT 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	25
Max. pressure	(bar)	350
Pilot ratio		2.5:1
Pilot volume	(cm ³)	0.05
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.065
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAP 20/M-S

CAP 20 = Valve type



Standard spring

M = 5 bar

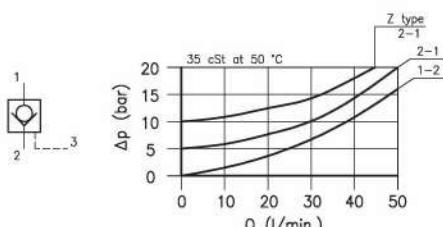
Z = 17 bar

S = Without O-Ring on the pilot piston
(Omit in Standard version)

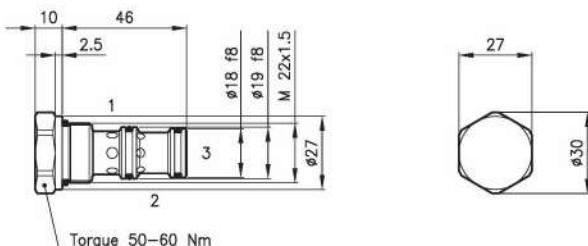
Codes:

CAP 20/M	22 011 104
CAP 20/M-S	22 011 105
CAP 20/Z	22 011 145
CAP 20/Z-S	22 011 163
External seals kit	90 620 101

CAP 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Pilot ratio		2.5:1
Pilot volume	(cm ³)	0.10
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAP 30/M-S****CAP 30** = Valve type

Standard spring

M = 5 bar**Z** = 10 bar**S** = Without O-Ring on the pilot piston
(Omit in Standard version)

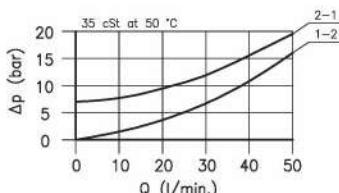
Codes:

CAP 30/M 32 011 104
CAP 30/M-S 32 011 105CAP 30/Z 32 011 146
CAP 30/Z-S 32 011 155

External seals kit 90 620 104

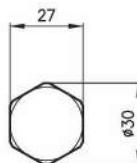
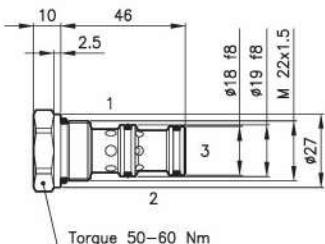
CAP 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Pilot ratio		3.4:1
Pilot volume	(cm ³)	0.10
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAP 30/M-3.4-S

CAP 30 = Valve type



Standard spring

M = 7 bar

3.4 = Pilot ratio 3.4:1

S = Without O-Ring on the pilot piston
(Omit in Standard version)

Codes:

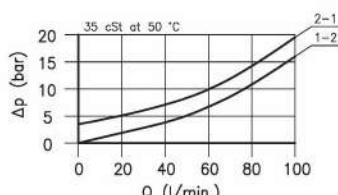
CAP 30/M-3.4 32 011 156

CAP 30/M-3.4-S 32 011 157

External seals kit 90 620 104

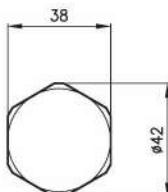
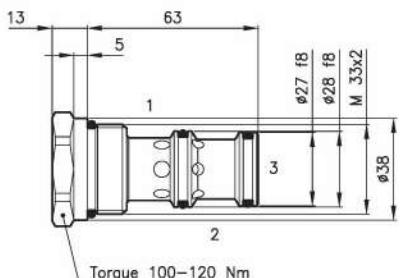
CAP 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 50/3
Nominal flow	(l/min.)	80
Max. pressure	(bar)	350
Pilot ratio		2.5:1
Pilot volume	(cm ³)	0.25
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.260
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAP 50/M-S

CAP 50 = Valve type



Standard spring

M = 3.5 bar

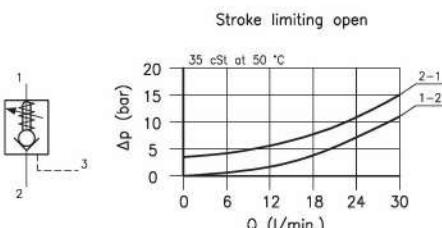
S = Without O-Ring on the pilot piston
(Omit in Standard version)

Codes:

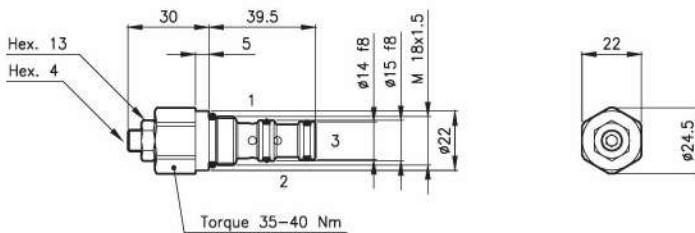
CAP 50/M 52 011 103
CAP 50/M-S 52 011 104

External seals kit 90 620 107

CAP 50 valves can be assembled
on standard bodies 50-C3 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	25
Max. pressure	(bar)	350
Pilot ratio		2.5:1
Pilot volume	(cm ³)	0.05
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.110
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAP 20/M-L-S**

CAP 20 = Valve type



Standard spring

M = 3.5 bar

L = Stroke limiting to open

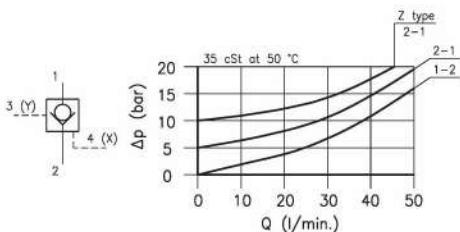
S = Without O-Ring on the pilot piston
(Omit in Standard version)

Codes:

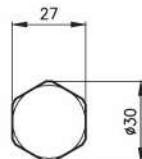
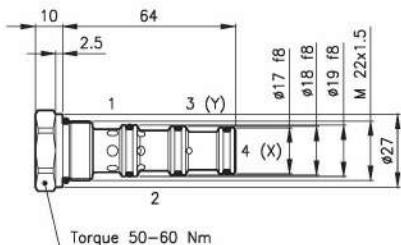
CAP 20/M-L 22 011 160
CAP 30/M-L-S 32 011 233

External seals kit 90 620 101

CAP 20 valves can be assembled
on standard bodies 20-C3 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/4
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Pilot ratio		2.5:1
Pilot volume	(cm ³)	0.10
Max. drain in 3 (Y)	(cm ³ /1)	15
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.130
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CDP 30/M-S**

CDP 30 = Valve type



Standard spring

M = 5 bar

Z = 10 bar

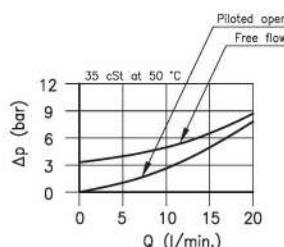
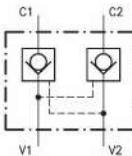
S = Without O-Ring on the pilot piston
(Omit in Standard version)

Codes:

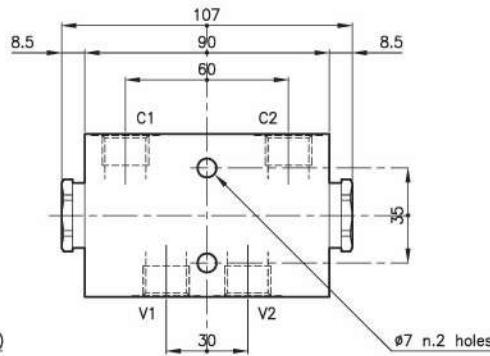
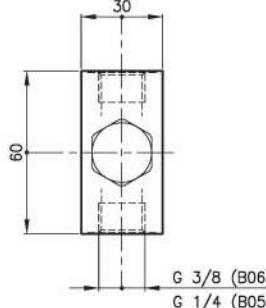
CDP 30/M 32 011 143
CDP 30/M-S 32 011 144CDP 30/Z 32 011 152
CDP 30/Z-S 32 011 231

External seals kit 90 620 105

CDP 30 valves can be assembled
on standard bodies 30-C4 series;
for dimensions see catalogue 16.011

Technical features

Valves	(For features see catalogue 05.010)	CAB 20/M
Nominal flow	(l/min.)	15
Max. pressure	(bar)	210
Pilot ratio		5:1
Pilot volume	(cm ³)	0.30
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.550
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAB 20/M-S-CSL 57-B06**

Valves type

Standard spring

M = 3.5 bar

S = Without O-Ring on
the pilot piston
(Omit in Standard version)

Version

Standard ports

B05 = G 1/4 ISO 228

B06 = G 3/8 ISO 228

Codes:

CAB 20/M-CSL 57-B05 22 011 124

CAB 20/M-CSL 57-B06 22 011 125

CAB 20/M-S-CSL 57-B05 22 011 126

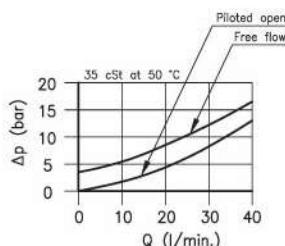
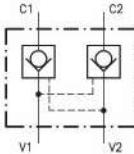
CAB 20/M-S-CSL 57-B06 22 011 127

Only body codes:

Body type 20-CSL 57-B05 28 144 112

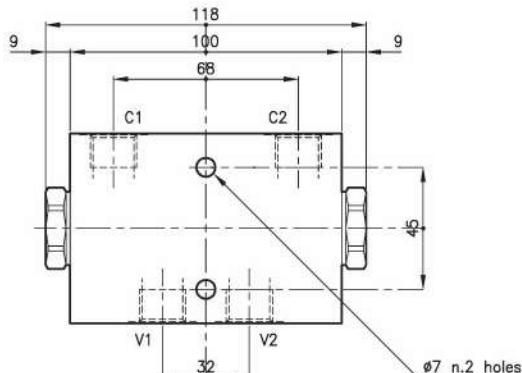
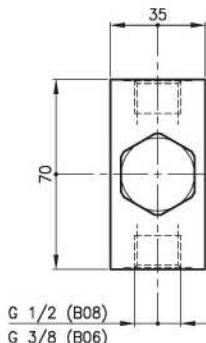
Body type 20-CSL 57-B06 28 144 113

Technical features



Valves	(For features see catalogue 05.020)	CAB 30/M
Nominal flow	(l/min.)	30
Max. pressure	(bar)	210
Pilot ratio		5:1
Pilot volume	(cm ³)	0.80
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.870
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAB 30/M-S-CSL 57-B08

Valves type

Standard spring

M = 3.5 bar

S = Without O-Ring on
the pilot piston
(Omit in Standard version)

Version

Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Codes:

CAB 30/M-CSL 57-B06 32 011 130

CAB 30/M-CSL 57-B08 32 011 131

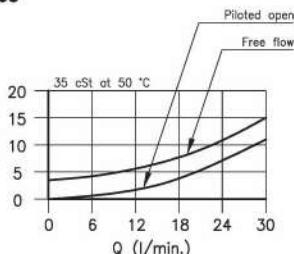
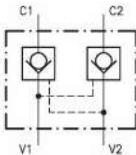
CAB 30/M-S-CSL 57-B06 32 011 132

CAB 30/M-S-CSL 57-B08 32 011 133

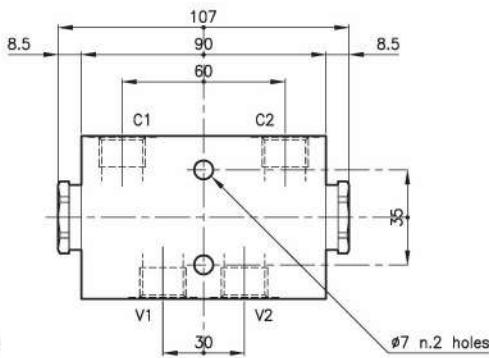
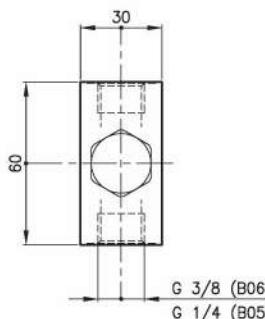
Only body codes:

Body type 30-CSL 57-B06 38 144 106

Body type 30-CSL 57-B08 38 144 107

Technical features

Valves	(For features see catalogue 05.050)	CAE 20/M
Nominal flow	(l/min.)	25
Max. pressure	(bar)	350
Pilot ratio		5:1
Pilot volume	(cm ³)	0.30
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.370
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAE 20/M-S-CSL 57-B06**

Valves type

Standard spring

M = 3.5 bar

S = Without O-Ring on
the pilot piston
(Omit in Standard version)

Version

Standard ports

B05 = G 1/4 ISO 228

B06 = G 3/8 ISO 228

Codes:

CAE 20/M-CSL 57-B05 22 011 118

CAE 20/M-CSL 57-B06 22 011 119

CAE 20/M-S-CSL 57-B05 22 011 122

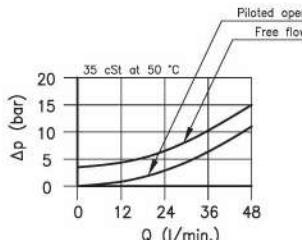
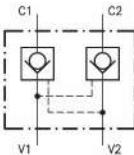
CAE 20/M-S-CSL 57-B06 22 011 123

Only body codes:

Body type 20-CSL 57-B05/FE 28 144 125

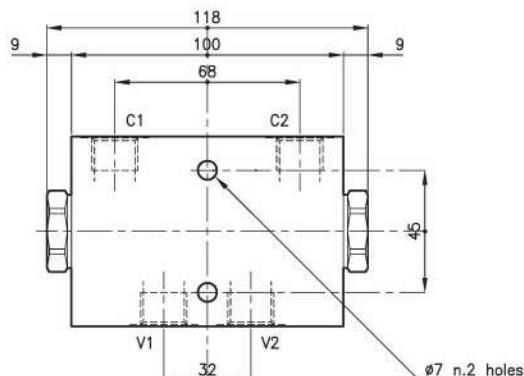
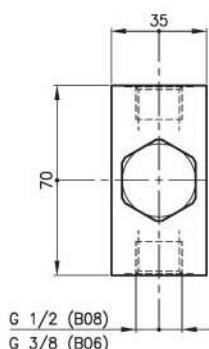
Body type 20-CSL 57-B06/FE 28 144 126

Technical features



Valves	(For features see catalogue 05.060)	CAE 30/M
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Pilot ratio		5:1
Pilot volume	(cm ³)	0.80
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	2.100
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAE 30/M-S-CSL 57-B08

Valves type _____

Codes:

CAE 30/M-CSL 57-B06 32 011 126

CAE 30/M-CSL 57-B08 32 011 127

Standard spring

M = 3.5 bar

CAE 30/M-S-CSL 57-B06 32 011 128

CAE 30/M-S-CSL 57-B08 32 011 129

S = Without O-Ring on
the pilot piston
(Omit in Standard version)

Only body codes:

Body type 30-CSL 57-B06/FE 38 144 180

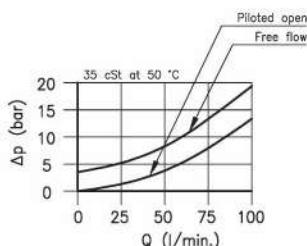
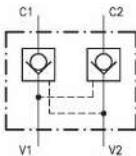
Body type 30-CSL 57-B08/FE 38 144 181

Version _____

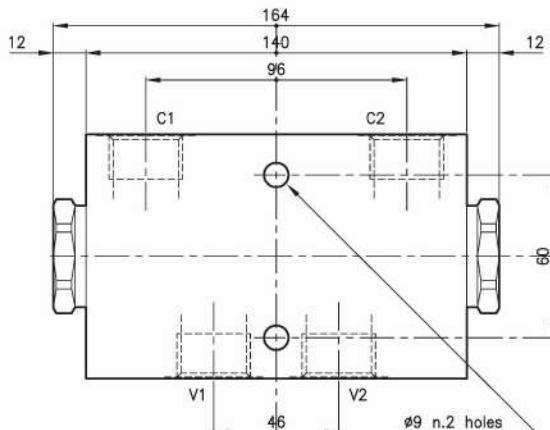
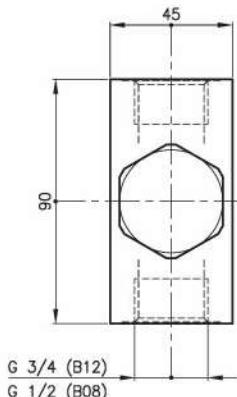
Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Technical features

Valves	(For features see catalogue 05.070)	CAE 50/M
Nominal flow	(l/min.)	80
Max. pressure	(bar)	350
Pilot ratio		5:1
Pilot volume	(cm ³)	1.60
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	4.880
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAE 50/M-S-CSL 57-B12**

Valves type

Codes:

Standard spring

CAE 50/M-CSL 57-B08

52 011 106

M = 3.5 bar

CAE 50/M-CSL 57-B12

52 011 107

S = Without O-Ring on
the pilot piston
(Omit in Standard version)

CAE 50/M-S-CSL 57-B08

52 011 108

CAE 50/M-S-CSL 57-B12

52 011 109

Version

Only body codes:

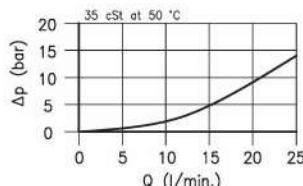
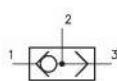
Standard ports

Body type 50-CSL 57-B08/FE 58 144 111

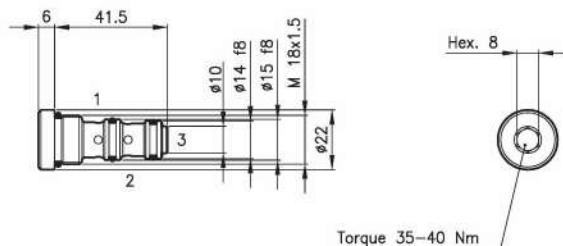
B08 = G 1/2 ISO 228

Body type 50-CSL 57-B12/FE 58 144 112

B12 = G 3/4 ISO 228

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.065
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CCI 20**

CCI 20 = Valve type

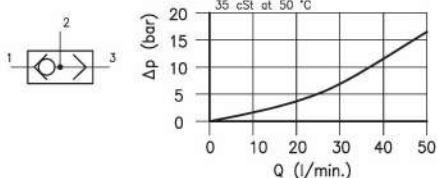


Codes:

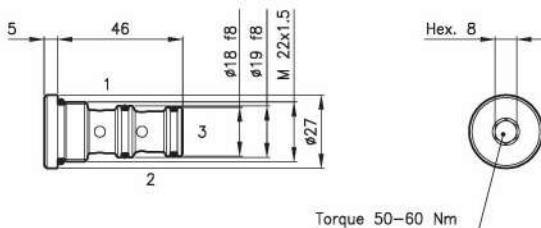
CCI 20 22 011 102

External seals kit 90 620 101

CCI 20 valves can be assembled
on standard bodies 20-C3 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**CCI 30

CCI 30 = Valve type

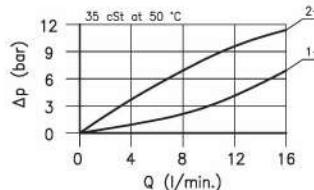
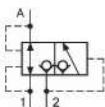


Codes:

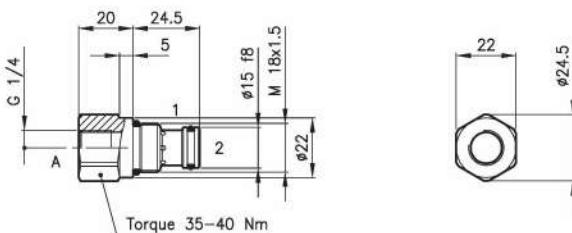
CCI 30 32 011 112

External seals kit 90 620 104

CCI 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	12
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.060
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CCE 20/B05**

CCE 20 = Valve type



Cartridge port

B05 = G 1/4 Standard

Codes:

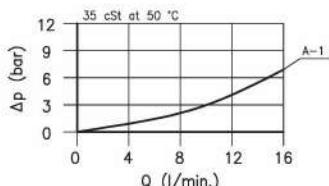
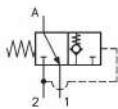
CCE 20/B05 22 011 103

External seals kit 90 620 100

CCE 20 valves can be assembled
on standard bodies 20-LO series;
for dimensions see catalogue 16.010

Technical features

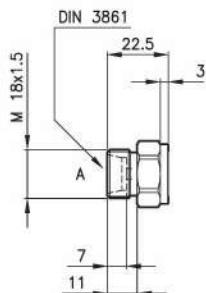
The inlet flow happens through chamber 2 and flow is automatically sent to port A; when the flow from chamber 2 stops there is the commutation and the return line of port A happens through line 1.



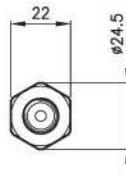
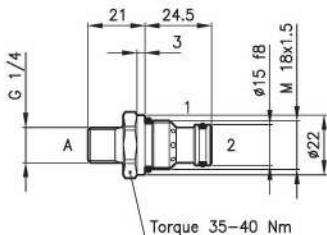
Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	12
Max. pressure	(bar)	210
Cracking pressure	(bar)	14
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.055
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 µ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions

D06-DIN3861



B05



Ordering informations

CDE 20/B05-M

CDE 20 = Valve type



Cartridge port

B05 = G 1/4 Standard

D06-DIN3861 = M 18x1.5 - DIN 3861

Standard spring

M = 14 bar

Codes:

CDE 20/B05-M 22 011 116

CDE 20/D06-DIN3861-M 22 011 184

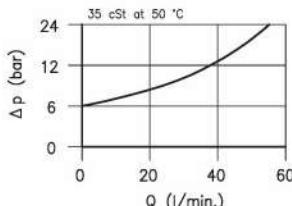
External seals kit 90 620 100

CCE 20 valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

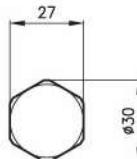
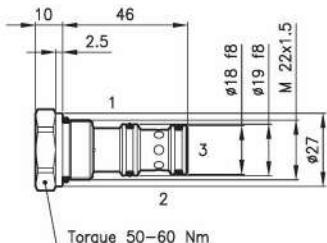
Technical features

The CPA 30 are pilot to closed check valves normally open in one direction; they close when enough pressure is applied on piloting line.

They are used as directional valves especially for regenerative circuit.



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Pilot ratio		1.9:1
Pilot volume	(cm ³)	0.28
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.130
O-Ring on pilot piston		
Hydraulic fluid; mineral oil HM and HV		ISO 6074
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CPA 30/Z**

CPA 30 = Valve type



Standard spring

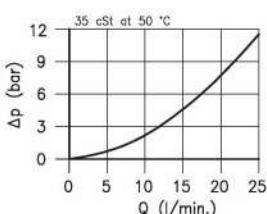
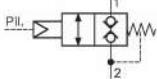
Z = 6 bar

Codes:

CPA 30/Z 32 011 122

External seals kit 90 620 104

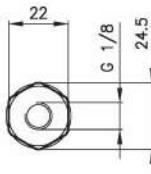
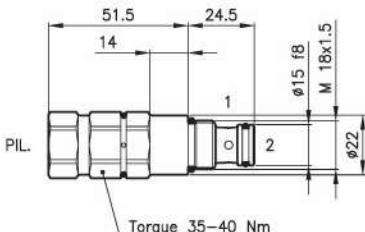
CPA 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	25
Max. pressure	(bar)	315
Pilot pressure (min.)	(bar)	2.5 - 4.5
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.170
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 μ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions

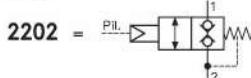
Pressure of chamber 2 influences the necessary pilot pressure for valve's drive (pilot ratio 3:1).

**Ordering informations****OCD 20/2202-PN**

OCD 20 = Valve type



Circuit



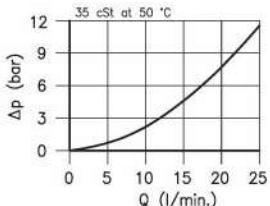
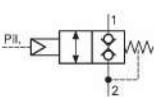
PNEUMATIC Pilot = 2.5 - 4.5 bar

Codes:

OCD 20/2202-PN 22 011 199

External seals kit 90 620 100

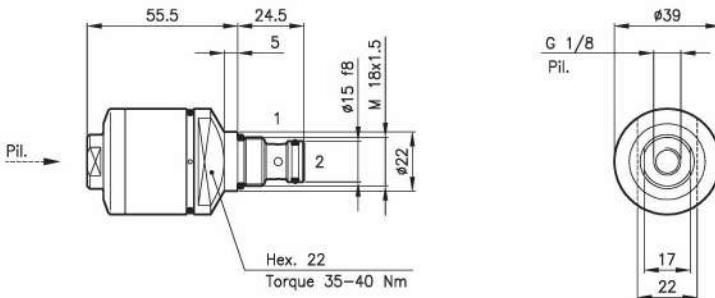
OCD 20/22.. valves can be assembled on standard bodies 20-L0 series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	25
Max. pressure way 1	(bar)	315
Max. pressure way 2	(bar)	50
Pilot pressure (min.)	(bar)	7
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.320
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

Pressure of chamber 2 influences the necessary pilot pressure for valve's drive (pilot ratio 20:1).

**Ordering informations****OCD 20/2202-PN7**

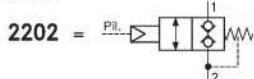
OCD 20 = Valve type



Codes:

OCD 20/2202-PN7 22 011 198

Circuit



PNEUMATIC Pilot = 7 bar

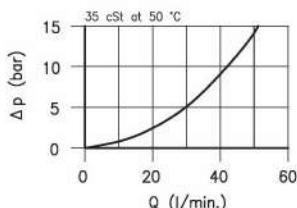
External seals kit 90 620 100

OCD 20/22.. valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

Technical features

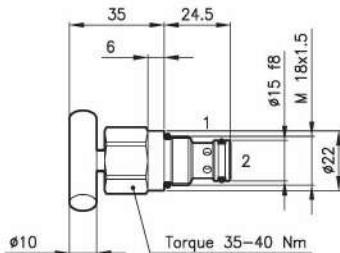
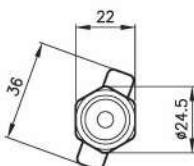
The RMB 20/B are manual valves total shut off – guided ball-type. They are normally used as interceptor or by-pass for manual override.

The flow direction is indifferent.



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	40
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.110
Leakage when closed	Total shut off	
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 μ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions



Handknob and screw adjustment realized in stainless steel.
External exagon realized in brass.

Ordering informations

RMB 20/B

RMB 20 = Valve type



Codes:

RMB 20/B 22 011 146

External seals kit 90 620 100

Adjustment type

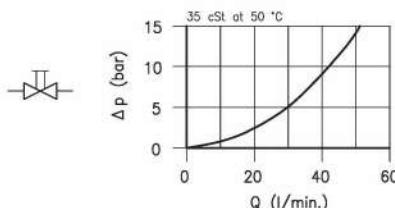


B = Handknob adjustment

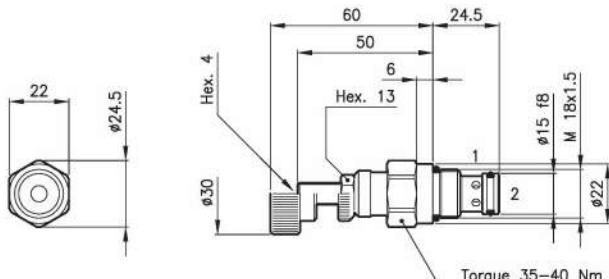
RMB 20/B valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

Technical features

The RMB 20 are manual valves total shut off with conical seat. They are normally used as interceptor or by-pass for manual override. The flow direction is indifferent.



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	40
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Leakage when closed	Total shut off	
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 µ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RMB 20/V**

RMB 20 = Valve type



Adjustment type

N = Standard adjustment



V = Handknob adjustment

Codes:

RMB 20/N 22 011 112

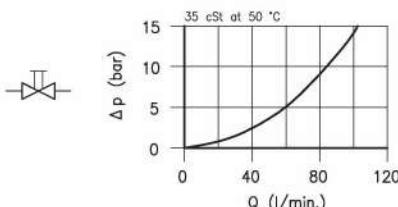
RMB 20/V 22 011 111

External seals kit 90 620 100

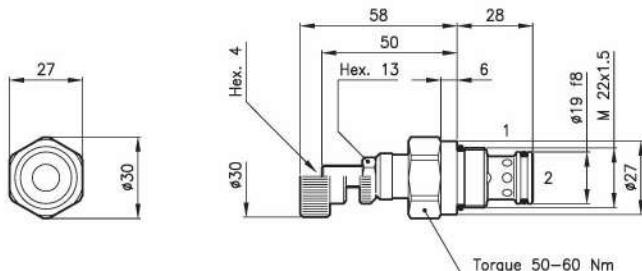
RMB 20 valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

Technical features

The RMB 30 are manual valves total shut off with conical seat. They are normally used as interceptor or by-pass for manual override. The flow direction is indifferent.



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Nominal flow	(l/min.)	70
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Leakage when closed		Total shut off
Hydraulic fluid; mineral oil HM and HV		ISO 6074
Recommended filtration; 19/15 ISO 4466		(25 µ absolutes)
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RMB 30/V**

RMB 30 = Valve type



Adjustment type

N = Standard adjustment



V = Handknob adjustment



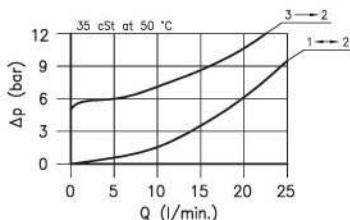
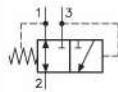
Codes:

RMB 30/N 32 011 141

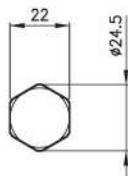
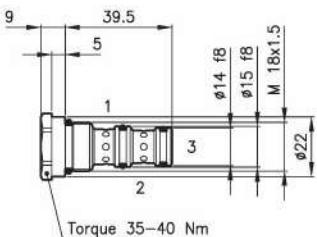
RMB 30/V 32 011 140

External seals kit 90 620 103

RMB 30 valves can be assembled
on standard bodies 30-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Activation spool pressure	(bar)	6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.060
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 µ absolutes)	
Standard seals in Polyurethane and Buna N		

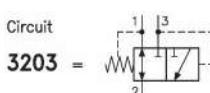
Dimensions**Ordering informations****VDT 20/3203**

VDT 20 = Valve type



Circuit

3203 =



Codes:

VDT 20/3203

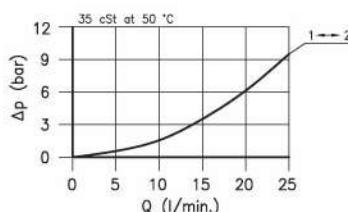
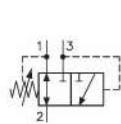
22 011 113

External seals kit

90 620 101

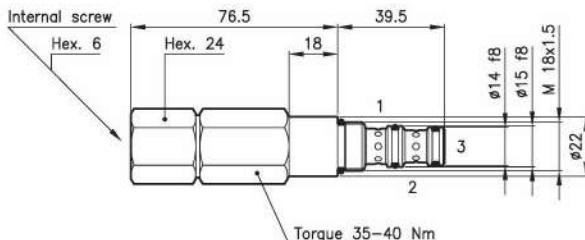
VDT 20 valves can be assembled
on standard bodies 20-C3 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.220
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



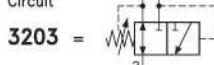
Ordering informations

VDT 20/3203-D-IB

VDT 20 = Valve type



Circuit



Standard springs

Type Setting range Factory set

U 20 - 50 bar 35 bar

D 35 - 105 bar 70 bar

T 70 - 175 bar 120 bar

Adjustment type

IB Special adjustment



Codes:

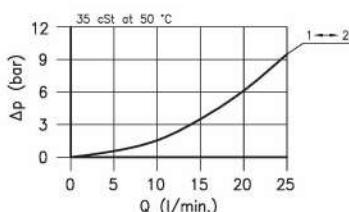
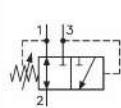
VDT 20/3203-U-IB 22 011 136

VDT 20/3203-D-IB 22 011 137

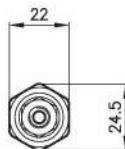
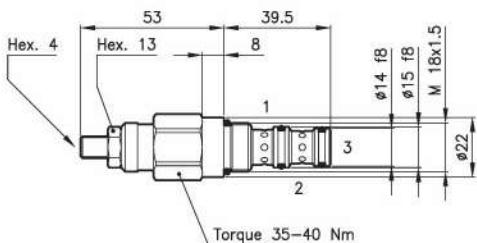
VDT 20/3203-T-IB 22 011 138

External seals kit 90 620 101

VDT 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

Technical features

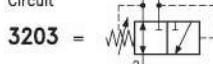
Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 20/3203-D-N**

VDT 20 = Valve type



Circuit



Standard springs

Type Setting range Factory set

U = 5 - 30 bar 20 bar

D = 14 - 60 bar 40 bar

T = 35 - 90 bar 60 bar

Q = 50 - 140 bar 100 bar

Codes:

VDT 20/3203-U-N 22 011 144

VDT 20/3203-D-N 22 011 151

VDT 20/3203-T-N 22 011 152

VDT 20/3203-Q-N 22 011 179

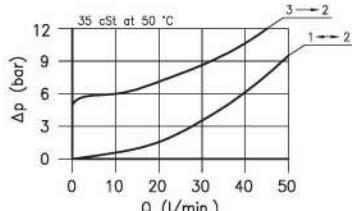
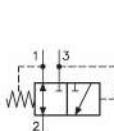
External seals kit 90 620 101

VDT 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

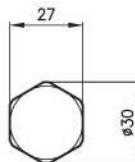
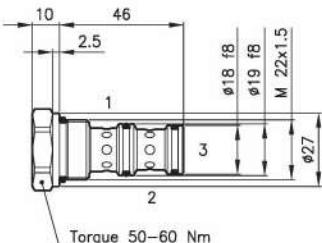
Adjustment type

N = Standard adjustment



Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Activation spool pressure	(bar)	6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.110
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 30/3203**

VDT 30 = Valve type



Circuit

3203 =



Codes:

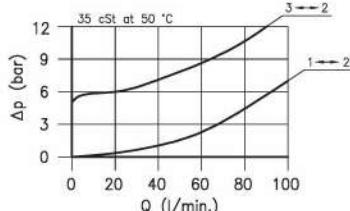
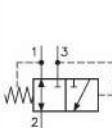
VDT 30/3203

32 011 134

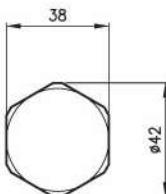
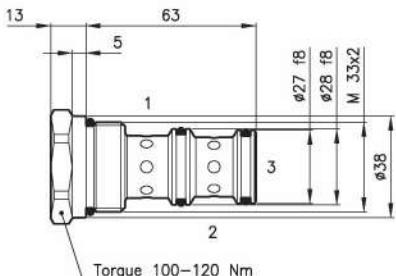
External seals kit

90 620 104

VDT 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features

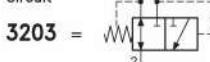
Cavity	(For dimensions see catalogue 17.000)	S 50/3
Nominal flow	(l/min.)	80
Max. pressure	(bar)	350
Activation spool pressure	(bar)	6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.250
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 50/3203**

VDT 50 = Valve type



Circuit



3203 =

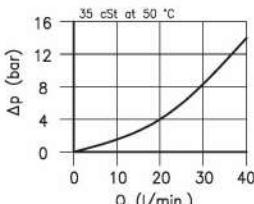
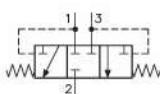
Codes:

VDT 50/3203 52 011 102

External seals kit 90 620 107

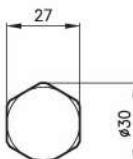
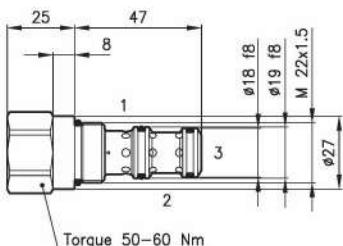
VDT 50 valves can be assembled
on standard bodies 50-C3 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	30
Max. pressure	(bar)	420
Shuttle pressure	(bar)	5 - 9
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.140
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

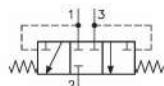
VDT 30/3306-M

VDT 30 = Valve type



Circuit

3306 =



Standard springs

M = 5 bar Shuttle pressure

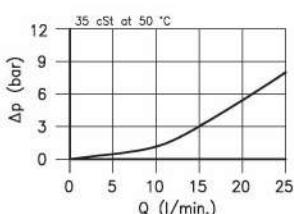
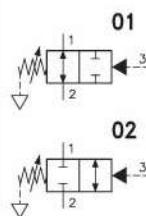
Z = 9 bar Shuttle pressure

Codes:

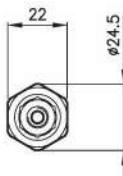
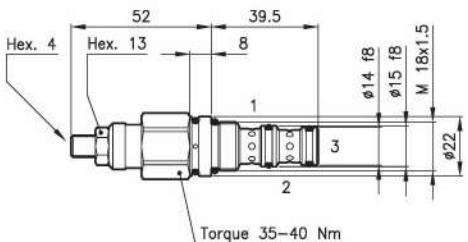
VDT 30/3306-M 32 011 117
VDT 30/3306-Z 32 011 171

External seals kit 90 620 104

VDT 30 valves can be assembled on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features

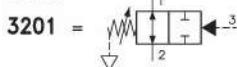
Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 20/3201-D-N**

VDT 20 = Valve type



Circuits



Standard springs

Type Setting range

U 5 - 30 bar

D 14 - 60 bar

T 35 - 90 bar

Q 50 - 140 bar

Adjustment type

N Standard adjustment



Codes:

VDT 20/3201-U-N 22 011 128

VDT 20/3201-D-N 22 011 129

VDT 20/3201-T-N 22 011 130

VDT 20/3201-Q-N 22 011 173

VDT 20/3202-U-N 22 011 131

VDT 20/3202-D-N 22 011 132

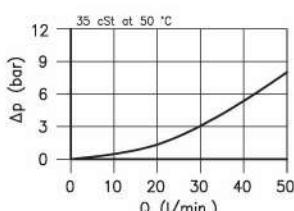
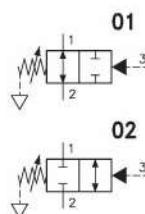
VDT 20/3202-T-N 22 011 133

VDT 20/3202-Q-N 22 011 181

External seals kit 90 620 101

VDT 20 valves can be assembled
on standard bodies 20-C3 series;
for dimensions see catalogue 16.010

Technical features



Cavity (For dimensions see catalogue 17.000)

S 30/3

Nominal flow (l/min.) 40

Max. pressure (bar) 350

Fluid viscosity range (cSt) 2.8 - 380

Fluid temperature range (°C) -20 +80

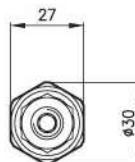
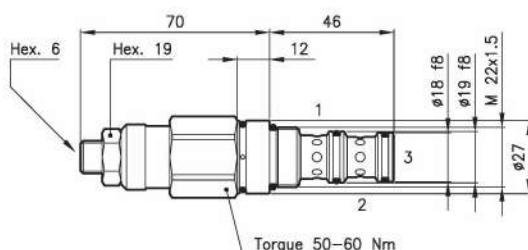
Mass (kg) 0.280

Hydraulic fluid; mineral oil HM and HV ISO 6074

Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)

Standard seals in Polyurethane and Buna N

Dimensions



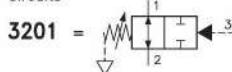
Ordering informations

VDT 30/3201-D-N

VDT 30 = Valve type



Circuits



Standard springs

Type Setting range

U = 5 - 35 bar

D = 14 - 70 bar

T = 35 - 105 bar

Q = 70 - 210 bar

Adjustment type

N = Standard adjustment



Codes:

VDT 30/3201-U-N 32 011 106

VDT 30/3201-D-N 32 011 107

VDT 30/3201-T-N 32 011 108

VDT 30/3201-Q-N 32 011 186

VDT 30/3202-U-N 32 011 109

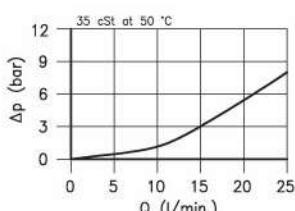
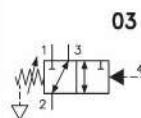
VDT 30/3202-D-N 32 011 110

VDT 30/3202-T-N 32 011 111

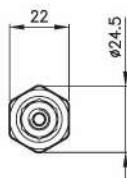
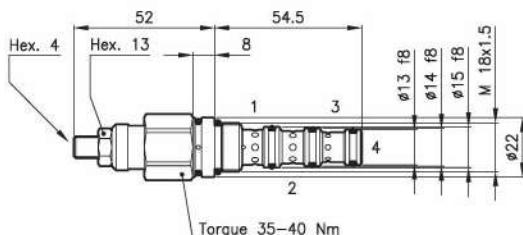
VDT 30/3202-Q-N 32 011 187

External seals kit 90 620 104

VDT 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 20/4
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.190
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 20/4203-D-N**

VDT 20 = Valve type



Circuit



Standard springs

Type Setting range

U = 5 - 30 bar

D = 14 - 60 bar

T = 35 - 90 bar

Q = 50 - 140 bar

Adjustment type

N = Standard adjustment



Adjustment type IB for setting till 175 bar, is available on request.

Codes:

VDT 20/4203-U-N 22 011 108

VDT 20/4203-D-N 22 011 109

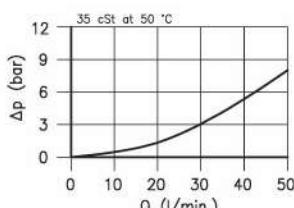
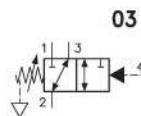
VDT 20/4203-T-N 22 011 110

VDT 20/4203-Q-N 22 011 180

External seals kit 90 620 102

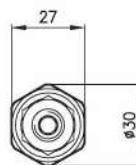
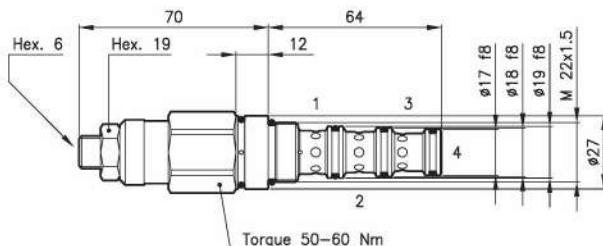
VDT 20 valves can be assembled
on standard bodies 20-C4 series;
for dimensions see catalogue 16.011

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/4
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.310
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

VDT 30/4203-D-N

VDT 30 = Valve type



Circuit



Standard springs

Type Setting range

U = 5 - 35 bar

D = 14 - 70 bar

T = 35 - 105 bar

Q = 70 - 210 bar

Adjustment type

N = Standard adjustment



Codes:

VDT 30/4203-U-N 32 011 135

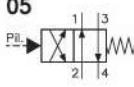
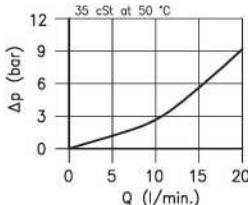
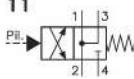
VDT 30/4203-D-N 32 011 136

VDT 30/4203-T-N 32 011 137

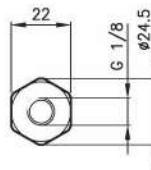
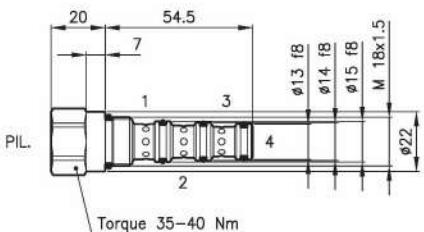
VDT 30/4203-Q-N 32 011 161

External seals kit 90 620 105

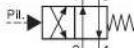
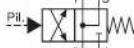
VDT 30 valves can be assembled
on standard bodies 30-C4 series;
for dimensions see catalogue 16.011

Technical features**05****11**

Cavity	(For dimensions see catalogue 17.000)	S 20/4
Nominal flow	(l/min.)	15
Max. pressure	(bar)	350
Pilot pressure	(bar)	3 - 5
Pilot volume	(cm³)	0.12
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.100
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 20/4211****VDT 20** = Valve type

Circuits

4205 = **4211** = 

Codes:

VDT 20/4205 22 011 134

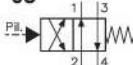
VDT 20/4211 22 011 135

External seals kit 90 620 102

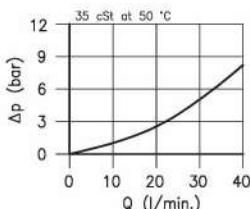
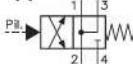
VDT 20 valves can be assembled
on standard bodies 20-C4 series;
for dimensions see catalogue 16.011

Technical features

05

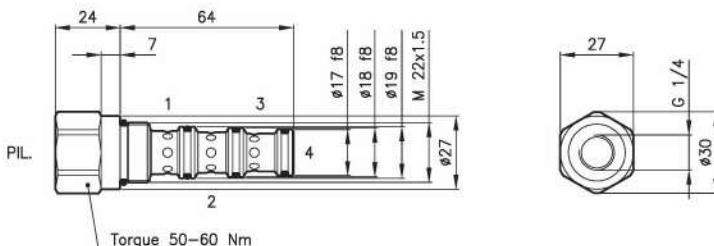


11



Cavity	(For dimensions see catalogue 17.000)	S 30/4
Nominal flow	(l/min.)	30
Max. pressure	(bar)	350
Pilot pressure	(bar)	3 - 5
Pilot volume	(cm ³)	0.3
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.180
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

VDT 30/4211

VDT 30 = Valve type



Codes:

VDT 30/4205 32 011 118

VDT 30/4211 32 011 119

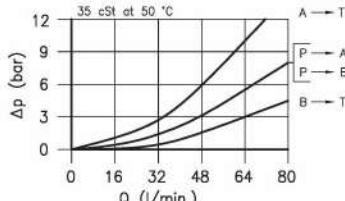
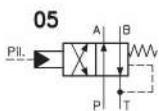
External seals kit 90 620 105

Circuits

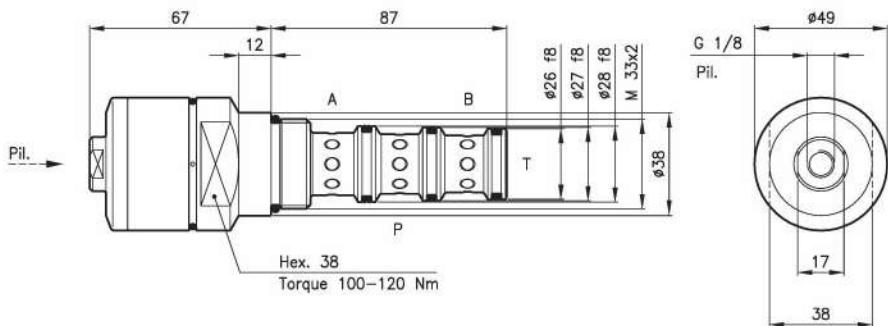
4205 =

4211 =

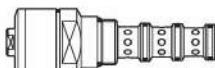
VDT 30 valves can be assembled on standard bodies 30-C4 series; for dimensions see catalogue 16.011

Technical features

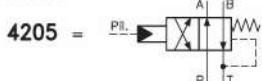
Cavity	(For dimensions see catalogue 17.000)	S 50/4
Max. flow	(l/min.)	80
Nominal flow	(l/min.)	60
Max. pressure way P-A-B	(bar)	315
Max. pressure way T	(bar)	40
Pilot pressure	(bar)	2
Max. leakage	(cm³/min.)	40
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.560
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****VDT 50/4205-PN**

VDT 50/42.. = Valve type



Circuits



PNEUMATIC Pilot = 2 bar

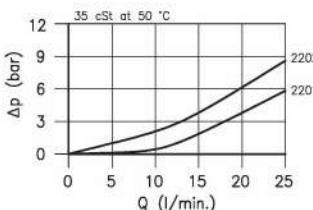
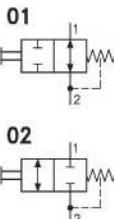
Codes:

VDT 50/4205-PN 52 011 117

External seals kit 90 620 108

VDT 50/42.. valves can be assembled on standard bodies 50-C4 series; for dimensions see catalogue 16.011

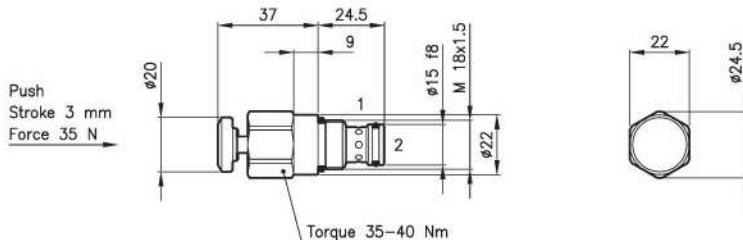
Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Pressure of chamber 2 influences the necessary force for valve's drive.

Dimensions



Ordering informations

VDT 20/2201-PS

Circuits

VDT 20 = Valve type



Circuits

2201 =

2202 =

Manual control type

PS = Push type spring return



Codes:

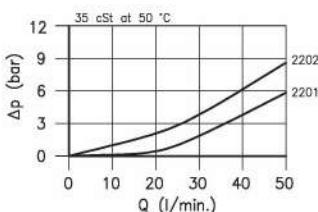
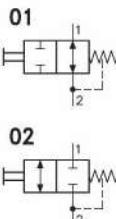
VDT 20/2201-PS 22 011 177

VDT 20/2202-PS 22 011 185

External seals kit 90 620 100

VDT 20 valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

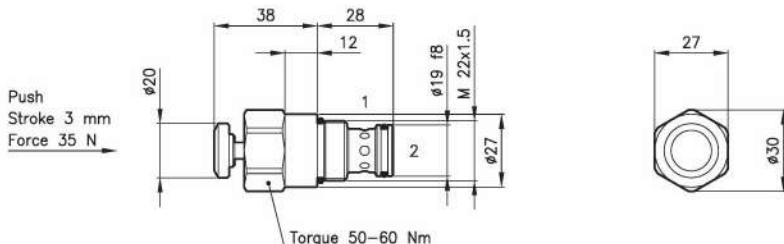
Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.180
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Pressure of chamber 2 influences the necessary force for valve's drive.

Dimensions



Ordering informations

VDT 30/2201-PS

VDT 30 = Valve type

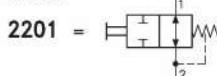


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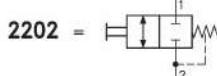
VDT 30/2201-PS 32 011 192

VDT 30/2202-PS 32 011 193

Circuits



External seals kit 90 620 103

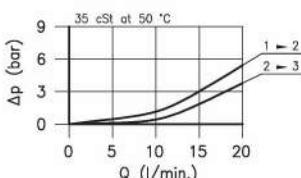
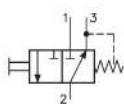


VDT 30/22.. valves can be assembled on standard bodies 30-L0 series; for dimensions see catalogue 16.010

Manual control type

PS = Push type spring return

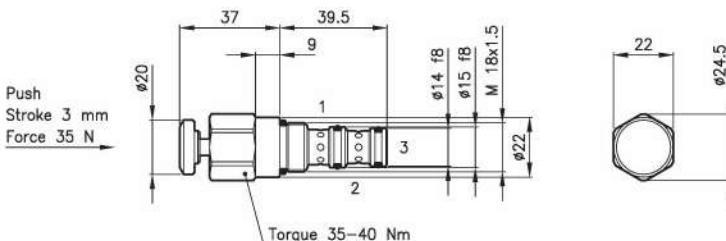
Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Pressure of chamber 3 influences the necessary force for valve's drive.

Dimensions



Ordering informations

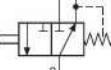
VDT 20/3204-PS

Circuits

VDT 20 = Valve type



Circuit

3204 = 

Manual control type

PS = Push type spring return

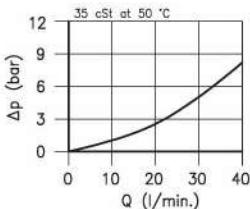
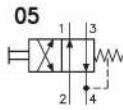


Codes:

VDT 20/3204-PS 22 011 140

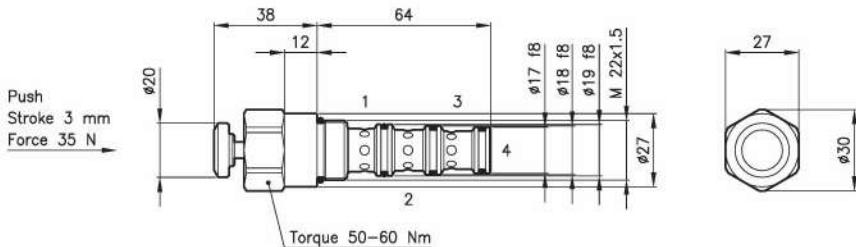
External seals kit 90 620 101

VDT 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/4
Nominal flow	(l/min.)	30
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.180
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Pressure of chamber 4 influences the necessary force for valve's drive.

Dimensions**Ordering informations**VDT 30/4205-PS

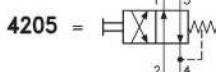
VDT 30 = Valve type



Codes:

VDT 30/4205-PS 32 011 198

Circuits



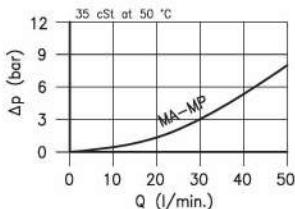
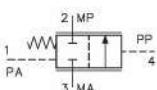
External seals kit 90 620 105

Manual control type

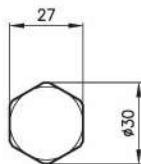
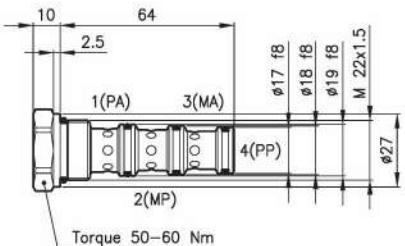
PS = Push type spring return



VDT 30/42.. valves can be assembled on standard bodies 30-C4 series; for dimensions see catalogue 16.011

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/4
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Min. pressure difference	(bar)	0.2 - 0.35
Ratio between areas PA / PP		1:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.150
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****MTV 30/P**

MTV 30 = Valve type



Standard spring

P = 0.2-0.35 bar

Codes:

MTV 30/P 33 011 202

External seals kit 90 620 105

MTV 30 valves can be assembled on standard bodies 30-C4 series; for dimensions see catalogue 16.011

ALPHABETIC INDEX AND VALVE CODES

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PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

ACCESSORIES

SCHEDULES

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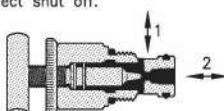
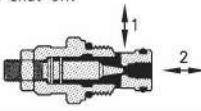
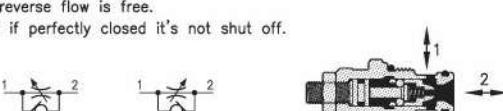
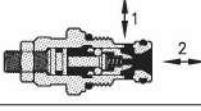
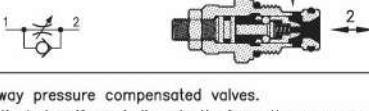
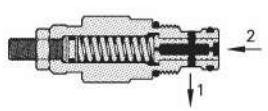
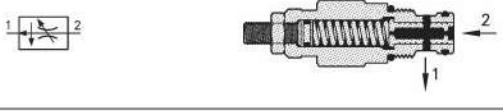
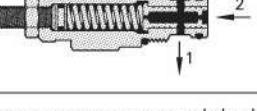
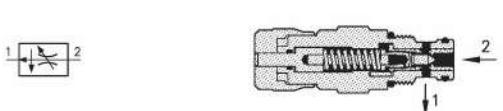
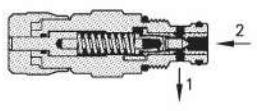
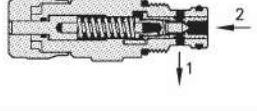
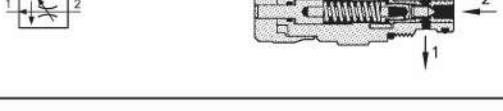
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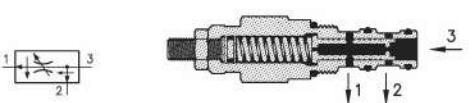
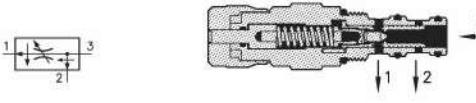
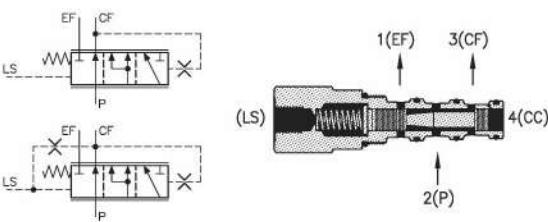
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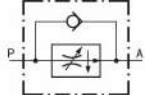
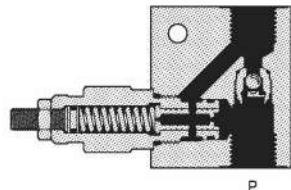
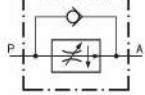
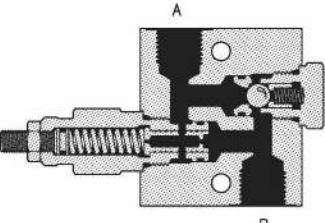
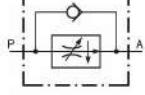
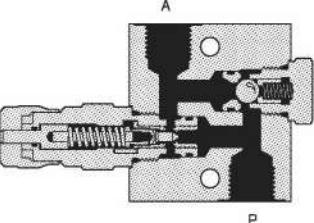


Flow control valves.

They can be classified as needle valves or as compensated flow controls two or three way; are used to keep a check on actuators speed, to share out the flow or as fuse valves.

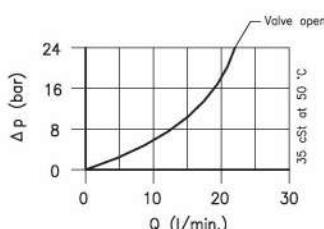
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
RDB series - bidirectional poppet-type. They have a very fine adjustment which allows to control also narrow flow at high pressure in both the flow's directions. Completely closed they guarantee a perfect shut off. External parts realized in stainless steel and brass.	RDB 20/B	20	315	06.010
				
RDB series - bidirectional poppet-type. They have a very fine adjustment which allows to control also narrow flow at high pressure in both the flow's directions. Completely closed they guarantee a perfect shut off.	RDB 20	20	350	06.011
				
CAS series - with reverse free flow check poppet-type fixed setting.	RDB 30	50	350	06.020
				
RDA - RDI series - with reverse free flow check poppet-type. They allow the flow's control in direction 2 - 1 (RDA) and 1 - 2 (RDI); the reverse flow is free. Even if perfectly closed it's not shut off.	CAS 20	35	420	06.025
				
RDA 20	30	350	06.030	
RDA 30	60	350	06.040	
				
RDI 20	30	350	06.030	
				
RDI 30	60	350	06.040	
RDC series - two-way pressure compensated valves. They keep the flow adjusted uniform independently from the pressure and accept a reverse limited flow in relation to the required adjusting range.	RDC 20	18	315	06.050
				
				
RDC 30	45	315	06.060	
				
RDC 50	60	315	06.080	
RDZ - RDC HF series - two-way pressure compensated valves. They keep the flow adjusted uniform independently from the pressure. The peculiar feature of these valves is the high sensitive adjusting obtained with 1 knob turn (RDZ) or 3 knob turns (RDC HF) and without effort.	RDC 30/..-HF	40	315	06.065
				
				
RDZ 30	24	315	06.070	
				
RDC 50/..-HF	120	315		
				
RDZ 50	75	315	06.085	

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
DPC series - three-way pressure compensated priority type. They keep the flow adjusted on line 1 uniform independently from the pressure and send the excess flow to line 2 which may be utilized as second use or may be sent to return line (T).	DPC 20	30/18	315	06.090
	DPC 30	60/45	315	06.100
	DPC 50	120/60	315	06.120
DPZ - DPC HF series - three-way pressure compensated priority type. They keep the flow adjusted on line 1 uniform independently from the pressure and send the excess flow to line 2 which may be utilized as second use or may be sent to return line (T). The peculiar feature of these valves is the high sensitive adjusting obtained with 1 knob turn (DPZ) or 3 knob turns (DPC HF) and without effort.	DPC 30/..-HF	60/40	315	06.105
	DPZ 30	60/24	315	06.110
	DPC 50/..-HF	160/120	315	
	DPZ 50	120/75	315	06.130
LSV series - four way external Load Sensing signal. The priority valves LSV series are to be used mainly on hydraulic steering system with power steering unit type Load Sensing. These valves always assure priority to the power steering unit, automatically meter the required flow and send the overflow to port 1(EF).	LSV 30	60	315	06.140 06.145
				
DCC series. They are flow divider/combiner pressure compensated. When the inlet flow is through chamber 2 they share out the flow into two parts alike; by inverse working they join together the flows coming from chambers 1 and 3. The narrow mistake margin makes them suitable for applications where simultaneous movements or cylinders ranging are required. On request are available different ratios. These three-way valves must be seated in a four-way cavity with chamber 4 closed.	DCC 30	5-40	210	06.150
	DCC 50	15-120	210	06.160

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
<p>RDC series CSL 10 circuit. They are composed of a flow regulator pressure compensated RDC 20 type and a check valve that allows the free reverse flow.</p>  	RDC 20 CSL 10	20	315	06.180
<p>RDC series CSL 10 circuit. They are composed of a flow regulator pressure compensated RDC 30 type and a check valve that allows the free reverse flow.</p>  	RDC 30 CSL 10	45	315	06.190
<p>RDZ series CSL 10 circuit. They are composed of a flow regulator pressure compensated RDZ 30 type and a check valve that allows the free reverse flow.</p>  	RDZ 30 CSL 10	24	315	06.200

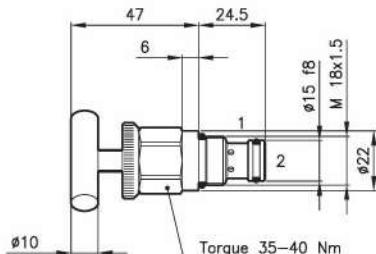
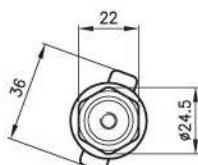
Technical features

The bidirectional needle valves RDB 20/B are a version for fine adjustment of narrow flow. Complete adjustment range is obtained in about six handknob turns till total valve shut off. The flow direction is indifferent.



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. adjusted flow (Δp 6 bar) (l/min.)	0 - 10	
Max. adjusted flow (Δp 12 bar) (l/min.)	0 - 16	
Max. adjusted flow (Δp 24 bar) (l/min.)	0 - 22	
Max. pressure (bar)	315	
Fluid viscosity range (cSt)	2.8 - 380	
Fluid temperature range (°C)	-20 +80	
Mass (kg)	0.115	
Leakage when closed (cm ³ /1)	Total shut off	
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Handknob and screw adjustment realized in stainless steel.
External exagon and clamping lock ring realized in brass.

Ordering informations

RDB 20/B

RDB 20 = Valve type



Adjustment type

B = Handknob adjustment



Codes:

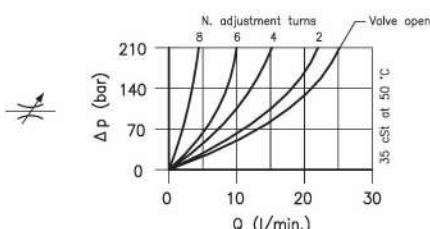
RDB 20/B 23 011 126

External seals kit 90 620 100

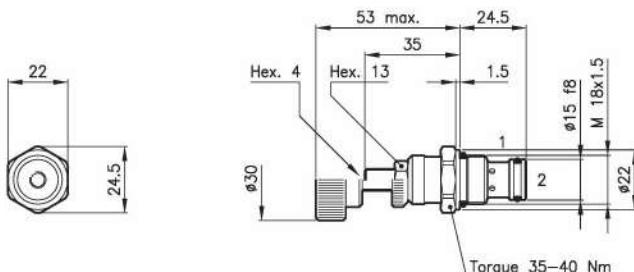
RDB 20/B valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

Technical features

The bidirectional needle valves RDB 20/175 are a version for fine and micrometric adjustment of narrow flow. Complete adjustment range is obtained in about ten handknob or screw turns till total valve shut off. The flow direction is indifferent.



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. adjusted flow (Δp 70 bar) (l/min.)	0 - 10	
Max. adjusted flow (Δp 140 bar) (l/min.)	0 - 16	
Max. adjusted flow (Δp 210 bar) (l/min.)	0 - 22	
Max. pressure (bar)	350	
Fluid viscosity range (cSt)	2.8 - 380	
Fluid temperature range (°C)	-20 +80	
Mass (kg)	0.090	
Leakage when closed (cm³/1)	Total shut off	
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RDB 20/175-V**

RDB 20 = Valve type



175 = Plunger type (only option)

Adjustment type

N = Standard adjustment



V = Handknob adjustment



Codes:

RDB 20/175-N 23 011 121

RDB 20/175-V 23 011 108

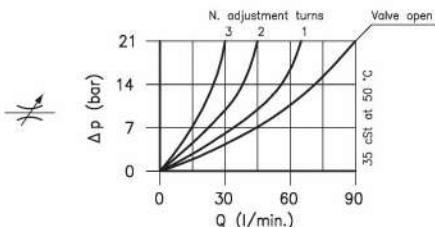
External seals kit 90 620 100

RDB 20 valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

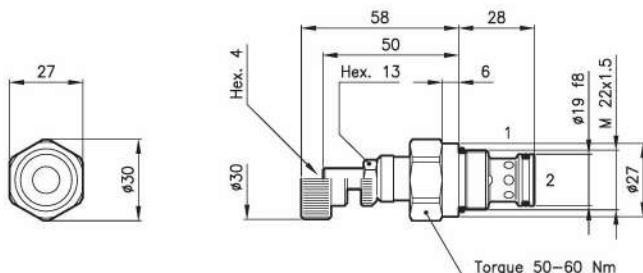
Technical features

The bidirectional needle valves RDB 30 are a version particularly suitable for the use combined with logic valves for flow control.

Complete adjustment range is obtained in about four handknob or screw turns till total valve shut off. The flow direction is indifferent.



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. adjusted flow (Δp 7 bar) (l/min.)	0 - 50	
Max. adjusted flow (Δp 14 bar) (l/min.)	0 - 70	
Max. pressure (bar)	350	
Fluid viscosity range (cSt)	2.8 - 380	
Fluid temperature range (°C)	-20 +80	
Mass (kg)	0.170	
Leakage when closed (cm ³ /1) Total shut off		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RDB 30/N**

RDB 30 = Valve type



Adjustment type

N = Standard adjustment



V = Handknob adjustment

Codes:

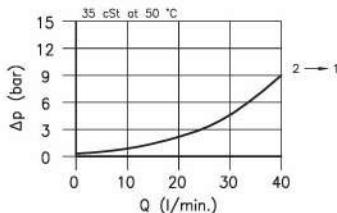
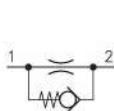
RDB 30/N 33 011 141

RDB 30/V 33 011 142

External seals kit 90 620 103

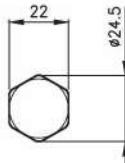
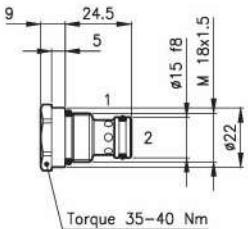
RDB 30 valves can be assembled on standard bodies 30-L0 series; for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)			S 20/2
Nominal flow	(l/min.)			35
Max. pressure	(bar)			420
Cracking pressure	(bar)			0.35
Internal hole (mm)	Ø 0.5	Ø 0.6	Ø 0.7	
	Ø 0.8	Ø 0.9	Ø 1	
	Ø 1.2	Ø 1.3	Ø 1.5	
	Ø 1.7	Ø 2		
Fluid viscosity range	(cSt)			2.8 - 380
Fluid temperature range	(°C)			-20 +80
Mass	(kg)			0.055
Hydraulic fluid; mineral oil HM and HV	ISO 6074			
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)				
Standard seals in Polyurethane and Buna N				

Dimensions



Ordering informations

CAS 20/07

CAS 20 = Valve type



Internal hole

05 = Ø0.5 mm

06 = Ø0.6 mm

07 = Ø0.7 mm

08 = Ø0.8 mm

09 = Ø0.9 mm

1 = Ø1 mm

12 = Ø1.2 mm

13 = Ø1.3 mm

15 = Ø1.5 mm

17 = Ø1.7 mm

2 = Ø2 mm

Codes:

CAS 20/05	23 011 140
CAS 20/06	23 011 141
CAS 20/07	23 011 147
CAS 20/08	23 011 148
CAS 20/09	23 011 156
CAS 20/1	23 011 149
CAS 20/12	23 011 167
CAS 20/13	23 011 159
CAS 20/15	23 011 160
CAS 20/17	23 011 169
CAS 20/2	23 011 173

External seals kit 90 620 100

CAS 20 valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

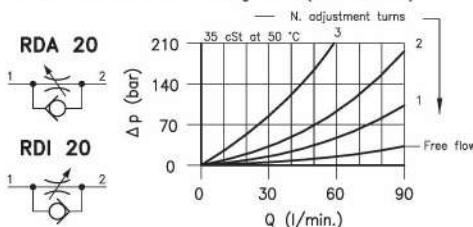
Technical features

Unidirectional needle valves

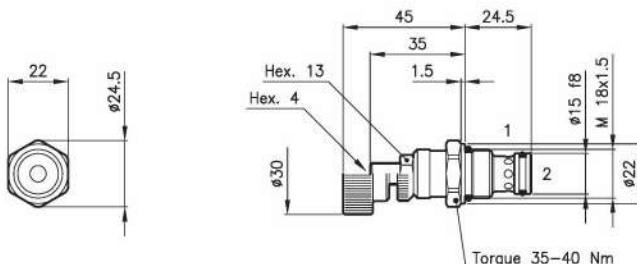
RDA 20 version for flow's control in direction 2 - 1

RDI 20 version for flow's control in direction 1 - 2

Complete adjustment range is obtained in about four handknob or screw turns till total closing valve (non shut off).



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. adjusted flow (Δp 35 bar) (l/min.)	0 - 15	
Max. adjusted flow (Δp 70 bar) (l/min.)	0 - 25	
Max. adjusted flow (Δp 140 bar) (l/min.)	0 - 30	
Max. pressure (bar)	350	
Fluid viscosity range (cSt)	2.8 - 380	
Fluid temperature range (°C)	-20 +80	
Mass (kg)	0.090	
Leakage when closed (cm³/1)	100	
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
RDA 20/N

Valve type



RDA 20 =

RDI 20 =

Adjustment type

N = Standard adjustment



V = Handknob adjustment



Codes:

RDA 20/N 23 011 119

RDA 20/V 23 011 120

RDI 20/N 23 011 152

RDI 20/V 23 011 153

External seals kit 90 620 100

RDA 20 and RDI 20 valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

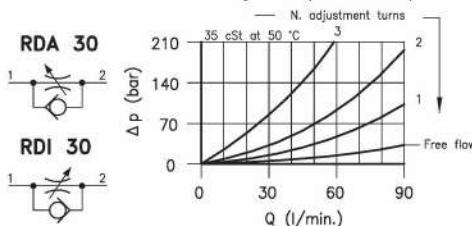
Technical features

Unidirectional needle valves

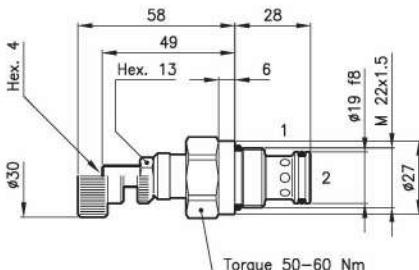
RDA 30 version for flow's control in direction 2 - 1

RDI 30 version for flow's control in direction 1 - 2

Complete adjustment range is obtained in about four handknob or screw turns till total closing valve (non shut off).



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. adjusted flow (Δp 35 bar) (l/min.)	0 - 40	
Max. adjusted flow (Δp 70 bar) (l/min.)	0 - 70	
Max. adjusted flow (Δp 140 bar) (l/min.)	0 - 90	
Max. pressure (bar)	350	
Fluid viscosity range (cSt)	2.8 - 380	
Fluid temperature range (°C)	-20 +80	
Mass (kg)	0.170	
Leakage when closed (cm ³ /1)	100	
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
RDA 30/N

Valve type



RDA 30 =

RDI 30 =

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Codes:

RDA 30/N 33 011 128

RDA 30/V 33 011 127

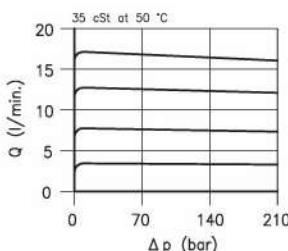
RDI 30/N 33 011 190

RDI 30/V 33 011 191

External seals kit 90 620 103

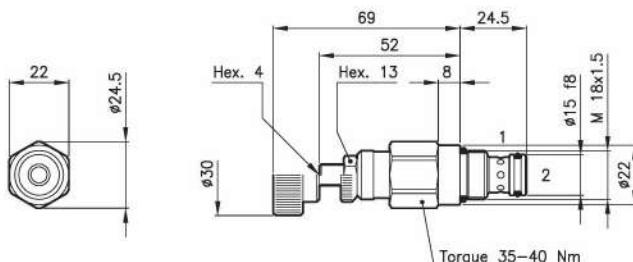
RDA 30 and RDI 30 valves can be assembled on standard bodies 30-LO series; for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/2
	type U	0.6 - 2.2
Flow setting range ± 10% (l/min.)	type D	1.5 - 4.5
	type T	3.2 - 9.5
	type Q	6 - 18
Max. pressure (bar)	315	
Fluid viscosity range (cSt)	2.8 - 380	
Fluid temperature range (°C)	-20 +80	
Mass (Standard adjustment type N) (kg)	0.140	
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

RDC 20/D-N

RDC 20 = Valve type



Flow setting range

U = 0.6 - 2.2 l/min

D = 1.5 - 4.5 l/min

T = 3.2 - 9.5 l/min

Q = 6 - 18 l/min

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

RDC 20/U-N 23 011 100

RDC 20/D-N 23 011 101

RDC 20/T-N 23 011 102

RDC 20/Q-N 23 011 103

RDC 20/U-V 23 011 111

RDC 20/D-V 23 011 112

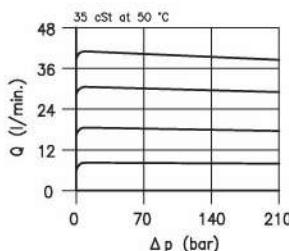
RDC 20/T-V 23 011 113

RDC 20/Q-V 23 011 114

External seals kit 90 620 100

RDC 20 valves can be assembled on standard bodies 20-LO series:
for dimensions see catalogue 16.010

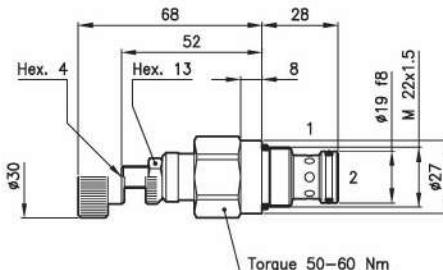
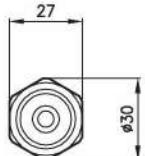
Technical features



Cavity (For dimensions see catalogue 17.000)

S 30/2	
type U	3 - 6
Flow setting range ± 10% (l/min.)	6 - 11
type D	13 - 25
type T	25 - 45
type Q	315
Max. pressure (bar)	2.8 - 380
Flow viscosity range (cSt)	-20 +80
Flow temperature range (°C)	ISO 6074
Mass (Standard adjustment type N) (kg)	0.260
Hydraulic fluid; mineral oil HM and HV	Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)
Standard seals in Polyurethane and Buna N	

Dimensions



Ordering informations

RDC 30/D-N

RDC 30 = Valve type



Flow setting range

U = 3 - 6 l/min

D = 6 - 11 l/min

T = 13 - 25 l/min

Q = 25 - 45 l/min

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

RDC 30/U-N 33 011 119

RDC 30/D-N 33 011 120

RDC 30/T-N 33 011 121

RDC 30/Q-N 33 011 122

RDC 30/U-V 33 011 123

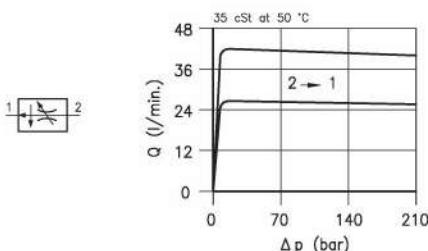
RDC 30/D-V 33 011 124

RDC 30/T-V 33 011 125

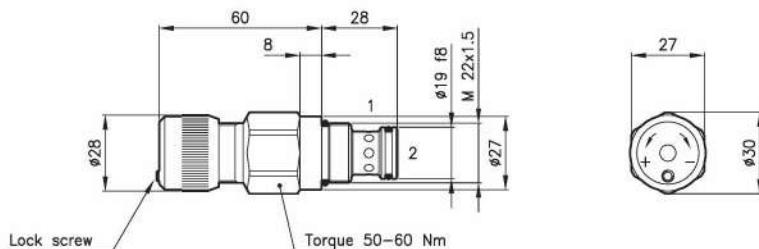
RDC 30/Q-V 33 011 126

External seals kit 90 620 103

RDC 30 valves can be assembled on standard bodies 30-LO series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Flow setting range	(l/min.)	type 20 0.05 – 25 type 50 0.05 – 40
Max. pressure	(bar)	315
Min. pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.240
Hydraulic fluid; mineral oil HM and HV		ISO 6074
Recommended filtration;	19/15 ISO 4466 (25 μ absolutes)	
Complete adjustment range obtained with 3 knob turns		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RDC 30/20-HF**

RDC 30 = Valve type



Flow setting range

20 = 0.05 – 25 l/min

50 = 0.05 – 40 l/min

Adjustment type

HF = With lock screw

Codes:

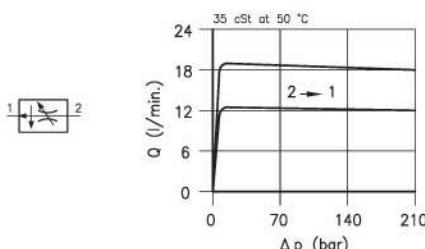
RDC 30/20-HF 33 011 187

RDC 30/50-HF 33 011 188

External seals kit 90 620 103

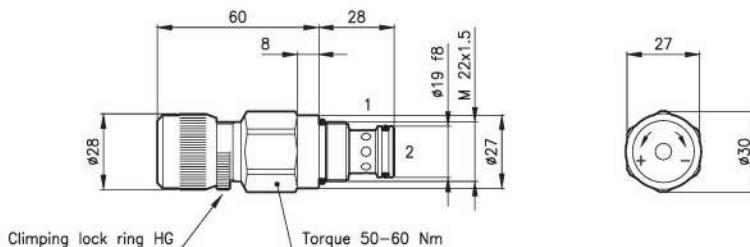
RDC 30 valves can be assembled on standard bodies 30-L0 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Flow setting range	(l/min.)	type D 0.05 – 12 type Q 0.05 – 24
Max. pressure	(bar)	315
Min. pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.240
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration;	19/15 ISO 4466 (25 μ absolutes)	
Complete adjustment range obtained with 1 knob turn		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

RDZ 30/D-H

RDZ 30 = Valve type



Flow setting range

D = 0.05 – 12 l/min

Q = 0.05 – 24 l/min

Adjustment type

H = Standard

HG = With clamping lock ring

HF = Available on request
(see catalogue 01.005)

Codes:

RDZ 30/D-H 33 011 117

RDZ 30/Q-H 33 011 118

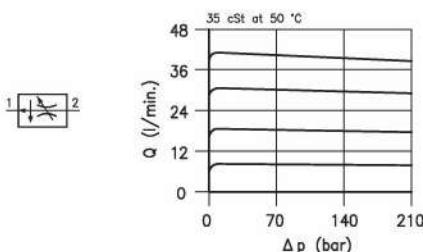
RDZ 30/D-HG 33 011 139

RDZ 30/Q-HG 33 011 140

External seals kit 90 620 103

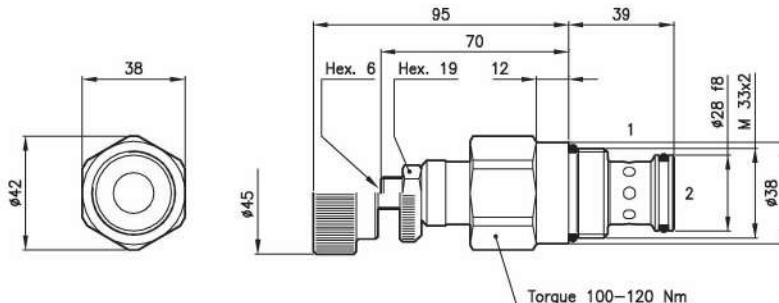
RDZ 30 valves can be assembled
on standard bodies 30-L0 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 50/2
Flow setting range ± 10% (l/min.)	type U	4 - 8
	type D	8 - 16
	type T	16 - 30
	type Q	30 - 60
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass (Standard adjustment type N)	(kg)	0.510
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

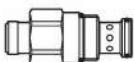
Dimensions



Ordering informations

RDC 50/D-N

RDC 50 = Valve type



Flow setting range

U = 4 - 8 l/min

D = 8 - 16 l/min

T = 16 - 30 l/min

Q = 30 - 60 l/min

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Codes:

RDC 50/U-N 53 011 104

RDC 50/D-N 53 011 105

RDC 50/T-N 53 011 106

RDC 50/Q-N 53 011 107

RDC 50/U-V 53 011 112

RDC 50/D-V 53 011 113

RDC 50/T-V 53 011 114

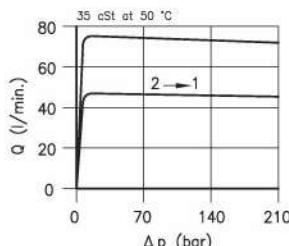
RDC 50/Q-V 53 011 115

External seals kit 90 620 106



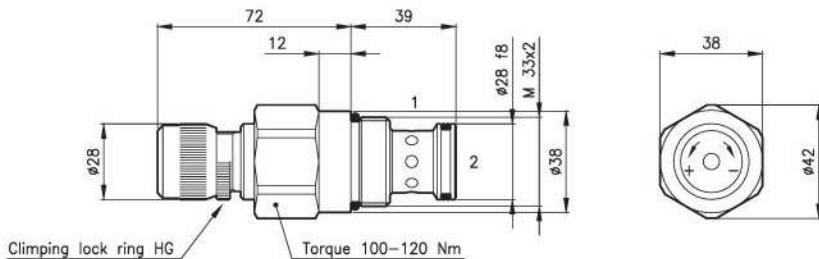
RDC 50 valves can be assembled on standard bodies 50-LO series; for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 50/2
Flow setting range	(l/min.)	0.05 - 45
	type D	0.05 - 75
Max. pressure	(bar)	315
Min. pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.480
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Complete adjustment range obtained with 1 knob turn		
Standard seals in Polyurethane and Buna N		

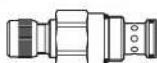
Dimensions



Ordering informations

RDZ 50/D-H

RDZ 50 = Valve type



Flow setting range

D = 0.05 - 45 l/min

Q = 0.05 - 75 l/min

Adjustment type

H = Standard

HG = With clamping lock ring

HF = Available on request
(see catalogue 01.005)

Codes:

RDZ 50/D-H 53 011 122

RDZ 50/Q-H 53 011 123

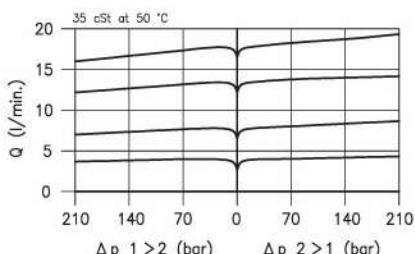
RDZ 50/D-HG 53 011 124

RDZ 50/Q-HG 53 011 125

External seals kit 90 620 106

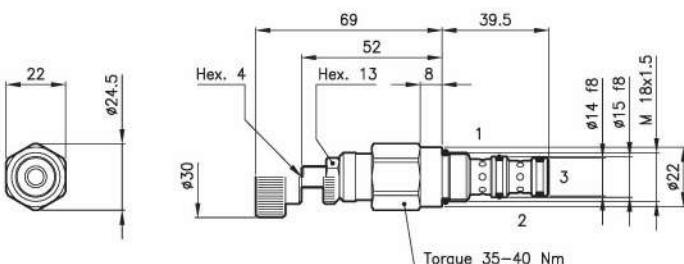
RDZ 50 valves can be assembled
on standard bodies 50-LO series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. inlet flow	(l/min.)	30
Flow setting range ± 10% (l/min.)	type U	0.6 – 2.2
type D	1.5 – 4.5	
type T	3.2 – 9.5	
type Q	6 – 18	
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass (Standard adjustment type N)	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

DPC 20/D-N

RDC 20 = Valve type



Flow setting range

U = 0.6 – 2.2 l/min

D = 1.5 – 4.5 l/min

T = 3.2 – 9.5 l/min

Q = 6 – 18 l/min

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

DPC 20/U-N 23 011 104

DPC 20/D-N 23 011 105

DPC 20/T-N 23 011 106

DPC 20/Q-N 23 011 107

DPC 20/U-V 23 011 115

DPC 20/D-V 23 011 116

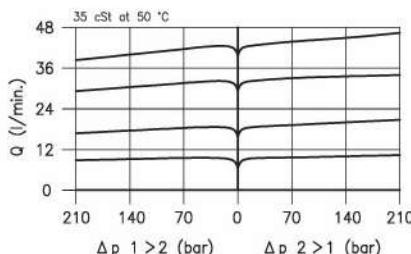
DPC 20/T-V 23 011 117

DPC 20/Q-V 23 011 118

External seals kit 90 620 101

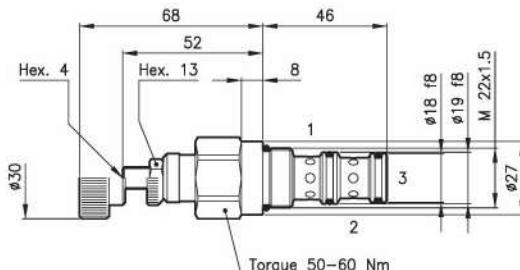
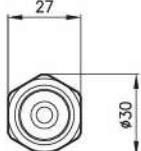
DPC 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. inlet flow	(l/min.)	60
type A		1.5 - 3.6
type U		3 - 6
Flow setting range	± 10% (l/min.)	type D 6 - 11 type Z 8 - 16 type T 13 - 25 type Q 25 - 45
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(Standard adjustment type N) (kg)	0.200
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

DPC 30/D-N

DPC 30 = Valve type



Flow setting range

A = 1.5 - 3.6 l/min

U = 3 - 6 l/min

D = 6 - 11 l/min

Z = 8 - 16 l/min

T = 13 - 25 l/min

Q = 25 - 45 l/min

Adjustment type

N = Standard adjustment

V = Handknob adjustment



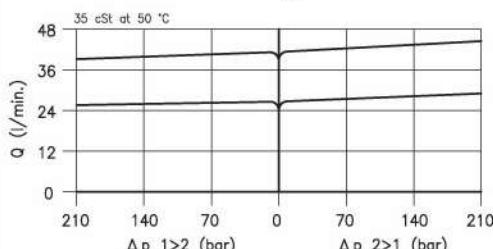
Codes:

DPC 30/A-N	33 011 215
DPC 30/U-N	33 011 109
DPC 30/D-N	33 011 110
DPC 30/Z-N	33 011 247
DPC 30/T-N	33 011 111
DPC 30/Q-N	33 011 112
DPC 30/U-V	33 011 105
DPC 30/D-V	33 011 106
DPC 30/T-V	33 011 107
DPC 30/Q-V	33 011 108

External seals kit 90 620 104

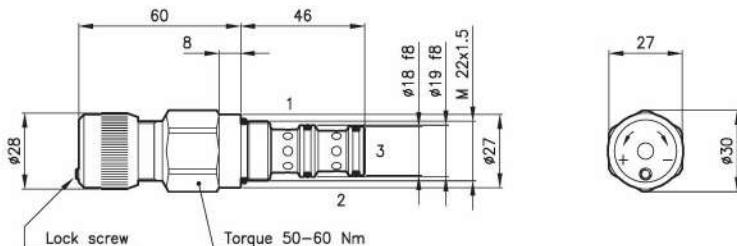
DPC 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. inlet flow	(l/min.)	60
Flow setting range	type 20 (l/min.)	0.05 - 25
	type 50 (l/min.)	0.05 - 40
Max. pressure	(bar)	315
Min pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.260
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Complete adjustment range obtained with 3 knob turns		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

DPC 30/20-HF

DPC 30 = Valve type



Flow setting range

20 = 0.05 - 25 l/min

50 = 0.05 - 40 l/min

Adjustment type

HF = With lock screw

Codes:

DPC 30/20-HF 33 011 184

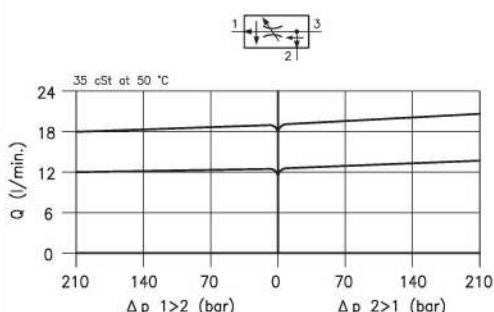
DPC 30/50-HF 33 011 186

External seals kit

90 620 104

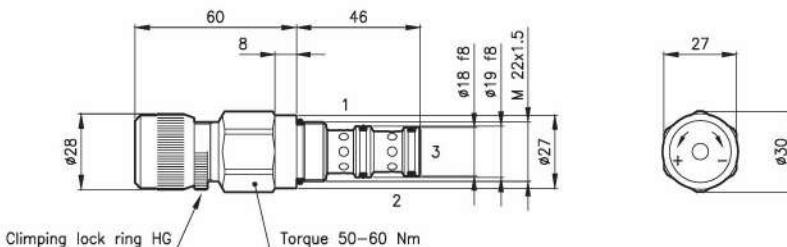
DPC 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. inlet flow	(l/min.)	60
Flow setting range	(l/min.)	type D 0.05 – 12 type Q 0.05 – 24
Max. pressure	(bar)	315
Min pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.260
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration;	19/15 ISO 4466 (25 μ absolutes)	
Complete adjustment range obtained with 1 knob turn		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

DPZ 30/D-H

DPZ 30 = Valve type



Flow setting range

D = 0.05 – 12 l/min

Q = 0.05 – 24 l/min

Adjustment type

H = Standard

HG = With clamping lock ring

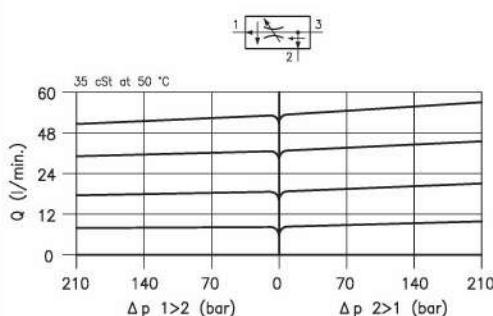
HF = Available on request
(see catalogue 01.005)

Codes:

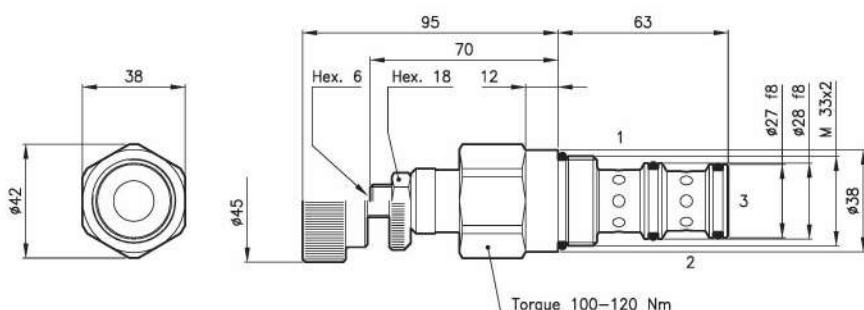
DPZ 30/D-H 33 011 115
DPZ 30/Q-H 33 011 100DPZ 30/D-HG 33 011 146
DPZ 30/Q-HG 33 011 147

External seals kit 90 620 104

DPZ 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

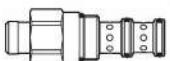
Technical features

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. inlet flow	(l/min.)	120
	type U	4 - 8
Flow setting range	type D	8 - 16
$\pm 10\%$ (l/min.)	type T	16 - 30
	type Q	30 - 60
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass (Standard adjustment type N)	(kg)	0.580
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

DPC 50/D-N

DPC 50 = Valve type



Flow setting range

U = 4 - 8 l/min

D = 8 - 16 l/min

T = 16 - 30 l/min

Q = 30 - 60 l/min

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Codes:

DPC 50/U-N 53 011 100

DPC 50/D-N 53 011 101

DPC 50/T-N 53 011 102

DPC 50/Q-N 53 011 103

DPC 50/U-V 53 011 116

DPC 50/D-V 53 011 117

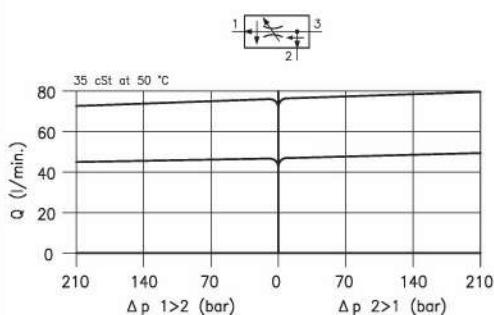
DPC 50/T-V 53 011 118

DPC 50/Q-V 53 011 119

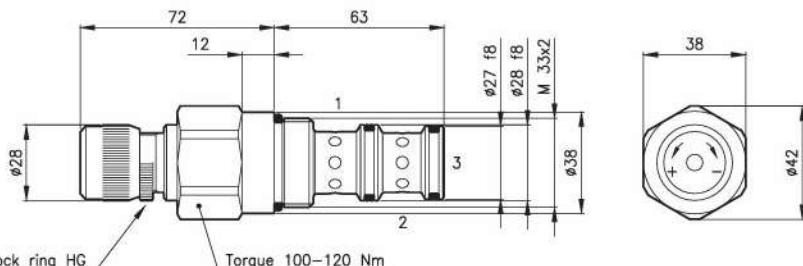
External seals kit 90 620 107



DPC 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. inlet flow	(l/min.)	120
Flow setting range	(l/min.)	type D 0.05 – 45 type Q 0.05 – 75
Max. pressure	(bar)	315
Min pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.600
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration;	19/15 ISO 4466 (25 μ absolutes)	
Complete adjustment range obtained with 1 knob turn		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****DPZ 50/D-H**

DPZ 50 = Valve type



Flow setting range

D = 0.05 – 45 l/min

Q = 0.05 – 75 l/min

Adjustment type

H = Standard

HG = With clamping lock ring

HF = Available on request
(see catalogue 01.005)

Codes:

DPZ 50/D-H 53 011 126
DPZ 50/Q-H 53 011 127DPZ 50/D-HG 53 011 128
DPZ 50/Q-HG 53 011 129

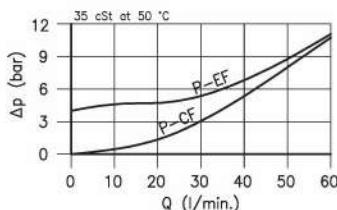
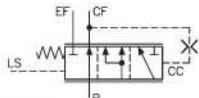
External seals kit 90 620 107

DPZ 50 valves can be assembled
on standard bodies 50-C3 series;
for dimensions see catalogue 16.010

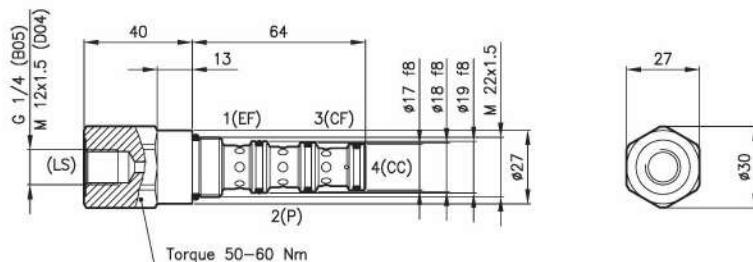
Technical features

The priority valves LSV 30 are to be used mainly on hydraulic steering systems with power steering unit type Load Sensing. These valves always assure priority to the power steering unit, automatically meter the required flow and send the overflow to port EF.

The lines P, LS, and EF must be protected with separated relief valves.



Cavity	(For dimensions see catalogue 17.000)	S 30/4
Max. flow in P line	(l/min.)	60
Max. flow in CF line	(l/min.)	40
Max. pressure in P line	(bar)	315
Max. pressure in EF line	(bar)	315
Max. pressure in CF line	(bar)	250
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.210
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		
Connections:		
P	= Pump	
CF	= Priority flow (power steering)	
EF	= Excedent flow (auxiliary)	
LS	= Load sensing	

Dimensions**Ordering informations****LSV 30/M-B05**

LSV 30 = Valve type



Standard springs

Type Setting

M = 10 bar

LS port

B05 = G 1/4

D04 = M 12x1.5

Codes:

LSV 30/M-B05 33 011 144

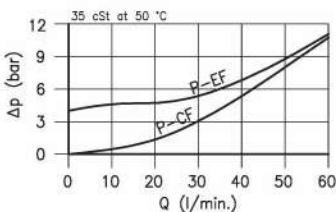
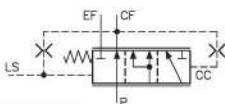
LSV 30/M-D04 33 011 143

External seals kit 90 620 105

LSV 30 valves can be assembled on standard bodies 30-CC series; for dimensions see catalogue 16.011

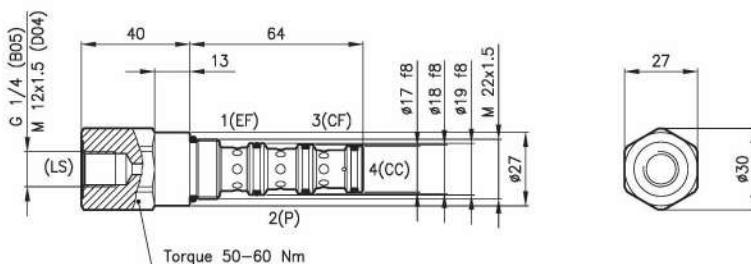
Technical features

The priority valves LSV 30 are to be used mainly on hydraulic steering systems with power steering unit type Load Sensing. These valves always assure priority to the power steering unit, automatically meter the required flow and send the overflow to port EF. The lines P, LS, and EF must be protected with separated relief valves.



Cavity	(For dimensions see catalogue 17.000)	S 30/4
Max. flow in P line	(l/min.)	60
Max. flow in CF line	(l/min.)	40
Max. pressure in P line	(bar)	315
Max. pressure in EF line	(bar)	315
Max. pressure in CF line	(bar)	250
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.210
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		
Connections:		
P	= Pump	
CF	= Priority flow (power steering)	
EF	= Excedent flow (auxiliary)	
LS	= Load sensing	

Dimensions



Ordering informations

LSV 30B/M-D04

LSV 30B = Valve type



Standard springs

Type Setting

M = 10 bar

LS port

B05 = G 1/4

D04 = M 12x1.5

Codes:

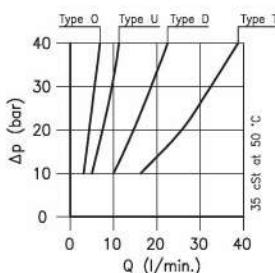
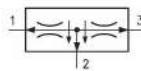
LSV 30B/M-B05 33 011 157

LSV 30B/M-D04 33 011 145

External seals kit 90 620 105

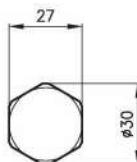
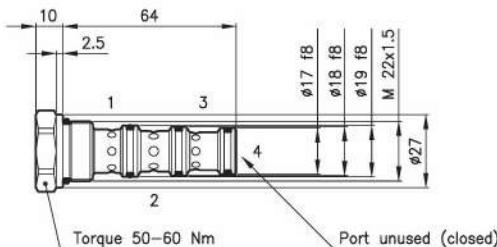
LSV 30B valves can be assembled on standard bodies 30-CC series; for dimensions see catalogue 16.011

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 30/4	
	type O	3 - 7	
Inlet flow range	(l/min.)	type U	5 - 12
		type D	10 - 24
		type T	18 - 40
Max. pressure	(bar)	210	
Fluid viscosity range	(cSt)	2.8 - 380	
Fluid temperature range	(°C)	-20 +80	
Mass	(kg)	0.180	
Max. accuracy from 10 to 210 bar	(%)	5%	
Standard flow division	(%)	50/50	
Hydraulic fluid; mineral oil HM and HV	ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)			
Standard seals in Polyurethane and Buna N			

Dimensions



Ordering informations

DCC 30/D

DCC 30 = Valve type



Inlet flow range

O = 3 - 7 l/min

U = 5 - 12 l/min

D = 10 - 24 l/min

T = 18 - 40 l/min

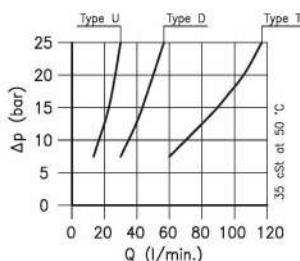
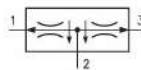
Codes:

DCC 30/0	33 011 101
DCC 30/U	33 011 102
DCC 30/D	33 011 103
DCC 30/T	33 011 104

External seals kit 90 620 105

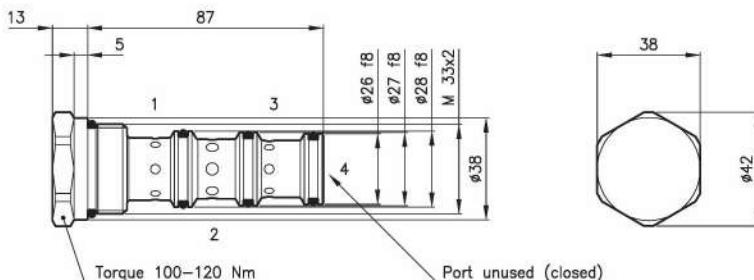
DCC 30 valves can be assembled on standard bodies 30-CC series; for dimensions see catalogue 16.011

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 50/4
Inlet flow range	(l/min.)	type U 15 - 30 type D 30 - 60 type T 60 - 120
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.510
Max. accuracy from 10 to 210 bar		5%
Standard flow division	(%)	50/50
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

DCC 50/D

DCC 50 = Valve type



Inlet flow range

U = 15 - 30 l/min

D = 30 - 60 l/min

T = 60 - 120 l/min

Codes:

DCC 50/U 53 011 108
DCC 50/D 53 011 109
DCC 50/T 53 011 110

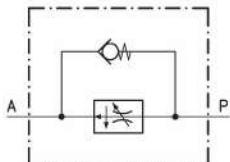
External seals kit 90 620 108

DCC 50 valves can be assembled on standard bodies 50-CC series; for dimensions see catalogue 16.011

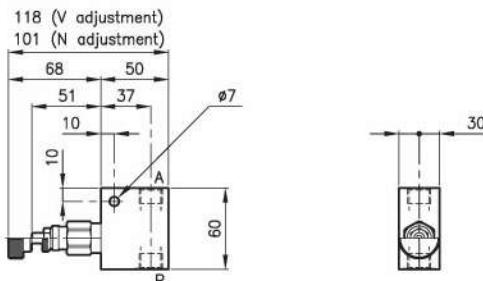
Technical features

The main valve are used as pressure compensated flow control and they keep flow adjusted uniform independently from the pressure.

The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 06.050)	RDC 20
	(For features see catalogue 05.005)	CB 20
	type U	0.6 - 2.2
Flow setting range	type D	1.5 - 4.5
10% (l/min.)	type T	3.2 - 9.5
	type Q	6 - 18
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.400
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RDC 20/D-N-CSL 10-B06**

Valve type

Flow setting range

U = 0.6 - 2.2 l/min

D = 1.5 - 4.5 l/min

T = 3.2 - 9.5 l/min

Q = 6 - 18 l/min

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard ports

B06 = G 3/8 ISO 228

Codes:

RDC 20/U-N-CSL 10-B06	23 011 129
RDC 20/D-N-CSL 10-B06	23 011 130
RDC 20/T-N-CSL 10-B06	23 011 131
RDC 20/Q-N-CSL 10-B06	23 011 132
RDC 20/U-V-CSL 10-B06	23 011 133
RDC 20/D-V-CSL 10-B06	23 011 134
RDC 20/T-V-CSL 10-B06	23 011 135
RDC 20/Q-V-CSL 10-B06	23 011 136

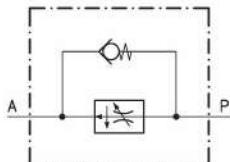
Only body code:

Body type 20-CSL 10-B06 28 144 116

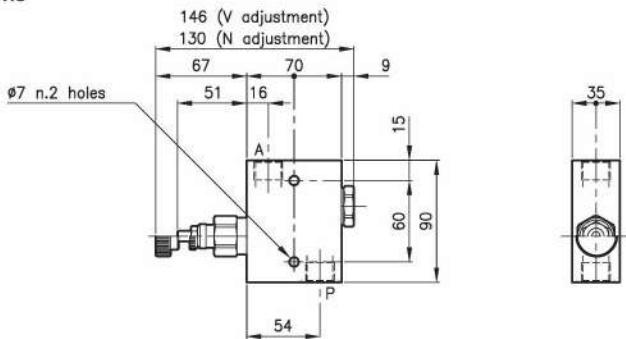
Technical features

The main valve are used as pressure compensated flow control and they keep flow adjusted uniform independently from the pressure.

The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 06.060)	RDC 30
	(For features see catalogue 05.060)	CAE 30/P
	type U	3 - 6
Flow setting range 10% (l/min.)	type D	6 - 11
	type T	13 - 25
	type Q	25 - 45
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.980
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RDC 30/D-N-CSL 10-B08**

Valve type

Standard ports

Flow setting range

B06 = G 3/8 ISO 228

U = 3 - 6 l/min

B08 = G 1/2 ISO 228

D = 6 - 11 l/min

T = 13 - 25 l/min

Q = 25 - 45 l/min

Adjustment type

Only body codes:

N = Standard adjustment

Body type 30-CSL 10-B06 38 144 127

V = Handknob adjustment

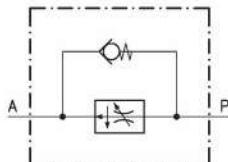
Body type 30-CSL 10-B08 38 144 128

Version

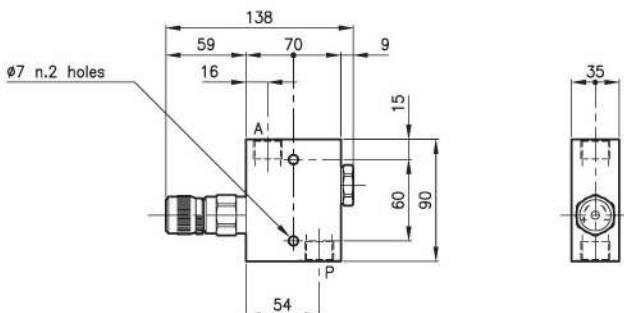
Technical features

The main valve are used as pressure compensated flow control and they keep flow adjusted uniform independently from the pressure.

The annexed by-pass valve allows the reverse free-flow.



Valves	(For features see catalogue 06.070)	RDZ 30
	(For features see catalogue 05.060)	CAE 30/P
Flow setting range	(l/min.)	type D 0.05 – 12 type Q 0.05 – 24
Max. pressure	(bar)	315
Min. pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.960
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Complete adjustment range obtained with 1 knob turn		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****RDZ 30/D-H-CSL 10-B08**

Valve type

Flow setting range

D = 0.05 – 12 l/min

Q = 0.05 – 24 l/min

Adjustment type

H = Standard

HG = With clamping lock ring

Version

Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Codes:

RDZ 30/D-H-CSL 10-B06 33 011 149

RDZ 30/Q-H-CSL 10-B06 33 011 150

RDZ 30/D-HG-CSL 10-B06 33 011 151

RDZ 30/Q-HG-CSL 10-B06 33 011 152

RDZ 30/D-H-CSL 10-B08 33 011 153

RDZ 30/Q-H-CSL 10-B08 33 011 154

RDZ 30/D-HG-CSL 10-B08 33 011 155

RDZ 30/Q-HG-CSL 10-B08 33 011 156

Only body codes:

Body type 30-CSL 10-B06 38 144 127

Body type 30-CSL 10-B08 38 144 128

ALPHABETIC INDEX AND VALVE CODES

INFORMATIONS

PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

ACCESSORIES

SCHEDULES

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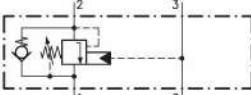
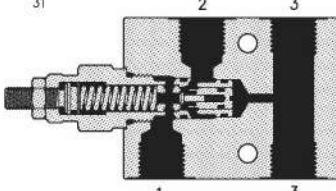
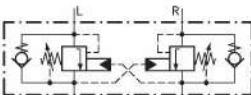
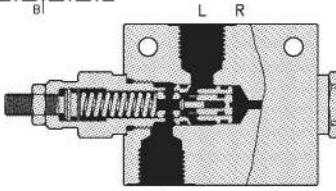
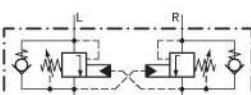
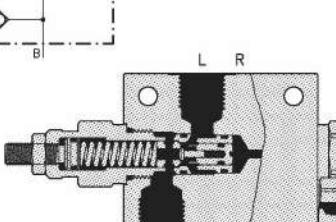
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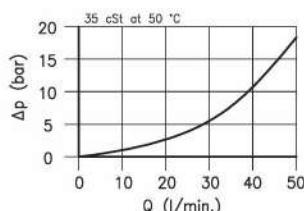
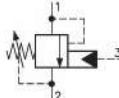
20

Motion control or overcenter valves.

As primary function these motion control or overcenter valves control the actuators' speed in relation to inlet flow, keep them blocked up, prevent pressure uncontrollable increases and avoid cavitation during movements. If placed directly on actuators they also guarantee the pipe's safety.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
CMS series – without by-pass valve. Are used in all circuits where in addition to overcenter function, is also required a control of load induced pressure. The by-pass valve must be externally set.	CMS 20	50	350	07.010
	CMS 30	90	350	07.020
	CMS 50	160	350	07.030
	CMS 70	360	350	07.040
CMQ series – with internal by-pass valve. Are used in all circuits where the only motion or overcenter function is required. The internal by-pass valve allows the free flow in direction from 1 to 2.	CMQ 30	50	350	07.060
	CMQ 50	90	350	07.070
CMB series – with internal by-pass valve. It is a version provided with an atmospherical pressure connected spring. The setting value remain unchanged also with back pressure in chamber 2. The internal by-pass valve allows the free flow in direction from 2 to 1.	CMB 20	20	350	07.090
CMC series – with internal by-pass valve. It is a version provided with an atmospherical pressure connected spring. The setting value remain unchanged also with back pressure in chamber 1. The internal by-pass valve allows the free flow in direction from 1 to 2.	CMC 30	50	350	07.100
	CMC 50	90	350	07.110

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
CMQ-CMB series PP Overcenter valve in a special manifold for simple acting function.	CMB 20/ PP	20	270	07.190
 	CMQ 30/ PP	50	350	07.192
	CMQ 50/ PP	90	350	07.194
CMQ-CMB series CSL 25 circuit They are two overcenter valves combined in a special manifold for double acting function.	CMB 20/ CSL 25	20	270	07.220
 	CMQ 30/ CSL 25	50	350	07.200
	CMQ 50/ CSL 25	90	350	07.210
CMQ series CSL 26 circuit They are two overcenter valves combined in a special manifold for double acting function; version with shuttle valve for hydraulic brakes automatic release system.	CMQ 30/ CSL 26	50	350	07.240
 	CMQ 50/ CSL 26	90	350	07.250

Technical features

$$PP = \frac{(SP + BP) - LP}{2.9}$$

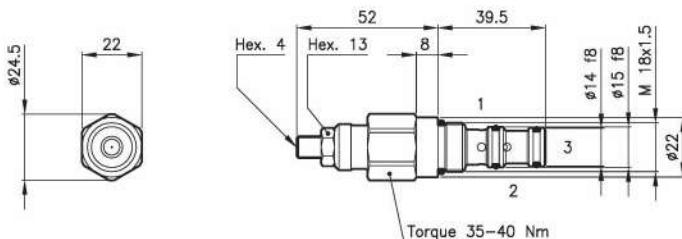
PP = Pilot pressure

SP = Setting pressure

BP = Backpressure port 2

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	50
Max. system pressure	(bar)	270
Max. setting pressure	(bar)	350
Pilot ratio		2.9:1
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Massa	(kg)	0.160
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CMS 20/T-N**

CMS 20 = Valve type



Standard springs

Type Setting range Factory set

U = 10 – 105 bar 70 bar

D = 70 – 210 bar 140 bar

T = 140 – 350 bar 280 bar

Codes:

CMS 20/U-N 24 011 100

CMS 20/D-N 24 011 101

CMS 20/T-N 24 011 102

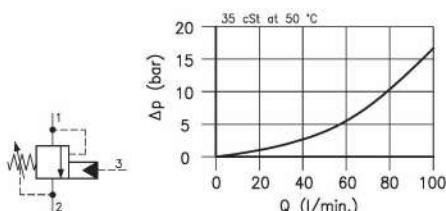
External seals kit 90 620 101

CMS 20 valves can be assembled
on standard bodies 20-C3 series;
for dimensions see catalogue 16.010

Adjustment type

N = Standard adjustment



Technical features

$$PP = \frac{(SP + BP) - LP}{2.7}$$

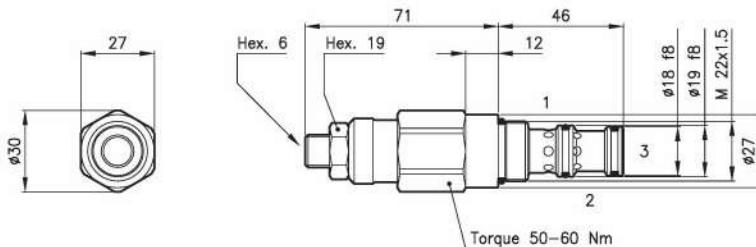
PP = Pilot pressure

SP = Setting pressure

BP = Backpressure port 2

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	90
Max. system pressure	(bar)	270
Max. setting pressure	(bar)	350
Pilot ratio		2,7:1
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.220
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CMS 30/T-N**

CMS 30 = Valve type



Standard springs

Type Setting range Factory set

U = 10 – 105 bar 70 bar

D = 70 – 210 bar 140 bar

T = 140 – 350 bar 280 bar

Codes:

CMS 30/U-N 34 011 103

CMS 30/D-N 34 011 104

CMS 30/T-N 34 011 105

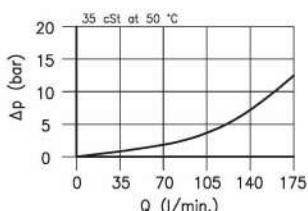
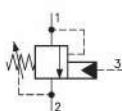
External seals kit 90 620 104

CMS 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Adjustment type

N = Standard adjustment



Technical features

$$PP = \frac{(SP + BP) - LP}{3}$$

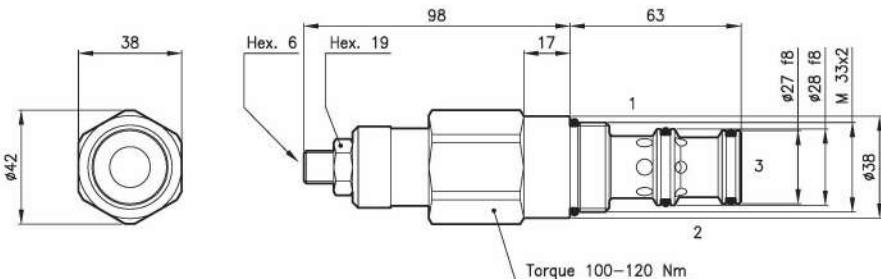
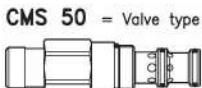
PP = Pilot pressure

SP = Setting pressure

BP = Backpressure port 2

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	160
Max. system pressure	(bar)	270
Max. setting pressure	(bar)	350
Pilot ratio		3:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.610
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CMS 50/T-N**

Standard springs

Type	Setting range	Factory set
U	10 - 105 bar	70 bar
D	70 - 210 bar	140 bar
T	140 - 350 bar	280 bar

Adjustment type

N = Standard adjustment

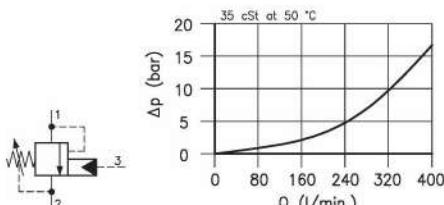


Codes:

CMS 50/U-N	54 011 104
CMS 50/D-N	54 011 105
CMS 50/T-N	54 011 106

External seals kit 90 620 107

CMS 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features

$$PP = \frac{(SP + BP) - LP}{3}$$

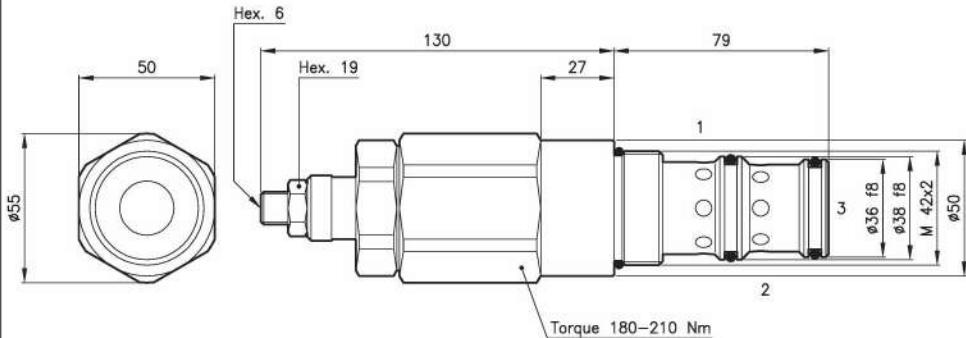
PP = Pilot pressure

SP = Setting pressure

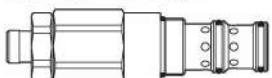
BP = Backpressure port 2

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 70/3
Max. flow	(l/min.)	360
Max. system pressure	(bar)	270
Max. setting pressure	(bar)	350
Pilot ratio		3:1
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.960
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Standard setting obtained with 5 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CMS 70/T-N**

CMS 70 = Valve type



Standard springs

Type	Setting range	Factory set
U	10 – 105 bar	70 bar
D	70 – 210 bar	140 bar
T	140 – 350 bar	280 bar

Adjustment type

N = Standard adjustment



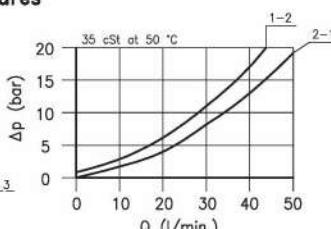
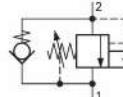
Codes:

CMS 70/U-N	74 011 101
CMS 70/D-N	74 011 102
CMS 70/T-N	74 011 100

External seals kit 90 620 120

CMS 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 16.010

Technical features



$$PP = \frac{(SP + BP) - LP}{8}$$

PP = Pilot pressure

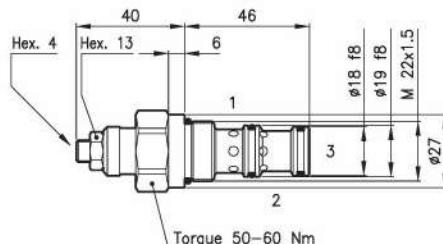
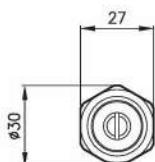
SP = Setting pressure

BP = Backpressure port 1

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.175
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CMQ 30/T-L

CMQ 30 = Valve type



Standard springs

Type Setting range Factory set

D = 25 – 125 bar 105 bar

T = 105 – 420 bar 280 bar

Codes:

CMQ 30/D-L 34 011 101

CMQ 30/T-L 34 011 102

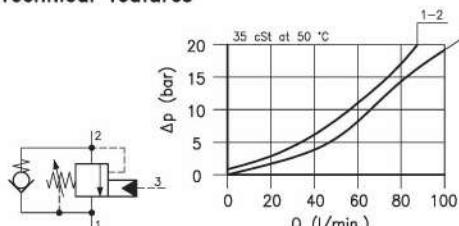
External seals kit 90 620 104

CMQ 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Adjustment type

L = Adjustment with overset protection

Technical features



$$PP = \frac{(SP + BP) - LP}{8}$$

PP = Pilot pressure

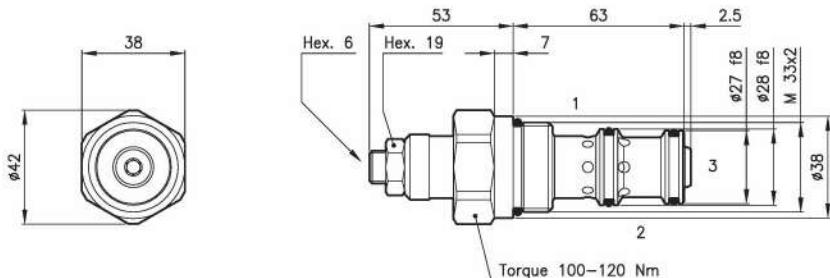
SP = Setting pressure

BP = Backpressure port 1

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	90
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.520
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

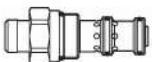
Dimensions



Ordering informations

CMQ 50/T-L

CMO 50 = Valve type



Codes:

CMQ 50/D-L 54 011 100

CMQ 50/T-L 54 011 101

External seals kit 90 620 107

Standard springs

Type Setting range Factory set

$$D = 25 - 125 \text{ bar}$$

$$T = 105 - 420 \text{ hgr}$$

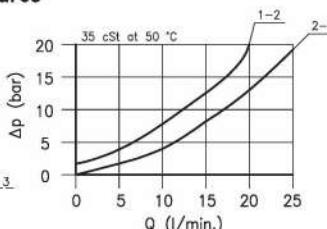
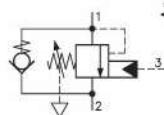
Adjustment type

L = Adjustment with overset protection



CMQ 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features



$$PP = \frac{SP - LP}{3.75}$$

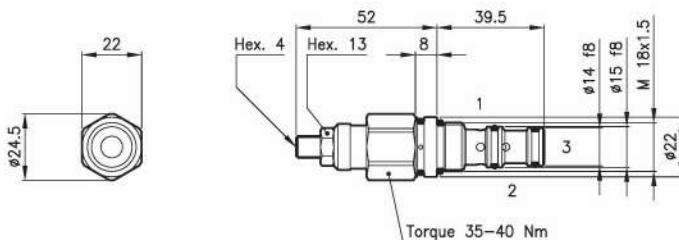
PP = Pilot pressure

SP = Setting pressure

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	20
Max. system pressure	(bar)	270
Max. setting pressure	(bar)	320
Pilot ratio		3.75:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.170
Cracking pressure 95% of setting value		
Reseat pressure 75% of setting value		
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CMB 20/T-N

CMB 20 = Valve type



Standard springs

Type Setting range Factory set

U = 25 - 125 bar 70 bar

D = 50 - 205 bar 140 bar

T = 105 - 320 bar 280 bar

Codes:

CMB 20/U-N 24 011 105

CMB 20/D-N 24 011 106

CMB 20/T-N 24 011 107

External seals kit 90 620 101

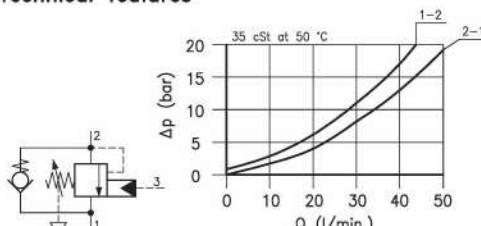
CMB 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

Adjustment type

N = Standard adjustment



Technical features



$$PP = \frac{SP - LP}{8}$$

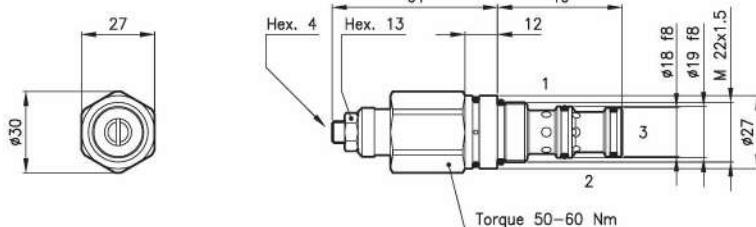
PP = Pilot pressure

SP = Setting pressure

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.210
Cracking pressure 95% of setting value		
Reset pressure 75% of setting value		
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CMC 30/T-L

CMC 30 = Valve type



Standard springs

Type Setting range Factory set

D = 25 - 125 bar 105 bar

T = 105 - 420 bar 280 bar

Adjustment type

L = Adjustment with overset protection

Codes:

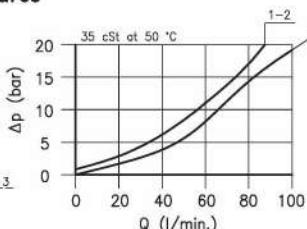
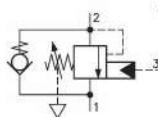
CMC 30/D-L 34 011 122

CMC 30/T-L 34 011 123

External seals kit 90 620 104

CMC 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features



$$PP = \frac{SP - LP}{8}$$

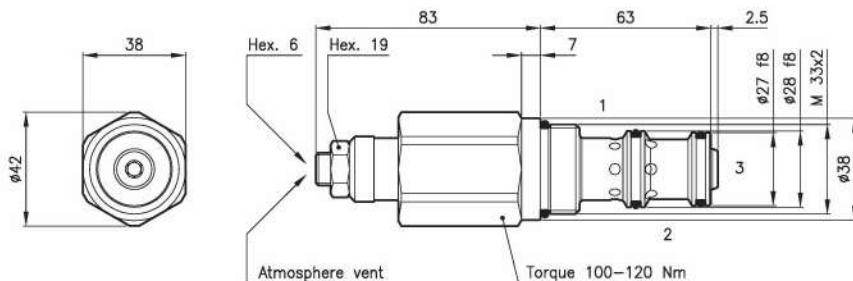
PP = Pilot pressure

SP = Setting pressure

LP = Load induced pressure

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	90
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.730
Cracking pressure 95% of setting value		
reseat pressure 75% of setting value		
Standard setting obtained with 1 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration: 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

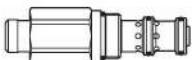
Dimensions



Ordering informations

CMC 50/T-L

CMC 50 = Valve type



Standard springs

Type Setting range Factory set

D = 25 – 125 bar 105 bar

T = 105 – 420 bar 280 bar

Codes:

CMC 50/D-L 54 011 102

CMC 50/T-L 54 011 103

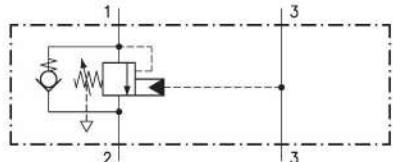
External seals kit 90 620 107

CMC 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

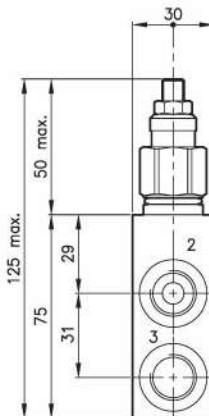
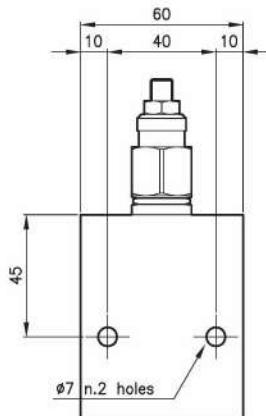
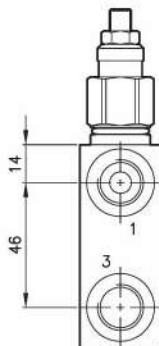
Adjustment type

L = Adjustment with overset protection



Technical features

Valve	(For features see catalogue 07.090)	CMB 20
Max. flow	(l/min.)	20
Max. system pressure	(bar)	270
Max. setting pressure	(bar)	320
Pilot ratio		3.75:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.550

Dimensions**Ordering informations****CMB 20/D-N-PP-B06****CMB 20** = Valve type

Standard springs

Type Setting range

U = 25 - 125 bar**D** = 50 - 205 bar**T** = 105 - 320 bar

Factory set

70 bar

140 bar

280 bar

Standard ports

B05 = G 1/4 ISO 228**B06** = G 3/8 ISO 228

Codes:

CMB 20/U-N-PP-B05 24 011 123

CMB 20/D-N-PP-B05 24 011 124

CMB 20/T-N-PP-B05 24 011 125

CMB 20/U-N-PP-B06 24 011 126

CMB 20/D-N-PP-B06 24 011 127

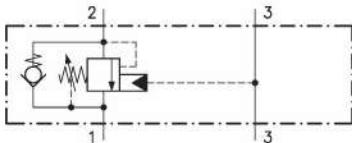
CMB 20/T-N-PP-B06 24 011 128

Only bodies code:

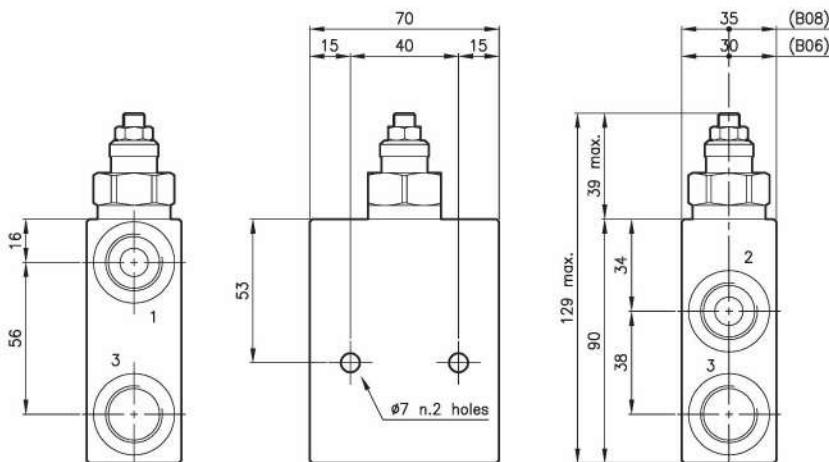
Body type 20-PP-B05 28 144 152

Body type 20-PP-B06 28 144 153

Version

Technical features

Valve	(For features see catalogue 07.080)	CMQ 30
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.790

Dimensions**Ordering informations****CMQ 30/T-L-PP-B08**

CMQ 30 = Valve type

Standard ports

Standard springs

B06 = G 3/8 ISO 228

Type Setting range

Factory set

B08 = G 1/2 ISO 228

D = 25 - 125 bar

105 bar

T = 105 - 420 bar

280 bar

Codes:

CMQ 30/D-L-PP-B06 34 011 155

CMQ 30/T-L-PP-B06 34 011 156

CMQ 30/D-L-PP-B08 34 011 157

CMQ 30/T-L-PP-B08 34 011 158

Adjustment type

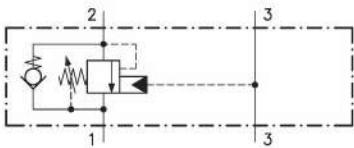
L = Adjustment with overset protection

Only bodies code:

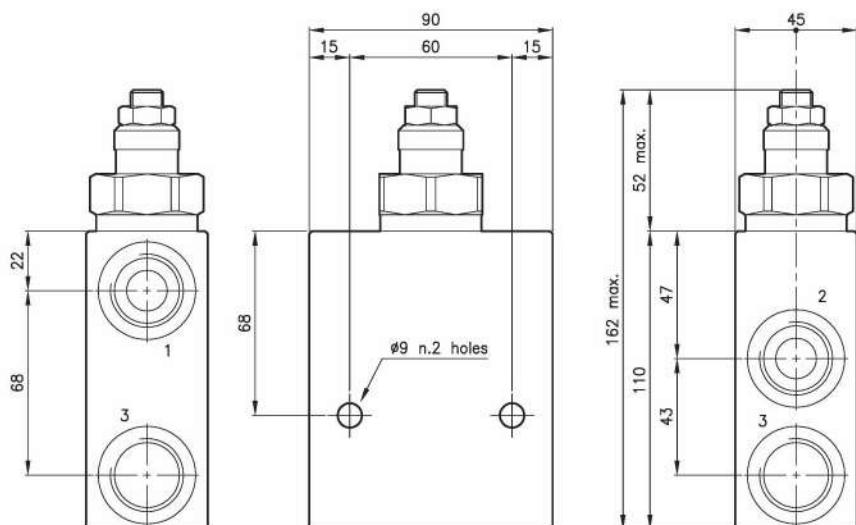
Body type 30-PP-B06 38 144 120

Body type 30-PP-B08 38 144 236

Version

Technical features

Valve	(For features see catalogue 07.070)	CMQ 50
Max. flow	(l/min.)	90
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.700

Dimensions**Ordering informations****CMQ 50/T-L-PP-B12****CMQ 50** = Valve type

Standard springs

Type Setting range Factory set

D = 25 - 125 bar 105 bar**T** = 105 - 420 bar 280 bar

Adjustment type

L = Adjustment with overset protection

Version

Standard ports

B08 = G 1/2 ISO 228**B12** = G 3/4 ISO 228

Codes:

CMQ 50/D-L-PP-B08 54 011 122

CMQ 50/T-L-PP-B08 54 011 123

CMQ 50/D-L-PP-B12 54 011 124

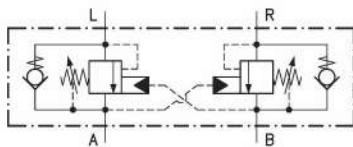
CMQ 50/T-L-PP-B12 54 011 125

Only bodies code:

Body type 50-PP-B08 58 144 149

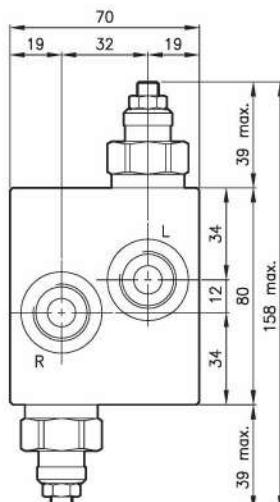
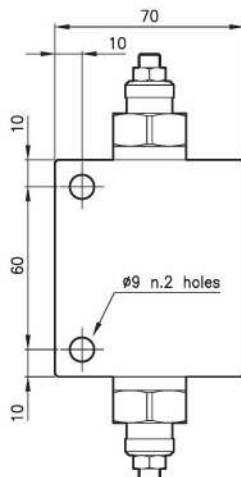
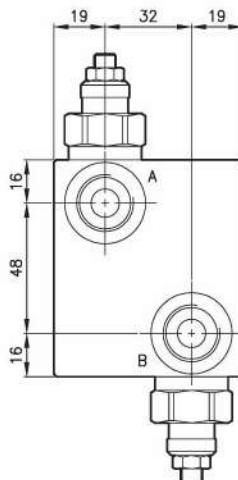
Body type 50-PP-B12 58 144 150

Technical features



Valve	(For features see catalogue 07.060)	CMQ 30
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.210

Dimensions



Ordering informations

CMQ 30/T-L-CSL 25-B08

CMQ 30 = Valve type

Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Standard springs

Type Setting range Factory set

D = 25 - 125 bar 105 bar

T = 105 - 420 bar 280 bar

Codes:

CMQ 30/D-L-CSL 25-B06 34 011 106

CMQ 30/T-L-CSL 25-B06 34 011 107

CMQ 30/D-L-CSL 25-B08 34 011 108

CMQ 30/T-L-CSL 25-B08 34 011 109

Adjustment type

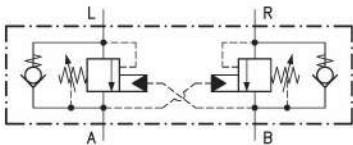
L = Adjustment with overset protection

Version

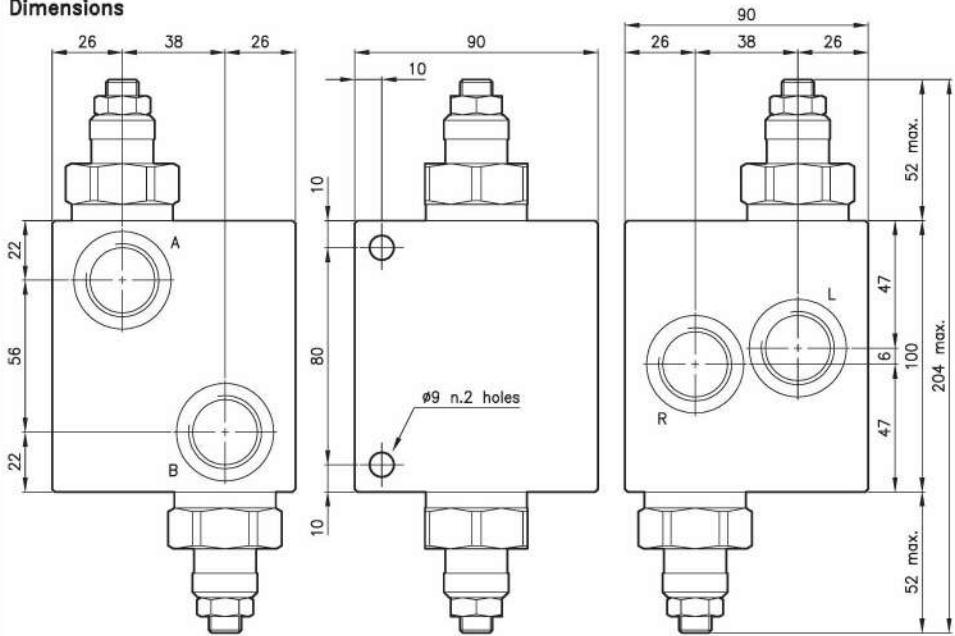
Only bodies code:

Body type 30-CSL 25-B06 38 144 117

Body type 30-CSL 25-B08 38 144 118

Technical features

Valve	(For features see catalogue 07.070)	CMQ 50
Max. flow	(l/min.)	90
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	3.300

Dimensions**Ordering informations****CMQ 50/T-L-CSL 25-B08****CMQ 50** = Valve type

Standard springs

Type Setting range

D = 25 - 125 bar**T** = 105 - 420 bar

Factory set

105 bar

280 bar

Standard ports

B08 = G 1/2 ISO 228**B12** = G 3/4 ISO 228

Codes:

CMQ 50/D-L-CSL 25-B08 54 011 107

CMQ 50/T-L-CSL 25-B08 54 011 108

CMQ 50/D-L-CSL 25-B12 54 011 109

CMQ 50/T-L-CSL 25-B12 54 011 110

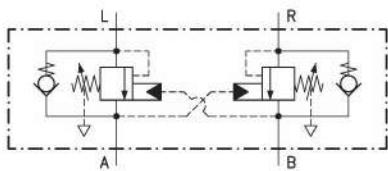
Only bodies code:

Body type 50-CSL 25-B08 58 144 134

Body type 50-CSL 25-B12 58 144 135

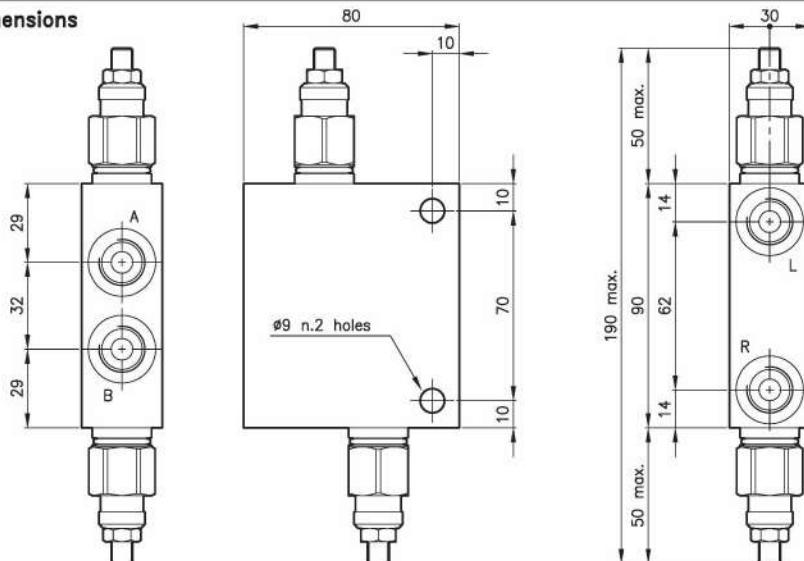
Version

Technical features



Valve	(For features see catalogue 07.090)	CMB 20
Max. flow	(l/min.)	20
Max. system pressure	(bar)	270
Max. setting pressure	(bar)	320
Pilot ratio		3.75:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.900

Dimensions



Ordering informations

CMB 20/D-N-CSL 25-B06

CMB 20 = Valve type

Standard ports

B05 = G 1/4 ISO 228

B06 = G 3/8 ISO 228

Standard springs

Type Setting range Factory set

U = 25 - 125 bar 70 bar

D = 50 - 205 bar 140 bar

T = 105 - 320 bar 280 bar

Codes:

CMB 20/U-N-CSL 25-B05 24 011 108

CMB 20/D-N-CSL 25-B05 24 011 109

CMB 20/T-N-CSL 25-B05 24 011 110

CMB 20/U-N-CSL 25-B06 24 011 111

CMB 20/D-N-CSL 25-B06 24 011 112

CMB 20/T-N-CSL 25-B06 24 011 113

Adjustment type

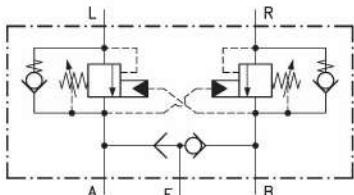
N = Standard adjustment

Version

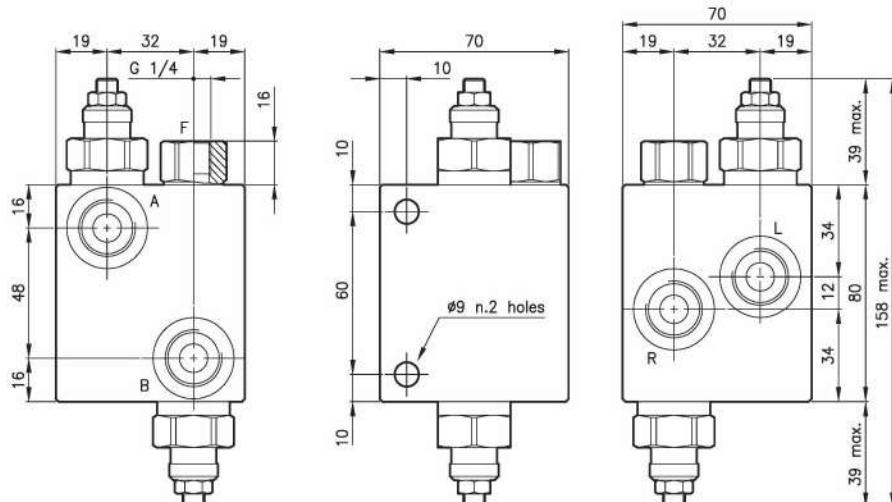
Only bodies code:

Body type 20-CSL 25-B05 28 144 138

Body type 20-CSL 25-B06 28 144 139

Technical features

Valve	(For features see catalogue 07.060)	CMQ 30
Valve	(For features see catalogue 05.320)	CCE 20
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.210

Dimensions**Ordering informations****CMQ 30/T-L-CSL 26-B08**

CMQ 30 = Valve type

Standard ports

Standard springs

B06 = G 3/8 ISO 228

Type Setting range

Factory set

B08 = G 1/2 ISO 228

D = 25 - 125 bar

105 bar

Codes:

T = 105 - 420 bar

280 bar

CMQ 30/D-L-CSL 26-B06 34 011 143
CMQ 30/T-L-CSL 26-B06 34 011 144

Adjustment type

CMQ 30/D-L-CSL 26-B08 34 011 145
CMQ 30/T-L-CSL 26-B08 34 011 146

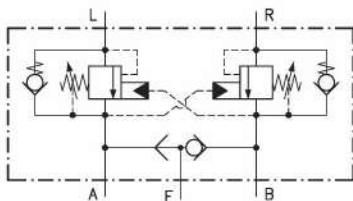
L = Adjustment with overset protection

Only bodies code:

Version with shuttle valve

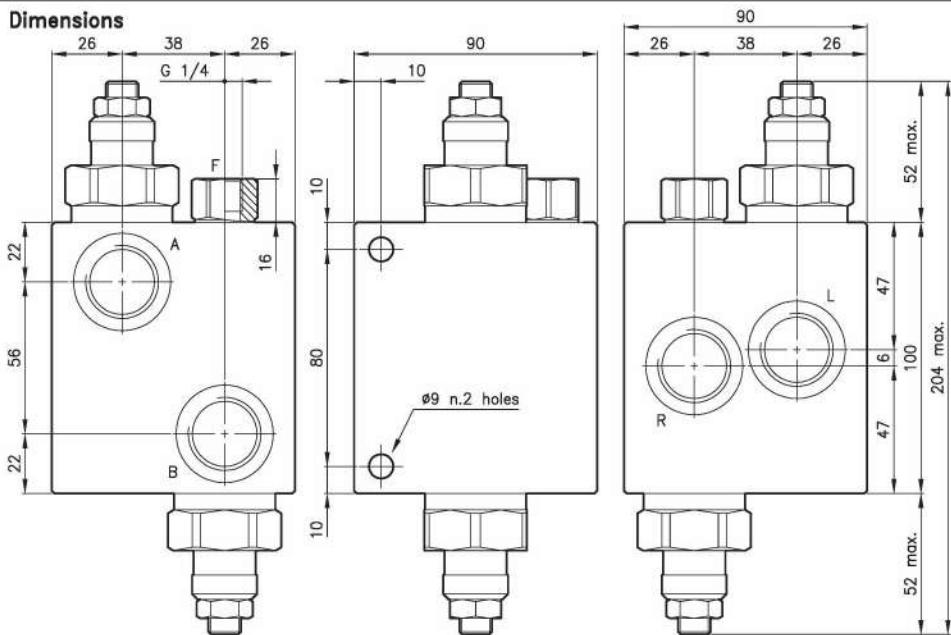
Body type 30-CSL 26-B06 38 144 197
Body type 30-CSL 26-B08 38 144 198

Technical features



Valve	(For features see catalogue 07.070)	CMQ 50
Valve	(For features see catalogue 05.320)	CCE 20
Max. flow	(l/min.)	90
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	3.300

Dimensions



Ordering informations

CMQ 50/T-L-CSL 26-B08

CMQ 50 = Valve type

Standard ports

B08 = G 1/2 ISO 228

B12 = G 3/4 ISO 228

Standard springs

Codes:

Type Setting range Factory set

CMQ 50/D-L-CSL 26-B08 54 011 111

D = 25 - 125 bar 105 bar

CMQ 50/T-L-CSL 26-B08 54 011 112

T = 105 - 420 bar 280 bar

CMQ 50/D-L-CSL 26-B12 54 011 113

Adjustment type

CMQ 50/T-L-CSL 26-B12 54 011 114

L = Adjustment with overset protection

Only bodies code:

Version with shuttle valve

Body type 50-CSL 26-B08 58 144 138

Body type 50-CSL 26-B12 58 144 139

ALPHABETIC INDEX AND VALVE CODES

INFORMATIONS

PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

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FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

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SANDWICH BODIES (CETOP)

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ACCESSORIES

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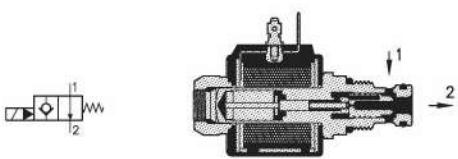
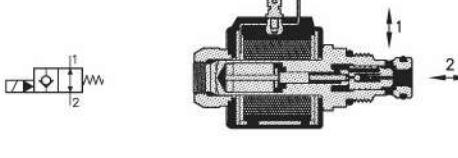
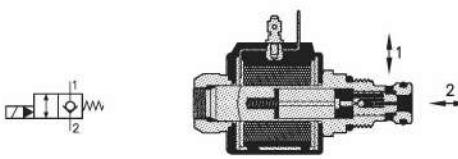
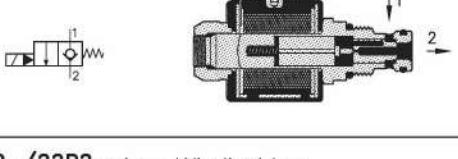
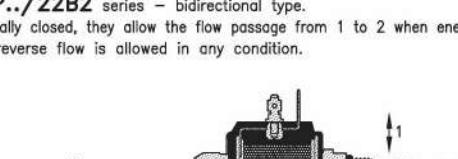
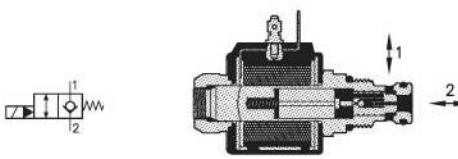
20

Pilot operated solenoid valves poppet-type (210 bar).

These are two-ways pilot operated solenoid valves with conical poppet-type, manufactured in several sizes and with different circuits. They can be used in applications where leakages are not allowed.

The ECP series, which uses 18 Watt low power coils, is suitable for working at max. pressure of 210 bar.

The duty current coils (12–24 Volt) can be directly fed; otherwise for alternate current coils (24–110–220 Volt 50/60 Hz) a connector with rectifier bridge is required, which can be supplied on request.

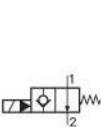
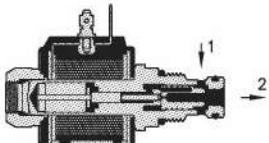
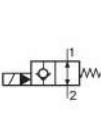
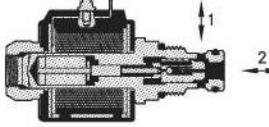
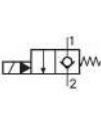
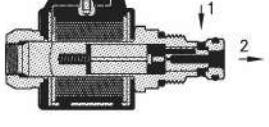
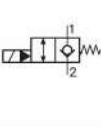
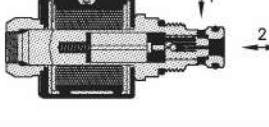
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
ECP../22C1 series – unidirectional type. Normally open, they stop the flow passage from 1 to 2 when energized; the reverse flow is not allowed.	ECP 20/22C1	30	210	08.010
	ECP 30/22C1	50	210	08.020
	ECP 50/22C1	90	210	08.030
ECP../22B1 series – bidirectional type. Normally open, they stop the flow passage from 1 to 2 when energized; the reverse flow is allowed in any condition.	ECP 20/22B1	30	210	08.010
	ECP 30/22B1	50	210	08.020
	ECP 50/22B1	90	210	08.030
ECP../22C2 series – unidirectional type. Normally closed, they allow the flow passage from 1 to 2 when energized; the reverse flow is allowed only with de-energized coil.	ECP 20/22C2	30	210	08.010
	ECP 30/22C2	50	210	08.020
	ECP 50/22C2	90	210	08.030
ECP../22B2 series – bidirectional type. Normally closed, they allow the flow passage from 1 to 2 when energized; the reverse flow is allowed in any condition.	ECP 20/22B2	30	210	08.010
	ECP 30/22B2	50	210	08.020
	ECP 50/22B2	90	210	08.030

Pilot operated solenoid valves poppet-type (350 bar).

These are two-way pilot operated solenoid valves with conical poppet-type, manufactured in several sizes and with different circuits. They can be used in applications where leakages are not allowed.

The EPP series, which uses 28 Watt power coils, is suitable for working till 350 bar.

The duty current coils (12–24 Volt) can be directly fed; otherwise for alternate current coils (20–110–220 Volt 50/60 Hz) a connector with rectifier bridge is required, which can be supplied on request.

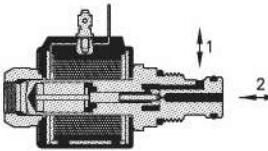
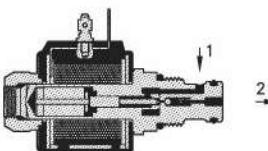
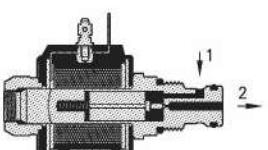
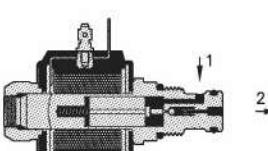
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
EPP../22C1 series – unidirectional type. Normally open, they stop the flow passage from 1 to 2 when energized; the reverse flow is not allowed.	EPP 30/22C1	60	350	08.040
	EPP 50/22C1	100	350	08.050
	EPP 70/22C1	200	350	08.060
EPP../22B1 series – bidirectional type. Normally open, they stop the flow passage from 1 to 2 when energized; the reverse flow is allowed in any condition.	EPP 30/22B1	60	350	08.040
	EPP 50/22B1	100	350	08.050
	EPP 70/22B1	200	350	08.060
EPP../22C2 series – unidirectional type. Normally closed, they allow the flow passage from 1 to 2 when energized; the reverse flow is allowed only with de-energized coil.	EPP 30/22C2	60	350	08.040
	EPP 50/22C2	100	350	08.050
	EPP 70/22C2	200	350	08.060
EPP../22B2 series – bidirectional type. Normally closed, they allow the flow passage from 1 to 2 when energized; the reverse flow is allowed in any condition.	EPP 30/22B2	60	350	08.040
	EPP 50/22B2	100	350	08.050
	EPP 70/22B2	200	350	08.060

Pilot solenoid valves poppet-type (210 bar).

These are two-way direct solenoid valves with conical poppet-type, manufactured only in size 20 and with different circuits; are mainly used as pilot valves in oiltight systems.

The ECD 20 series, which uses 18 Watt low power coils, is suitable for working at max. pressure of 210 bar.

The duty current coils (12-24 Volt) can be directly fed; otherwise for alternate current coils (20-110-220 Volt 50/60 Hz) a connector with rectifier bridge is required, which can be supplied on request.

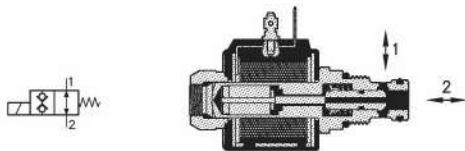
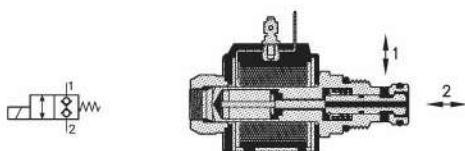
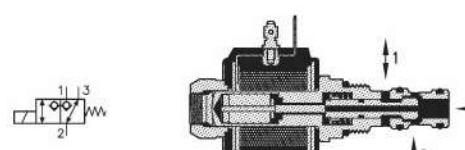
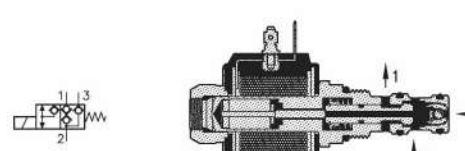
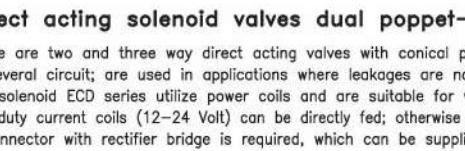
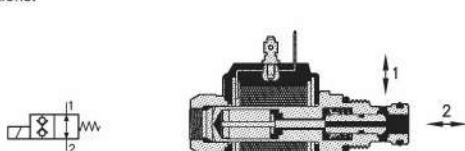
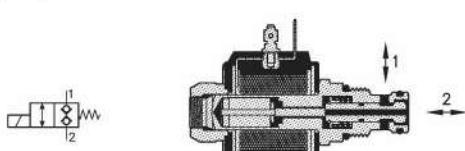
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
22B1 series – bidirectional type. On rest position, they allow free passage and stop it in both directions when energized.	ECD 20/22B1	1.2	210	08.070
 				
22U1 series – unidirectional type. Normally open, they allow flow passage from 1 to 2; when energized they stop it in both directions.	ECD 20/22U1	1.2	210	08.070
 				
22B2 series – bidirectional type. Normally closed, when energized they allow flow passage in both directions. The flow from 2 to 1 is allowed only higt pressure (see catalogue).	ECD 20/22B2	1.2	210	08.070
 				
22U2 series – unidirectional type. Normally closed, when energized they allow flow passage from 1 to 2 and stop the reverse flow in any condition.	ECD 20/22U2	1.2	210	08.070
 				

Direct acting solenoid valves dual poppet-type.

These are two and three way direct acting valves with conical poppet-type, manufactured in sizes 20-30 and 50 and in several circuit; are used in applications where leakages are not allowed.

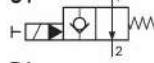
The solenoid ECD series utilize power coils and are suitable for working till 315 bar.

The duty current coils (12-24 Volt) can be directly fed; otherwise for alternate current coils (24-110-220 Volt 50/60 Hz) a connector with rectifier bridge is required, which can be supplied on request.

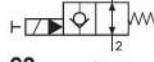
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
ECD../2201 series – bidirectional type. Normally open, when energized they stop the flow passage in both directions.	ECD 30/2201	20	315	08.080
				
ECD../2202 series – bidirectional type. Normally closed in both directions, when energized they allow the flow free passage.	ECD 20/2202	10	210	08.075
				
	ECD 30/2202	25	315	08.080
	ECD 50/2202	50	315	08.090
ECD../3204 series – switching over type. They allow to switch over the flow, tight insulating chamber 1 or 3 by turns. The flow is allowed in all directions.	ECD 20/3204	5	210	08.095
				
	ECD 30/3204	25	315	08.100
ECD../3204S series. Normally closed, they allow to drive a simple effect cylinder connecting 3 with pump, 2 with cylinder and 1 with return line (T).	ECD 30/3204S	20	315	08.100
				

Technical features

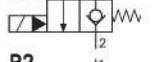
C1



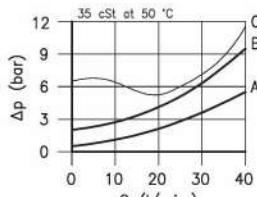
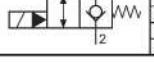
B1



C2



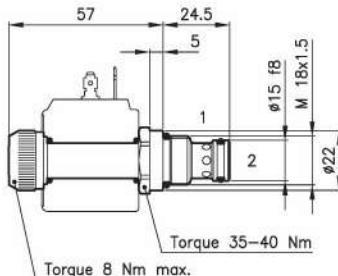
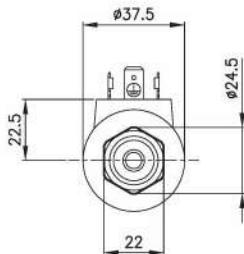
B2



	22C1	22B1	22C2	22B2
1 → 2 De-en.	curve A	curve A	not allowed	not allowed
2 → 1 De-en.	not allowed	curve A	curve B	curve B
1 → 2 Energ.	not allowed	not allowed	curve A	curve A
2 → 1 Energ.	curve C	curve C	not allowed	curve A

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Response time	(ms)	80 - 120
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



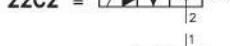
Ordering informations

ECP 20/22C1-MO

ECP 20/22.. = Valve type



Circuits



MO = Manual override (Only C1 and B1 version)
(Omit if not request)

Codes:

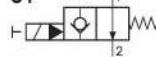
ECP 20/22C1	25 011 100
ECP 20/22C1-MO	25 011 148
ECP 20/22B1	25 011 101
ECP 20/22B1-MO	25 011 149
ECP 20/22C2	25 011 102
ECP 20/22B2	25 011 103
External seals kit	90 620 100

ECP 20/22.. valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

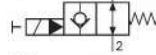
On the ECP 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

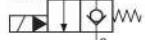
C1



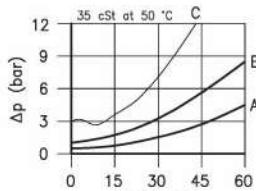
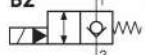
B1



C2



B2

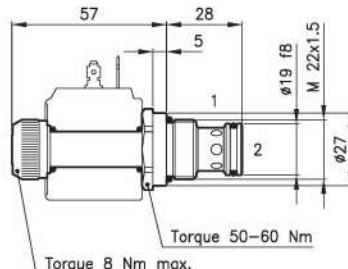
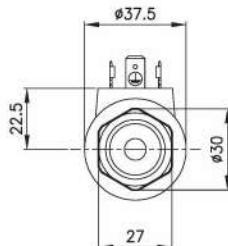


22C1 22B1 22C2 22B2

1 → 2 De-en. curve A curve A not allowed not allowed
2 → 1 De-en. not allowed curve A curve B curve B
1 → 2 Energ. not allowed not allowed curve A curve A
2 → 1 Energ. curve C curve C not allowed curve A

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	50
Max. pressure	(bar)	210
Response time	(ms)	80 – 120
It change in function of circuits pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ECP 30/22C1-MO

ECP 30/22.. = Valve type



Circuits



MO = Manual override (Only C1 and B1 version)
(Omit if not request)

Codes:

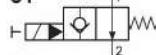
ECP 30/22C1	35 011 112
ECP 30/22C1-MO	35 011 228
ECP 30/22B1	35 011 111
ECP 30/22B1-MO	35 011 229
ECP 30/22C2	35 011 102
ECP 30/22B2	35 011 101
External seals kit	90 620 103

ECP 30/22.. valves can be assembled on standard bodies 30-L0 series; for dimensions see catalogue 16.010

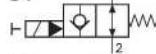
On the ECP 30 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

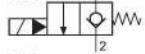
C1



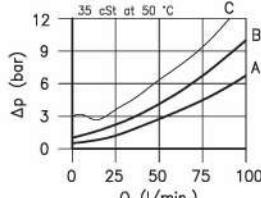
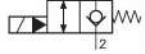
B1



C2

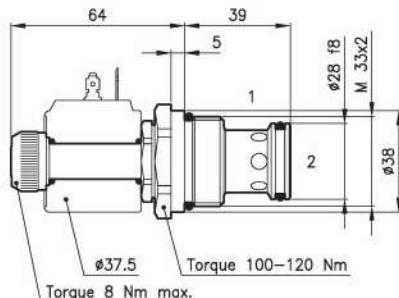
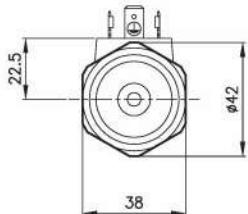


B2



Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	(l/min.)	90
Max. pressure	(bar)	210
Response time	(ms)	80 – 120
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.400
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

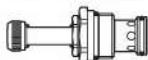
Dimensions



Ordering informations

ECP 50/22C1-MO

ECP 50/22.. = Valve type



Circuits

22C1 =

22B1 =

22C2 =

22B2 =

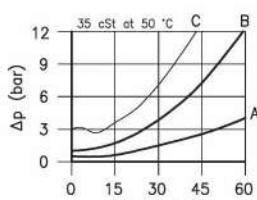
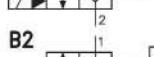
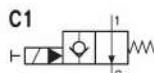
MO = Manual override (Only C1 and B1 version)
(Omit if not request)

Codes:

ECP 50/22C1	55 011 105
ECP 50/22C1-MO	55 011 158
ECP 50/22B1	55 011 104
ECP 50/22B1-MO	55 011 159
ECP 50/22C2	55 011 107
ECP 50/22B2	55 011 106
External seals kit	90 620 106

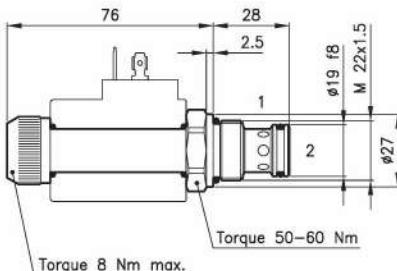
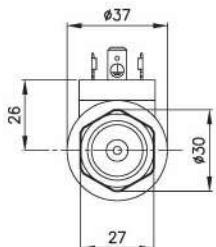
ECP 50/22.. valves can be assembled on standard bodies 50-L0 series; for dimensions see catalogue 16.010

On the ECP 50 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

	22C1	22B1	22C2	22B2
1 → 2 De-en.	curve A	curve A	not allowed	not allowed
2 → 1 De-en.	not allowed	curve A	curve B	curve B
1 → 2 Energ.	not allowed	not allowed	curve A	curve A
2 → 1 Energ.	curve C	curve C	not allowed	curve A

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	60
Max. pressure	(bar)	350
Response time	(ms)	80 – 120
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.210
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering Informations****EPP 30/22C1-MO**

EPP 30/22.. = Valve type



Circuits

MO = Manual override (Only C1 and B1 version)
(Omit if not request)

Codes:

EPP 30/22C1 35 011 110

EPP 30/22C1-MO 35 011 109

EPP 30/22B1 35 011 108

EPP 30/22B1-MO 35 011 107

EPP 30/22C2 35 011 115

EPP 30/22B2 35 011 114

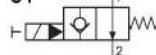
External seals kit 90 620 103

EPP 30/22.. valves can be assembled on standard bodies 30-L0 series; for dimensions see catalogue 16.010

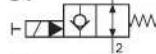
On the EPP 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

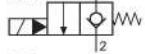
C1



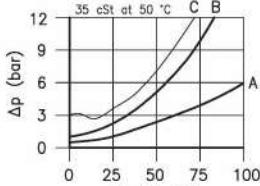
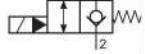
B1



C2



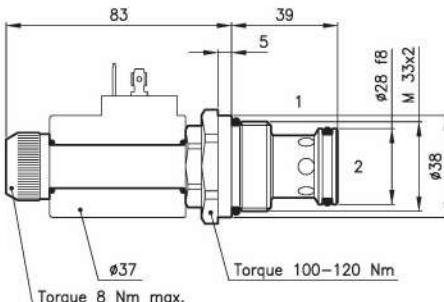
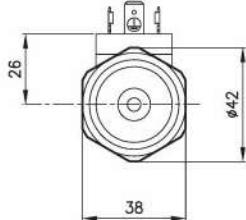
B2



	22C1	22B1	22C2	22B2
1 → 2 De-en.	curve A	curve A	not allowed	not allowed
2 → 1 De-en.	not allowed	curve A	curve B	curve B
1 → 2 Energ.	not allowed	not allowed	curve A	curve A
2 → 1 Energ.	curve C	curve C	not allowed	curve A

Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	(l/min.)	100
Max. pressure	(bar)	350
Response time	(ms)	80 – 120
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.420
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

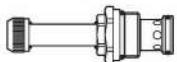
Dimensions



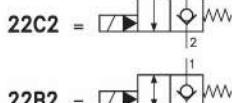
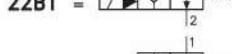
Ordering Informations

EPP 50/22C1-MO

EPP 50/22.. = Valve type



Circuits



MO = Manual override (Only C1 and B1 version)
(Omit if not request)

Codes:

EPP 50/22C1 55 011 103

EPP 50/22C1-MO 55 011 102

EPP 50/22B1 55 011 101

EPP 50/22B1-MO 55 011 100

EPP 50/22C2 55 011 109

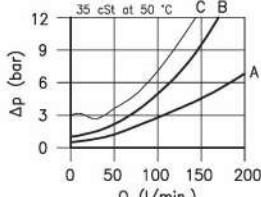
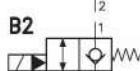
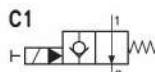
EPP 50/22B2 55 011 108

External seals kit 90 620 106

EPP 50/22.. valves can be assembled on standard bodies 50-L0 series; for dimensions see catalogue 16.010

On the EPP 50 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

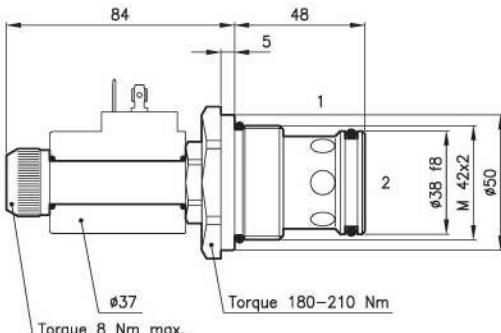
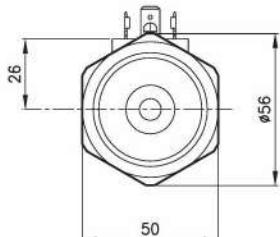


	22C1	22B1	22C2	22B2
1 → 2 De-en.	curve A	curve A	not allowed	not allowed
2 → 1 De-en.	not allowed	curve A	curve B	curve B

1 → 2 Energ.	not allowed	not allowed	curve A	curve A
2 → 1 Energ.	curve C	curve C	not allowed	curve A

Cavity	(For dimensions see catalogue 17.000)	S 70/2
Max. flow	(l/min.)	200
Max. pressure	(bar)	350
Response time	(ms)	80 – 120
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.680
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

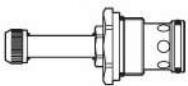
Dimensions



Ordering Informations

EPP 70/22C1-MO

EPP 70/22.. = Valve type



Circuits



MO = Manual override (Only C1 and B1 version)
(Omit if not request)

Codes:

EPP 70/22C1 75 011 103

EPP 70/22C1-MO 75 011 102

EPP 70/22B1 75 011 101

EPP 70/22B1-MO 75 011 100

EPP 70/22C2 75 011 105

EPP 70/22B2 75 011 104

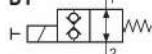
External seals kit 90 620 109

EPP 70/22.. valves can be assembled on standard bodies 70-L0 series; for dimensions see catalogue 16.010

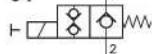
On the EPP 70 valves must be assembled the Coils B30 valves; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

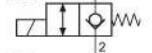
B1



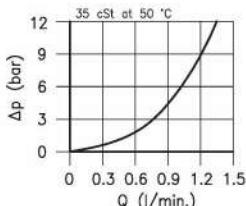
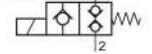
U1



B2



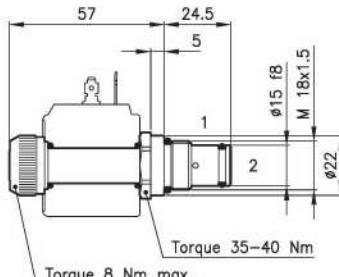
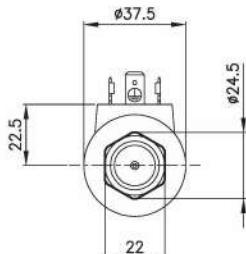
U2



In B2 version the flow from 2 to 1 needs a pressure about 180 bar.

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	1.2
Max. pressure	(bar)	210
Response time	(ms)	20 - 40
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

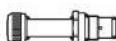
Dimensions



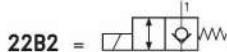
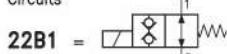
Ordering informations

ECD 20/22U1-MO

ECD 20/22.. = Valve type



Circuits



MO = Manual override (Only B1 and U1 version)
(omit if not request)

Codes:

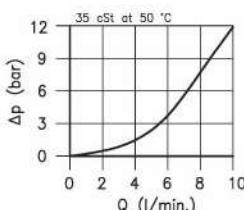
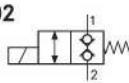
ECD 20/22B1	25 011 109
ECD 20/22B1-MO	25 011 147
ECD 20/22U1	25 011 120
ECD 20/22U1-MO	25 011 146
ECD 20/22B2	25 011 104
ECD 20/22U2	25 011 105
External seals kit	90 620 100

ECD 20/22.. valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

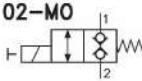
On the ECD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

02

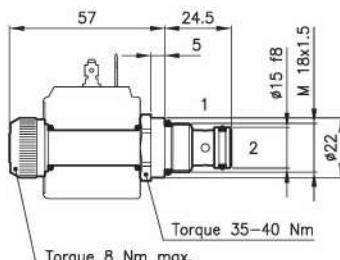
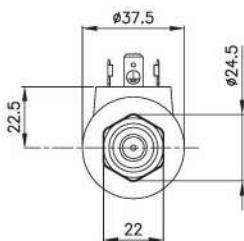


02-MO



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	10
Max. pressure	(bar)	210
Response time	(ms)	20 - 40
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ECD 20/2202-MO

ECD 20/22.. = Valve type

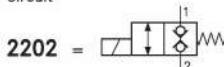


Codes:

ECD 20/2202 25 011 129
ECD 20/2202-MO 25 011 133

External seals kit 90 620 100

Circuit:



ECD 20/22.. valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

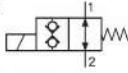
MO = Manual override

(Omit if not request)

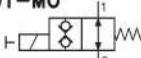
On the ECD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

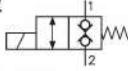
01



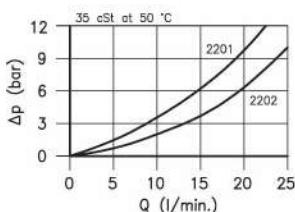
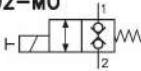
01-MO



02

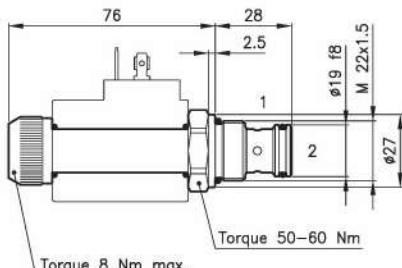
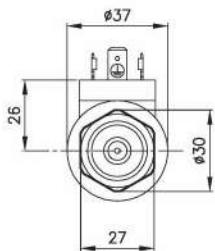


02-MO



Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	01/01-MO (l/min.)	20
Max. flow	02/02-MO (l/min.)	25
Max. pressure	(bar)	315
Response time	(ms)	30 – 60
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.210
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ECD 30/2202-MO

ECD 30/22.. = Valve type



Circuits

2201 =

2202 =

MO = Manual override
(Omit if not request)

Codes:

ECD 30/2201 35 011 129

ECD 30/2201-MO 35 011 145

ECD 30/2202 35 011 117

ECD 30/2202-MO 35 011 131

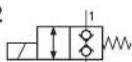
External seals kit 90 620 103

ECD 30/22.. valves can be assembled on standard bodies 30-LO series; for dimensions see catalogue 16.010

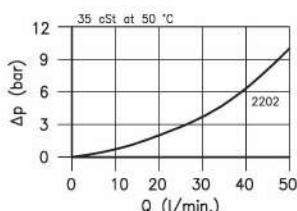
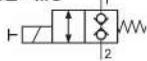
On the ECD 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

02

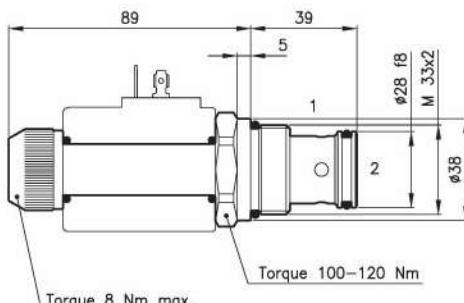
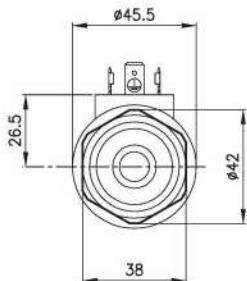


02-MO



Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	02/02-MO (l/min.)	50
Max. pressure	(bar)	315
Response time	(ms)	40 - 80
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.460
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

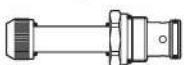
Dimensions



Ordering informations

ECD 50/2202-MO

ECD 50/22.. = Valve type



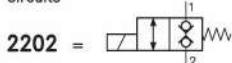
Codes:

ECD 50/2202 55 011 113

ECD 50/2202-MO 55 011 114

External seals kit 90 620 106

Circuits



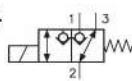
ECD 50/22.. valves can be assembled on standard bodies 50-L0 series; for dimensions see catalogue 16.010

MO = Manual override
(Omit if not request)

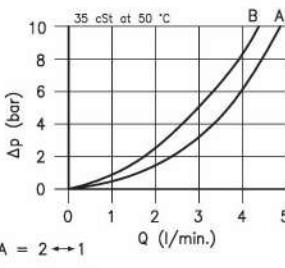
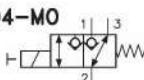
On the ECD 50 valves must be assembled the Coils B50 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

04

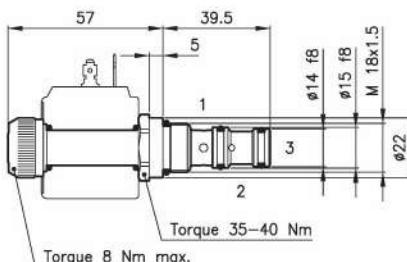
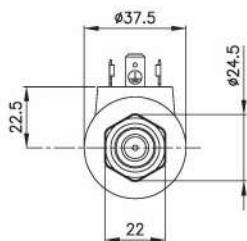


04-MO



Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	5
Max. pressure	(bar)	210
Response time	(ms)	20 – 40
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.140
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

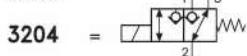
ECD 20/3204-MO

ECD 20/32.. = Valve type



Circuits

3204 =



MO = Manual override

(Omit if not request)

Codes:

ECD 20/3204 25 011 156

ECD 20/3204-MO 25 011 157

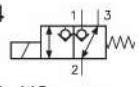
External seals kit 90 620 101

ECD 20/32.. valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

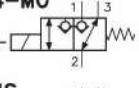
On the ECD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

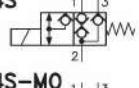
04



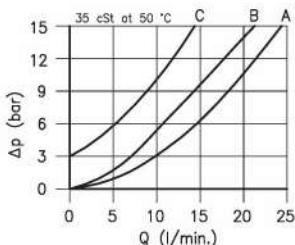
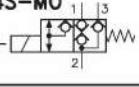
04-MO



04S



04S-MO



A = 2 → 1 (3204)
B = 2 → 3 (3204) 2 → 1 (3204S)
C = 3 → 2 (Q max. 15 l/min.)

Cavity (For dimensions see catalogue 17.000)

S 30/3

Max. flow 3204/3204-MO (l/min.) 25

Max. flow 3204S/3204S-MO (l/min.) 20

Max. pressure (bar) 315

Response time (ms) 30 - 60
It change in function of circuit, pressure, flow and fluid viscosity.
(Mean value)

Fluid viscosity range (cSt) 2.8 - 380

Fluid temperature range (°C) -20 +80

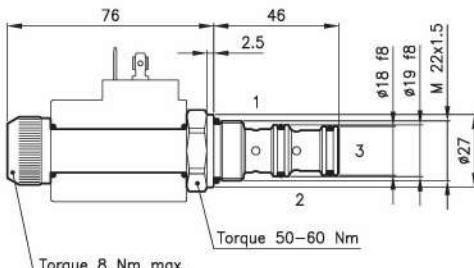
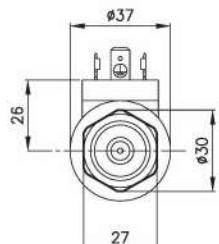
Mass (kg) 0.240

Hydraulic fluid; mineral oil HM and HV ISO 6074

Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)

Standard seals in Polyurethane and Buna N

Dimensions



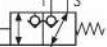
Ordering informations

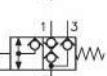
ECD 30/3204-MO

ECD 30/32.. = Valve type



Circuits

3204 = 

3204S = 

MO = Manual override
(Omit if not request)

Codes:

ECD 30/3204 35 011 126

ECD 30/3204-MO 35 011 127

ECD 30/3204S 35 011 148

ECD 30/3204S-MO 35 011 147

External seals kit 90 620 104

ECD 30/32.. valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

On the ECD 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

ALPHABETIC INDEX AND VALVE CODES

INFORMATIONS

PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

ACCESSORIES

SCHEDULES

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20

Single solenoid valves.

They are simple solenoid valves with two, three and four way, manufactured in sizes 20, 30 and 50 and in several circuits, are used in compact applications settled in manifolds.

The solenoid ETD series utilize power coils and are suitable for working till 315 bar.

The duty current coils (12–24 Volt) can be directly fed; otherwise for alternate current coils (24–110–220 Volt 50/60 Hz) a connector with rectifier bridge is required, which can be supplied on request.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
ETD../22.. series – two-ways type. Normally open or closed, have better performances with flow from 1 to 2, in the opposite direction it's necessary to limit flow.	ETD 20/2201	15	210	09.010
	ETD 30/2201	30	315	09.020
	ETD 50/2201	60	315	09.030
	ETD 20/2202	15	210	09.010
	ETD 30/2202	30	315	09.020
	ETD 50/2202	60	315	09.030
ETD../32.. series – three-way type. Manufactured with two different circuits in order to obtain highest performances. With flow direction opposit to symbols it's necessary to limit flow and max. pressure.	ETD 20/3203	15	210	09.040
	ETD 30/3203	30	315	09.050
	ETD 50/3203	60	315	09.060
	ETD 20/3204	15	210	09.040
	ETD 30/3204	30	315	09.050
	ETD 50/3204	60	315	09.060
ETD../42.. series – four-way type centre closed.	ETD 20/4205	15	315	09.070
	ETD 30/4205	30	315	09.080
	ETD 50/4205	60	315	09.090
	ETD 20/4206	15	315	09.070
	ETD 30/4206	30	315	09.080
	ETD 50/4206	60	315	09.090
ETD../42.. series – four-way type centre open.	ETD 20/4207	12	315	09.100
	ETD 30/4207	25	315	09.110
	ETD 50/4207	45	315	09.120
	ETD 20/4208	12	315	09.100
	ETD 30/4208	25	315	09.110
	ETD 50/4208	45	315	09.120

Duble solenoid valves.

They are double solenoid valves with four-way and three-positions, manufactured in sizes 20, 30 and 50 and in several circuits; are used in pilot systems and compact applications settled in manifolds.

The solenoid ETD series utilize power coils and are suitable for working till 315 bar.

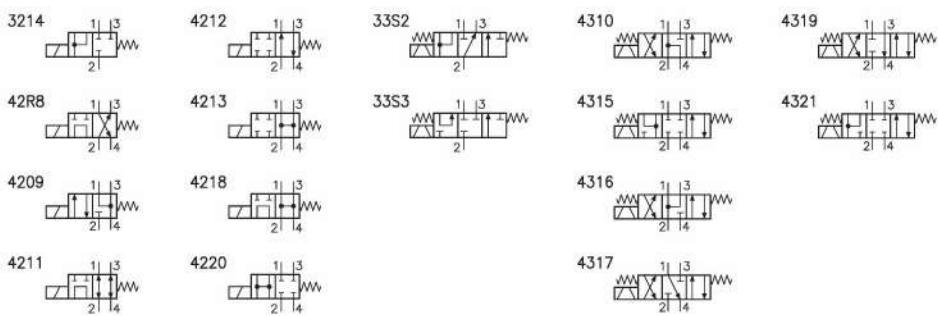
The duty current coils (12–24–27 Volt) can be directly fed; otherwise for alternate current coils (24–110–220 Volt 50/60 Hz) a connector with rectifier bridge is required, which can be supplied on request.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
ETD../43.. series – four-way type centre closed.	ETD 20/4306	15	315	09.130
4306				
4309				
ETD../43.. series – four-way type centre open.	ETD 30/4306	30	315	09.140
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 50/4306	60	315	09.150
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 20/4309	15	315	09.130
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 30/4309	30	315	09.140
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 50/4309	60	315	09.150
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 20/4307	12	315	09.160
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 30/4307	25	315	09.170
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 50/4307	45	315	09.180
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 20/4308	12	315	09.160
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 30/4308	25	315	09.170
4307				
4308				
ETD../43.. series – four-way type centre open.	ETD 50/4308	45	315	09.180
4307				
4308				

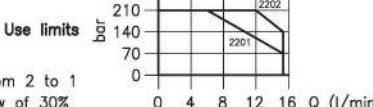
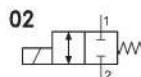
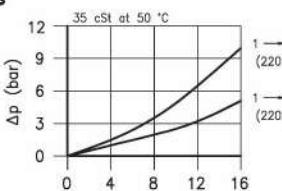
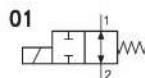
Circuits available on request.

On Customers request, solenoid valves with not standard circuits can be supplied.

The circuits under mentioned are models already manufactured.



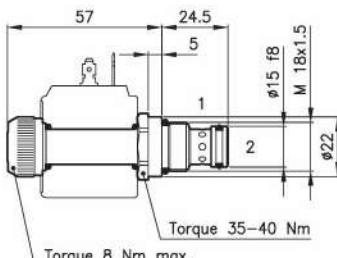
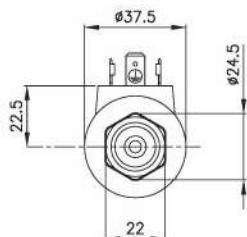
Technical features



With flow from 2 to 1
limit the flow of 30%

Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow (With flow from 1 to 2) (l/min.)	15	
Max. pressure (bar)	210	
Max. leakage (cm³/min.)	20	
Response time (ms) It change in function of circuit, pressure, flow and fluid viscosity.	20 - 40 (Mean value)	
Fluid viscosity range (cSt)	2.8 - 380	
Fluid temperature range (°C)	-20 +80	
Mass (kg)	0.120	
Hydraulic flow; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



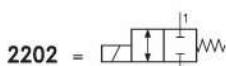
Ordering informations

ETD 20/2201

ETD 20/22.. = Valve type



Circuits



Codes:

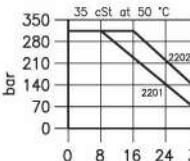
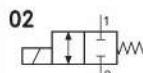
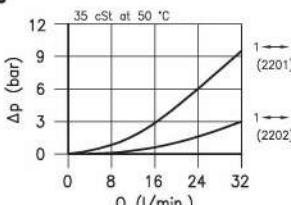
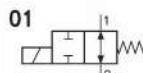
ETD 20/2201 25 011 113

ETD 20/2202 25 011 110

External seals kit 90 620 100

ETD 20/22.. valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

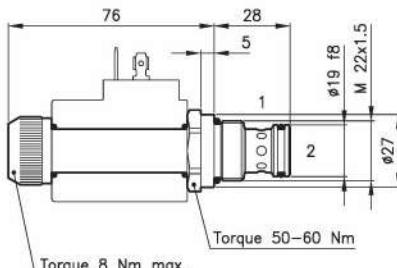
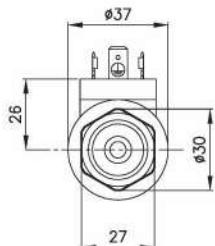
On the ETD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

Use limits

With flow from 2 to 1
limit the flow of 30%

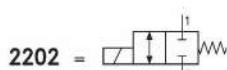
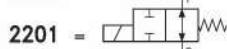
Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(With flow from 1 to 2) (l/min.)	30
Max. pressure	(bar)	315
Max. leakage	(cm ³ /min.)	25
Response time	(ms)	30 - 60 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.210
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ETD 30/2201**

ETD 30/22.. = Valve type



Circuits



Codes:

ETD 30/2201 35 011 120

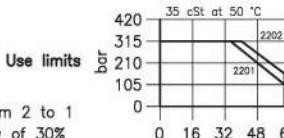
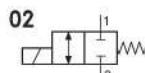
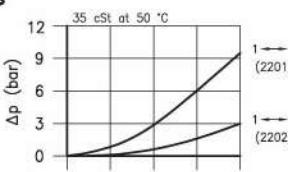
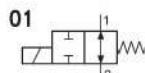
ETD 30/2202 35 011 130

External seals kit 90 620 103

ETD 30/22.. valves can be assembled
on standard bodies 30-L0 series;
for dimensions see catalogue 16.010

On the ETD 30 valves must be
assembled the Coils B30 series;
for dimensions, features and codes
see catalogues 09.900 and 09.901.

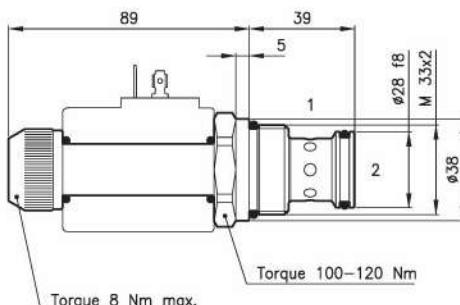
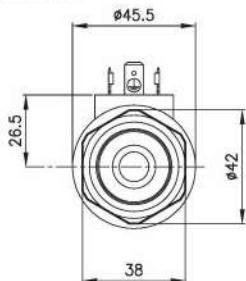
Technical features



With flow from 2 to 1
limit the flow of 30%

Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	(With flow from 1 to 2) (l/min.)	60
Max. pressure	(bar)	315
Max. leakage	(cm³/min.)	40
Response time	(ms)	40 – 80 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.400
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 50/2201

ETD 50/22.. = Valve type



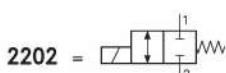
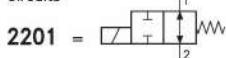
Codes:

ETD 50/2201 55 011 111

ETD 50/2202 55 011 115

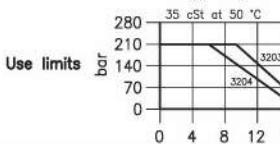
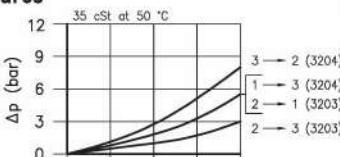
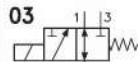
External seals kit 90 620 106

Circuits



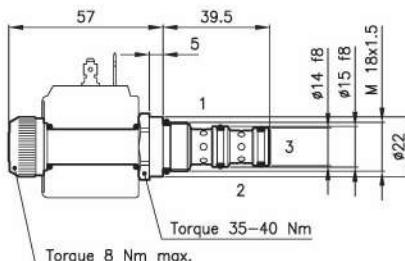
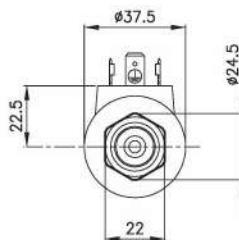
ETD 50/22.. valves can be assembled
on standard bodies 50-L0 series;
for dimensions see catalogue 16.010

On the ETD 50 valves must be
assembled the Coils B50 series;
for dimensions, features and codes
see catalogues 09.900 and 09.901.

Technical features


Use limits

Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	15
Max. pressure	(bar)	210
Max. leakage	(cm³/min.)	20
Response time	(ms)	20 – 40 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.130
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
ETD 20/3203

ETD 20/32.. = Valve type



Circuits



Codes:

ETD 20/3203 25 011 115

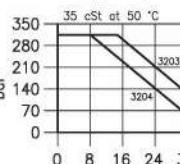
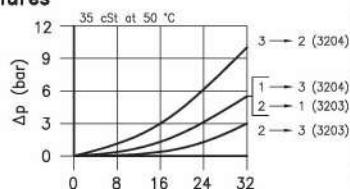
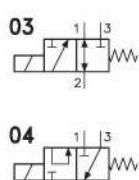
ETD 20/3204 25 011 108

External seals kit 90 620 101

ETD 20/32.. valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

On the ETD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

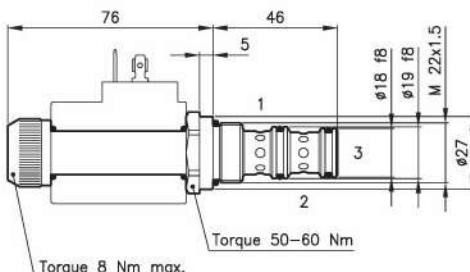
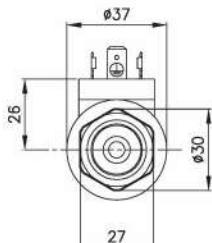
Technical features



Use limits

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	30
Max. pressure	(bar)	315
Max. leakage	(cm³/min.)	25
Response time	(ms)	30 – 60 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.230
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 30/3203

ETD 30/32.. = Valve type



Circuits



Codes:

ETD 30/3203 35 011 123

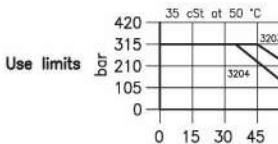
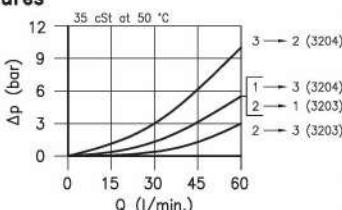
ETD 30/3204 35 011 124

External seals kit 90 620 104

ETD 30/32.. valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

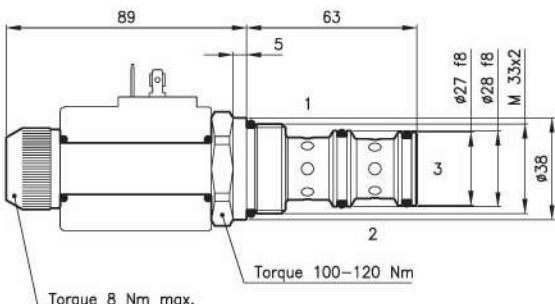
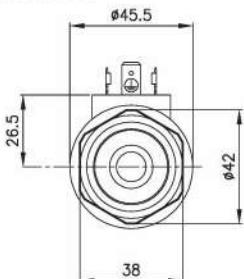
On the ETD 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	60
Max. pressure	(bar)	315
Max. leakage	(cm³/min.)	40
Response time	(ms)	40 – 80 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.440
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



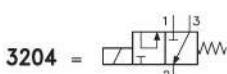
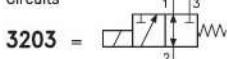
Ordering informations

ETD 50/3203

ETD 50/32.. = Valve type



Circuits



Codes:

ETD 50/3203 55 011 112

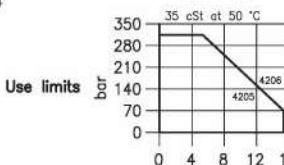
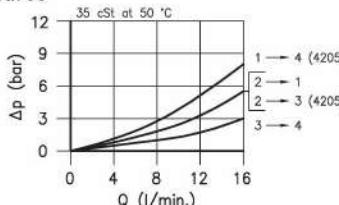
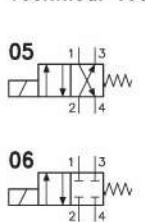
ETD 50/3204 55 011 126

External seals kit 90 620 107

ETD 50/32.. valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

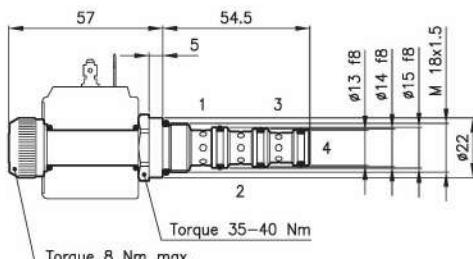
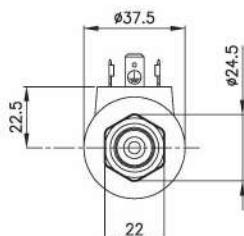
On the ETD 50 valves must be assembled the Coils B50 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/4
Max. flow	(l/min.)	15
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm³/min.)	20
Response time	(ms)	20 - 40
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.140
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

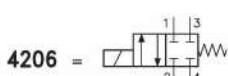
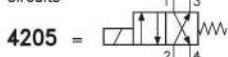
ETD 20/4205

ETD 20/42.. = Valve type

Centre closed



Circuits



Codes:

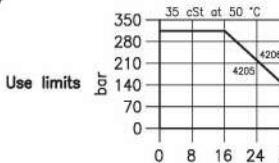
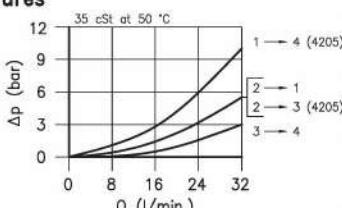
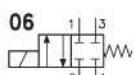
ETD 20/4205 25 011 121

ETD 20/4206 25 011 122

External seals kit 90 620 102

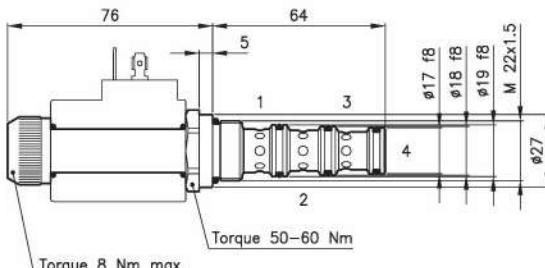
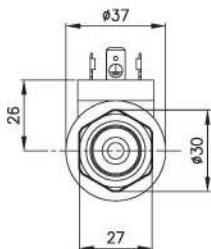
ETD 20/42.. valves can be assembled on standard bodies 20-C4 series; for dimensions see catalogue 16.011

On the ETD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

Use limits

Cavity	(For dimensions see catalogue 17.000)	S 30/4
Max. flow	(l/min.)	30
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm³/min.)	25
Response time	(ms)	30 - 60
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.250
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ETD 30/4205**

ETD 30/42.. = Valve type

Centre closed



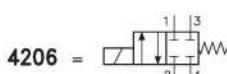
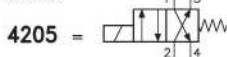
Codes:

ETD 30/4205 35 011 125

ETD 30/4206 35 011 152

External seals kit 90 620 105

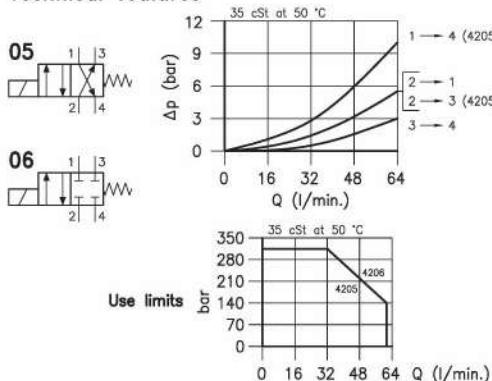
Circuits



ETD 30/42.. valves can be assembled on standard bodies 30-C4 series; for dimensions see catalogue 16.011

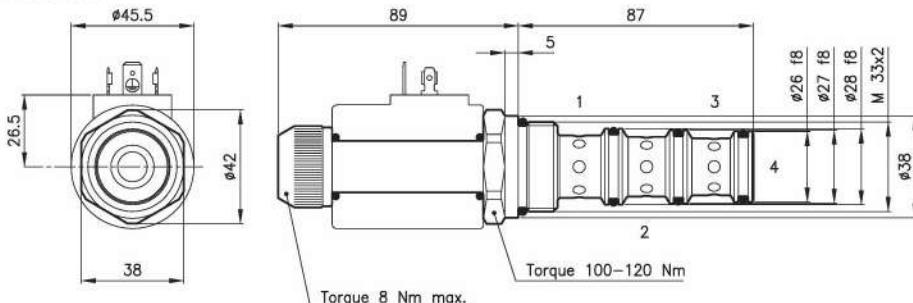
On the ETD 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 50/4
Max. flow	(l/min.)	60
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm³/min.)	40
Response time	(ms)	40 - 80
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.480
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

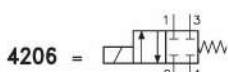
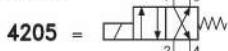
ETD 50/4205

ETD 50/42.. = Valve type

Centre closed



Circuits



Codes:

ETD 50/4205 55 011 118

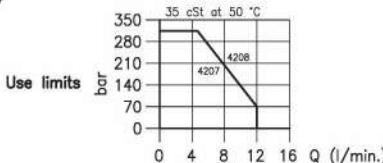
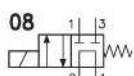
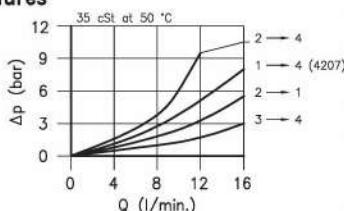
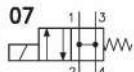
ETD 50/4206 55 011 123

External seals kit 90 620 108

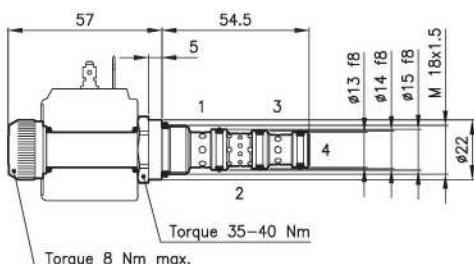
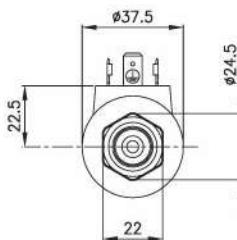
ETD 50/42.. valves can be assembled on standard bodies 50-C4 series; for dimensions see catalogue 16.011

On the ETD 50 valves must be assembled the Coils B50 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features



Dimensions



Ordering informations

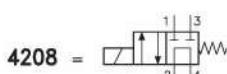
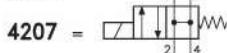
ETD 20/4207

ETD 20/42.. = Valve type

Centre open



Circuits



Codes:

ETD 20/4207 25 011 123

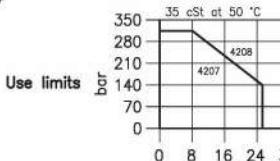
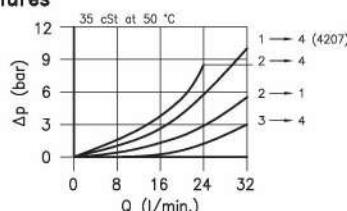
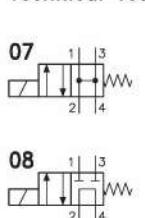
ETD 20/4208 25 011 124

External seals kit 90 620 102

ETD 20/42.. valves can be assembled on standard bodies 20-C4 serie; for dimensions see catalogue 16.011

On the ETD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features



Cavity (For dimensions see catalogue 17.000)

S 30/4

Max. flow (l/min.) 25

Max. pressure way 1-2-3 (bar) 315

Max. pressure way 4 (bar) 210

Max. leakage (cm³/min.) 25

Response time (ms)
It change in function of circuit, pressure, flow and fluid viscosity.

30 - 60

(Mean value)

Fluid viscosity range (cSt) 2.8 - 380

Fluid temperature range (°C) -20 +80

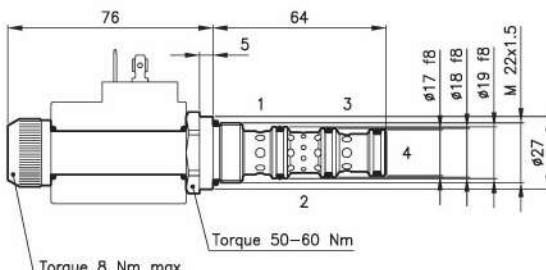
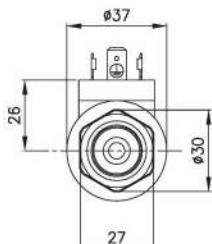
Mass (kg) 0.250

Hydraulic fluid; mineral oil HM and HV ISO 6074

Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)

Standard seals in Polyurethane and Buna N

Dimensions



Torque 8 Nm max.

Ordering informations

ETD 30/4207

ETD 30/42.. = Valve type

Centre open



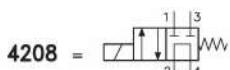
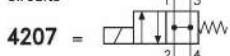
Codes:

ETD 30/4207 35 011 118

ETD 30/4208 35 011 133

External seals kit 90 620 105

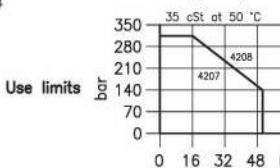
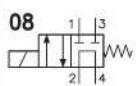
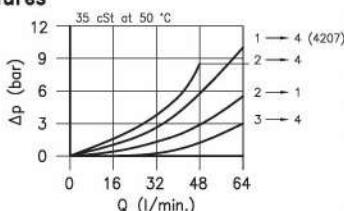
Circuits



ETD 30/42.. valves can be assembled on standard bodies 30-C4 series; for dimensions see catalogue 16.011

On the ETD 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

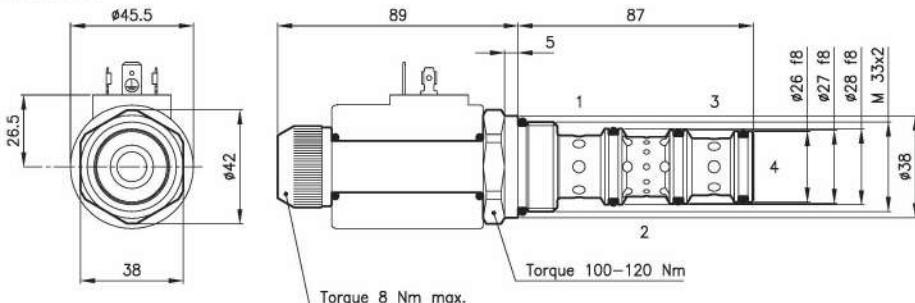
Technical features



Use limits

Cavity	(For dimensions see catalogue 17.000)	S 50/4
Max. flow	(l/min.)	45
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm³/min.)	40
Response time	(ms)	40 - 80
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.480
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

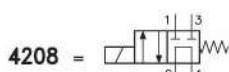
ETD 50/4207

ETD 50/42.. = Valve type

Centre open



Circuits



Codes:

ETD 50/4207 55 011 124

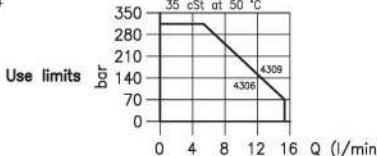
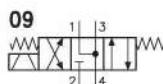
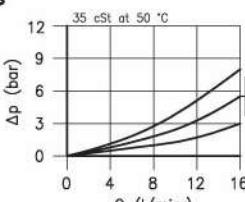
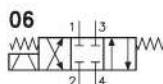
ETD 50/4208 55 011 125

External seals kit 90 620 108

ETD 50/42.. valves can be assembled on standard bodies 50-C4 series; for dimensions see catalogue 16.011

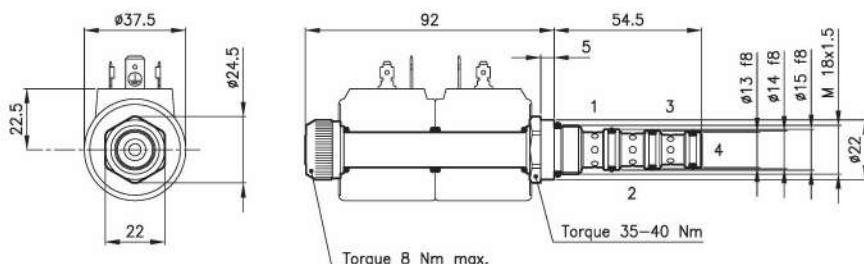
On the ETD 50 valves must be assembled the Coils B50 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/4
Max. flow	(l/min.)	15
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	50
Max. leakage	(cm³/min.)	20
Response time	(ms)	20 - 40
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.170
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 20/4306

ETD 20/43.. = Valve type

Centre closed



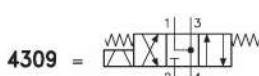
Codes:

ETD 20/4306 25 011 125

ETD 20/4309 25 011 126

External seals kit 90 620 102

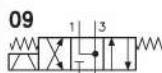
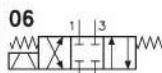
Circuits



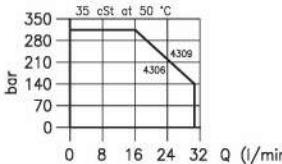
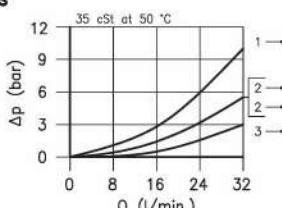
ETD 20/43.. valves can be assembled on standard bodies 20-C4 series; for dimensions see catalogue 16.011

On the ETD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

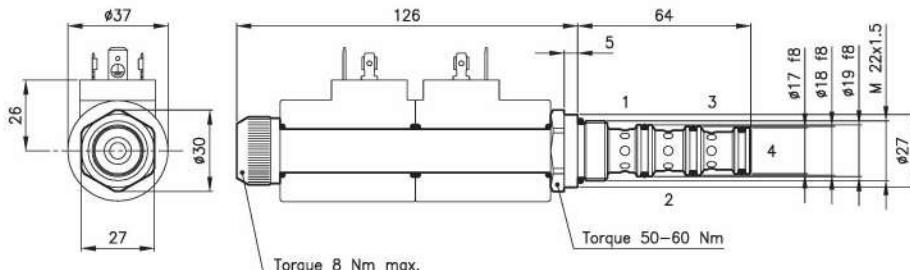


Use limits



Cavity	(For dimensions see catalogue 17.000)	S 30/4
Max. flow	(l/min.)	30
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm³/min.)	25
Response time	(ms)	30 - 60
It change in function of circuits, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.310
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 30/4306

ETD 30/43.. = Valve type

Centre closed



Circuits



Codes:

ETD 30/4306 35 011 149

ETD 30/4309 35 011 113

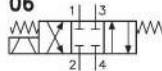
External seals kit 90 620 105

ETD 30/43.. valves can be assembled on standard bodies 30-C4 series; for dimensions see catalogue 16.011

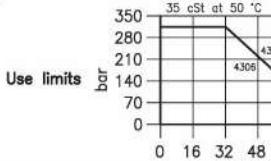
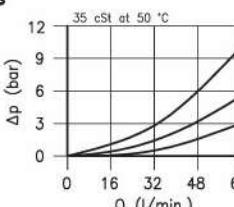
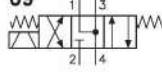
On the ETD 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

06

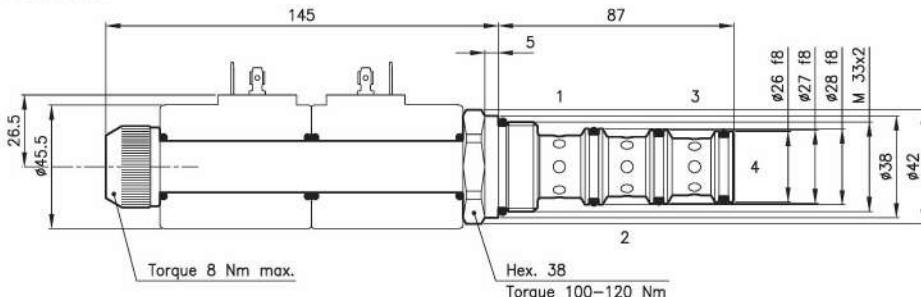


09



Cavity	(For dimensions see catalogue 17.000)	S 50/4
Max. flow	(l/min.)	60
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm³/min.)	40
Response time	(ms)	40 - 80
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.580
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 50/436

ETD 50/43.. = Valve type

Centre closed



Circuits



Codes:

ETD 50/4306 55 011 127

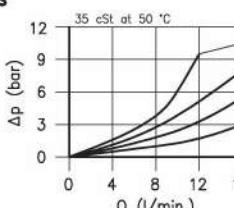
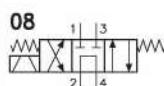
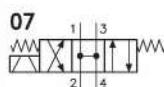
ETD 50/4309 55 011 128

External seals kit 90 620 108

ETD 50/43.. valves can be assembled on standard bodies 50-C4 series; for dimensions see catalogue 16.011

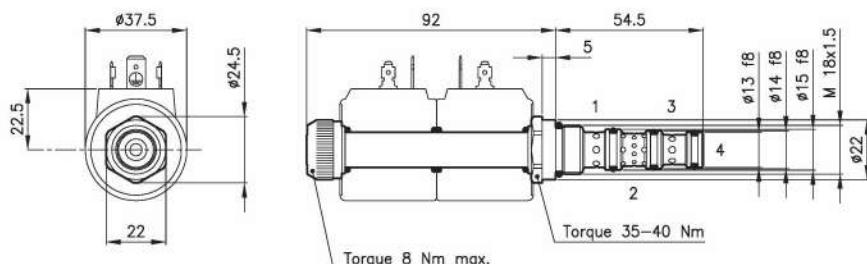
On the ETD 50 valves must be assembled the Coils B50 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features



Cavity	(For dimensions see catalogue 17.000)	S 20/4
Max. flow	(l/min.)	12
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	50
Max. leakage	(cm³/min.)	20
Response time	(ms)	20 - 40
It. change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.170
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 20/4307

ETD 20/43.. = Valve type

Centre open



Circuits



Codes:

ETD 20/4307 25 011 127

ETD 20/4308 25 011 128

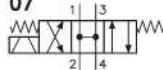
External seals kit 90 620 102

ETD 20/43.. valves can be assembled on standard bodies 20-C4 series; for dimensions see catalogue 16.011

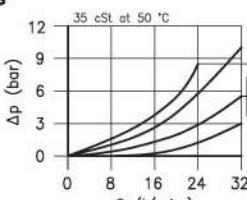
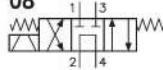
On the ETD 20 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

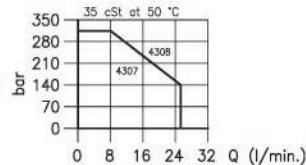
07



08



Use limits



Cavity (For dimensions see catalogue 17.000)

Max. flow (l/min.) 25

Max. pressure way 1-2-3 (bar) 315

Max. pressure way 4 (bar) 210

Max. leakage (cm³/min.) 25

Response time (ms)
It change in function of circuit, pressure, flow and fluid viscosity.

(Mean value)

Fluid viscosity range (cSt) 2.8 - 380

Fluid temperature range (°C) -20 +80

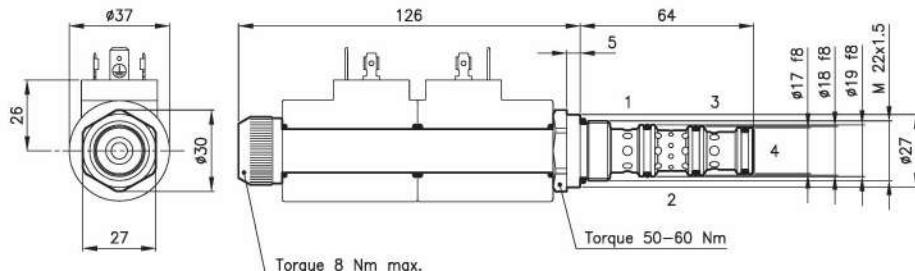
Mass (kg) 0.310

Hydraulic fluid; mineral oil HM and HV ISO 6074

Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)

Standard seals in Polyurethane and Buna N

Dimensions



Ordering informations

ETD 30/4307

ETD 30/43.. = Valve type

Centre open



Circuits



Codes:

ETD 30/4307 35 011 132

ETD 30/4308 35 011 119

External seals kit 90 620 105

ETD 30/43.. valves can be assembled on standard bodies 30-C4 series; for dimensions see catalogue 16.011

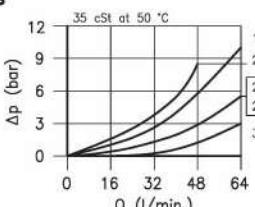
On the ETD 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

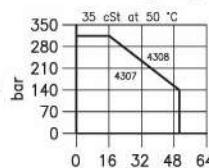
07



08

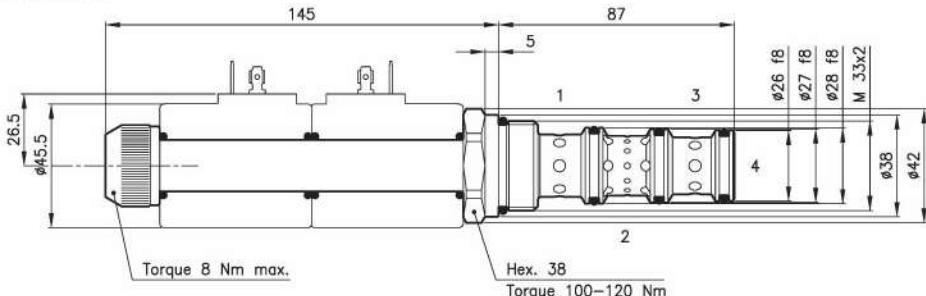


Use limits



Cavity	(For dimensions see catalogue 17.000)	S 50/4
Max. flow	(l/min.)	45
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm³/min.)	40
Response time	(ms)	40 - 80
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.580
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

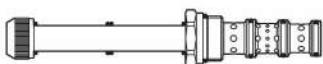


Ordering informations

ETD 50/4307

ETD 50/43.. = Valve type

Centre open



Circuits

4307 =

4308 =

Codes:

ETD 50/4307 55 011 129

ETD 50/4308 55 011 110

External seals kit 90 620 108

ETD 50/43.. valves can be assembled on standard bodies 50-C4 series; for dimensions see catalogue 16.011

On the ETD 50 valves must be assembled the Coils B50 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

This Coils series, with connection DIN 43650, include all standard versions normally available.

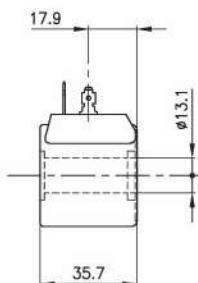
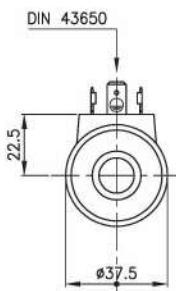
Protection Class (with connector assembled) IP 65 DIN 40050

Encapsulation with nylon 6 and fiberglass

Insulation Coil Class F - VDE 0580

Insulation Copper wire Class H - VDE 0580

Coils **B20** Series (DIN 43650)



Power 18 Watt

Voltage range +/- 10%

Duty cycle ED 100%

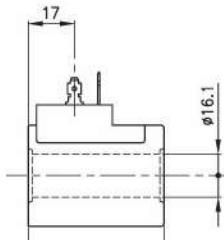
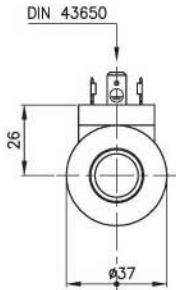
* (1) Nominal current

* (2) Resistance 20°C +/- 5%

* (1) * (2)

Type	Code	Volt	Ampere	Ohm
B20-12C-18H	25 125 101	12	1.50	8
B20-24C-18H	25 125 102	24	0.75	32
B20-27C-18H	25 125 110	27	0.66	40.5
B20-24A-18H	25 125 103	19.4	0.93	20.9
B20-110A-18H	25 125 104	96	0.19	512
B20-220A-18H	25 125 105	194	0.09	2090

Coils **B30** Series (DIN 43650)



Power 28.5 Watt

Voltage range +/- 10%

Duty cycle ED 100%

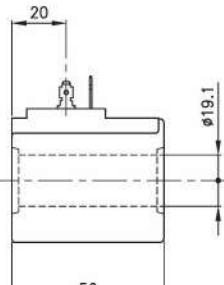
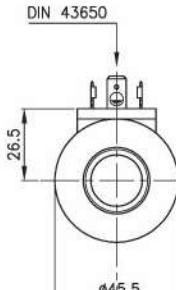
* (1) Nominal current

* (2) Resistance 20°C +/- 5%

* (1) * (2)

Type	Code	Volt	Ampere	Ohm
B30-12C-28H	35 125 101	12	2.37	5.05
B30-24C-28H	35 125 102	24	1.19	20.2
B30-27C-28H	35 125 109	27	1.05	25.6
B30-24A-28H	35 125 103	19.4	1.46	13.2
B30-110A-28H	35 125 104	96	0.30	323
B30-220A-28H	35 125 105	194	0.15	1320

Coils **B50** Series (DIN 43650)



Power 33 Watt

Voltage range +/- 10%

Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C +/- 5%

* (1) * (2)

Type	Code	Volt	Ampere	Ohm
B50-12C-33H	55 125 101	12	2.75	4.36
B50-24C-33H	55 125 102	24	1.38	17.45
B50-27C-33H	55 125 110	27	1.22	22.13
B50-24A-33H	55 125 103	19.4	1.70	11.40
B50-110A-33H	55 125 104	96	0.34	279.27
B50-220A-33H	55 125 105	194	0.17	1140.5

This Coils series, with connection KOSTAL M 27x1, include all standard version normally available.

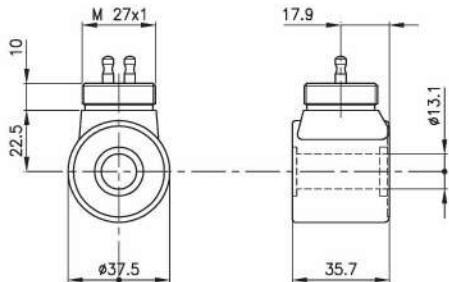
Protection Class (with connector assembled) IP 67 DIN 40050

Encapsulation with nylon 6 and fiberglass

Insulation Coil Class F - VDE 0580

Insulation Copper wire Class H - VDE 0580

Coils B20 Series (KOSTAL)



Power 18 Watt

Voltage range +/− 10%

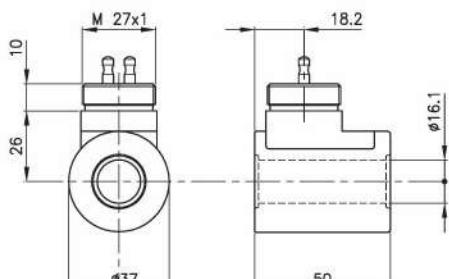
Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C +/− 5%

Type	Code	Volt	Ampere	Ohm
B20-12C-18K	25 125 106	12	1.50	8
B20-24C-18K	25 125 107	24	0.75	32

Coils B30 Series (KOSTAL)



Power 28.5 Watt

Voltage range +/− 10%

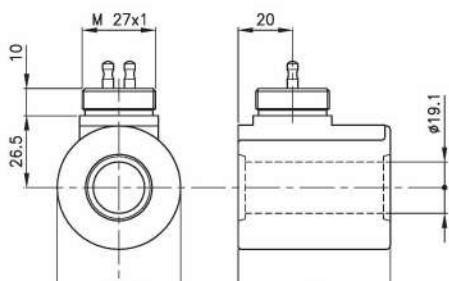
Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C +/− 5%

Type	Code	Volt	Ampere	Ohm
B30-12C-28K	35 125 106	12	2.37	5.05
B30-24C-28K	35 125 107	24	1.19	20.2

Coils B50 Series (KOSTAL)



Power 33 Watt

Voltage range +/− 10%

Duty cycle ED 100%

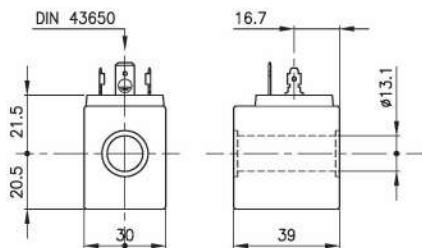
* (1) Nominal current

* (2) Resistance 20°C +/− 5%

Type	Code	Volt	Ampere	Ohm
B50-12C-33K	55 125 106	12	2.75	4.36
B50-24C-33K	55 125 107	24	1.38	17.45

This Coils series include connection DIN 43650 – KOSTAL M 24x4 – AMP JUNIOR – DEUTSCH

Protection Class (with connector assembled) IP 65 DIN 40050 Encapsulation with nylon 6 and fiberglass
Insulation Coil Class F – VDE 0580 Insulation Copper wire Class H – VDE 0580

Coils B28 Series (DIN 43650)


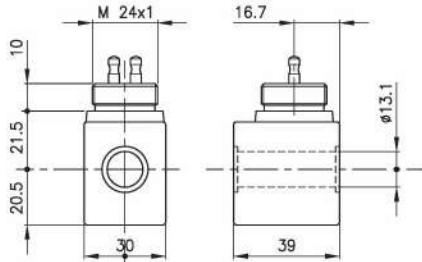
Power 18 Watt

Voltage range +/– 10% Duty cycle ED 100%

* (1) Nominal current * (2) Resistance 20°C +/– 5%

* (1) * (2)

Type	Code	Volt	Ampere	Ohm
B28-12C-18H	25 125 112	12	1.50	8
B28-24C-18H	25 125 113	24	0.75	32
B28-24A-18H	25 125 114	19.4	0.93	20.9
B28-110A-18H	25 125 115	96	0.19	512
B28-220A-18H	25 125 116	194	0.09	2090

Coils B28 Series (KOSTAL)


Power 18 Watt

Voltage range +/– 10%

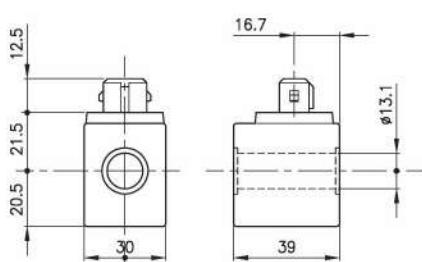
Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C +/– 5%

* (1) * (2)

Type	Code	Volt	Ampere	Ohm
B28-12C-18K	25 125 118	12	1.50	8
B28-24C-18K	25 125 119	24	0.75	32

Coils B28 Series (AMP JUNIOR)


Power 18 Watt

Voltage range +/– 10%

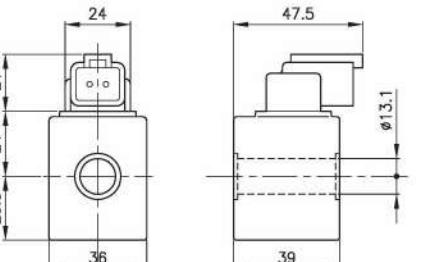
Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C +/– 5%

* (1) * (2)

Type	Code	Volt	Ampere	Ohm
B28-12C-18J	25 125 124	12	1.50	8
B28-24C-18J	25 125 125	24	0.75	32

Coils B28 Series (DEUTSCH)


Power 22 Watt

Voltage range +/– 10%

Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C +/– 5%

* (1) * (2)

Type	Code	Volt	Ampere	Ohm
B28-12C-22D	25 125 135	12	1.83	6.5
B28-24C-22D	25 125 136	24	0.92	26.1

Coils series with connection AMP JUNIOR

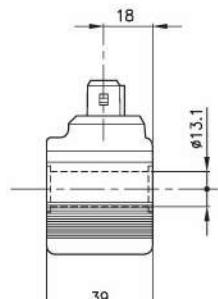
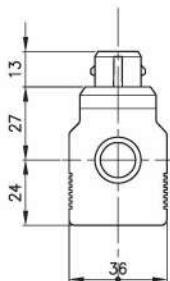
Protection Class (with connector assembled) IP 65 DIN 40050

Encapsulation with nylon 6 and fiberglass

Insulation Coil Class F - VDE 0580

Insulation Copper wire Class H - VDE 0580

Coils B20 Series (AMP JUNIOR)



Power 22 Watt

Voltage range +/- 10%

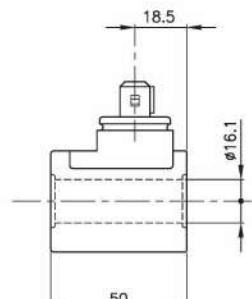
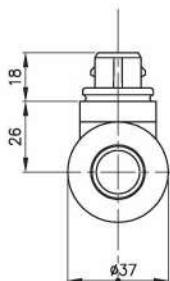
Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C +/- 5%

Type	Code	Volt	Ampere	Ohm
B20-12C-22J	25 125 127	12	1.83	6.5
B20-24C-22J	25 125 128	24	0.92	26.1
B20-27C-22J	25 125 129	27	0.81	33.3

Coils B30 Series (AMP JUNIOR)



Power 28.5 Watt

Voltage range +/- 10%

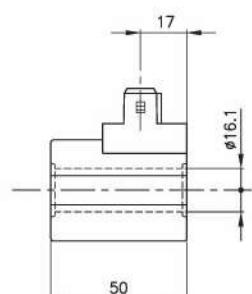
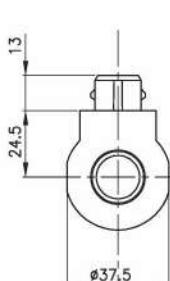
Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C +/- 5%

Type	Code	Volt	Ampere	Ohm
B30-12C-28J	35 125 118	12	2.37	5.05
B30-24C-28J	35 125 119	24	1.19	20.2
B30-27C-28J	35 125 120	27	1.05	25.6

Coils B30 Series (AMP JUNIOR)



Power 26 Watt

Voltage range +/- 10%

Duty cycle ED 100%

* (1) Nominal current

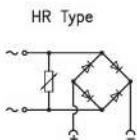
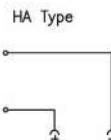
* (2) Resistance 20°C +/- 5%

Type	Code	Volt	Ampere	Ohm
B30-12C-26J	35 125 125	12	2.16	5.60
B30-24C-26J	35 125 126	24	1.08	22.3
B30-27C-26J	35 125 127	27	0.96	28.2

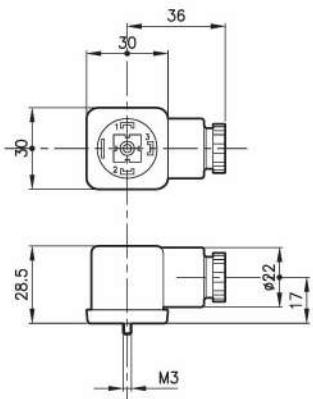
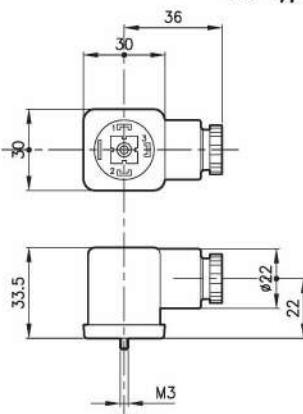
Technical features

Standard connectors HA type are used for connection off all DC coils.

The HR version must be used when coils work in AC at 50 or 60 Hz, this version include a bridge rectifier composed of four diodes and one protection varistor. The outlet rectified voltage are reduced by 10%; this connector type must be combined with coils A type predisposed for this voltage drop.



Nominal voltage	Volt	250
Poles number		2 + -
Protection		Nylon glass
Contacts seat		Nylon glass
Contacts nominal current	Ampere	10
Contacts max. current	Ampere	16
Contacts resistance	mOhm	4
Cables max. section	mm ²	1.5
Terminal cable		PG9
Cable diameter	mm	6 - 8
Protection class DIN 40050		IP 65
Insulation class VDE 0110		C group
Profiled seal in nitrile		

Dimensions**HA Type****HR Type****Ordering informations****HA-B**

Type

HA = Standard

HR = With rectifier

Color

A = Grey

B = Black

Codes:

HA-A 90 538 100

HA-B 90 538 102

HR-A 90 538 101

HR-B 90 538 103

NOTE: Black connectors are preferable.

The emergency override system specifications are conceived to be used by way of exceptions and momentary; a continuous and lasting working is not allowed.

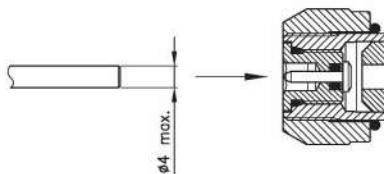
The emergency MO type, PS type and MS type can be foreseen for all ECD 20-30-50 solenoid valves circuits and for circuits 22B1 and 22C1 type (normally open) of solenoid valves EPP 30-50-70 type.

The emergency override PS type and MS type can be assembled also in a second time on solenoid valves which are already prepared in advance with override MO type.

EMERGENCY OVERRIDE MO TYPE

(20-MO 25 011 145)

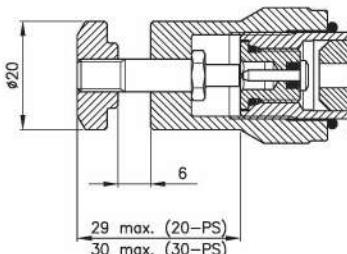
(30-MO 35 011 144)



EMERGENCY OVERRIDE PS TYPE

(20-PS 25 011 174)

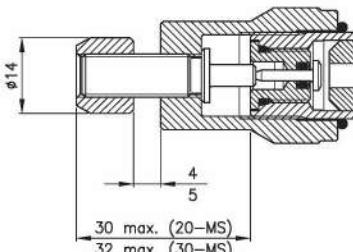
(30-PS 35 011 161)



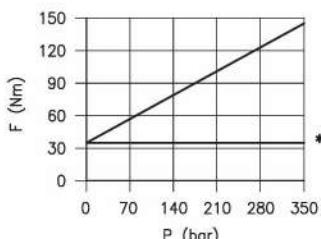
EMERGENCY OVERRIDE MS TYPE

(20-MS 25 011 167)

(30-MS 35 011 195)



WORKING SPECIFICATIONS



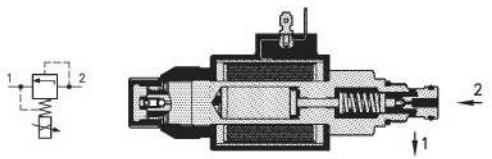
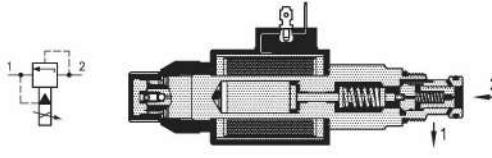
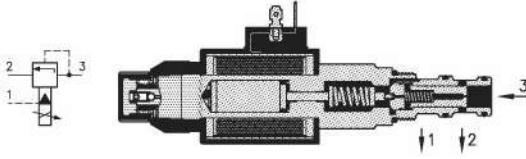
* In ECD solenoid valves, pressure in chamber 1 is uninfluential and the necessary force to make the override working is 35 Nm.

ALPHABETIC INDEX AND VALVE CODES	00
INFORMATIONS	01
PRESSURE RELIEF VALVES	02
PRESSURE REDUCING VALVES	03
SEQUENCE VALVES	04
DIRECTIONAL CONTROL VALVES	05
FLOW CONTROL VALVES	06
MOTION CONTROL VALVES	07
SOLENOID VALVES POPPET-TYPE	08
SOLENOID VALVES SPOOL-TYPE	09
PROPORTIONAL SOLENOID VALVES	10
LOGIC VALVES	11
M 20x1.5 & 3/4-16 UNF SERIES VALVES	12
SANDWICH BODIES (CETOP)	13
VALVES FOR HYDRAULIC MOTORS	14
INTEGRATED CIRCUITS	15
STANDARD BODIES	16
CAVITY	17
ACCESSORIES	18
SCHEDULES	19
	20

Pressure relief valves.

These are proportional solenoid valves manufactured in several sizes and with different functions. They distinguish themselves for their good peculiar features and their first rate connection between quality and price.

The special constructive shape allows the first setting regulation range during the assembling phase with an infinitude of regulation chances. They can be indifferently assembled with Flucom's Electronic Card or with any other normalized.

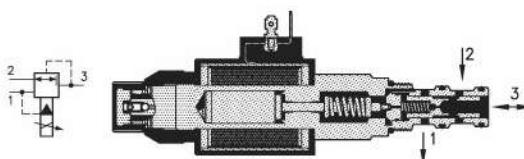
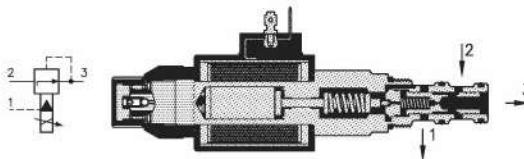
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
PPS 20 series – direct acting type. Normally used for piloting dual stage valves, this pilot valve is available only in size 20 and with several regulation ranges.	PPS 20/...	1.5	350	10.010
				
PPI series – pilot operated type. Pilot operated valves, available in several sizes and with different regulation ranges, are normally used for proportional pressure change in installations with high flows.	PPI 30/...	70	350	10.020
				
	PPI 50/...	160	350	10.030
	PPI 70/...	320	350	10.040
PPY series – pilot operated type. Pilot operated valves, available in several sizes and with different regulation ranges, are not sensitive to possible back pressures thanks to drain line 1 which is independently connected with return line (T).	PPY 30/...	70	350	
				
	PPY 50/...	160	350	
	PPY 70/...	320	350	

Pressure reducing valves.

These are proportional pressure reducing valves manufactured in several sizes, acting as reducing or reducing-relieving valve. They distinguish themselves for their first rate connection between quality and price.

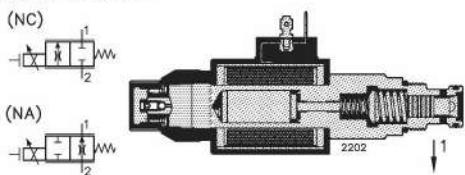
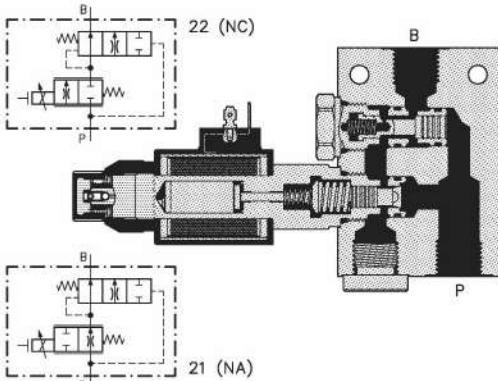
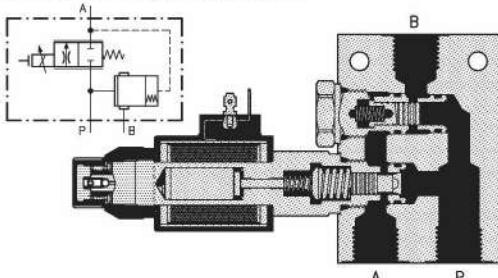
The special constructive shape allows the first setting regulation range during the assembling phase with an infinitude of regulation chances. They can be indifferently assembled with Flucom's Electronic Card or with any other normalized.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
PLY series – pilot operated type. Pilot operated valves available in several sizes and with different regulation ranges, are normally used as unidirectional proportional pressure reducing valves.	PLY 30/...	40	420/210	10.080
	PLY 50/...	90	420/210	
	PLY 70/...	160	420/210	
PLP series – pilot operated type. They have the same features of PLY series but in addition they act as pressure relief valve with flow from 3 to 1.	PLP 30/...	40	420/210	10.130
	PLP 50/...	90	420/210	10.140
	PLP 70/...	160	420/210	



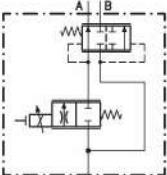
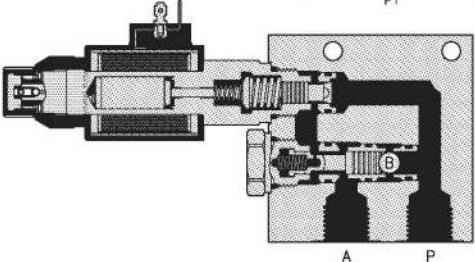
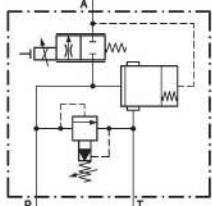
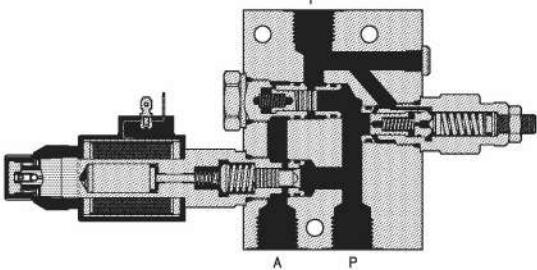
Flow controls.

Proportional solenoid valves PPS series are flow regulator not compensated, normally closed or normally open, which is controlled by a remote electronic card. Operating on potentiometer through electronic card allow to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
PSS series Direct acting are available with two range of adjustment; are provided with a manual override on back side and a screw for the initial air vent-hole. 	PSS 30/ 2202	30/60	315	10.160
	PSS 30/ 2201	30/60	315	10.160
PPQ 30/2.. series Pressure compensated proportional two way flow regulator normally closed or open. This combination valve uses a PSS 30 proportional valve and an ELP 30/Q2 compensator. 	PPQ 30/22	20/40	315	10.170
	PPQ 30/21	20/40	315	10.170
PPQ 30/3.. series Pressure compensated proportional three way flow regulator that is by-pass style. This combination valve uses a PSS 30 proportional valve and an ELP 30/Q1 logic element. 	PPQ 30/3..	30/60	315	10.180

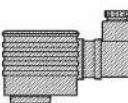
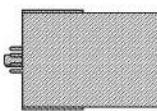
Flow controls.

Proportional solenoid valves PPS series are flow regulator not compensated, normally closed or normally open, which is controlled by a remote electronic card. Operating on potentiometer through electronic card allow to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
PPQ 30/3-Q4 series Pressure compensated proportional three way flow regulator that is by-pass style. This combination valve uses a PSS 30 proportional valve and an ELP 30/Q4 logic element.  	PPQ 30/3 -Q4	20/40	315	10.185
PPP 30/3.. series Pressure compensated proportional three way flow regulator that is by-pass style. This combination valve uses a PSS 30 proportional valve, an ELP 30/Q1 logic element and a LPI 30 pressure relief valve.  	PPP 30/3..	30/60	315	10.195

Electronic Controller.

The proportional solenoid valves must be piloted only from an electronic card. Are available a normalized standard series of electronics components, on request are available also personalized complete systems.

Type	Code	Voltage (Volt)	Functions	Technical schedule
VPC 	VPC-12-DIN	12	Connector DIN 43650 Minimum current set Maximum current set Rise ramp set Fall ramp set Dither External potentiometer	10.250
	VPC-24-DIN	24		
FPO 	FPO-OCTAL	11 - 33	Minimum current set Maximum current set Rise ramp set Fall ramp set External potentiometer	10.258
	FPO-UNDECAL			
FRP 	FRP/01	11 - 33	Box DIN EN 50022 Minimum current set Maximum current set Rise ramp set Fall ramp set Dither External potentiometer	10.270
	FRP/02			
	FRP2			

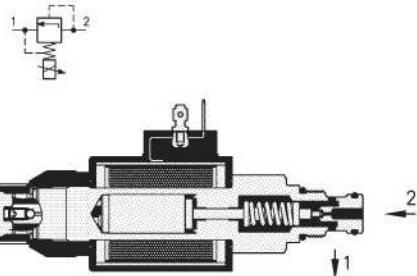
Technical features

Direct acting pressure relief valves type PPS 20 are regulated from proportional solenoid which is controlled by a remote electronic card and modify setting, changing the poppet acting force.

By de-energised valve, flow coming from 2 is drained in 1 at a minimum setting pressure.

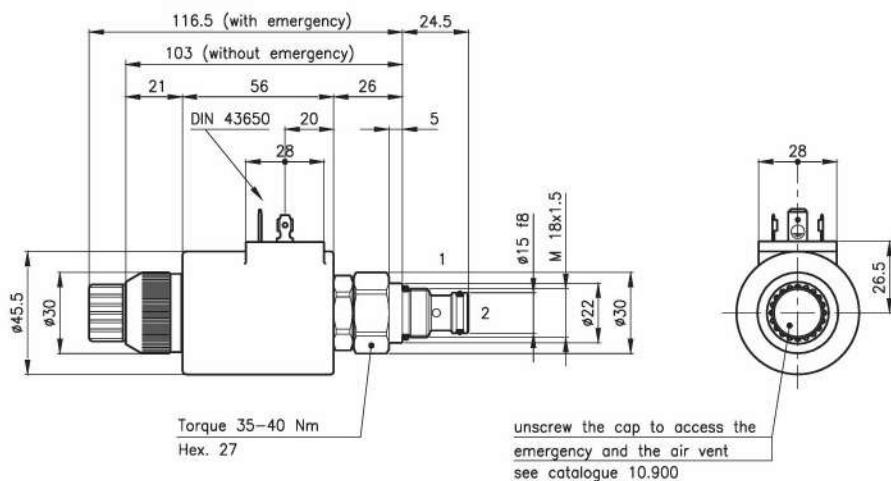
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.

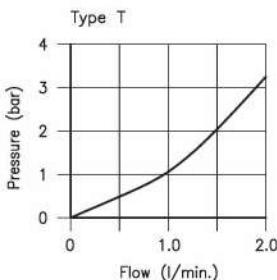
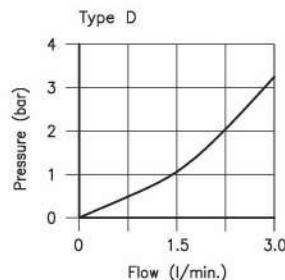
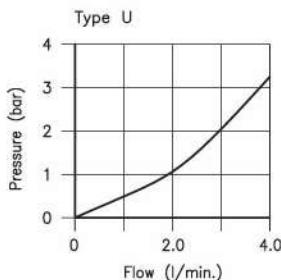


Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	1.5
Max. inlet pressure	(bar)	315
Max. pressure on line 1	(bar)	175
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	10
Moss	(kg)	0.600
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

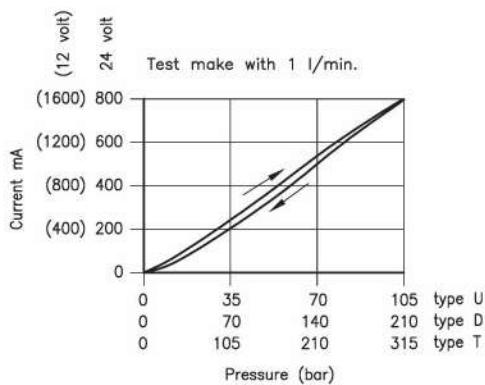
Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180 (±5Hz)	

Dimensions

PRESSURE DROP (de-energized solenoid)



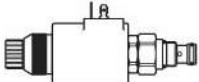
TYPICAL RELIEVING PRESSURE (2 to 1 at Various of Control Current)



Ordering informations

PPS 20/D-24C-22H-W

PPS 20 = Valve type



Setting range

U = 0 - 105 bar

D = 0 - 210 bar

T = 0 - 315 bar

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Codes:

PPS 20/U-12C-22H	25 011 163
PPS 20/D-12C-22H	25 011 164
PPS 20/T-12C-22H	25 011 165
PPS 20/U-24C-22H	25 011 153
PPS 20/D-24C-22H	25 011 154
PPS 20/T-24C-22H	25 011 155

External seals kit 90 620 100

Code only coil:

Coil P50-24C-22H	55 125 114
Coil P50-12C-22H	55 125 113

PPS 20 valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

Technical features

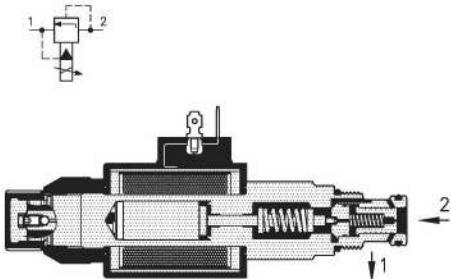
Pilot pressure relief valves type PPI 30 are regulated from proportional solenoid which is controlled by a remote electronic card and modify its setting, changing the piloting system acting force.

By de-energised valve, flow comming from 2 is drained in 1 at a minimum setting pressure.

Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

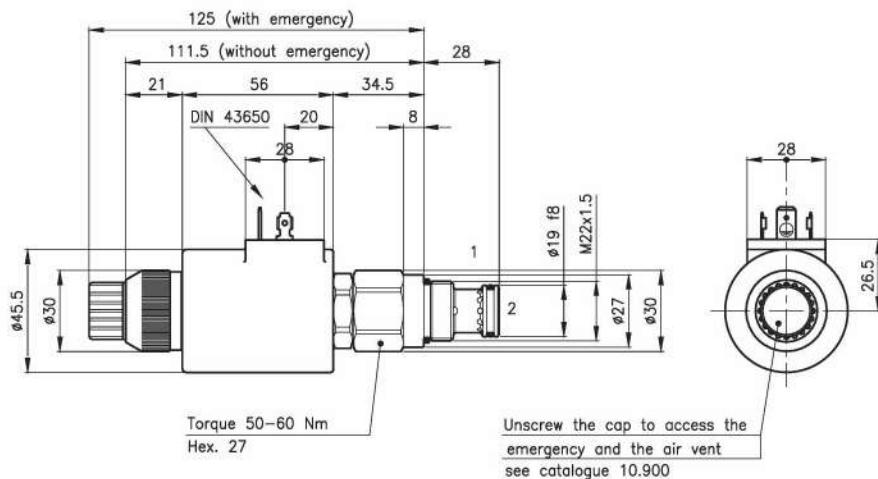
For electronic control card technical features see from General Catalogue page n. 10.250.

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	70
Max. inlet pressure	(bar)	315
Max. pressure on line 1	(bar)	175
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	25
Mass	(kg)	0.620
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

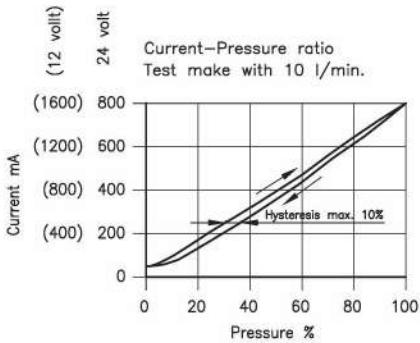
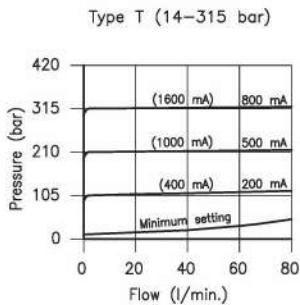
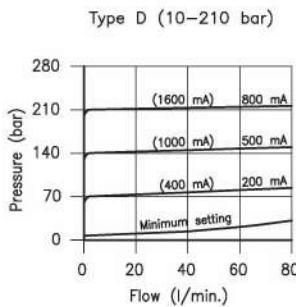
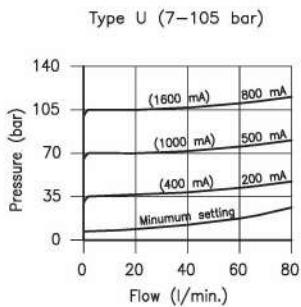
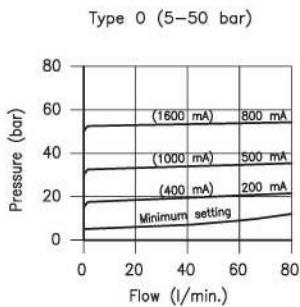


Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180	(±5Hz)

Dimensions



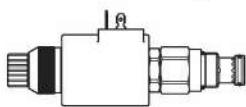
TYPICAL RELIEVING PRESSURE (2 to 1 at Various of Control Current)



Ordering informations

PPI 30/D-24C-22H-W

PPI 30 = Valve type



Setting range

O = 5 – 50 bar

U = 7 – 105 bar

D = 10 – 210 bar

T = 14 – 315 bar

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Codes:

PPI 30/0-12C-22H 35 011 224

PPI 30/U-12C-22H 35 011 176

PPI 30/D-12C-22H 35 011 177

PPI 30/T-12C-22H 35 011 178

PPI 30/0-24C-22H 35 011 222

PPI 30/U-24C-22H 35 011 162

PPI 30/D-24C-22H 35 011 163

PPI 30/T-24C-22H 35 011 164

External seals kit 90 620 103

Code only coil:

Coil P50-24C-22H 55 125 114

Coil P50-12C-22H 55 125 113

PPI 30 valves can be assembled
on standard bodies 30-LO series;
for dimensions see catalogue 16.010

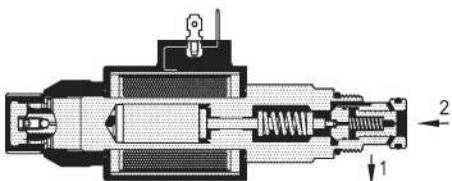
Technical features

Pilot pressure relief valves type PPI 50 are regulated from proportional solenoid which is controlled by a remote electronic card and modify setting, changing the piloting system acting force.

By de-energised valve, flow coming from 2 is drained in 1 at a minimum setting pressure.

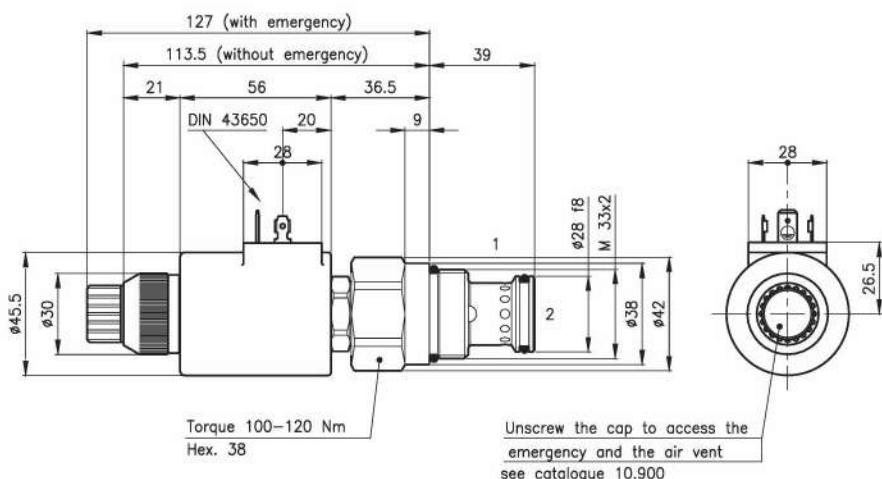
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.

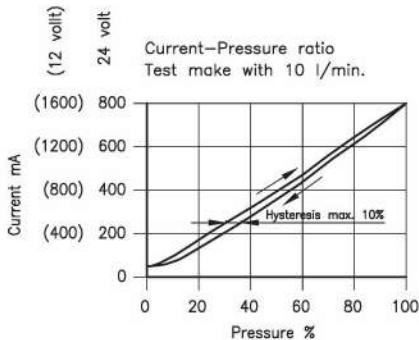
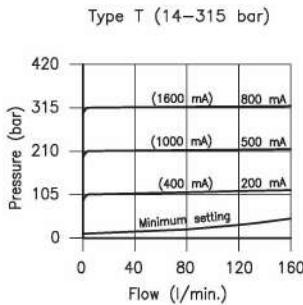
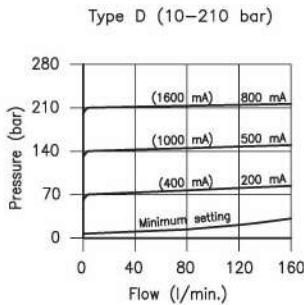
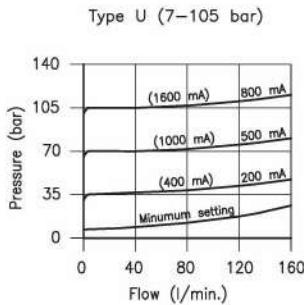


Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	(l/min.)	160
Max. inlet pressure	(bar)	315
Max. pressure on line 1	(bar)	175
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	25
Mass	(kg)	0.740
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180 (±5Hz)	

Dimensions

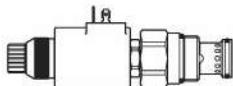
TYPICAL RELIEVING PRESSURE (2 to 1 at Various of Control Current)



Ordering informations

PPI 50/D-24C-22H-W

PPI 50 = Valve type



Setting range

U = 7 – 105 bar

D = 10 – 210 bar

T = 14 – 315 bar

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Codes:

PPI 50/U-12C-22H	55 011 144
PPI 50/D-12C-22H	55 011 145
PPI 50/T-12C-22H	55 011 146
PPI 50/U-24C-22H	55 011 147
PPI 50/D-24C-22H	55 011 148
PPI 50/T-24C-22H	55 011 149

External seals kit 90 620 106

Code only coil:

Coil P50-24C-22H	55 125 114
Coil P50-12C-22H	55 125 113

PPI 50 valves can be assembled on standard bodies 50-LO series; for dimensions see catalogue 16.010

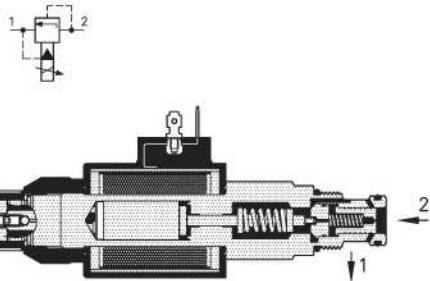
Technical features

Pilot pressure relief valves type PPI 70 are regulated from proportional solenoid which is controlled by a remote electronic card and modify setting, changing the piloting system acting force.

By de-energised valve, flow coming from 2 is drained in 1 at a minimum setting pressure.

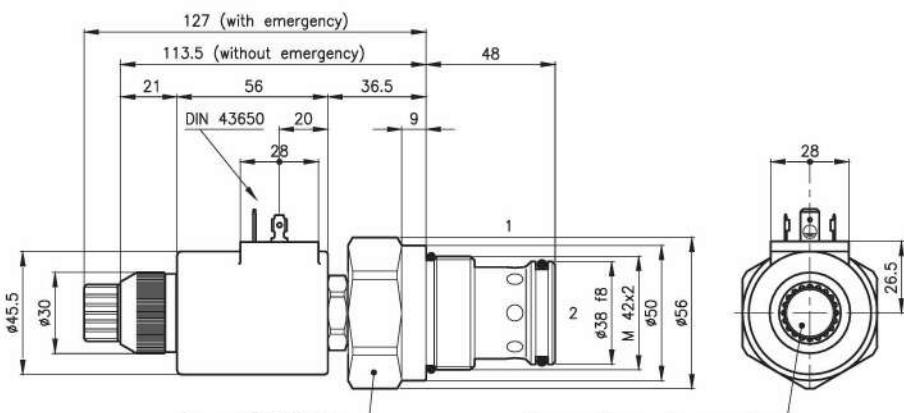
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.

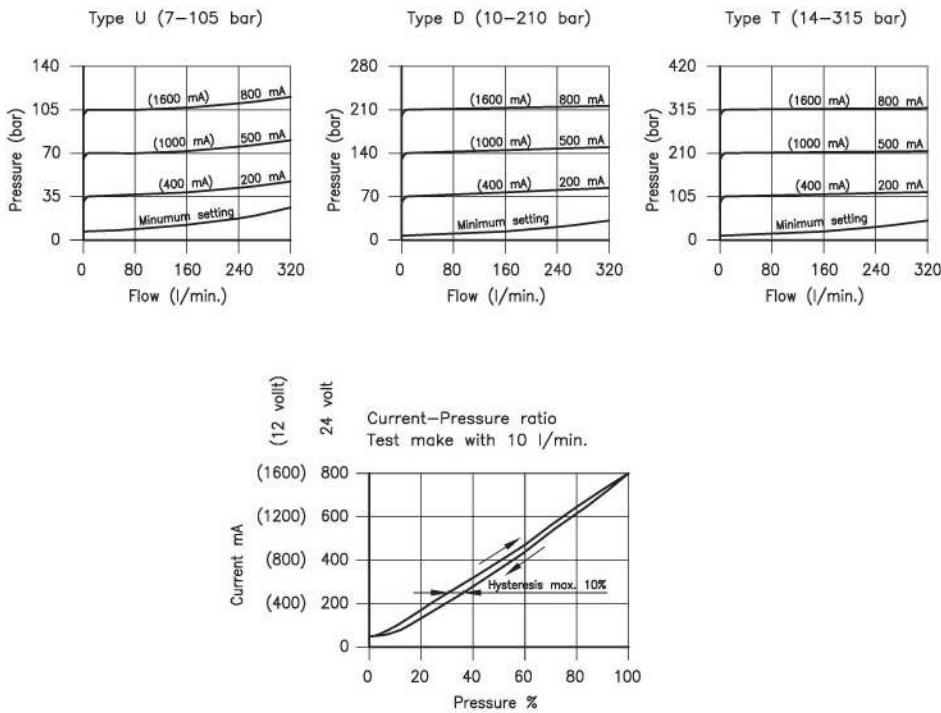


Cavity	(For dimensions see catalogue 17.000)	S 70/2
Max. flow	(l/min.)	320
Max. inlet pressure	(bar)	350
Max. pressure on line 1	(bar)	175
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	25
Mass	(kg)	0.940
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)		22
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)		100
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180 (±5Hz)	

Dimensions

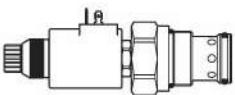
TYPICAL RELIEVING PRESSURE (2 to 1 at Various of Control Current)



Ordering informations

PPI 70/D-24C-22H-W

PPI 70 = Valve type



Setting range

U = 7 – 105 bar

D = 10 – 210 bar

T = 14 – 315 bar

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Codes:

PPI 70/U-12C-22H 75 011 108

PPI 70/D-12C-22H 75 011 109

PPI 70/T-12C-22H 75 011 110

PPI 70/U-24C-22H 75 011 111

PPI 70/D-24C-22H 75 011 112

PPI 70/T-24C-22H 75 011 113

External seals kit 90 620 109

Code only coil:

Coil P50-24C-22H 55 125 114

Coil P50-12C-22H 55 125 113

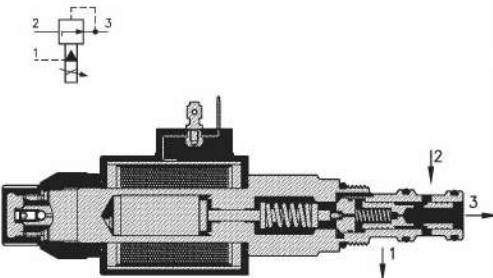
PPI 70 valves can be assembled on standard bodies 70-LO series; for dimensions see catalogue 16.010

Technical features

Pilot pressure reducing valves type PLY 30 are regulated from proportional solenoid which is controlled by a remote electronic card and modify its setting, changing the piloting system acting force.

Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

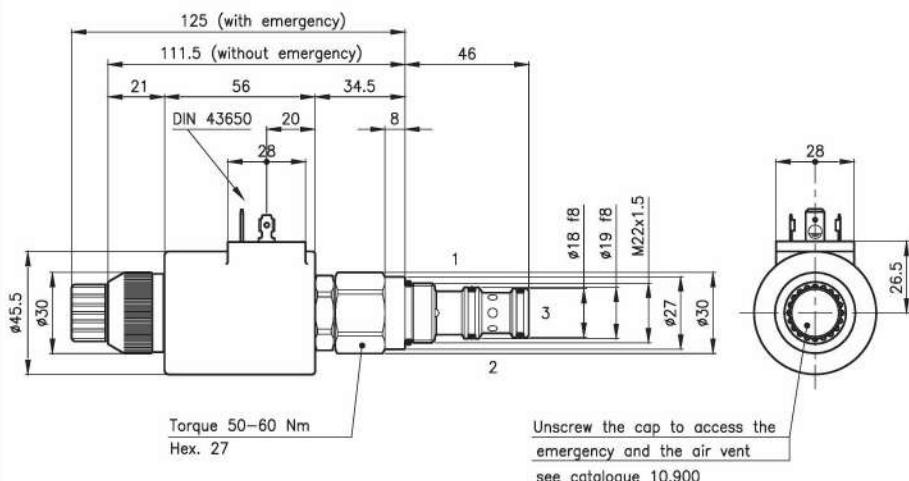
For electronic control card technical features see from General Catalogue page n. 10.250.



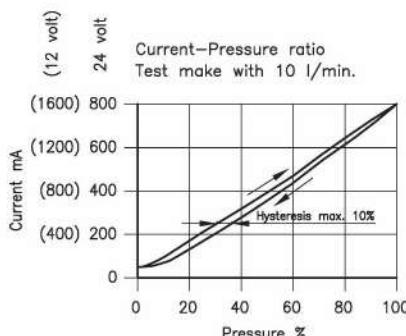
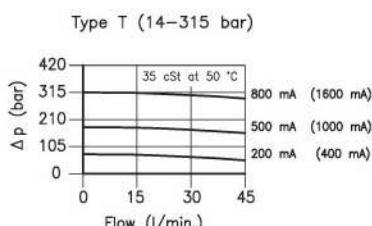
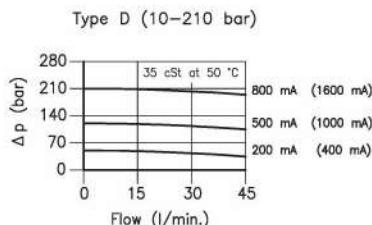
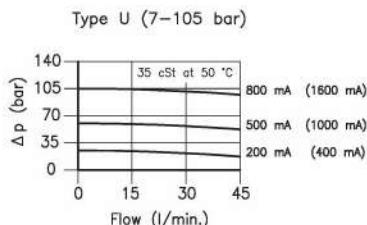
Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	45
Max. pressure on line 2	(bar)	315
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. drain	(cm ³ /min.)	600
Mass	(kg)	0.640
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180	(±5Hz)

Dimensions



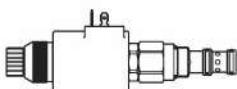
TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT



Ordering informations

PLY 30/D-24C-22H-W

PLY 30 = Valve type



Setting range

U = 7 – 105 bar

D = 10 – 210 bar

T = 14 – 315 bar

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Codes:

PLY 30/U-12C-22H 35 011 173

PLY 30/D-12C-22H 35 011 174

PLY 30/T-12C-22H 35 011 175

PLY 30/U-24C-22H 35 011 188

PLY 30/D-24C-22H 35 011 189

PLY 30/T-24C-22H 35 011 190

External seals kit 90 620 104

Code only coil:

Coil P50-24C-22H 55 125 114

Coil P50-12C-22H 55 125 113

PLY 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

Pilot pressure reducing-relieving valves type PLP 30 are regulated from proportional solenoid which is controlled by a remote electronic card and modify its setting, changing the piloting system acting force.

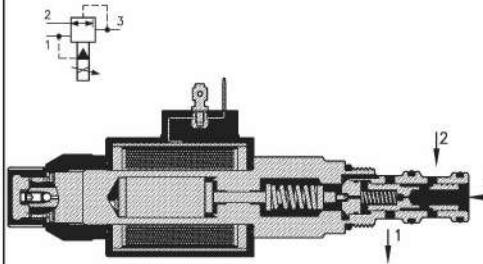
They are normally used as unidirectional proportional pressure reducing valves with flow from 2 to 3.

With flow from 3 to 1 they act as pressure relief valve and by de-energised valve, flow coming from 3 is drained in 1 at a minimum setting pressure.

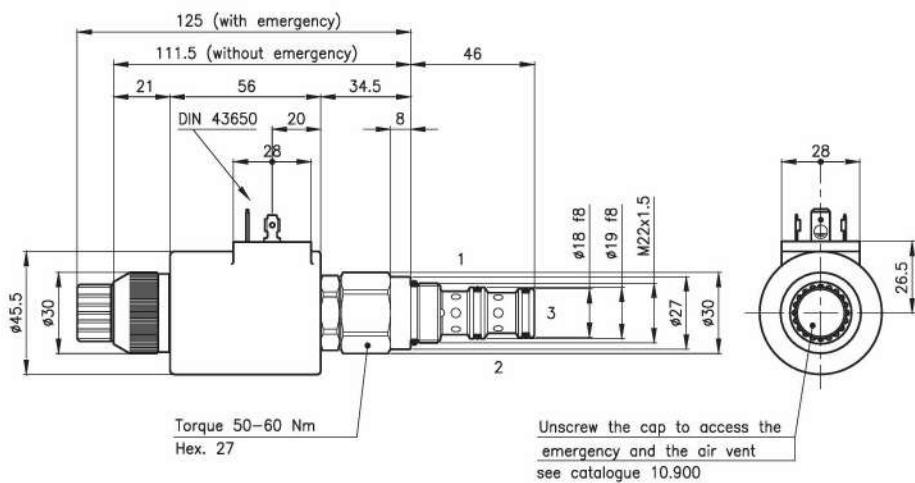
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.

Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	45
Max. pressure on line 2	(bar)	315
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. drain	(cm ³ /min.)	600
Mass	(kg)	0.640
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

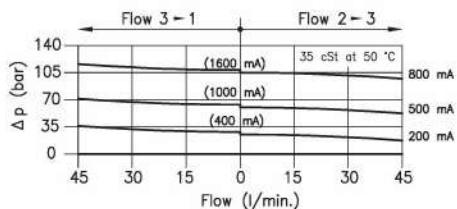


Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)		22
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)		100
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180	(±5Hz)

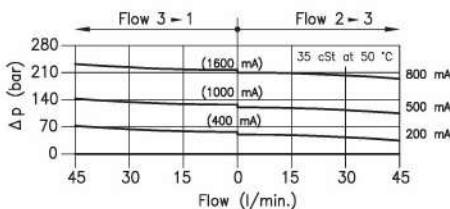
Dimensions

TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT

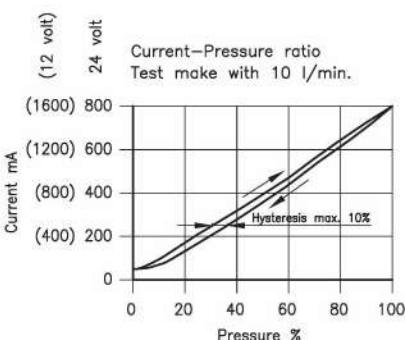
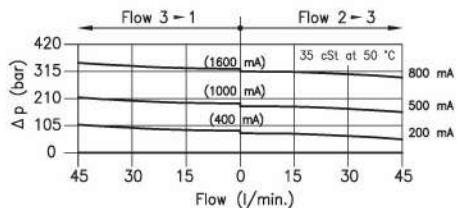
Type U (7–105 bar)



Type D (10–210 bar)



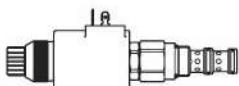
Type T (14–315 bar)



Ordering informations

PLP 30/D-24C-22H-W

PLP 30 = Valve type



Setting range

U = 7 – 105 bar

D = 10 – 210 bar

T = 14 – 315 bar

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Codes:

PLP 30/U-12C-22H 35 011 170

PLP 30/D-12C-22H 35 011 171

PLP 30/T-12C-22H 35 011 172

PLP 30/U-24C-22H 35 011 185

PLP 30/D-24C-22H 35 011 186

PLP 30/T-24C-22H 35 011 187

External seals kit 90 620 104

Code only coil:

Coil P50-24C-22H 55 125 114

Coil P50-12C-22H 55 125 113

PLP 30 valves can be assembled
on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

Technical features

Pilot pressure reducing—relieving valves type PLP 50 are regulated from proportional solenoid which is controlled by a remote electronic card and modify setting, changing the piloting system acting force.

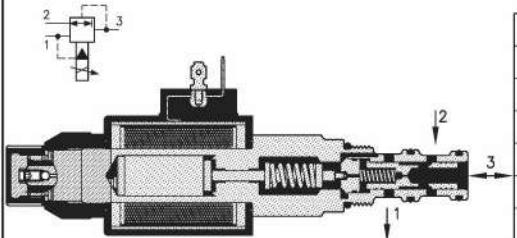
They are normally used as unidirectional proportional pressure reducing valves with flow from 2 to 3.

With flow from 3 to 1 they act as pressure relief valve and by de-energised valve, flow coming from 3 is drained in 1 at a minimum setting pressure.

Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

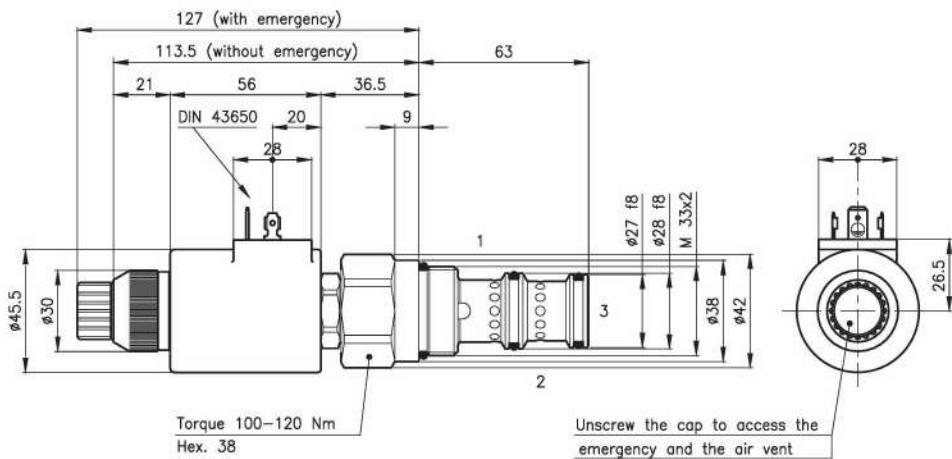
For electronic control card technical features see from General Catalogue page n. 10.250.

Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	90
Max. pressure on line 2	(bar)	315
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. drain	(cm ³ /min.)	600
Mass	(kg)	0.820
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration;	19/15 ISO 4466 (25 μ absolutes)	
Standard seals in Polyurethane and Buna N		

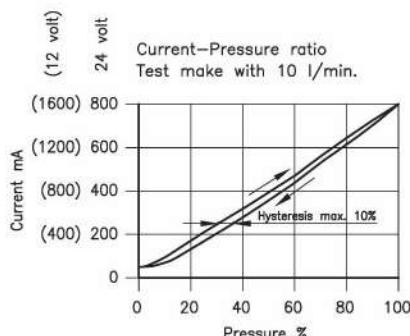
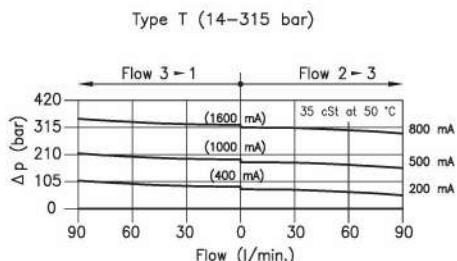
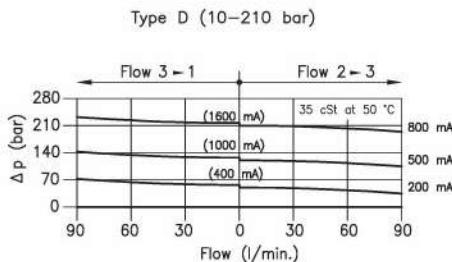
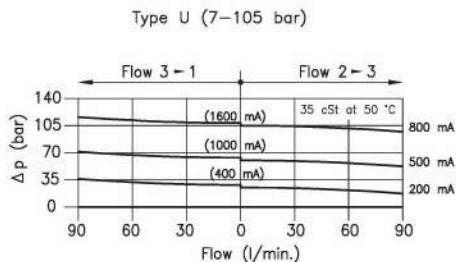


Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180	(±5Hz)

Dimensions



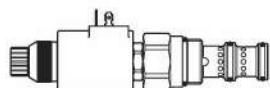
TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT



Ordering informations

PLP 50/D-24C-22H-W

PLP 50 = Valve type



Setting range

U = 7 – 105 bar

D = 10 – 210 bar

T = 14 – 315 bar

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Codes:

PLP 50/U-12C-22H 55 011 150

PLP 50/D-12C-22H 55 011 151

PLP 50/T-12C-22H 55 011 152

PLP 50/U-24C-22H 55 011 153

PLP 50/D-24C-22H 55 011 154

PLP 50/T-24C-22H 55 011 155

External seals kit 90 620 107

Code only coil:

Coil P50-24C-22H 55 125 114

Coil P50-12C-22H 55 125 113

PLP 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features

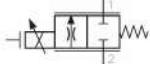
Proportional solenoid valves PSS 30 are flow regulator not compensated, normally closed or normally open, which is controlled by a remote electronic card.

Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability.

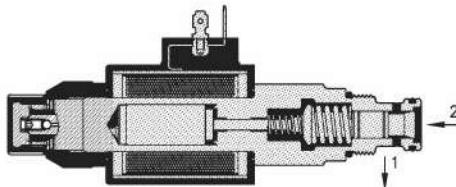
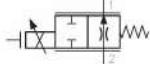
For technical features of electronic control cards see from General Catalogue page n. 10.250.

Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	70
Max. pressure on line 1	(bar)	315
Max. pressure on line 2	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	100
Mass	(kg)	0.620
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

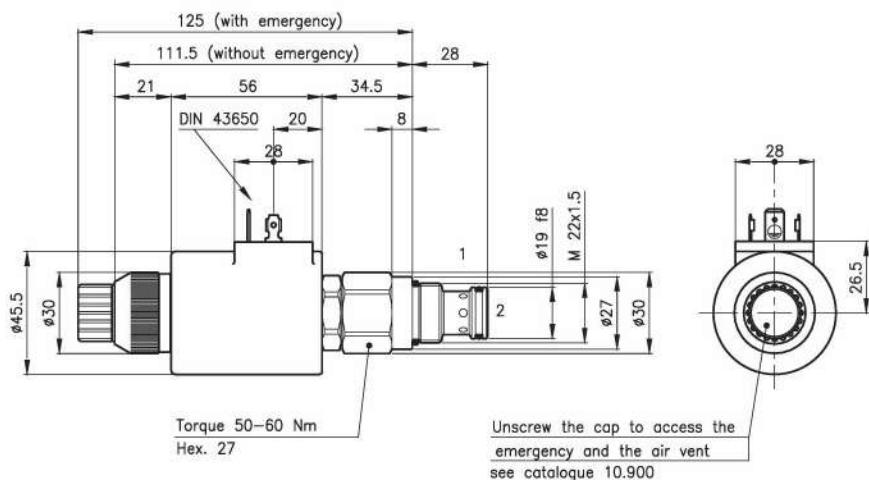
2202



2201

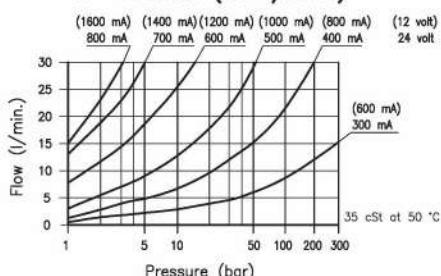


Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180	(±5Hz)

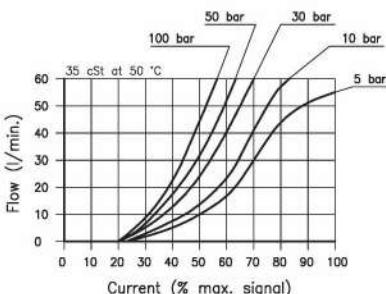
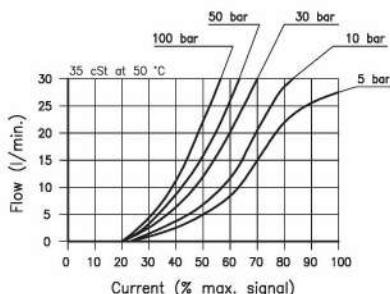
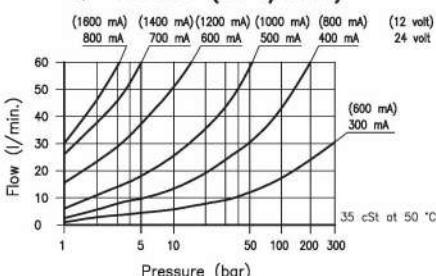
Dimensions

TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT

"D" Version (30 l/min.)



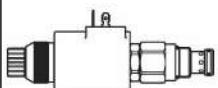
"Q" Version (60 l/min.)



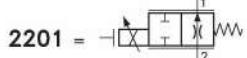
Ordering informations

PSS 30/2202-D-24C-22H-W

PSS 30 = Valve type



Circuit



Max. adjusted flow

D = 30 l/min.

Q = 60 l/min.

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

Codes:

PSS 30/2202-D-12C-22H 35 011 181
PSS 30/2202-Q-12C-22H 35 011 182

PSS 30/2202-D-24C-22H 35 011 183
PSS 30/2202-Q-24C-22H 35 011 184

PSS 30/2201-D-12C-22H 35 011 247
PSS 30/2201-Q-12C-22H 35 011 248

PSS 30/2201-D-24C-22H 35 011 249
PSS 30/2201-Q-24C-22H 35 011 250

External seals kit 90 620 103

Code only coil:

Coil P50-24C-22H 55 125 114
Coil P50-12C-22H 55 125 113

PSS 30 valves can be assembled on standard bodies 30-LO series; for dimensions see catalogue 16.010

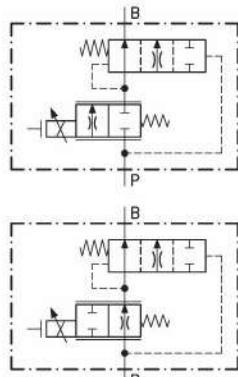
W = Optional without Emergency

Technical features

Proportional solenoid valves PPQ 30/2 are flow regulator compensated, normally closed or open, which is controlled by a remote electronic card.

Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability. The logic element ELP 30/Q2 allows to maintain the flow constant even if the pressure changes.

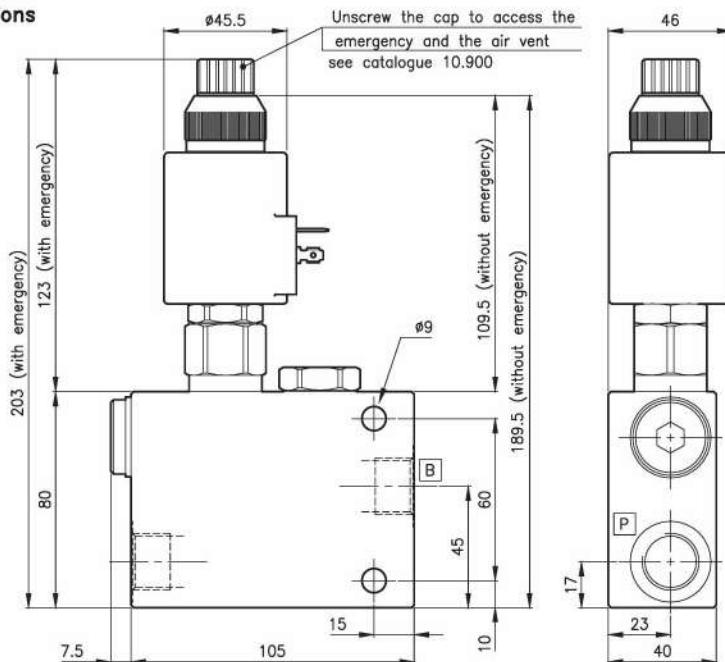
For technical features of electronic control cards see from General Catalogue page n. 10.250.



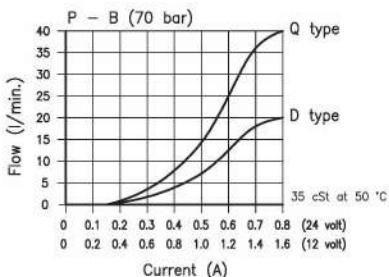
22 (NC)

21 (NA)

Valves	(For features see catalogue 16.160)		PSS 30
	(For features see catalogue 11.100)		ELP 30/Q2
Max. flow D type	(l/min.)	0 - 20	
Max. flow Q type	(l/min.)	0 - 40	
Max. pressure	(bar)	315	
Fluid viscosity range	(cSt)	2.8 - 380	
Fluid temperature range	(°C)	-20 +80	
Max. leakage	(cm ³ /min.)	100	
Mass	(kg)	1.550	
Hydraulic fluid; mineral oil HM and HV	ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)			
Standard seals in Polyurethane and Buna N			
Nominal voltage	(Volt)	12	24
Current range	(A)	1.6	0.8
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F	155
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP	65
Frequency PWM optimal (dither)		180	(±5Hz)

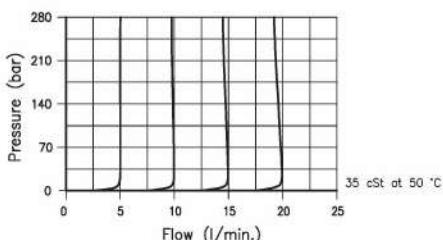
Dimensions

TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT

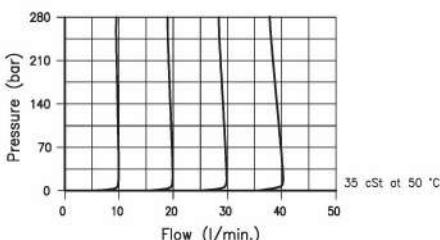


TYPICAL VALVES FEATURE AT VARIOUS OF PRESSURE

"D" Version (20 l/min.)



"Q" Version (40 l/min.)



Ordering informations

PPQ 30/22-D-24C-22H-B08-W

PPQ 30 = Valve type

Circuit

22 = Normally closed

21 = Normally open

Flow range

D = 0 - 20 l/min.

Q = 0 - 40 l/min.

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Standard ports

B08 G 1/2 ISO 228

Codes:

PPQ 30/22-D-12C-22H-B08 35 011 202

PPQ 30/22-Q-12C-22H-B08 35 011 201

PPQ 30/22-D-24C-22H-B08 35 011 200

PPQ 30/22-Q-24C-22H-B08 35 011 199

PPQ 30/21-D-12C-22H-B08 35 011 251

PPQ 30/21-Q-12C-22H-B08 35 011 252

PPQ 30/21-D-24C-22H-B08 35 011 253

PPQ 30/21-Q-24C-22H-B08 35 011 254

Only body code:

Body type 30-CSL 17-B08

38 144 149

Technical features

Proportional solenoid valves PPQ 30/3 are flow regulator compensated, three way priority By-pass style, which is controlled by a remote electronic card.

While the valve is not energized all the inlet flow is sent to the B port.

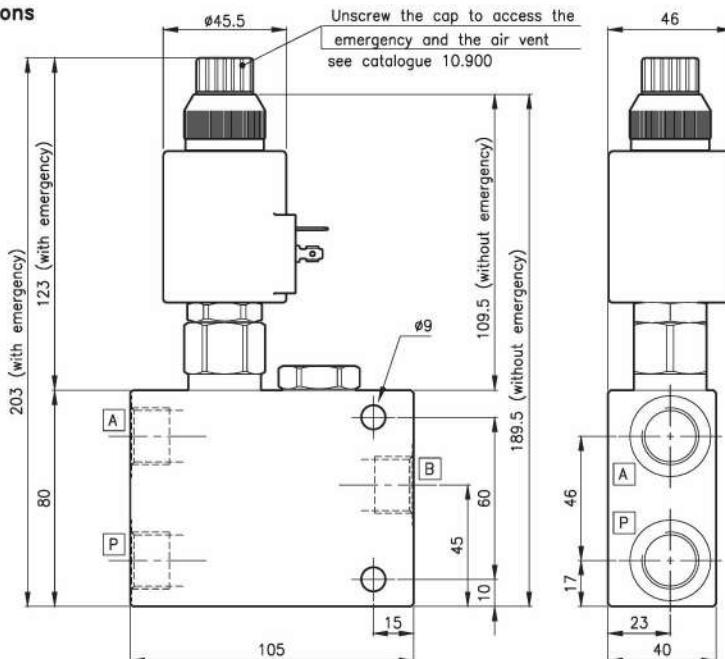
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability on port A.

The logic element ELP 30/Q1 allows to maintain the flow constant even if the pressure changes.

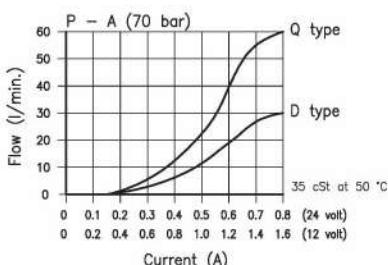
For technical features of electronic control cards see from General Catalogue page n. 10-250

Valves	(For features see catalogue 16.160)	PSS 30/2202	
	(For features see catalogue 11.010)	ELP 30/Q1	
Max. inlet flow	(l/min.)	60	
Max. flow range D type	(l/min.)	0 - 30	
Max. flow range Q type	(l/min.)	0 - 60	
Max. pressure	(bar)	315	
Fluid viscosity range	(cSt)	2.8 - 380	
Fluid temperature range	(°C)	-20 +80	
Max. leakage	(cm ³ /min.)	100	
Mass	(kg)	1.500	
Hydraulic fluid; mineral oil HM and HV		ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)			
Standard seals in Polyurethane and Buna N			
Nominal voltage	(Volt)	12	24
Current range	(A)	1.6	0.8
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F 155	
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP 65	
Frequency PWM optimal (dither)		180 (±5Hz)	

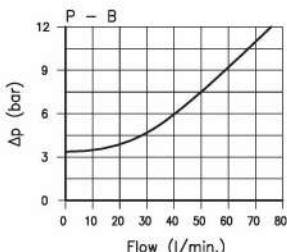
Dimensions



**TYPICAL VALVES FEATURE
AT VARIOUS OF CURRENT**

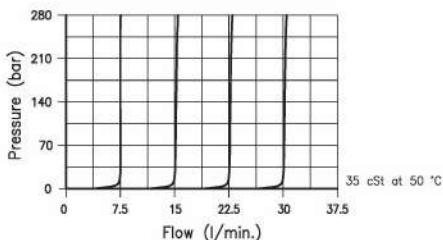


**PRESSURE DROP FEATURE
BY-PASS P - B**

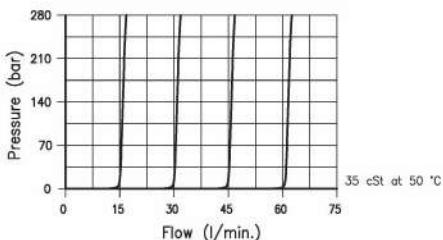


TYPICAL VALVES FEATURE AT VARIOUS OF PRESSURE

"D" Version (30 l/min.)



"Q" Version (60 l/min.)



Ordering informations

PPQ 30/3-D-24C-22H-B08-W

PPQ 30 = Valve type

Way number

Flow range

D = 0 - 30 l/min.

Q = 0 - 60 l/min.

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Standard ports

B08 G 1/2 ISO 228

Codes:

PPQ 30/3-D-12C-22H-B08 35 011 206

PPQ 30/3-Q-12C-22H-B08 35 011 205

PPQ 30/3-D-24C-22H-B08 35 011 204

PPQ 30/3-Q-24C-22H-B08 35 011 203

Only body code:

Body type 30-CSL 17-B08

38 144 149

Technical features

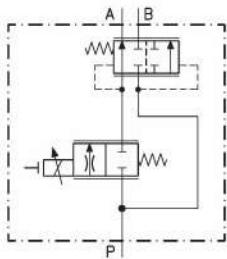
Proportional solenoid valves PPQ 30/3-Q4 are flow regulator compensated, three way priority By-pass style, which is controlled by a remote electronic card.

While the valve is not energized all the inlet flow is sent to the B port.

Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability on port A.

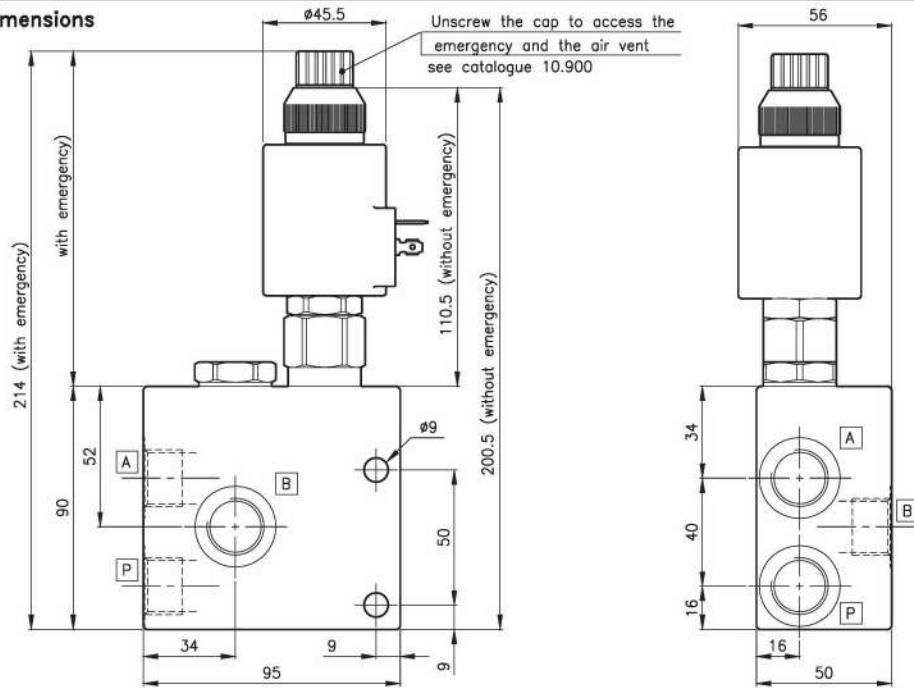
The logic element ELP 30/Q4 allows to maintain the flow constant even if the pressure changes.

For technical features of electronic control cards see from General Catalogue page n. 10.250.

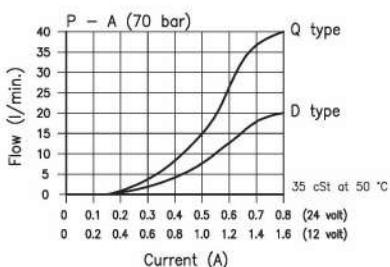


Valves	(For features see catalogue 16.160)	PSS 30/2202	
	(For features see catalogue 11.130)	ELP 30/Q4	
Max. inlet flow	(l/min.)	60	
Max. flow range D type	(l/min.)	0 - 20	
Max. flow range Q type	(l/min.)	0 - 40	
Max. pressure	(bar)	315	
Fluid viscosity range	(cSt)	2.8 - 380	
Fluid temperature range	(°C)	-20 +80	
Max. leakage	(cm ³ /min.)	100	
Mass	(kg)	2.000	
Hydraulic fluid; mineral oil HM and HV		ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)			
Standard seals in Polyurethane and Buna N			
Nominal voltage	(Volt)	12	24
Current range	(A)	1.6	0.8
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F 155	
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP 65	
Frequency PWM optimal (dither)		180 (±5Hz)	

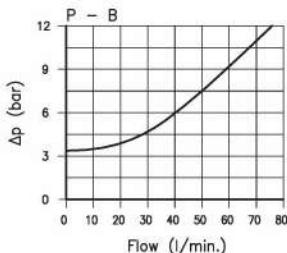
Dimensions



**TYPICAL VALVES FEATURE
AT VARIOUS OF CURRENT**

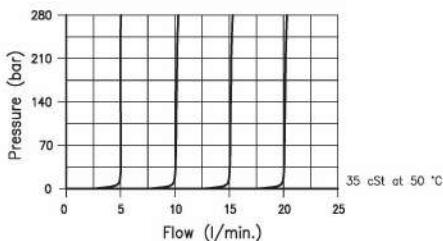


**PRESSURE DROP FEATURE
BY-PASS P - B**

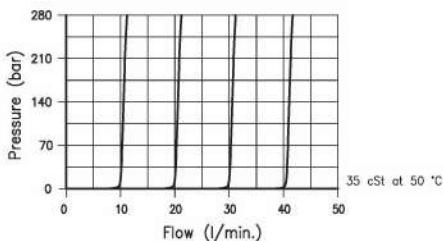


TYPICAL VALVES FEATURE AT VARIOUS OF PRESSURE

"D" Version (20 l/min.)



"Q" Version (40 l/min.)



Ordering informations

PPQ 30/3-Q4-D-24C-22H-B08-W

PPQ 30 = Valve type

Way number

Logic element ELP 30/Q4

Flow range

D = 0 - 20 l/min.

Q = 0 - 40 l/min.

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Standard ports

B08 G 1/2 ISO 228

Codes:

PPQ 30/3-Q4-D-12C-22H-B08 35 011 259

PPQ 30/3-Q4-Q-12C-22H-B08 35 011 260

PPQ 30/3-Q4-D-24C-22H-B08 35 011 261

PPQ 30/3-Q4-Q-24C-22H-B08 35 011 262

Only body code:

Body type 30-CSL 17/Q4-B08 38 144 142

Technical features

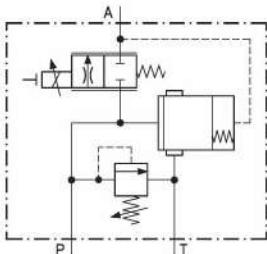
Proportional solenoid valves PPB 30/3 are flow regulator compensated, three way priority By-pass style, which is controlled by a remote electronic card.

While the valve is not energized all the inlet flow is sent to the T port.

Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability on port A.

The logic element ELP 30/Q1 allows to maintain the flow constant even if the pressure changes.

PPB 30/3 valves assemble one pressure relief valve LPB 30. For technical features of electronic control cards see from General Catalogue page n. 10.250.



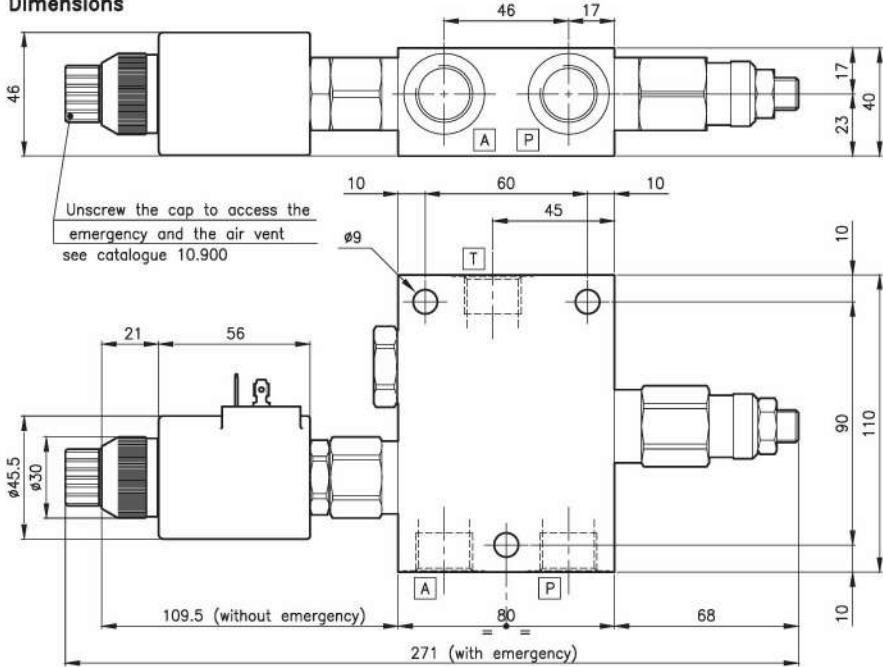
Frequency PWM optimal (dither)

180 ($\pm 5\text{Hz}$)

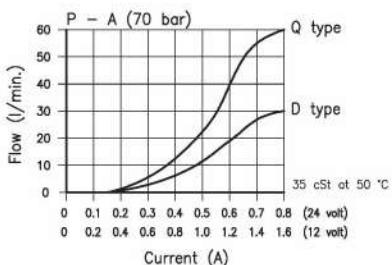
Protection class (DIN 40050) IP 65

Valves	(For features see catalogue 16.160)	PSS 30/2202
	(For features see catalogue 11.010)	ELP 30/Q1
	(For features see catalogue 02.090)	LPB 30
Max. inlet flow	(l/min.)	60
Max. flow range D type	(l/min.)	0 - 30
Max. flow range Q type	(l/min.)	0 - 60
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm³/min.)	100
Mass	(kg)	1.750
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		
Nominal voltage	(Volt)	12 24
Current range	(A)	1.6 0.8
Nominal power	(Watt)	22
Resistance	(Ω)	6.8 26
Insulation class	(VDE 0580)	F 155
Rating	(ED%)	100

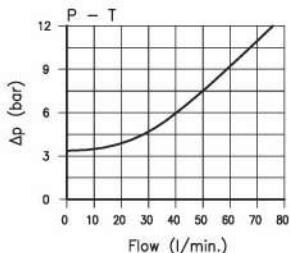
Dimensions



**TYPICAL VALVES FEATURE
AT VARIOUS OF CURRENT**

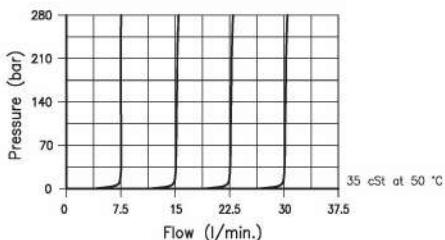


**PRESSURE DROP FEATURE
BY-PASS P - T**

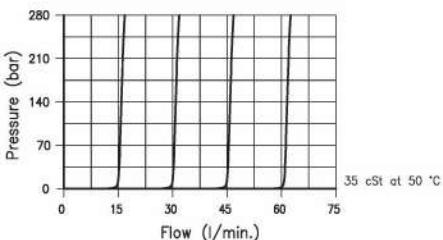


TYPICAL VALVES FEATURE AT VARIOUS OF PRESSURE

"D" Version (30 l/min.)



"Q" Version (60 l/min.)



Ordering informations

PPB 30/3-D-24C-22H-U-B08-W

PPB 30 = Valve type

Way number

Flow range

D = 0 - 30 l/min.

Q = 0 - 60 l/min.

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Standard ports

B08 G 1/2 ISO 228

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Only body code:

Body type 30-CSL 17B-B08

38 144 203

Technical features

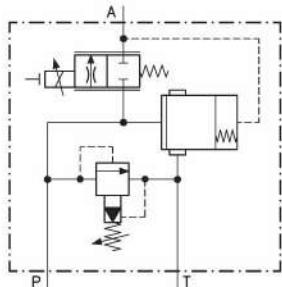
Proportional solenoid valves PPP 30/3 are flow regulator compensated, three way priority By-pass style, which is controlled by a remote electronic card.

While the valve is not energized all the inlet flow is sent to the T port.

Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability on port A.

The logic element ELP 30/Q1 allows to maintain the flow constant even if the pressure changes.

PPP 30/3 valves assemble one pressure relief valve LPI 30. For technical features of electronic control cards see from General Catalogue page n. 10.250.

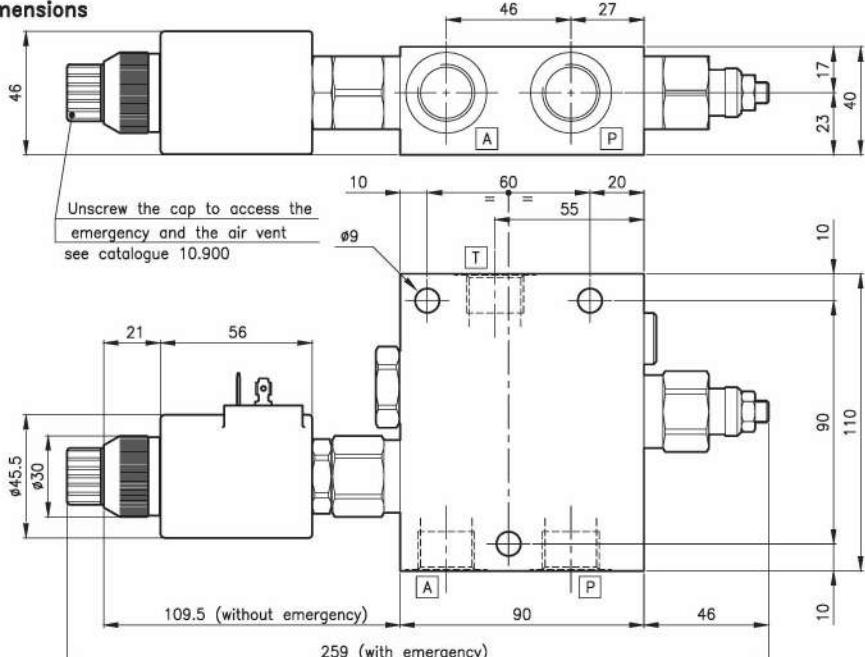


Frequency PWM optimal (dither)

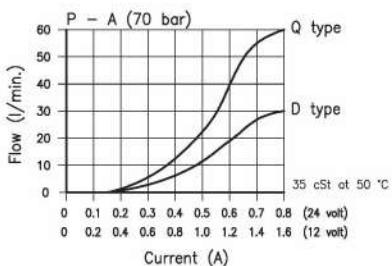
180 ($\pm 5\text{Hz}$)

Protection class (DIN 40050) IP 65

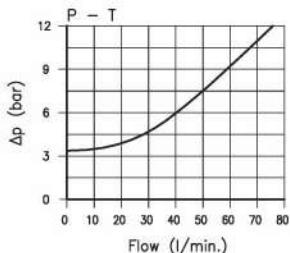
Valves	(For features see catalogue 16.160)	PSS 30/2202
	(For features see catalogue 11.010)	ELP 30/Q1
	(For features see catalogue 02.120)	LPI 30
Max. inlet flow	(l/min.)	60
Max. flow range D type	(l/min.)	0 - 30
Max. flow range Q type	(l/min.)	0 - 60
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm³/min.)	100 - 2000
Mass	(kg)	2.000
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		
Nominal voltage	(Volt)	12 24
Current range	(A)	1.6 0.8
Nominal power	(Watt)	22
Resistance	(Ω)	6.8 26
Insulation class	(VDE 0580)	F 155
Rating	(ED%)	100

Dimensions

**TYPICAL VALVES FEATURE
AT VARIOUS OF CURRENT**

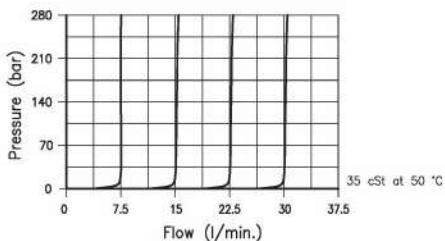


**PRESSURE DROP FEATURE
BY-PASS P - T**

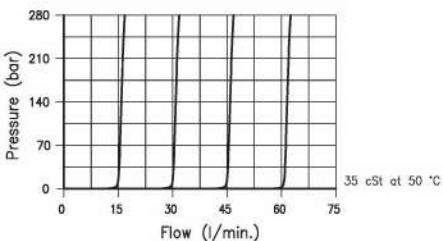


TYPICAL VALVES FEATURE AT VARIOUS OF PRESSURE

"D" Version (30 l/min.)



"Q" Version (60 l/min.)



Ordering informations

PPP 30/3-D-12C-22H-D-B08-W

PPP 30 = Valve type

Way number

Flow range

D = 0 - 30 l/min.

Q = 0 - 60 l/min.

Voltage and power

12C-22H = 12 Volt DC

24C-22H = 24 Volt DC

W = Optional without Emergency

Standard ports

B08 G 1/2 ISO 228

Standard springs

Type Setting range

D = 14 - 210 bar

Q = 105 - 420 bar

Only body code:
Body type 30-CSL 17P-B08 38 144 231

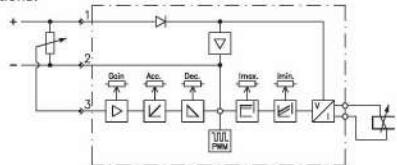
Technical data

The VPC connector series are electronical regulators for proportional solenoids control operating in open loop regulating system.

The electronical circuit is directly incorporated into connector which has to be fixed on solenoid in order to form a compact group easy to be set.

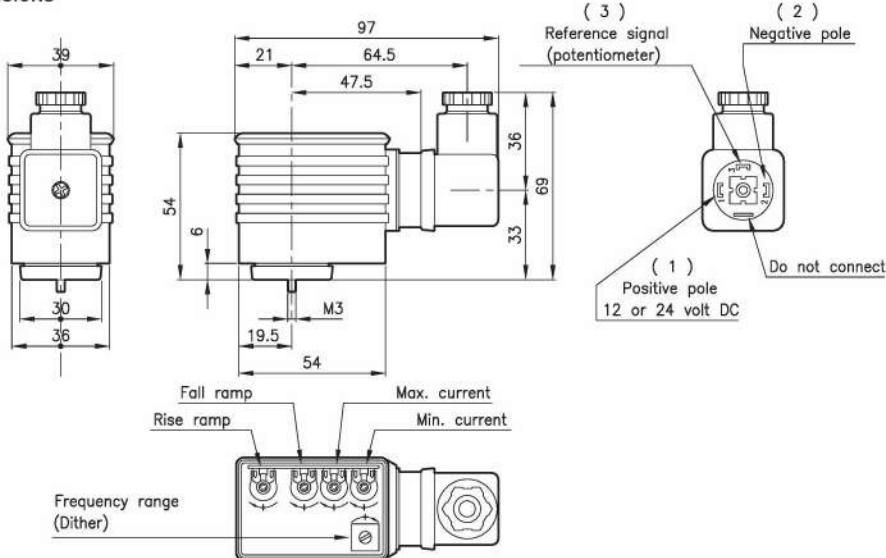
The action is carried out after receiving an electrical reference signal externally set out through 5 Kohm potentiometer or other kind of generator.

Connections:



Supply voltage ($\pm 10\%$)	Volt	24
		12
Reference signal	Volt	0-10 (24V)
		0-5 (12V)
Input impedance	Kohm	100
Maximum regulated current	Ampere	0.2-1 (24V)
		0.4-2 (12V)
Minimum regulated current	Ampere	0-0.3 (24V)
		0-0.6 (12V)
Rise ramp adjustment	sec.	0 - 3
Fall ramp adjustment	sec.	0 - 3
Frequency range (dither)	Hz	* 50 - 400
Working room temperature	°C	-10 +50

* Frequency (dither) is pre-set at 120 Hz

Dimensions**Ordering informations**

VPC-12/24-DIN

Type _____

Connection DIN 43650

Supply voltage

12/24 = 12-24 Volt DC

Codes:

VPC-12/24-DIN 90 538 106

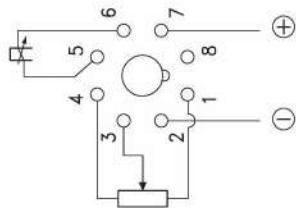
Technical data

The FPO controller series are electronical regulators for proportional solenoids control operating in open lap regulating system.

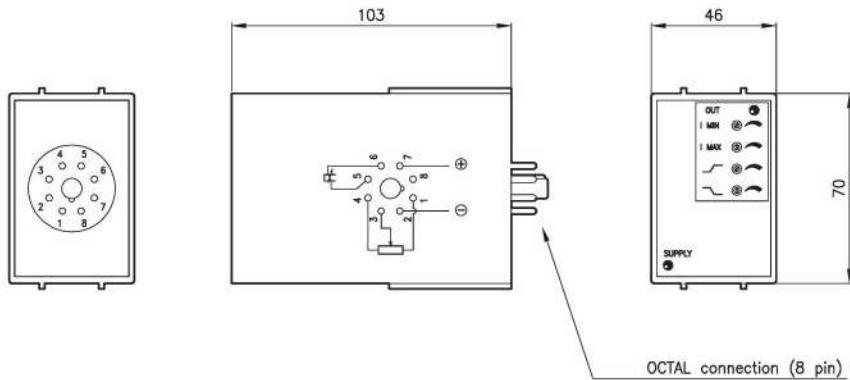
The electronical circuit is directly incorporated into the box which has to be fixed on a OCTAL connector to forme a compact group easy to be set.

The action is carried out after receiving an electrical reference signal externally set out through 2..10 Kohm potentiometer or other kind of generator.

Connections:



Supply voltage	Volt	11 - 33
Reference signal	Volt	0 .. +5
Maximum regulated current	Ampere	2.5
Supply for potentiometer	Volt	+5 (max. 10mA)
Rise ramp adjustment	sec.	0 - 10
Fall ramp adjustment	sec.	0 - 10
Frequency range (dither)	Hz	180 (± 5 Hz)
Working room temperature	°C	-10 .. +60

Dimensions**Ordering informations****FPO-OCTAL**

Type _____

OCTAL connection (8 pin)

Codes:

FPO-OCTAL 90 538 110

OCTAL connector 90 538 118

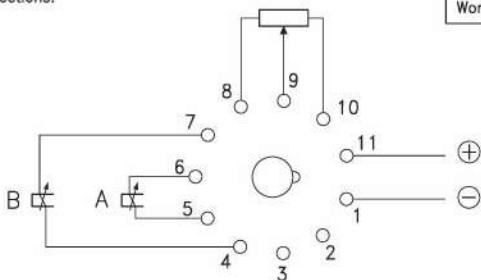
Technical data

The FPO controller series are electronical regulators for proportional solenoids control operating in open loop regulating system.

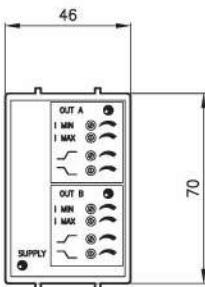
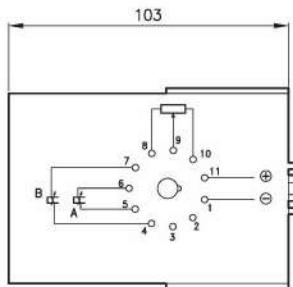
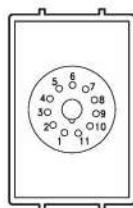
The electronical circuit is directly incorporated into the box which has to be fixed on a UNDECAL connector to form a compact group easy to be set.

The action is carried out after receiving an electrical reference signal externally set out through 2..10 Kohm potentiometer or other kind of generator.

Connections:



Supply voltage	Volt	11 - 33
Reference signal	Volt	0 .. +5
Maximum regulated current	Ampere	2.5
Supply for potentiometer	Volt	+5 (max. 10mA) -5 (max. 5mA)
Rise ramp adjustment	sec.	0 - 10
Fall ramp adjustment	sec.	0 - 10
Frequency range (dither)	Hz	180 (± 5 Hz)
Working room temperature	°C	-10 .. +60

Dimensions

UNDECAL connection (11 pin)

Ordering informations**FPO-UNDECAL**

Type _____

UNDECAL connection (11 pin)

Codes:

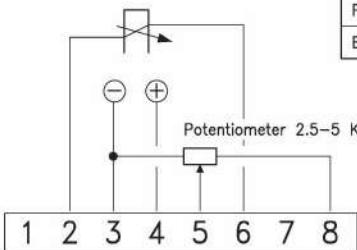
FPO-UNDECAL	90 538 117
UNDECAL connector	90 538 119

Technical data

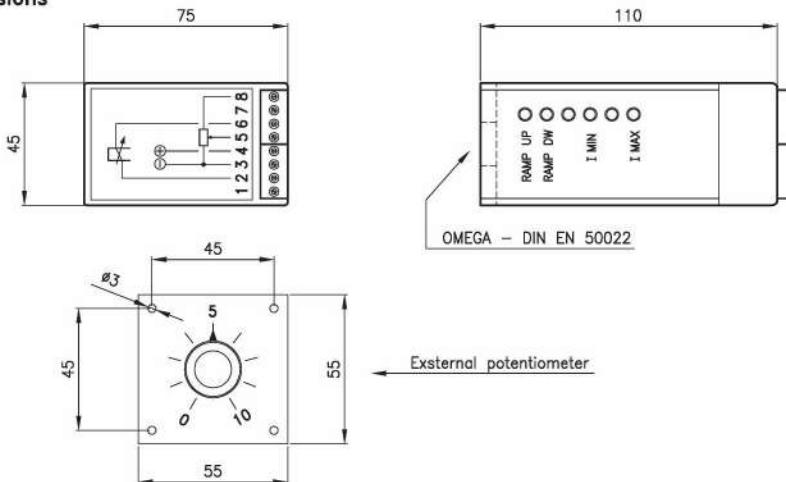
The FRP module series are electronical regulators for proportional solenoid control operating in open loop regulating system. The whole electronical circuit is placed inside the compact box arranged to be easily fitted up in a guide DIN EN 50022. The action is carried out after receiving an electrical reference signal externally set out through potentiometer or other kind of generator.

The adjustments are placed in the upper side in order to allow setting modification without remove or open the box.

Connections:



Supply voltage	Volt	11 - 33
Reference signal	Volt	+5 max
Input impedance	Kohm	2..10
Maximum regulated current	Ampere	2.5
Supply for potentiometer	Volt	5 (Imax 10mA)
Rise ramp adjustment	sec.	0 - 5
Fall ramp adjustment	sec.	0 - 5
Frequency PWM (dither)	Hz	180 ($\pm 5\text{Hz}$)
Working room temperature	°C	-10 +60
Protections: supply reversal		
Box in ABS for guide DIN 50022		

Dimensions**Ordering informations**

FRP/01-N

Type _____

N = without potentiometer _____

P = with potentiometer _____

Codes:

FRP/01-N 90 538 114

FRP/01-P 90 538 115

Potentiometer x FRP 90 538 122

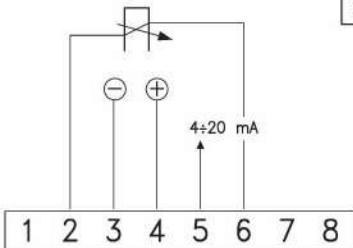
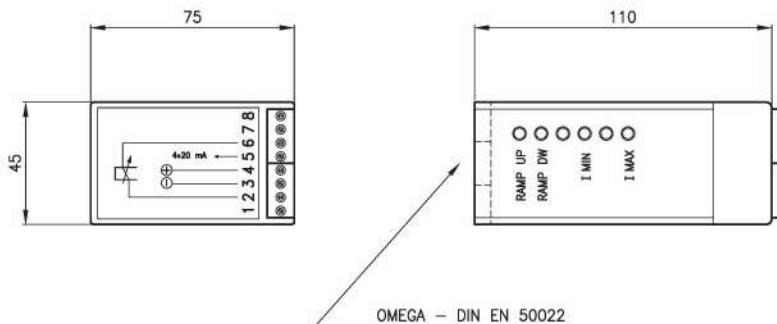
Technical data

The FRP module series are electronical regulators for proportional solenoid control operating in open loop regulating system. The whole electronical circuit is placed inside the compact box arranged to be easily fitted up in a guide DIN EN 50022. The action is carried out after receiving an electrical reference signal externally set out through potentiometer or other kind of generator.

The adjustments are placed in the upper side in the upper side in order to allow setting modification without remove or open the box.

Supply voltage	Volt	11 - 33
Reference signal	mA	4 ÷ 20
Imput impedance	ohm	250
Maximum regulated current	Ampere	2.5
Rise ramp adjustment	sec.	0 - 5
Fall ramp adjustment	sec.	0 - 5
Frequency PWM (dither)	Hz	180 (± 5 Hz)
Working room temperature	°C	-10 +60
Protections: supply reversal		
Box in ABS for guide DIN EN 50022		

Connections:

**Dimensions****Ordering informations**

FRP/02

Type _____

Codes:

FRP/02

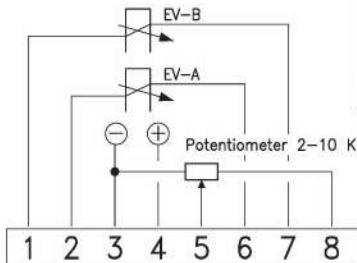
90 538 116

Technical data

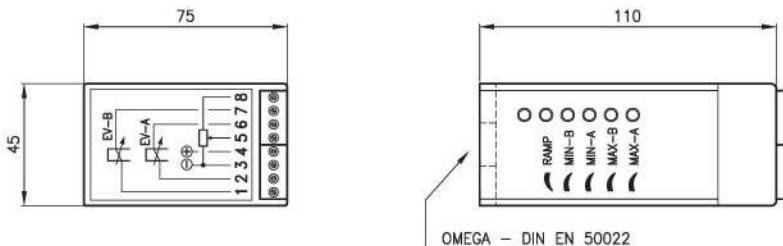
The FRP module series are electronical regulators for proportional solenoid control operating in open loop regulating system. The whole electronical circuit is placed inside the compact box arranged to be easily fitted up in a guide DIN EN 50022. The action is carried out after receiving an electrical reference signal externally set out through potentiometer or other kind of generator.

The adjustments are placed in the upper side in order to allow setting modification without remove or open the box.

Connections:



Supply voltage	Volt	12 - 24
Reference signal EV-A	Volt	0 - +2.5 max
Reference signal EV-B	Volt	+2.5 - +5 max
Input impedance	Kohm	2..10
Maximum regulated current	Ampere	2.5
Supply for potentiometer	Volt	5 (I_{max} 10mA)
Rise ramp adjustment	sec.	0 - 2.5
Fall ramp adjustment	sec.	0 - 2.5
Frequency PWM (dither)	Hz	110 ($\pm 5\text{Hz}$)
Working room temperature	°C	-10 +60
Protections: supply reversal		
Box in ABS for guide DIN EN 50022		

Dimensions**Ordering informations****FRP2/01-12/2.5V**

Type _____

12 Volts _____

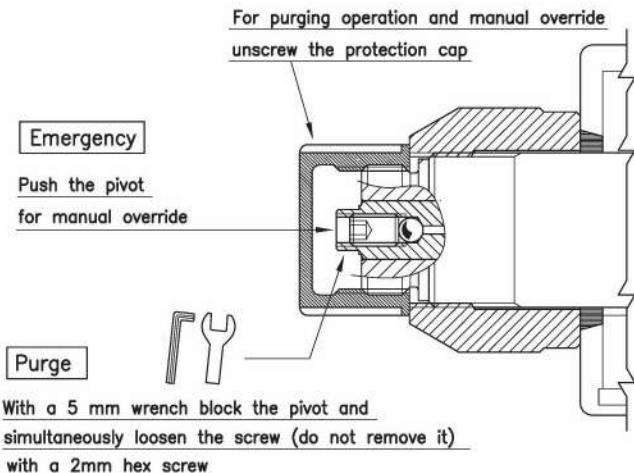
24 Volts _____

Codes:

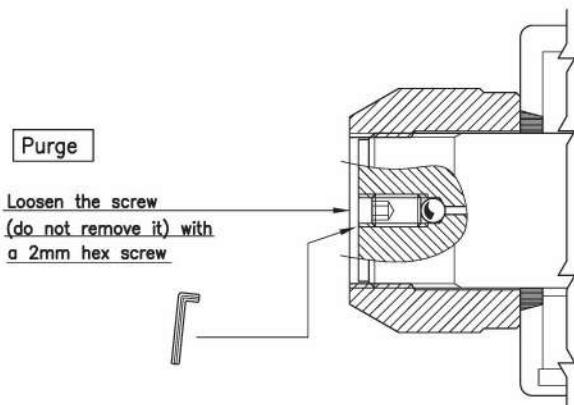
FRP2/01-12/2.5V 90 538 124

FRP2/01-24/2.5V 90 538 125

Proportional Valve with Emergency



Proportional Valve without Emergency



ALPHABETIC INDEX AND VALVE CODES

00

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05

FLOW CONTROL VALVES

06

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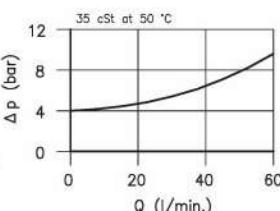
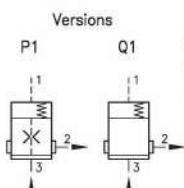
Pressure, flow and directional control logic valves.

These are logic elements used to pressure, flow and oiltight directional control. They are divided into two categories: as pressure and flow control they have a ratio between areas of 1:1; as directional control they have a ratio of 1.8:1 or 1.2:1. They always need piloting valves which acting on chamber 1, besides made them functioning, allow their regulation. The version used to flow control must be combined with a needle valve in order to breed a pressure drop of about 7 bar.

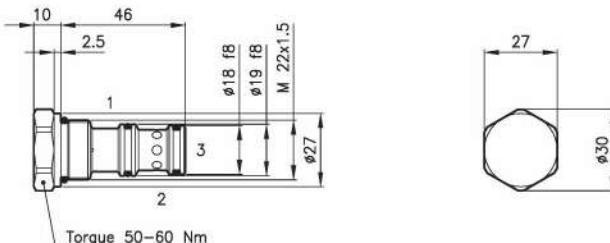
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
ELP .. /P1 series – with area ratio 1:1 for pressure control.	ELP 30/P1	80	350	11.010
	ELP 50/P1	160	350	11.020
	ELP 70/P1	320	350	11.030
ELP .. /Q1 series – with area ratio 1:1 for flow control.	ELP 30/Q1	80	350	11.010
	ELP 50/Q1	160	350	11.020
	ELP 70/Q1	320	350	11.030
ELP .. /P3 series – with area ratio 1:1 to reduce pressure.	ELP 30/P3	50	350	11.040
	ELP 50/P3	100	350	11.050
	ELP 70/P3	200	350	11.060
ELP .. /Q3 series – with area ratio 1:1 for compensating flow control.	ELP 30/Q3	50	350	11.040
	ELP 50/Q3	100	350	11.050
	ELP 70/Q3	200	350	11.060
ELP .. /D2-D3 series – with area ratio 1.8:1 or 1.2:1 for directional control.	ELP 30/D..	60	350	11.070
	ELP 50/D..	120	350	11.080
	ELP 70/D..	250	350	11.090
ELP .. /Q2 series – with area ratio 1:1 pressure compensator for flow control.	ELP 30/Q2	40	350	11.100
ELP .. /Q4 series – with area ratio 1:1 pressure compensator for flow control.	ELP 30/Q4	40	350	11.130
ELP .. /Q1 series – flow control with relief valve.	ELPS 30/Q1	60	420	11.140

Technical features

Logic valves ELP 30/P1 series, with internal orifice, are used for pressure control, as sequence or by-pass valves. The Q1 version without internal orifice, if combined with a needle valve, is a flow compensator which unload the excess flow in tank.



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	60
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1
Cracking pressure	(bar)	4
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (P1 version)	(mm)	0.75
Mass	(kg)	0.130
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

ELP 30/P1

ELP 30 = Valve type



Version

P1 = pressure control

Q1 = flow compensator

Codes:

ELP 30/P1 36 011 100

ELP 30/Q1 36 011 101

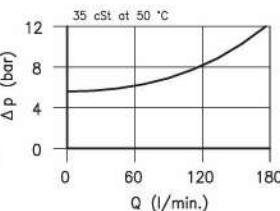
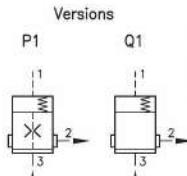
External seals kit 90 620 104

ELP 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

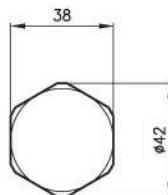
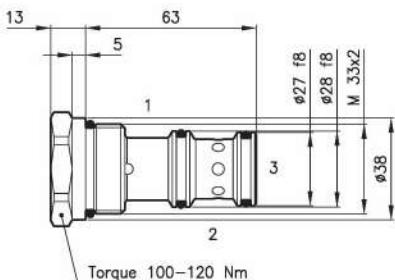
Logic valves ELP 50/P1 series, with internal orifice, are used for pressure control, as sequence or by-pass valves.

The Q1 version without internal orifice, if combined with a needle valve, is a flow compensator which unload the excess flow in tank.



Cavity	(For dimensions see catalogue 17.000)	S 50/3
Nominal flow	(l/min.)	160
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1
Cracking pressure	(bar)	6
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (P1 version)	(mm)	0.75
Mass	(kg)	0.260
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ELP 50/P1

ELP 50 = Valve type



Version

P1 = pressure control

Q1 = flow compensator

Codes:

ELP 50/P1 56 011 102

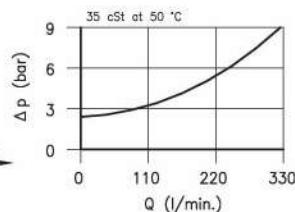
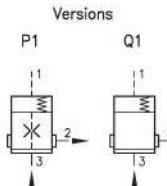
ELP 50/Q1 56 011 101

External seals kit 90 620 107

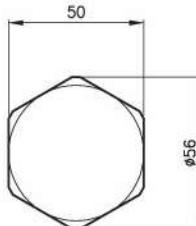
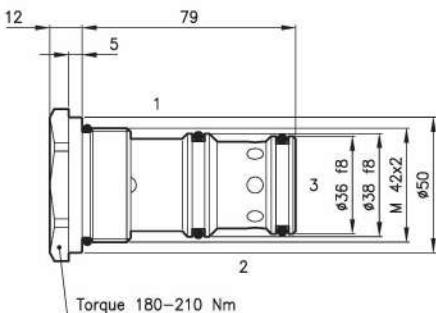
ELP 50 valves can be assembled on standard bodies 50-C3 valves; for dimensions see catalogue 16.010

Technical features

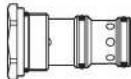
Logic valves ELP 70/P1 series, with internal orifice, are used for pressure control, as sequence or by-pass valves. The Q1 version without internal orifice, if combined with a needle valve, is a flow compensator which unload the excess flow in tank.



Cavity	(For dimensions see catalogue 17.000)	S 70/3
Nominal flow	(l/min.)	320
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1
Cracking pressure	(bar)	2.5
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (P1 version)	(mm)	0.75
Mass	(kg)	0.660
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ELP 70/P1**

ELP 70 = Valve type



Version

P1 = pressure control

Q1 = flow compensator

Codes:

ELP 70/P1 76 011 100

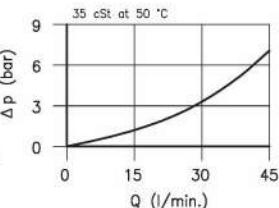
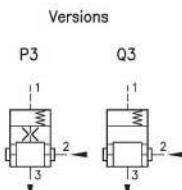
ELP 70/Q1 76 011 101

External seals kit 90 620 120

ELP 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 16.010

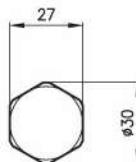
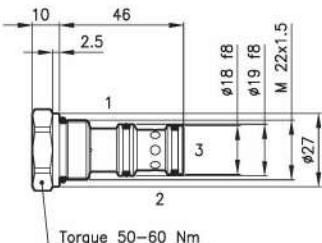
Technical features

Logic valves ELP 30/P3 series, with internal orifice, are used as pressure reducing with remote pilot. The Q3 version, without orifice, if combined with a needle valve is a pressure compensated flow regulator at two way.



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	40
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1
Min. pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (P3 version)	(mm)	0.75
Mass	(kg)	0.130
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ELP 30/P3

ELP 30 = Valve type



Version

P3 = pressure reducing

Q3 = flow regulator

Codes:

ELP 30/P3 36 011 103

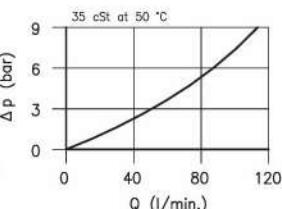
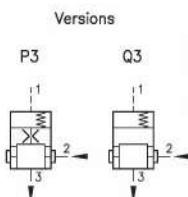
ELP 30/Q3 36 011 104

External seals kit 90 620 104

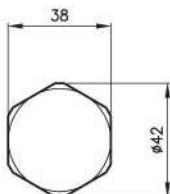
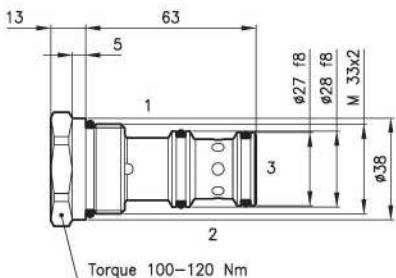
ELP 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

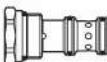
Logic valves ELP 50/P3 series, with internal orifice, are used as pressure reducing with remote pilot. The Q3 version, without orifice, if combined with a needle valve is a pressure compensated flow regulator at two way.



Cavity	(For dimensions see catalogue 17.000)	S 50/3
Nominal flow	(l/min.)	100
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1
Min. pressure difference	(bar)	7
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (P3 version)	(mm)	0.75
Mass	(kg)	0.260
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ELP 50/P3**

ELP 50 = Valve type



Version

P3 = pressure reducing

Q3 = flow regulator

Codes:

ELP 50/P3 56 011 105

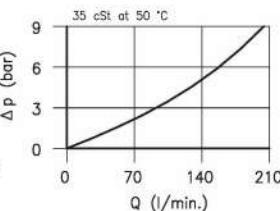
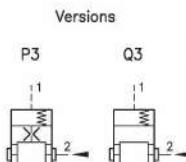
ELP 50/Q3 56 011 106

External seals kit 90 620 107

ELP 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

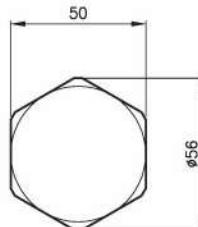
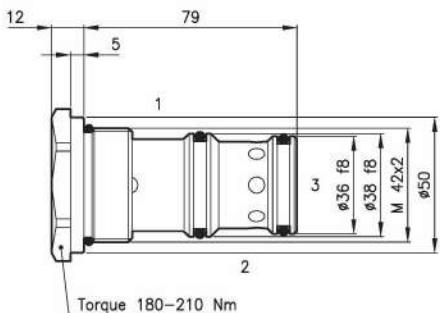
Technical features

Logic valves ELP 70/P3 series, with internal orifice, are used as pressure reducing with remote pilot. The Q3 version, without orifice, if combined with a needle valve is a pressure compensated flow regulator at two way.



Cavity	(For dimensions see catalogue 17.000)	S 70/3
Nominal flow	(l/min.)	200
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1
Min. pressure difference	(bar)	4
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (P3 version)	(mm)	0.75
Mass	(kg)	0.660
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

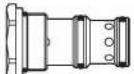
Dimensions



Ordering informations

ELP 70/P3

ELP 70 = Valve type



Version

P3 = pressure reducing

Q3 = flow regulator

Codes:

ELP 70/P3 76 011 102

ELP 70/Q3 76 011 103

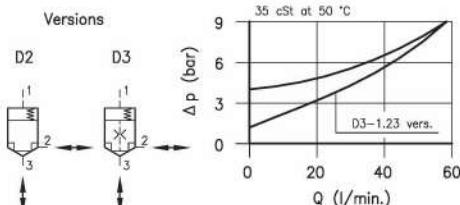
External seals kit 90 620 120

ELP 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 16.010

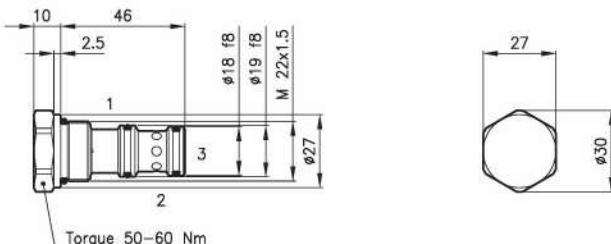
Technical features

Logic valves ELP 30/D2 series, without internal orifice, allows the free flow from 2 to 3 and from 3 to 2, they stop it in both directions when in chamber 1 enough pressure is used. The D3 version are used as unloading shut-off with flow coming from 3.

The D3-1.23 version, combined with LCS 20, are used to charge accumulators.



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	60
Max. pressure	(bar)	350
		1.8:1
Ratio between areas A1/A3		1.23:1
Cracking pressure	(bar)	4
		2
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (D3 version)	(mm)	0.75
Mass	(kg)	0.130
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

ELP 30/D3-1.23

ELP 30 = Valve type



Version

D2 = directional control

D3 = directional control

1.23 = ratio between A1/A3 (D3-1.23 vers.)

Codes:

ELP 30/D2 36 011 105

ELP 30/D3 36 011 106

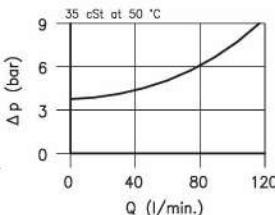
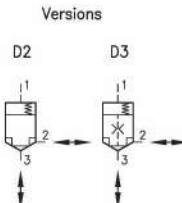
ELP 30/D3-1.23 36 011 118

External seals kit 90 620 104

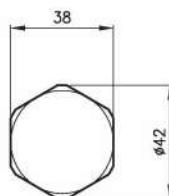
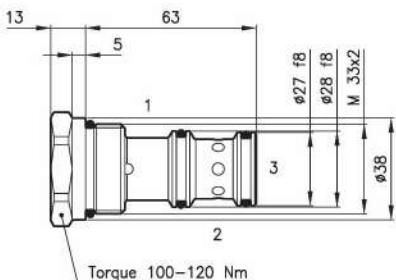
ELP 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

Logic valves ELP 50/D2 series, without internal orifice, allows the free flow from 2 to 3 and from 3 to 2, they stop it in both directions when in chamber 1 enough pressure is used. The D3 version are used as unloading shut-off with flow coming from 3.



Cavity	(For dimensions see catalogue 17.000)	S 50/3
Nominal flow	(l/min.)	120
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1.8
Crackin pressure	(bar)	3.5
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (D3 version)	(mm)	0.75
Mass	(kg)	0.260
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ELP 50/D2**

ELP 50 = Valve type



Version

D2 = directional control

D3 = directional control

Codes:

ELP 50/D2 56 011 103

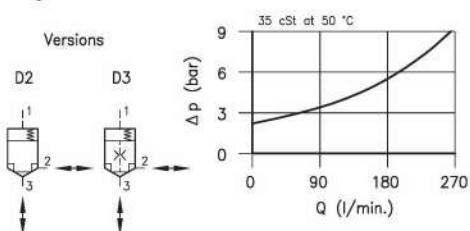
ELP 50/D3 56 011 107

External seals kit 90 620 107

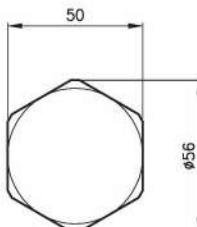
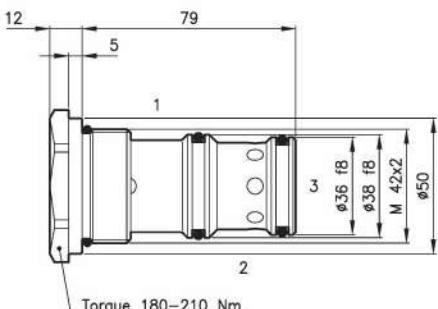
ELP 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features

Logic valves ELP 70/D2 series, without internal orifice, allows the free flow from 2 to 3 and from 3 to 2, they stop it in both directions when in chamber 1 enough pressure is used. The D3 version are used as unloading shut-off with flow coming from 3.

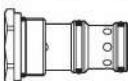


Cavity	(For dimensions see catalogue 17.000)	S 70/3
Nominal flow	(l/min.)	250
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1.8
Cracking pressure	(bar)	2.5
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Orifice diameter (D3 version)	(mm)	0.75
Mass	(kg)	0.660
Hydraulic flow; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations**

ELP 70/D2

ELP 70 = Valve type



Version

D2 = directional control

D3 = directional control

Codes:

ELP 70/D2 76 011 104

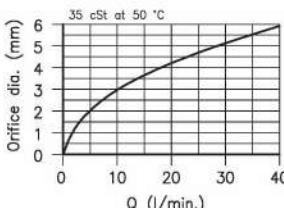
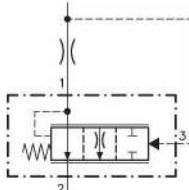
ELP 70/D3 76 011 105

External seals kit 90 620 120

ELP 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 16.010

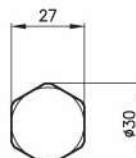
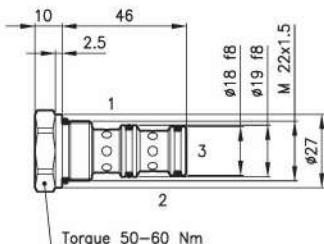
Technical features

The ELP 30/Q2 cartridge is a pressure compensated element, intended for use with a remote fixed or variable orifice to yield a two port type, pressure compensated, flow regulating hydraulic valve.



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	40
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1
Min. pressure difference	(bar)	5
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. orifice diameter	(mm)	6.5
Mass	(kg)	0.130
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ELP 30/Q2

ELP 30 = Valve type



Version

Q2 = pressure compensator

Codes:

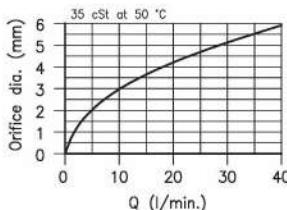
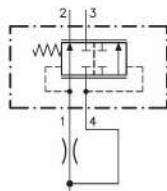
ELP 30/Q2 36 011 102

External seals kit 90 620 104

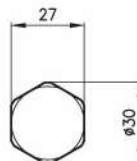
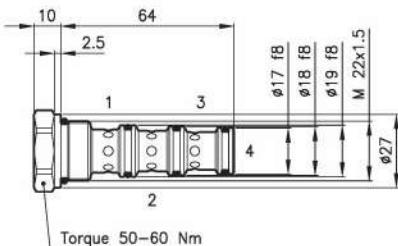
ELP 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

The ELP 30/Q4 cartridge is a pressure compensated element, intended for use with a remote fixed or variable orifice to yield a three way type, pressure compensated, flow regulating hydraulic valve with priority flow.



Cavity	(For dimensions see catalogue 17.000)	S 30/4
Max. flow	(l/min.)	40
Max. pressure	(bar)	350
Ratio between areas A1/A3		1:1
Min. pressure difference	(bar)	5
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Max. orifice diameter	(mm)	6.5
Mass	(kg)	0.150
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ELP 30/Q4**

ELP 30 = Valve type



Version

Q4 = pressure compensator

Codes:

ELP 30/Q4 36 011 107

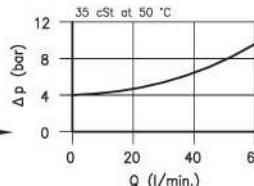
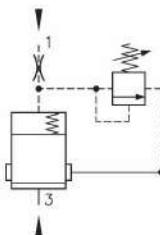
External seals kit 90 620 105

ELP 30 valves can be assembled
on standard bodies 30-C4 series;
for dimensions see catalogue 16.011

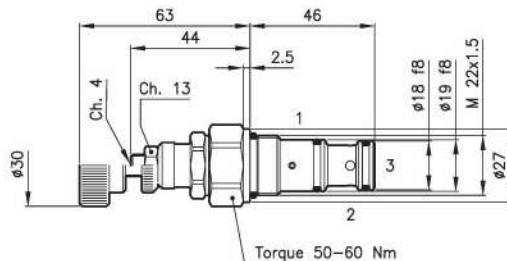
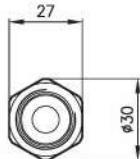
Technical features

Logic valves ELPS 30/Q1 series, with internal orifice, are used for flow control.

They are also able to limit the maximum system pressure downstream of the valve.



Cavity	(For dimensions see catalogue 17.000)	S 30/3
Nominal flow	(l/min.)	60
Max. pressure	(bar)	420
Ratio between areas A1/A3		1:1
Cracking pressure	(bar)	6
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.200
Cracking pressure 95% of setting value		
Reseat pressure 90% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 5 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ELPS 30/Q1-D-N**

ELPS 30 = Valve type



Version

Q1 = flow compensator

Standard springs for relief valve

Type Setting range Factory set

D = 7 - 210 bar 140 bar

Q = 105 - 420 bar 315 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment



Codes:

ELPS 30/Q1-D-N 36 011 127

ELPS 30/Q1-Q-N 36 011 128

ELPS 30/Q1-D-V 36 011 129

ELPS 30/Q1-Q-V 36 011 130

External seals kit 90 620 104

ELPS 30 valves can be assembled on standard bodies 30-C3 series;
for dimensions see catalogue 16.010

ALPHABETIC INDEX AND VALVE CODES

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PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

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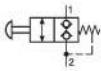
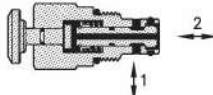
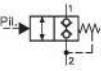
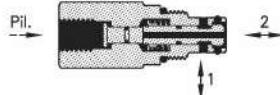
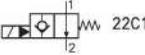
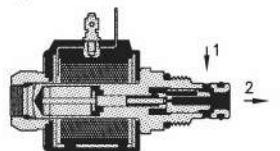
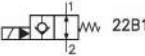
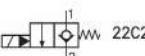
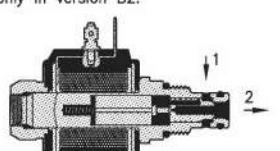
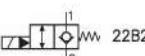
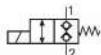
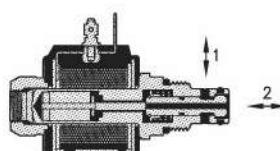
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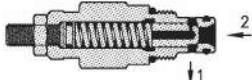
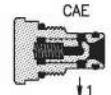
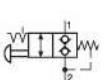
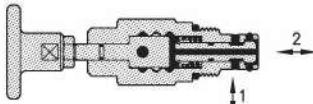
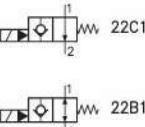
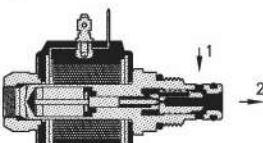
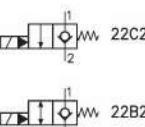
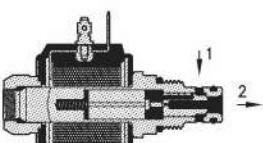
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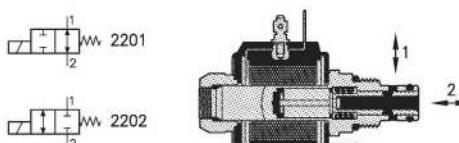
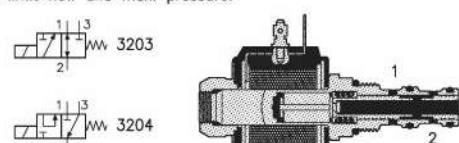
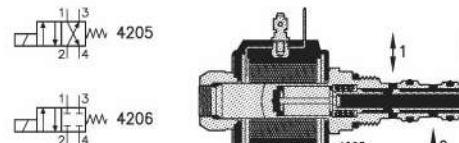
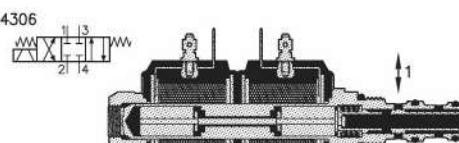
These are valves in several sizes and functions, which do not belong to Flucom normalized range and stand out from the others owing to their different setting cavity dimensions. The series 32 (M 20x1.5) is in accordance with standardization of many European firms.

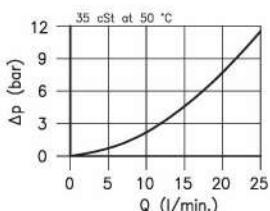
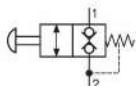
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
MCD 32/2202 manual driving - spring return. Directional valves poppet-type for circuit unloading.	MCD 32/2202	25	315	12.080
 				
OCD 32/2202 hydraulic or pneumatic pilot - spring return. Directional valves poppet-type for circuit unloading.	OCD 32/2202	25	315	12.083
 				
OCD 32/2202 -PN	OCD 32/2202 -PN	25	315	12.084
ECP 32/22C1-B1 Normally open, they stop flow passage from 1 to 2 when energized. The reverse flow is allowed only in version B1.	ECP 32/22C1 ECP 32/22B1	30	210	12.100
  				
EPP-ECP 32/22C2-B2 Normally closed, they allow flow passage from 1 to 2 when energized. The reverse flow is allowed only in version B2.	EPP 32/22C2 EPP 32/22B2	40	350	12.090
  				
ECD 32/2202 Normally closed in both directions, they allow the free passage flow when energized.	ECD 32/2202	25	315	12.110
 				

These are valves in several sizes and functions, which do not belong to Flucom normalized range and stand out from the others owing to their different setting cavity dimensions. The 28 and 29 series are in accordance with SAE standardization.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
LPE 28 series – guided conical poppet-type. They have a pressure peak, the pressure-flow trend is good. Generally are used as main pressure relief valve for continuous service or in dual cross-over valves in frequent intermittences applications.	LPE 28	30	210	12.130
				
CAB 28 series, ball-type. CAE 28 series, guided conical poppet-type.	CAB 28	30	210	12.150
				
MCD 28/2202 detented manual driving. Directional valves poppet-type for circuit unloading. External parts with anticorrosive treatment.	MCD 28/2202	15	315	12.155
				
ECP 28/22C1-B1 Normally open, they stop flow passage from 1 to 2 when energized. The reverse flow is allowed only in version B1.	ECP 28/22C1 ECP 28/22B1	30	210	12.160 12.161
				
ECP 28/22C2-B2 Normally closed, they allow flow passage from 1 to 2 when energized. The reverse flow is allowed only in version B2.	ECP 28/22C2 ECP 28/22B2	30	210	12.160 12.161
				

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
ECD 28/22..1 normally open.	ECD 28/22B1	1.2	210	12.170
	ECD 28/22U1	1.2	210	12.170
ECD 28/22..2 normally closed.	ECD 28/22B2	1.2	210	12.170
	ECD 28/22U2	1.2	210	12.170
ECD 29/2202 series - bidirectional type. ECD 28/2202 series - bidirectional type. Normally closed in both directions, when energized they allow the flow free passage.	ECD 29/2202	10	210	12.180
	ECD 28/2202	10	210	12.181 12.182
	ECD 28/3204	5	210	12.189 12.190

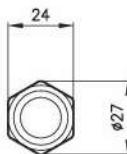
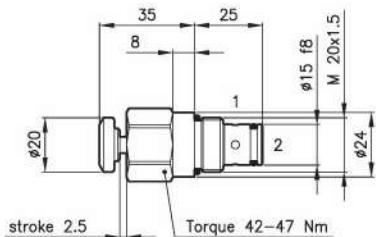
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
ETD 28/22.. series - two-ways type. Normally open or closed, have better performances with flow from 1 to 2, in the opposite direction it's necessary to limit flow.	ETD 28/2201	15	210	12.210
				
ETD 28/32.. series - three-way type. Manufactured with two different circuits in order to obtain highest performances. With flow direction opposite to symbols it's necessary to limit flow and max. pressure.	ETD 28/3203	15	210	12.220
				
ETD 28/42.. series - four-way type centre closed.	ETD 28/4205	15	315	12.230
				
ETD 28/43.. series - four-way type centre closed.	ETD 28/4306	15	315	12.250
				

Technical features

Cavity	(For dimensions see catalogue 17.001)	S 32/2
Max. flow	(l/min.)	25
Max. pressure	(bar)	315
Driving force (min.)	(N)	35
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 μ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions

Pressure of chamber 2 influences the necessary force for valve's drive
(35 N + 28 N every 10 bar in chamber 2)

**Ordering informations****MCD 32/2202-PS**

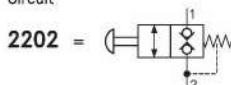
MCD 32 = Valve type



Codes:

MCD 32/2202-PS 32 011 115

Circuit



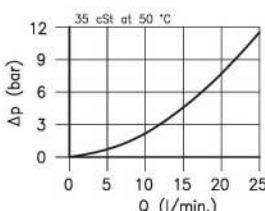
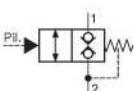
External seals kit (P)

90 620 115

Driving type

PS = Push type spring return

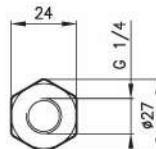
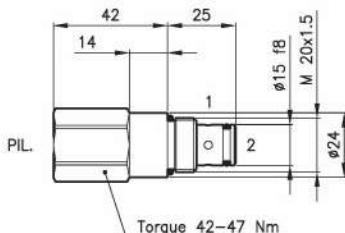


Technical features

Cavity	(For dimensions see catalogue 17.001)	S 32/2
Max. flow	(l/min.)	25
Max. pressure	(bar)	315
Pilot pressure (min.)	(bar)	10 - 15
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.140
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466	(25 μ absolutes)	
Standard seals in Polyurethane and Buna N		

Dimensions

Pressure of chamber 2 influences the necessary pilot pressure for valve's drive (pilot ratio 1:1).

**Ordering informations****OCD 32/2202**

OCD 32 = Valve type

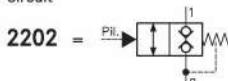


Codes:

OCD 32/2202

32 011 116

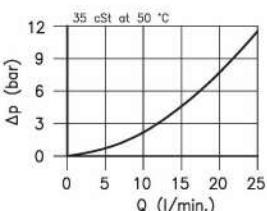
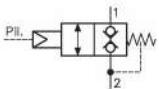
Circuit



External seals kit (P)

90 620 115

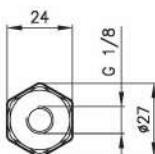
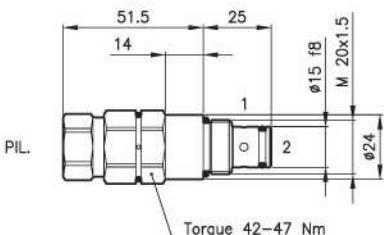
Technical features



Cavity	(For dimensions see catalogue 17.001)	S 32/2P
Max. flow	(l/min.)	25
Max. pressure	(bar)	315
Pilot pressure (min.)	(bar)	2.5 – 4.5
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

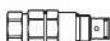
Pressure of chamber 2 influences the necessary pilot pressure for valve's drive (pilot ratio 4:1).



Ordering informations

OCD 32/2202-PN

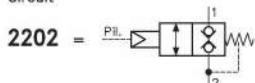
OCD 32 = Valve type



Codes:

OCD 32/2202-PN 32 011 173

Circuit

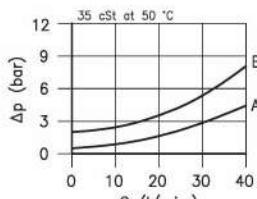
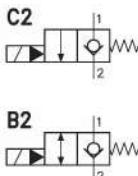


External seals kit (P)

90 620 115

PNEUMATIC Pilot = 2.5 – 4.5 bar

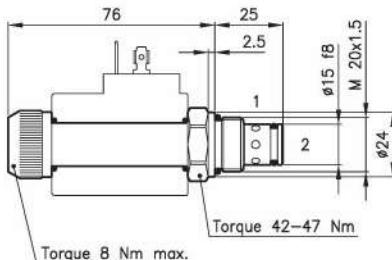
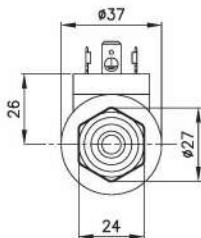
Technical features



22C2	22B2
1 → 2 De-en. not allowed	not allowed
2 → 1 De-en. curve B curve B	curve B
1 → 2 Energ. curve A curve A	curve A
2 → 1 Energ. not allowed	curve A

Cavity	(For dimensions see catalogue 17.001)	S 32/2
Max. flow	(l/min.)	40
Max. pressure	(bar)	350
Response time	(ms)	80 – 120
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.190
Hydraulic flow; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

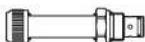
Dimensions



Ordering informations

EPP 32-B/22C2

EPP 32/22.. = Valve type



Cavity type:

B = for cavity S 32/2B

P = for cavity S 32/2P

(see catalogue 17.001)

Codes:

EPP 32-B/22C2 35 011 167

EPP 32-B/22B2 35 011 168

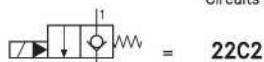
EPP 32-P/22C2 35 011 122

EPP 32-P/22B2 35 011 155

External seals kit (B) 90 620 114

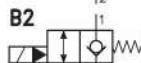
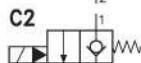
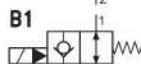
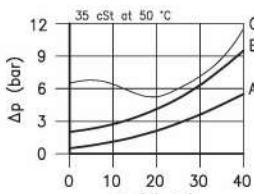
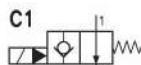
External seals kit (P) 90 620 115

Circuits



On the EPP 32 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

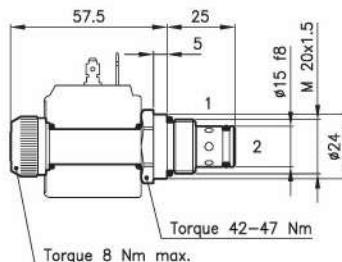
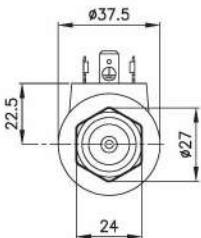
Technical features



	22C1	22B1	22C2	22B2
1 → 2 De-en.	curve A	curve A	not allowed	not allowed
2 → 1 De-en.	not allowed	curve A	curve B	curve B
1 → 2 Energ.	not allowed	not allowed	curve A	curve A
2 → 1 Energ.	curve C	curve C	not allowed	curve A

Cavity	(For dimensions see catalogue 17.001)	S 32/2
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Response time	(ms)	80 – 120
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic flow; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

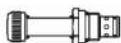
Dimensions



Ordering informations

ECP 32-B/22C1

ECP 32/22.. = Valve type



Cavity type:

B = for cavity S 32/2B

P = for cavity S 32/2P

(see catalogue 17.001)

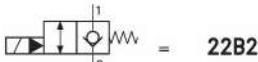
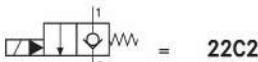
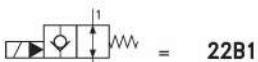
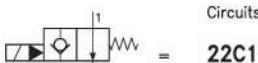
On the ECP 32 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Codes:

ECP 32-B/22C1	35 011 139
ECP 32-B/22B1	35 011 138
ECP 32-B/22C2	35 011 157
ECP 32-B/22B2	35 011 156

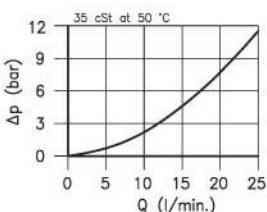
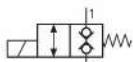
ECP 32-P/22C1	35 011 105
ECP 32-P/22B1	35 011 106
ECP 32-P/22C2	35 011 103
ECP 32-P/22B2	35 011 104

External seals kit (B)	90 620 114
External seals kit (P)	90 620 115

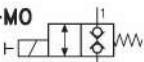


Technical features

02

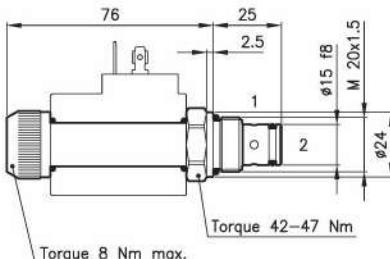
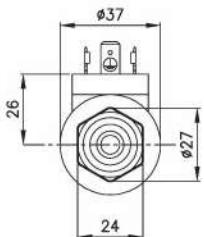


02-MO



Cavity	(For dimensions see catalogue 17.001)	S 32/2
Max. flow	(l/min.)	25
Max. pressure	(bar)	315
Response time	(ms)	30 - 60 (Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.200
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ECD 32-B/2202-MO

ECD 32/22.. = Valve type



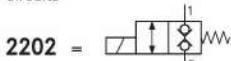
Cavity type:

B = for cavity S 32/2B

P = for cavity S 32/2P

(see catalogue 17.001)

Circuits



MO = Manual override
(Omit if not request)

Codes:

ECD 32-B/2202 35 011 169

ECD 32-B/2202-MO 35 011 128

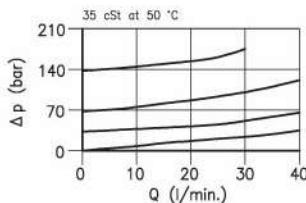
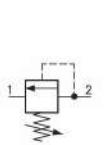
ECD 32-P/2202 35 011 116

ECD 32-P/2202-MO 35 011 137

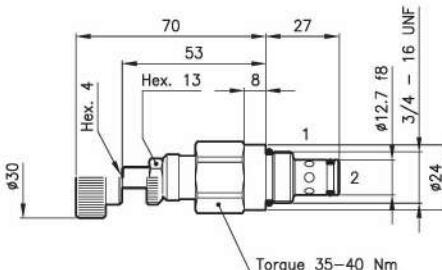
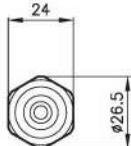
External seals kit (B) 90 620 114

External seals kit (P) 90 620 115

On the ECD 32 valves must be assembled the Coils B30 series;
for dimensions, features and codes
see catalogues 09.900 and 09.901.

Technical features

Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	30
Max. inlet pressure	(bar)	210
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.125
Cracking pressure 90% of setting value		
Reseat pressure 80% of setting value		
Cracking pressure defined with 1 l/min.		
Standard setting obtained with 5 l/min.		
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPE 28/D-N**

LPE 28 = Valve type



Standard springs

Type Setting range Factory set

U = 10 – 90 bar 35 bar

D = 35 – 140 bar 70 bar

T = 70 – 210 bar 140 bar

Codes:

LPE 28/U-N 21 011 252

LPE 28/D-N 21 011 253

LPE 28/T-N 21 011 254

LPE 28/U-V 21 011 255

LPE 28/D-V 21 011 256

LPE 28/T-V 21 011 257

External seals kit 90 620 112

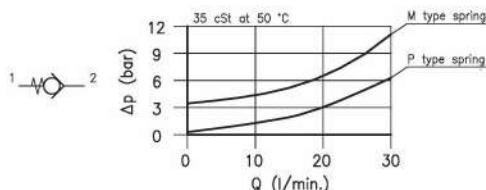
Adjustment type

N = Standard adjustment

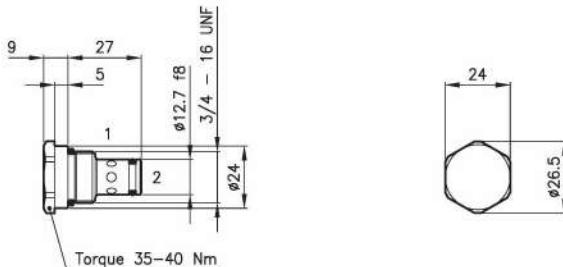


V = Handknob adjustment

LPE 28 valves can be assembled on standard bodies 28-LO series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.001)	S 28/2
Nominal flow	(l/min.)	25
Max. pressure	(bar)	210
Cracking pressure	(bar)	0.35–3.5
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.050
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAB 28/M****CAB 28** = Valve type

Codes:

CAB 28/P 22 011 114

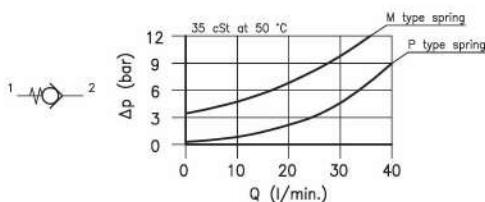
CAB 28/M 22 011 115

External seals kit 90 620 112

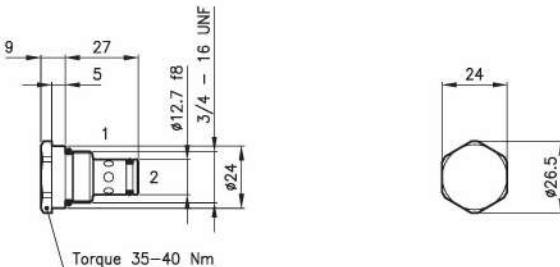
Standard springs

P = 0.35 bar**M** = 3.5 bar

CAB 28 valves can be assembled on standard bodies 28-LO series; for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.001)	S 28/2
Nominal flow	(l/min.)	35
Max. pressure	(bar)	420
Cracking pressure	(bar)	0.35–3.5
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.050
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CAE 28/M**

CAE 28 = Valve type



Codes:

CAE 28/P 22 011 141

CAE 28/M 22 011 142

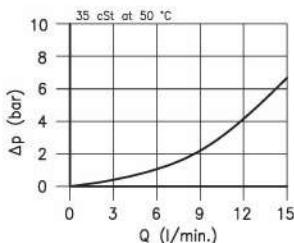
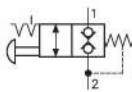
External seals kit 90 620 112

Standard springs

P = 0.35 bar

M = 3.5 bar

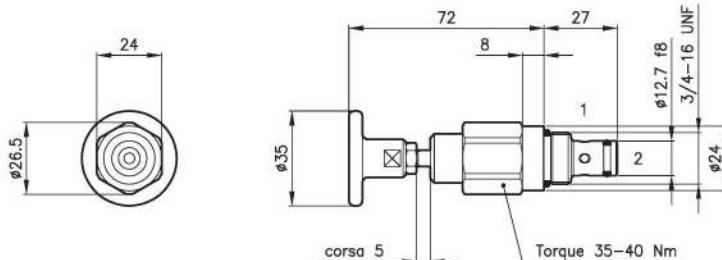
CAE 28 valves can be assembled
on standard bodies 28-LO series;
for dimensions see catalogue 16.010

Technical features

Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	15
Max. pressure	(bar)	315
Driving force (min.)	(N)	35
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.140
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

Pressure of chamber 2 influences the necessary force for valve's drive
(35 N + 28 N every 10 bar in chamber 2).



External parts with anticorrosive treatment.

Ordering informations**MCD 28/2202-PB**

MCD 28 = Valve type

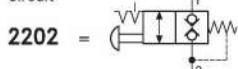


Codes:

MCD 28/2202-PB 22 011 165

External seals kit 90 620 112

Circuit

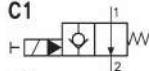
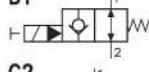
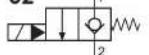
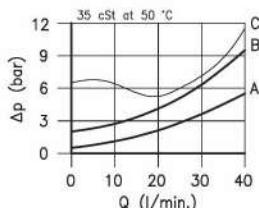
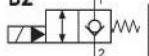


ECD 28/2202 valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

Driving type

PB = Push type detented

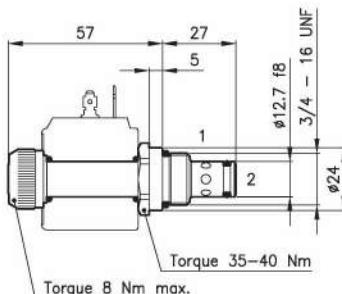
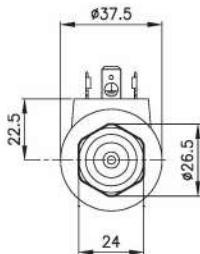


Technical features**C1****B1****C2****B2**

	22C1	22B1	22C2	22B2
1 → 2 De-en.	curve A	curve A	not allowed	not allowed
2 → 1 De-en.	not allowed	curve A	curve B	curve B

1 → 2 Energ. not allowed curve A curve B curve C not allowed
2 → 1 Energ. curve C curve C not allowed curve A

Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Response time	(ms)	80 – 120
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ECP 28/22C1-MO****ECP 28/22.. = Valve type**

Codes:

ECP 28/22C1 25 011 112

ECP 28/22C1-MO 25 011 168

ECP 28/22B1 25 011 119

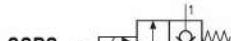
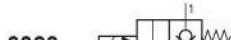
ECP 28/22B1-MO 25 011 173

ECP 28/22C2 25 011 111

ECP 28/22B2 25 011 118

External seals kit 90 620 112

Circuits

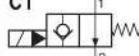
**MO** = Manual override (Only C1 and B1 version)
(Omit if not request)

ECP 28/22.. valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

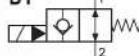
On the ECP 28 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

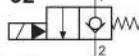
C1



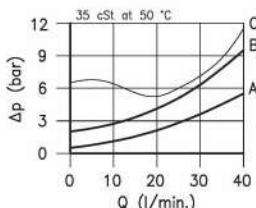
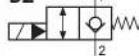
B1



C2



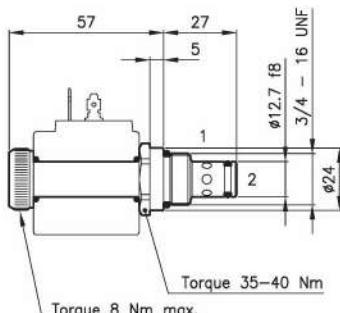
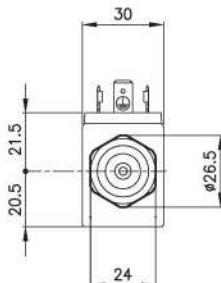
B2



	22C1	22B1	22C2	22B2
1 → 2 De-en.	curve A	curve A	not allowed	not allowed
2 → 1 De-en.	not allowed	curve A	curve B	curve B
1 → 2 Energ.	not allowed	not allowed	curve A	curve A
2 → 1 Energ.	curve C	curve C	not allowed	curve A

Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Response time	(ms)	80 – 120
	It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ECP 28/22C1-R

ECP 28/22.. = Valve type



Circuits



Version for the Coils B28 series

Codes:

ECP 28/22C1-R 25 011 142

ECP 28/22B1-R 25 011 143

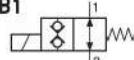
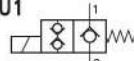
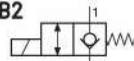
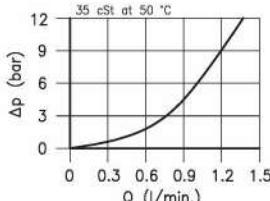
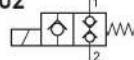
ECP 28/22C2-R 25 011 140

ECP 28/22B2-R 25 011 144

External seals kit 90 620 112

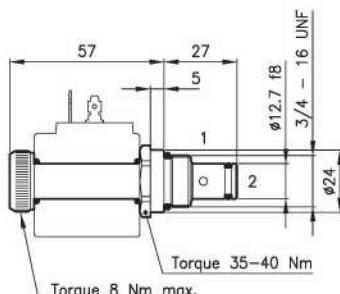
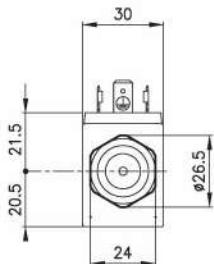
ECP 28/22.. valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

On the ECP 28/..-R valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

Technical features**B1****U1****B2****U2**

In B2 version the flow from 2 to 1 needs a pressure about 180 bar.

Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	1.2
Max. pressure	(bar)	210
Response time	(ms)	20 - 40 (Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ECD 28/22U2**

ECD 28/22.. = Valve type



Circuits

22B1 =

22U1 =

22B2 =

22U2 =

Codes:

ECD 28/22B1 25 011 134

ECD 28/22U1 25 011 135

ECD 28/22B2 25 011 116

ECD 28/22U2 25 011 136

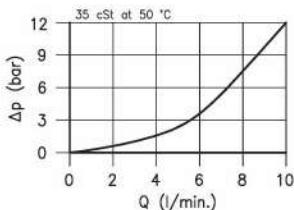
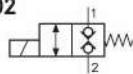
External seals kit 90 620 112

ECD 28/22.. valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

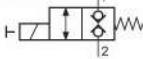
On the ECD 28 valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

Technical features

02

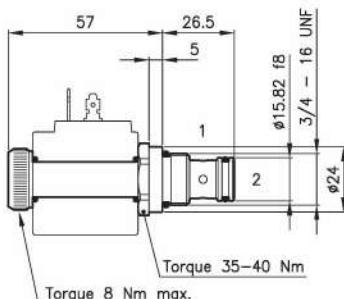
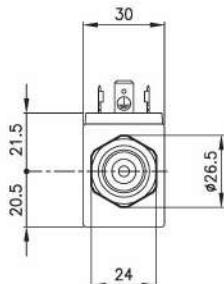


02-MO



Cavity	(For dimensions see catalogue 17.001)	S 29/2
Max. flow	(l/min.)	10
Max. pressure	(bar)	210
Response time	(ms)	20 – 40
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ECD 29/2202-MO

ECD 29/22.. = Valve type



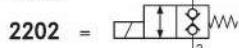
Codes:

ECD 29/2202 25 011 132

ECD 29/2202-MO 25 011 166

External seals kit 90 620 113

Circuits

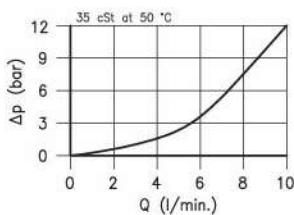
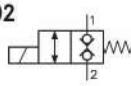
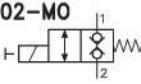


MO = Manual override

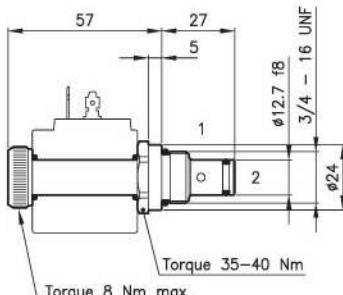
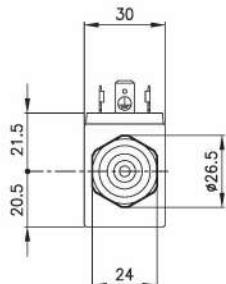
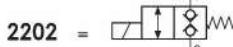
(Omit if not request)

ECD 29/22.. valves can be assembled on standard bodies 29-L0 series; for dimensions see catalogue 16.010

On the ECD 29 valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

Technical features**02****02-MO**

Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	10
Max. pressure	(bar)	210
Response time	(ms)	20 - 40
It change in function of circuit, pressure, flow and fluid viscosity,	(Mean value)	
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ECD 28/2202-R-MO****ECD 28/22.. = Valve type****Circuits****Version for the Coils B28 series****MO = Manual override**

(Omit if not request)

Codes:

ECD 28/2202-R 25 011 172

ECD 28/2202-R-MO 25 011 171

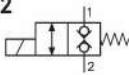
External seals kit 90 620 112

ECD 28/22.. valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

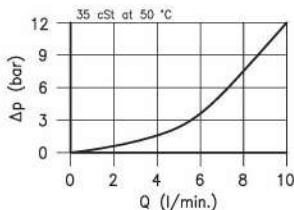
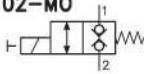
On the ECD 28/..-R valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

Technical features

02

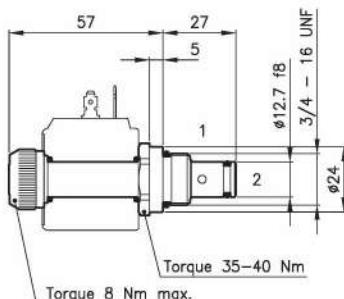
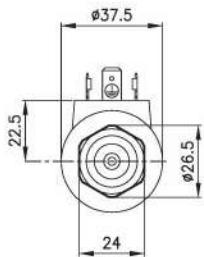


02-MO



Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	10
Max. pressure	(bar)	210
Response time	(ms)	20 – 40 (Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



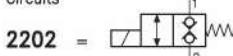
Ordering informations

ECD 28/2202-MO

ECD 28/22.. = Valve type



Circuits



MO = Manual override

(Omit if not request)

Codes:

ECD 28/2202 25 011 199

ECD 28/2202-MO 25 011 200

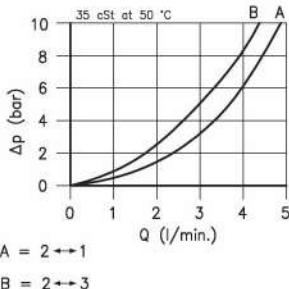
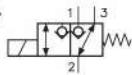
External seals kit 90 620 112

ECD 28/22.. valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

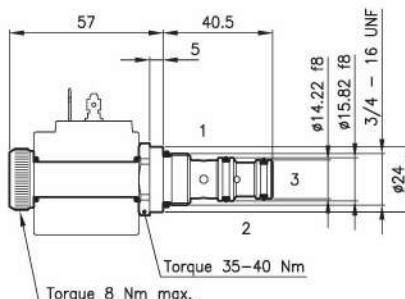
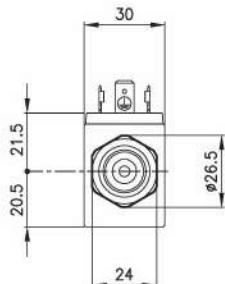
On the ECD 28 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

04



Cavity	(For dimensions see catalogue 17.002)	S 28/3
Max. flow	(l/min.)	5
Max. pressure	(bar)	210
Response time	(ms)	30 - 60
It change in function of circuit, pressure, flow and fluid viscosity.	(Mean value)	
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.140
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****ECD 28/3204-R**

ECD 28/32.. = Valve type



Codes:

ECD 28/3204-R 25 011 203

External seals kit 90 620 118

Circuits

3204 =

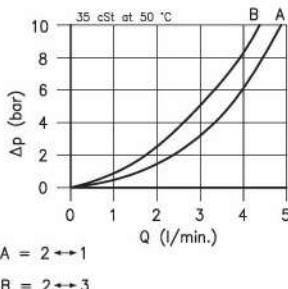
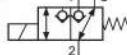
Version for the Coils B28 series

ECD 28/32.. valves can be assembled on standard bodies 28-C3 series; for dimensions see catalogue 16.010

On the ECD 28/..-R valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

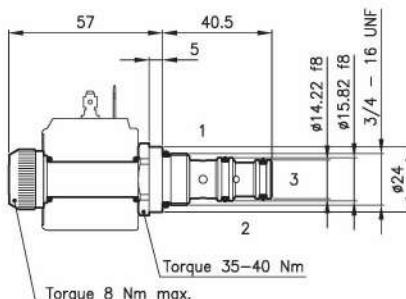
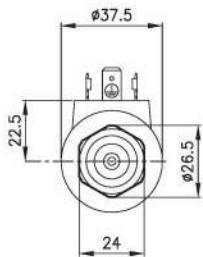
Technical features

04



Cavity	(For dimensions see catalogue 17.002)	S 28/3
Max. flow	(l/min.)	5
Max. pressure	(bar)	210
Response time	(ms)	30 – 60
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.140
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ECD 28/3204

ECD 28/32.. = Valve type

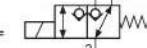


Codes:

ECD 28/3204 25 011 130

External seals kit 90 620 118

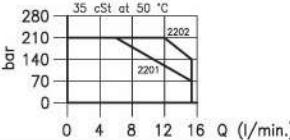
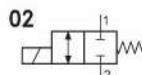
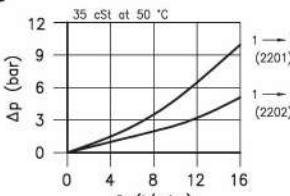
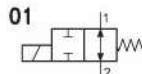
Circuits

3204 = 

ECD 28/32.. valves can be assembled on standard bodies 28-C3 series; for dimensions see catalogue 16.010

On the ECD 28 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features

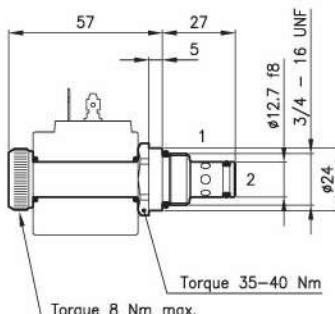
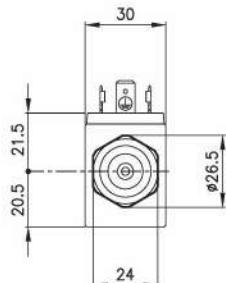


Use limits

With flow from 2 to 1
limit the flow of 30%

Cavity	(For dimensions see catalogue 17.002)	S 28/2
Max. flow	(With flow from 1 to 2) (l/min.)	15
Max. pressure	(bar)	210
Max. leakage	(cm³/min.)	20
Response time	(ms)	20 – 40
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic flow; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 28/2201

ETD 28/22.. = Valve type



Circuits

2201 =

2202 =

Codes:

ETD 28/2201 25 011 161

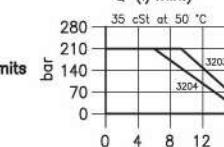
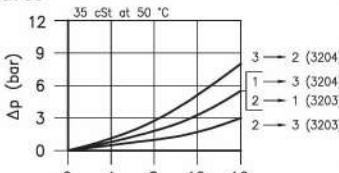
ETD 28/2202 25 011 162

External seals kit 90 620 112

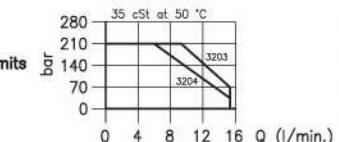
ETD 28/22.. valves can be assembled
on standard bodies 28-L0 series;
for dimensions see catalogue 16.010

On the ETD 28 valves must be
assembled the Coils B28 series;
for dimensions, features and codes
see catalogue 09.902.

Technical features

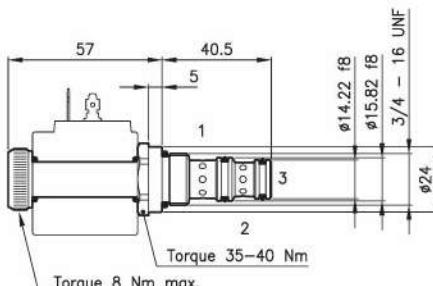
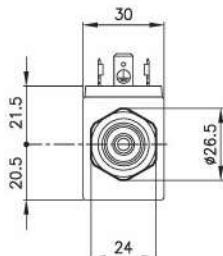


Use limits



Cavity	(For dimensions see catalogue 17.000)	S 28/3
Max. flow	(l/min.)	15
Max. pressure	(bar)	210
Max. leakage	(cm³/min.)	20
Response time	(ms)	20 – 40 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.130
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



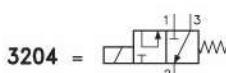
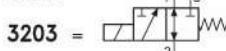
Ordering informations

ETD 28/32..

ETD 28/32.. = Valve type



Circuits



Codes:

ETD 28/3203 25 011 159

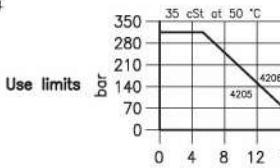
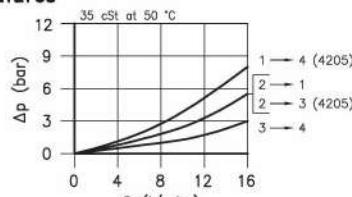
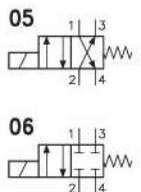
ETD 28/3204 25 011 160

External seals kit 90 620 118

ETD 28/32.. valves can be assembled on standard bodies 28-C3 series; for dimensions see catalogue 16.010

On the ETD 28 valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

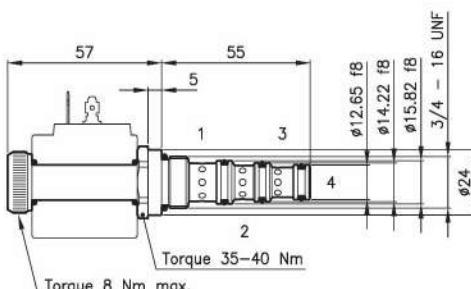
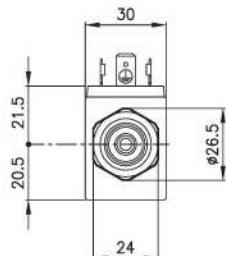
Technical features



Use limits

Cavity	(For dimensions see catalogue 17.002)	S 28/4
Max. flow	(l/min.)	15
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm³/min.)	20
Response time	(ms)	20 - 40
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.160
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 28/4205

ETD 28/42.. = Valve type

Centre closed



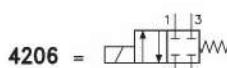
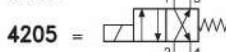
Codes:

ETD 28/4205 25 011 138

ETD 28/4206 25 011 139

External seals kit 90 620 119

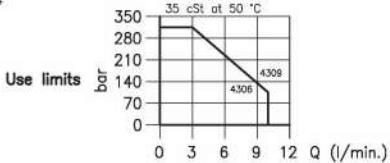
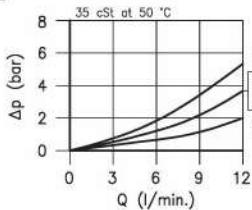
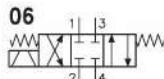
Circuits



ETD 28/42.. valves can be assembled on standard bodies 28-C4 series; for dimensions see catalogue 16.011

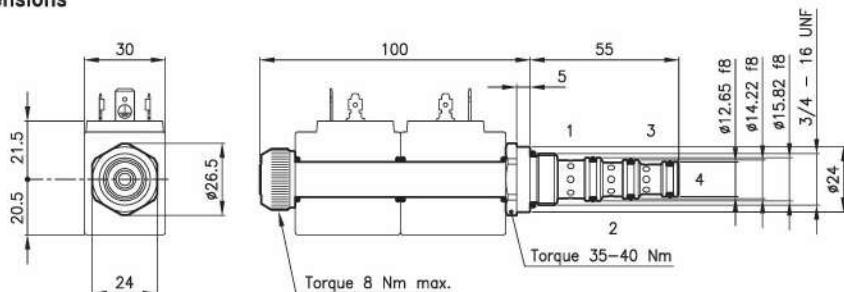
On the ETD 28 valves must be assembled the Coils B2B series; for dimensions, features and codes see catalogue 09.902.

Technical features



Cavity	(For dimensions see catalogue 17.002)	S 28/4
Max. flow	(l/min.)	10
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	50
Max. leakage	(cm³/min.)	20
Response time	(ms)	20 - 40
It change in function of circuit, pressure, flow and fluid viscosity.		(Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.180
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

ETD 28/4306

ETD 28/43.. = Valve type
Centre closed



Circuits



Codes:

ETD 28/4306 25 011 131

ETD 28/4309 25 011 137

External seals kit 90 620 119

ETD 28/43.. valves can be assembled on standard bodies 28-C4 series; for dimensions see catalogue 16.011

On the ETD 28 valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

ALPHABETIC INDEX AND VALVE CODES

- INFORMATIONS
- PRESSURE RELIEF VALVES
- PRESSURE REDUCING VALVES
- SEQUENCE VALVES
- DIRECTIONAL CONTROL VALVES
- FLOW CONTROL VALVES
- MOTION CONTROL VALVES
- SOLENOID VALVES POPPET-TYPE
- SOLENOID VALVES SPOOL-TYPE
- PROPORTIONAL SOLENOID VALVES
- LOGIC VALVES
- M 20x1.5 & 3/4-16 UNF SERIES VALVES
- SANDWICH BODIES (CETOP)**
- VALVES FOR HYDRAULIC MOTORS
- INTEGRATED CIRCUITS
- STANDARD BODIES
- CAVITY
- ACCESSORIES
- SCHEDULES

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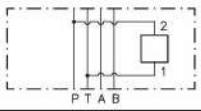
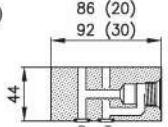
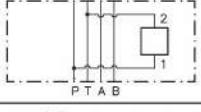
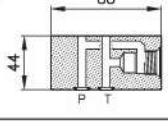
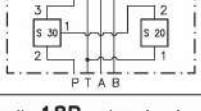
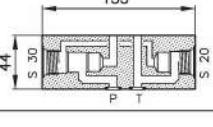
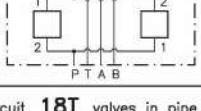
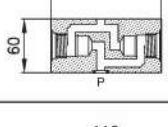
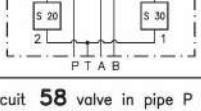
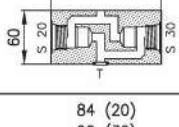
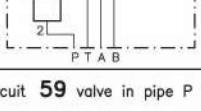
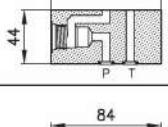
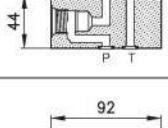
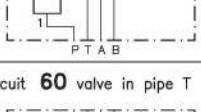
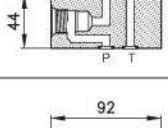
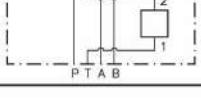
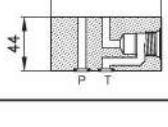
19

20

It is a series of blocks for sandwich assembling on connection surface CETOP R35 H-4.2-4-03, available in several executions for two or three way valve size 20 and 30, they offer a wide range uses.

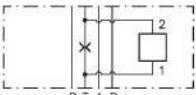
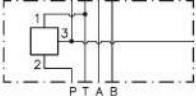
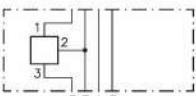
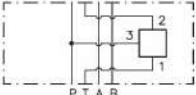
Here are represented the standard versions without the respective valves which may be supplied on request.

P and T line regulation and interception.

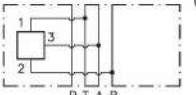
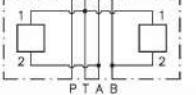
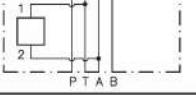
Connecting scheme	Type	Valve cavity	Ordering code
Circuit 01 valve between P and T (2-1) 	20 CFT 01 	S 20/2	28 147 240
		30 CFT 01 	S 30/2
Circuit 61 valve between P and T (1-2) 	30 CFT 61 	S 30/2	38 147 262
Circuit 17 valves in pipe P (High/Low) 	30 CFT 17  (Page 13.355)	S 20/2 S 30/3	38 147 268
Circuit 18P valves in pipe P 	30 CFT 18P 	S 30/2	38 147 252
Circuit 18T valves in pipe T 	30 CFT 18T 	S 20/2 S 30/2	38 147 256
Circuit 58 valve in pipe P (2-1) 	20 CFT 58 	S 20/2	28 147 259
		30 CFT 58 	S 30/2
Circuit 59 valve in pipe P (1-2) 	20 CFT 59 	S 20/2	28 147 260
Circuit 60 valve in pipe T 	30 CFT 60 	S 30/2	38 147 261

It is a series of blocks for sandwich assembling on connection surface CETOP R35 H-4.2-4-03, available in several executions for two or three way valves in size 20 and 30, they offer a wide range of uses. Here are represented the standard version without the respective valves, which may be supplied separately.

P and T line regulation and interception.

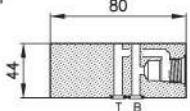
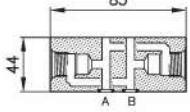
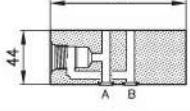
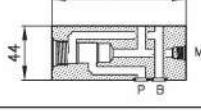
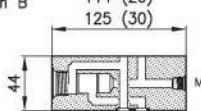
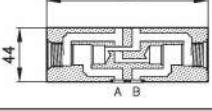
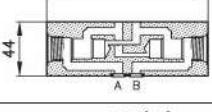
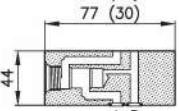
Connecting scheme	Type	Valve cavity	Ordering code
Circuit 47 valve and orifice in pipe T 	30 CFT 47	S 30/2	38 147 257
Circuit 07 for pressure reducing valve on P 	20 CFT 07	S 20/3	28 147 247
	30 CFT 07	S 30/3	38 147 244
Circuit 20 with priority on P and exceeding in T 	20 CFT 20	S 20/3	28 147 265
	30 CFT 20	S 30/3	38 147 254
Circuit 24 overcenter on T 	30 CFT 24	S 30/3	38 147 255

A and B line regulation and interception.

Connecting scheme	Type	Valve cavity	Ordering code
Circuit 65 valve between A-B and T (Floating System) 	30 CFT 65 (Page 13.350)	S 30/3	38 147 267
Circuit 02 valves between A-B and T 	20 CFT 02	S 20/2	28 147 243
	30 CFT 02	S 30/2	38 147 243
Circuit 02/A valve between A and T 	30 CFT 02/A	S 30/2	38 147 263

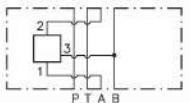
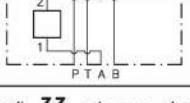
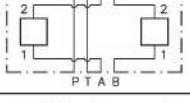
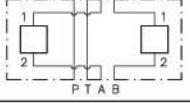
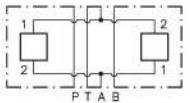
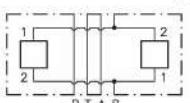
It is a series of blocks for sandwich assembling on connection surface CETOP R35 H-4.2-4-03, available in several executions for two or three way valves in size 20 and 30, they offer a wide range of uses. Here are represented the standard version without the respective valves, which may be supplied separately.

A and B line regulation and interception.

Connecting scheme	Type	Valve cavity	Ordering code
Circuit 02/B valve between B and T		30 CFT 02/B	S 30/2 38 147 264
Circuit 03 valves between A and B		30 CFT 03	S 30/2 38 147 242
Circuit 03/A valve between A and B		20 CFT 03/A (Page 13.340)	S 20/2 28 147 268
Circuit 08 pressure reducing valve on A		30 CFT 08	S 30/3 38 147 246
Circuit 09 pressure reducing valve on B		20 CFT 09	S 20/3 28 147 244
		30 CFT 09	S 30/3 38 147 247
Circuit 25 overcenter on A and B		30 CFT 25	S 30/3 38 147 245
Circuit 25R overcenter on A and B		30 CFT 25R	S 30/3 38 147 270
Circuit 26 overcenter on A		20 CFT 26	S 20/3 28 147 248
		30 CFT 26	S 30/3 38 147 248

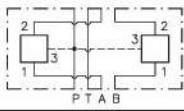
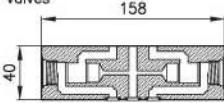
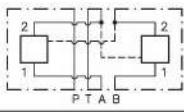
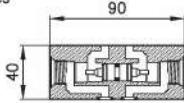
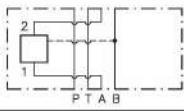
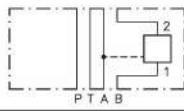
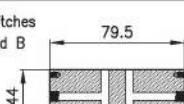
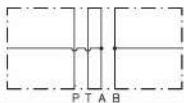
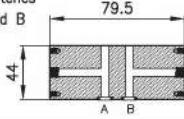
It is a series of blocks for sandwich assembling on connection surface CETOP R35 H-4.2-4-03, available in several executions for two or three way valves in size 20 and 30, they offer a wide range of uses. Here are represented the standard version without the respective valves, which may be supplied separately.

A and B line regulation and interception.

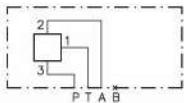
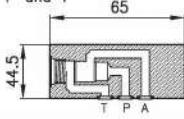
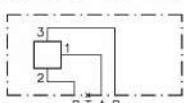
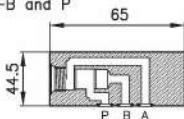
Connecting scheme	Type	Valve cavity	Ordering code
Circuit 26R overcenter on A 	20 CFT 26R (Page 13.360)	S 20/3	28 147 271
	30 CFT 26R	S 30/3	38 147 271
Circuit 27 overcenter on B 	30 CFT 27	S 30/3	38 147 265
Circuit 32 valve on pipe B (1-2) 	30 CFT 32	S 30/2	38 147 251
Circuit 32/A valve on pipe A (1-2) 	30 CFT 32/A	S 30/2	38 147 258
Circuit 33 valves on pipe A and B (1-2) 	20 CFT 33	S 20/2	28 147 249
	28 CFT 33	S 28/2	28 147 299
	30 CFT 33	S 30/2	38 147 249
Circuit 34 valves on pipe A and B (2-1) 	20 CFT 34	S 20/2	28 147 253
	30 CFT 34	S 30/2	38 147 253
Circuit 18A valves on pipe A 	20 CFT 18A	S 20/2	28 147 254
Circuit 18B valves on pipe B 	20 CFT 18B	S 20/2	28 147 256

It is a series of blocks for sandwich assembling on connection surface CETOP R35 H-4.2-4-03, available in several executions for two or three way valves in size 20 and 30, they offer a wide range of uses. Here are represented the standard version without the respective valves, which may be supplied separately.

A and B line regulation and interception.

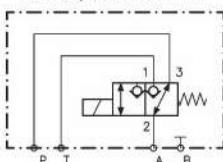
Connecting scheme	Type	Valve cavity	Ordering code
Circuit 57 pilot operated check valves 	 30 CFT 57/P	S 30/3	38 147 266
Circuit 57 pilot operated check valves 	 20 CFT 57 (Page 13.400)	S 20/2	28 147 255
Circuit 57 pilot operated check valve on A or on B 	 20 CFT 57/A	S 20/2	
	 20 CFT 57/B	S 20/2	
Circuit 86 manometers or pressure switches on A and B 	 30 CFT 86M	G 1/4	38 147 298
	 30 CFT 86	M 5 (n.4 Ø44)	38 147 299

Cover Plates

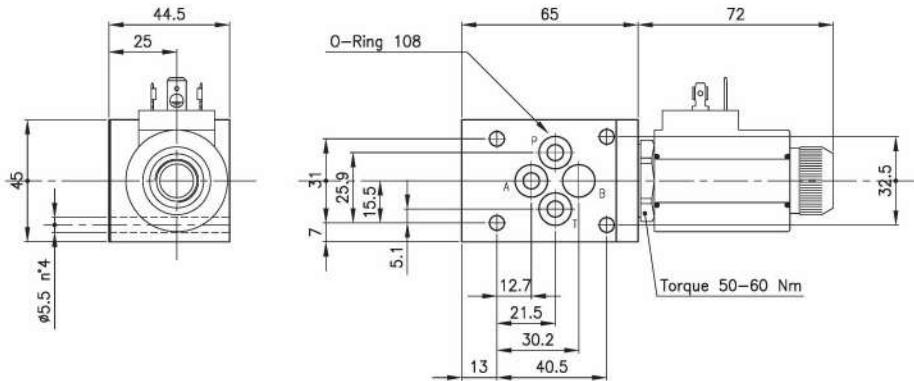
Connecting scheme	Type	Valve cavity	Ordering code
Circuit CFTP 3A valve between A-P and T 	 30 CFTP 3A (Page 13.200)	S 30/3	38 147 250
Circuit CFTP 3P valve between A-B and P 	 30 CFTP 3P (Page 13.201)	S 30/3	38 147 260

Schema

ECD 30/3204-CFTP 3A



Valve	(For features see catalogue 08.100)	ECD 30/3204
Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	25
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass (aluminium body only)	(kg)	0.360
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		
Standard body in aluminium		

Dimensions**Versions****30-CFTP 3A**

Size _____

Body:

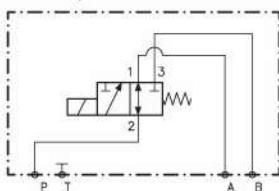
30-CFTP 3A

38 147 250

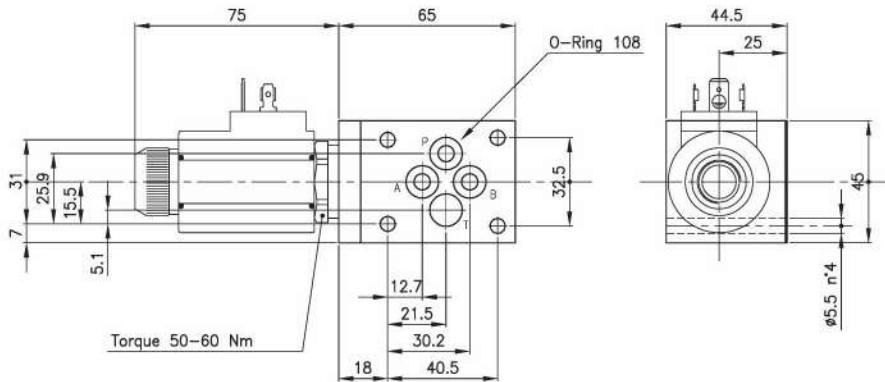
Version _____

Schema

ETD 30/3203-CFTP 3P



Valve	(For features see catalogue 09.050)	ETD 30/3203
Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass (aluminium body only)	(kg)	0.360
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		
Standard body in aluminium		

Dimensions**Versions****30-CFTP 3P**

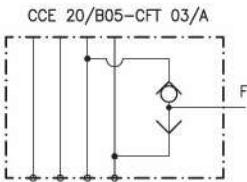
Size _____

Body:

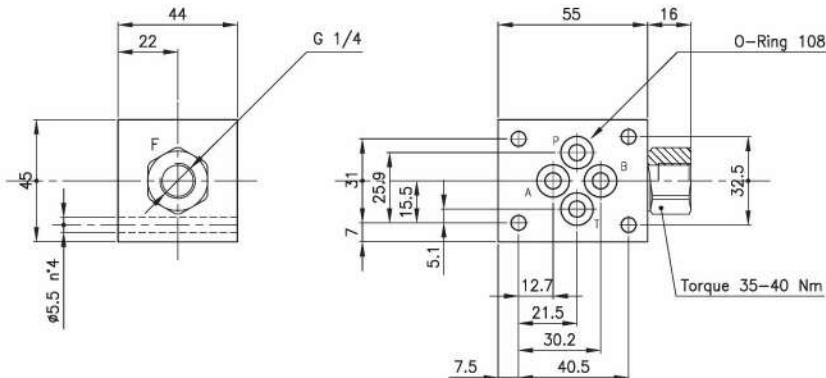
30-CFTP 3P

38 147 260

Version _____

Schema

Valve	(For features see catalogue 05.320)	CCE 20/B05
Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	12
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass (aluminium body only)	(kg)	0.300
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		
Standard body in aluminium		

Dimensions**Versions**20-CFT 03/A

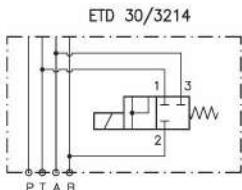
Size _____

Body:

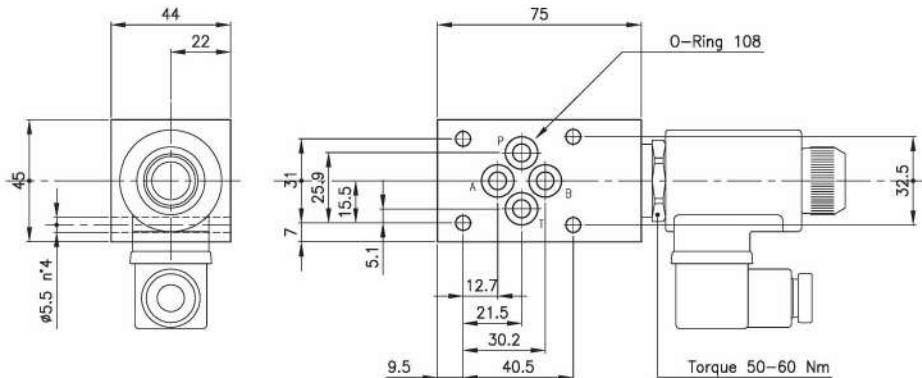
20-CFT 03/A

28 147 268

Version _____

Schema

Valve	ETD 30/3214	(See catalogue 09.001)
Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	25
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass (aluminium body only)	(kg)	0.410
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		
Standard body in aluminium		

Dimensions**Versions****30-CFT 65**

Size

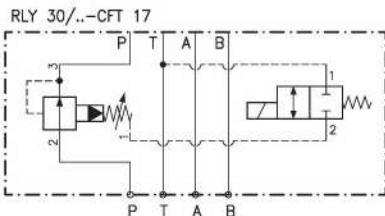
Body:

30-CFT 65

38 147 267

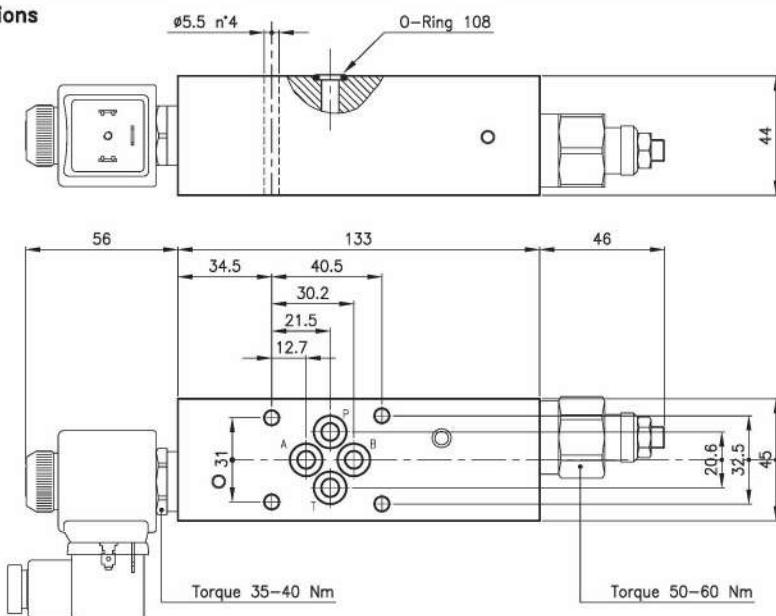
Version

Schema



Valves	(For features see catalogue 03.030)	RLY 30
	(For features see catalogue 09.010)	ETD 20
Cavity	(For dimensions see catalogue 17.000)	S 30/3 S 20/2
Max. flow	(l/min.)	40
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass (aluminium body only)	(kg)	0.750
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		
Standard body in aluminium		

Dimensions



Versions

30-CFT 17

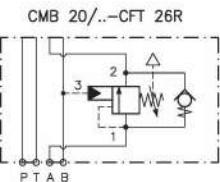
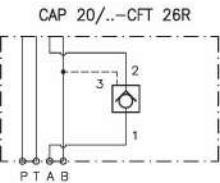
Size

Body:

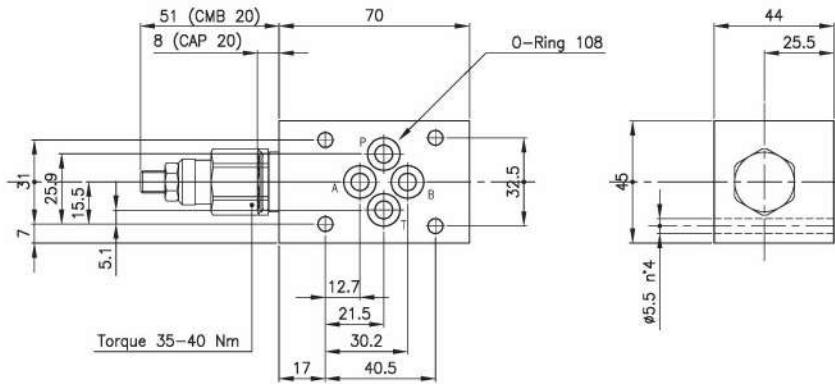
30-CFT 17

38 147 268

Version

Schema

Valve	(For features see catalogue 05.100)	CAP 20
	(For features see catalogue 07.090)	CMB 20
Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	25
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass (aluminium body only)	(kg)	0.380
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		
Standard body in aluminium		

Dimensions**Versions****20-CFT 26R**

Size _____

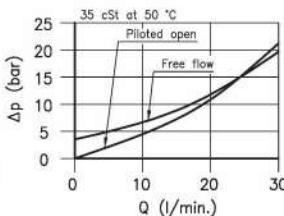
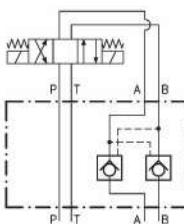
Body:

20-CFT 26R

28 147 271

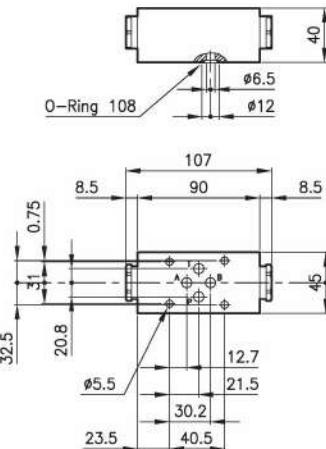
Version _____

Technical features



Valves	(For features see catalogue 05.050)	CAE 20/M
Max. flow	(l/min.)	30
Max. pressure	(bar)	315
Pilot ratio		5:1
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass (with aluminium body)	(kg)	0.560
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		
Standard body in aluminium, (on request in cast iron)		

Dimensions



Ordering informations

CAE 20/M-CFT 57

Valves type

Codes:

CAE 20/M-CFT 57 22 011 117

Standard spring

M = 3.5 bar

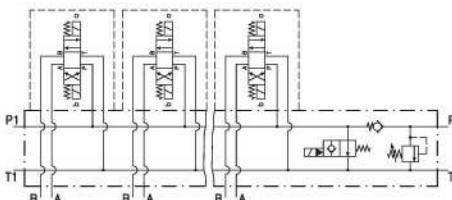
Version

Body:

20-CFT 57

28 147 255

Technical features



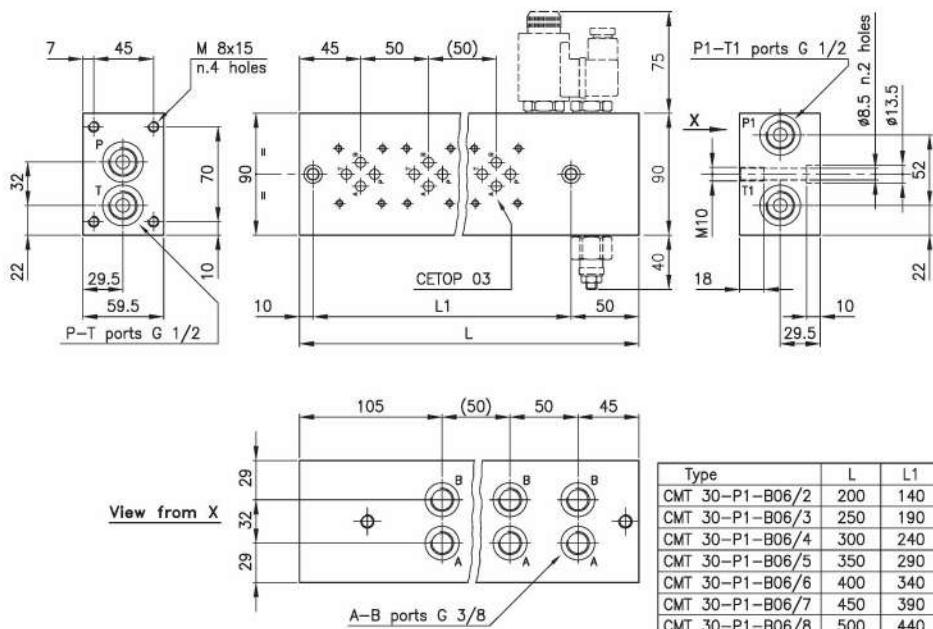
These are basic modular plates paralleling connected for solenoid valve provided with a connection surface CETOP R35 H-4.2-4-03.

Standard version in aluminium (max. pressure 315 bar). On request available also in steel.

The plates CMT 30-P1 show n° 3 cavities S 30/2 and are arranged for assembling check valve, unloading solenoid valve and pressure relief valve of the Series 30.

The cartridge valves Series 30 are to be ordered separately.

Dimensions



Ordering informations

CMT 30-P1-B06/3

Valves type _____

Codes:

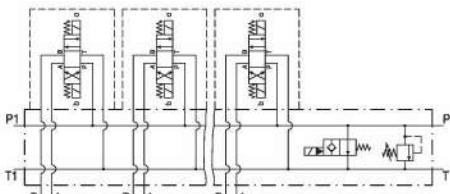
Parallel connection
(Pre-arrangement for pressure relief valve,
unloading solenoid valve and check valve)

CMT 30-P1-B06/2	38 144 157
CMT 30-P1-B06/3	38 144 158
CMT 30-P1-B06/4	38 144 159
CMT 30-P1-B06/5	38 144 160
CMT 30-P1-B06/6	38 144 161
CMT 30-P1-B06/7	38 144 162
CMT 30-P1-B06/8	38 144 163

A e B ports

B06 = G 3/8 _____

Sections number _____

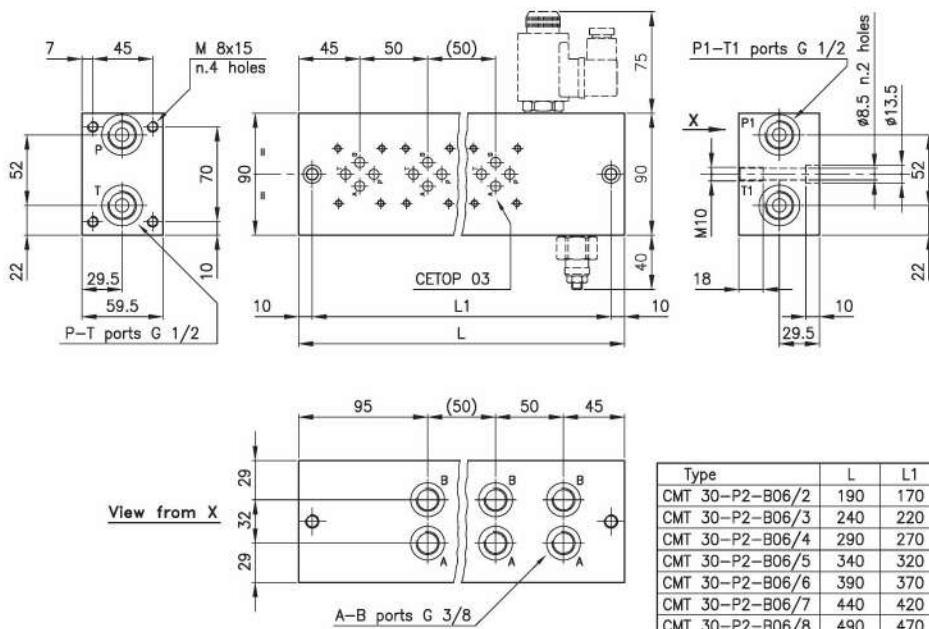
Technical features

These are basic modular plates paralleling connected for solenoid valve provided with a connection surface CETOP R35 H-4.2-4-03.

Standard version in aluminium (max. pressure 315 bar). On request available also in steel.

The plates CMT 30-P2 show n° 2 cavities S 30/2 and are arranged for assembling unloading solenoid valve and pressure relief valve of the Series 30.

The cartridge valves Series 30 are to be ordered separately.

Dimensions**Ordering informations****CMT 30-P2-B06/3**

Valves type _____

Codes:

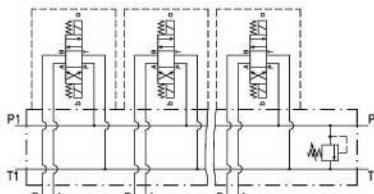
Parallel connection _____
(Pre-arrangement for pressure relief valve
and unloading solenoid valve)

CMT 30-P2-B06/2	38	144	164
CMT 30-P2-B06/3	38	144	165
CMT 30-P2-B06/4	38	144	166
CMT 30-P2-B06/5	38	144	167
CMT 30-P2-B06/6	38	144	168
CMT 30-P2-B06/7	38	144	169
CMT 30-P2-B06/8	38	144	170

A e B ports
B06 = G 3/8 _____

Sections number _____

Technical features



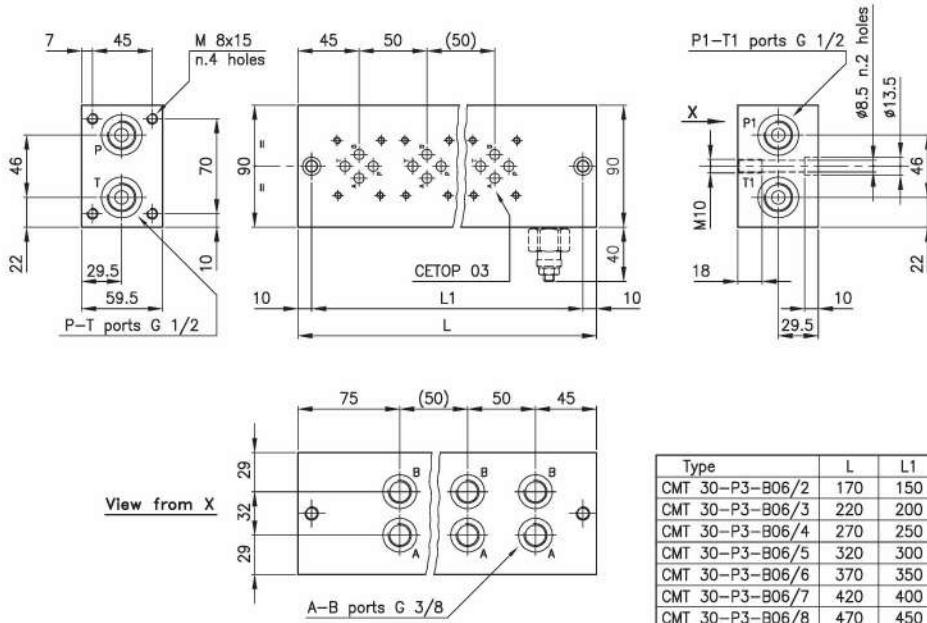
These are basic modular plates paralleling connected for solenoid valve provided with a connection surface CETOP R35 H-4.2-4-03.

Standard version in aluminium (max. pressure 315 bar). On request available also in steel.

The plates CMT 30-P3 show n° 1 cavities S 30/2 and are arranged for assembling e pressure relief valve of the Series 30.

The cartridge valves Series 30 are to be ordered separately.

Dimensions



Ordering informations

CMT 30-P3-B06/3

Valves type _____

Parallel connection _____
(Pre-arrangement for pressure relief valve)

A e B ports

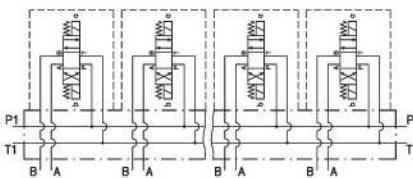
B06 = G 3/8 _____

Sections number _____

Codes:

CMT 30-P3-B06/2	38 144 171
CMT 30-P3-B06/3	38 144 172
CMT 30-P3-B06/4	38 144 173
CMT 30-P3-B06/5	38 144 174
CMT 30-P3-B06/6	38 144 175
CMT 30-P3-B06/7	38 144 176
CMT 30-P3-B06/8	38 144 177

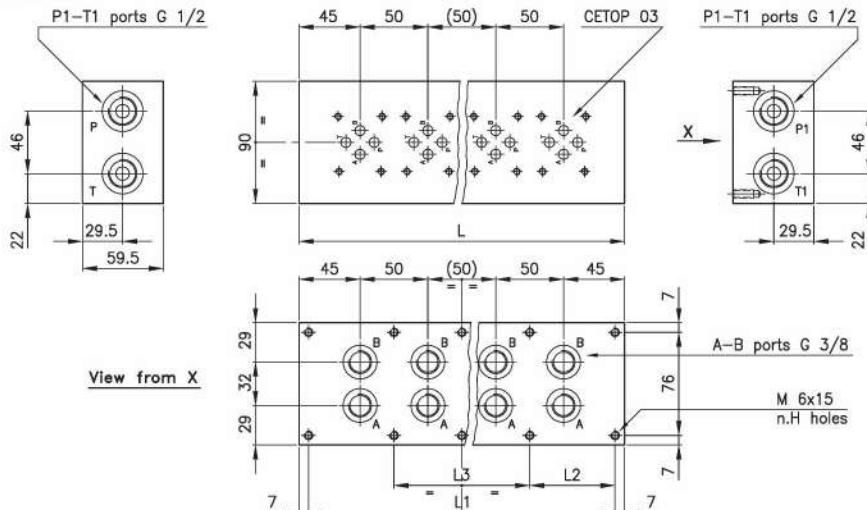
Technical features



These are basic modular plates paralleling connected for solenoid valve provided with a connection surface CETOP R35 H-4.2-4-03.

Standard version in aluminium (max. pressure 315 bar). On request available also in steel.

Dimensions



Type	L	H	L1
CMT 30-PO-B06/2	140	4	126
CMT 30-PO-B06/3	190	4	176
CMT 30-PO-B06/4	240	4	226
CMT 30-PO-B06/5	290	4	276

Type	L	H	L1	L2	L3
CMT 30-PO-B06/6	340	6	326	/	/
CMT 30-PO-B06/7	390	8	376	113	150
CMT 30-PO-B06/8	440	8	426	113	200
CMT 30-PO-B06/10	540	8	526	163	200

Ordering informations

CMT 30-PO-B06/5

Valves type _____

Parallel connection _____

A e B ports

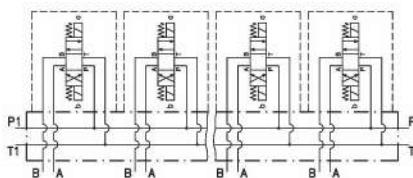
B06 = G 3/8 _____

Sections number _____

Codes:

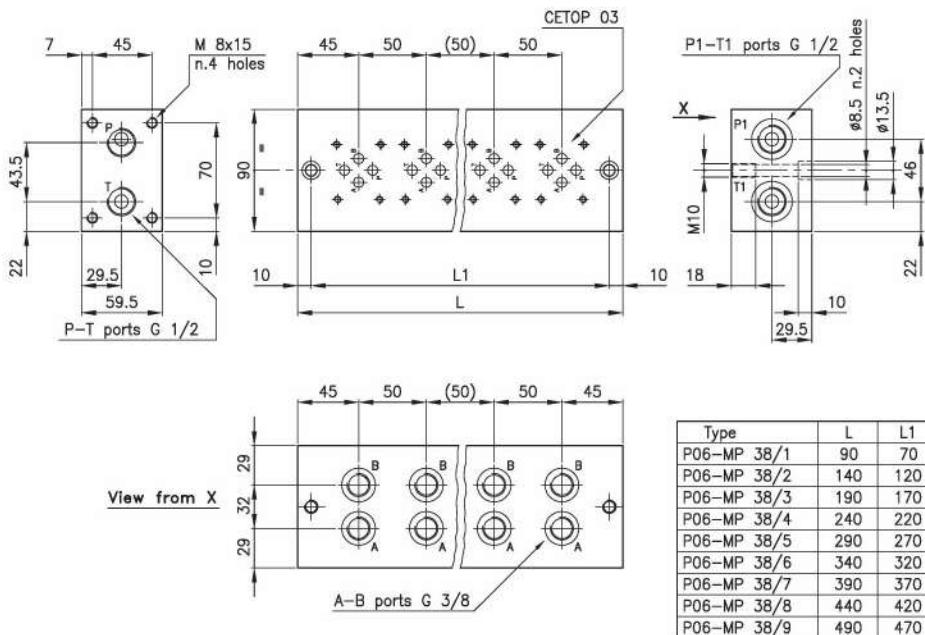
CMT 30-PO-B06/2	38	144	183
CMT 30-PO-B06/3	38	144	184
CMT 30-PO-B06/4	38	144	185
CMT 30-PO-B06/5	38	144	186
CMT 30-PO-B06/6	38	144	187
CMT 30-PO-B06/7	38	144	188
CMT 30-PO-B06/8	38	144	189
CMT 30-PO-B06/10	38	144	190

Technical features



These are basic modular plates paralleling connected for solenoid valve provided with a connection surface CETOP R35 H-4.2-4-03.
Standard version in aluminium (max. pressure 315 bar).
On request available also in steel.

Dimensions



Ordering informations

PO6-MP 38/4

Valves type _____

Parallel connection _____

A e B ports

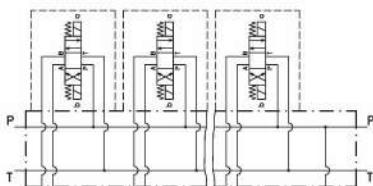
38 = G 3/8 _____

Sections number _____

Codes:

PO6-MP 38/1	38 144 205
PO6-MP 38/2	38 144 150
PO6-MP 38/3	38 144 151
PO6-MP 38/4	38 144 152
PO6-MP 38/5	38 144 153
PO6-MP 38/6	38 144 154
PO6-MP 38/7	38 144 155
PO6-MP 38/8	38 144 156
PO6-MP 38/9	38 144 237

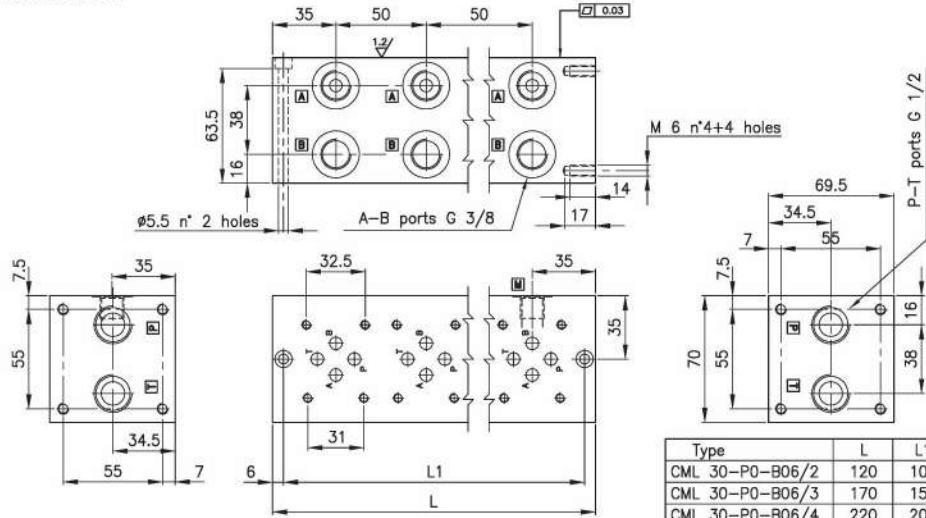
Technical features



These are basic modular plates paralleling connected for solenoid valve provided with a connection surface CETOP R35 H-4.2-4-03.

Standard version in alluminium (max. pressure 315 bar).
On request available also in steel.

Dimensions



Type	L	L1
CML 30-P0-B06/2	120	108
CML 30-P0-B06/3	170	158
CML 30-P0-B06/4	220	208
CML 30-P0-B06/5	270	258
CML 30-P0-B06/6	320	308
CML 30-P0-B06/7	370	358
CML 30-P0-B06/8	420	408
CML 30-P0-B06/9	470	458
CML 30-P0-B06/10	520	508

Ordering informations

CML 30-P0-B06/3

Valves type

Parallel connection

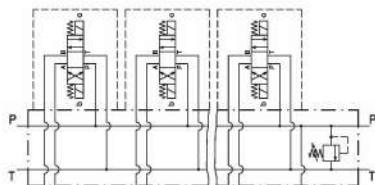
A e B ports

B06 = G 3/8

Sections number

Codes:

CML	30-P0-B06/2	38	144	212
CML	30-P0-B06/3	38	144	213
CML	30-P0-B06/4	38	144	214
CML	30-P0-B06/5	38	144	215
CML	30-P0-B06/6	38	144	216
CML	30-P0-B06/7	38	144	217
CML	30-P0-B06/8	38	144	218
CML	30-P0-B06/9	38	144	219
CML	30-P0-B06/10	38	144	220

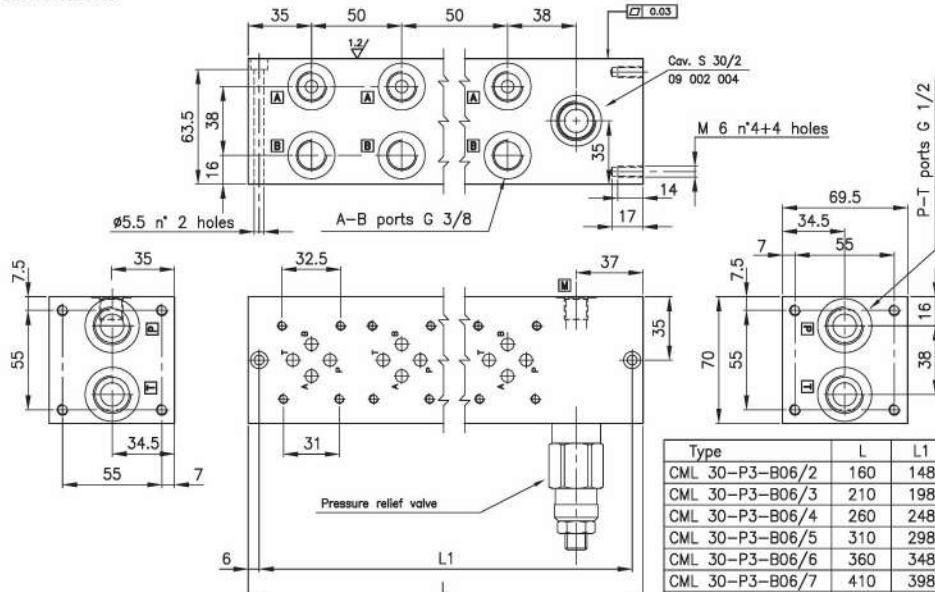
Technical features

These are basic modular plates paralleling connected for solenoid valve provided with a connection surface CETOP R35 H-4.2-4-03.

Standard version in aluminium (max. pressure 315 bar). On request available also in steel.

The plates CML 30-P3 show n° 1 cavities S 30/2 and are arranged for assembling a pressure relief valve of the Series 30.

The cartridge valves Series 30 are to be ordered separately.

Dimensions**Ordering informations****CML 30-P3-B06/3**

Valves type _____

Parallel connection
(Pre-arrangement for pressure relief valve)

A e B ports

B06 = G 3/8 _____

Sections number _____

Codes:

CML 30-P3-B06/2	38	144	222
CML 30-P3-B06/3	38	144	223
CML 30-P3-B06/4	38	144	224
CML 30-P3-B06/5	38	144	225
CML 30-P3-B06/6	38	144	226
CML 30-P3-B06/7	38	144	227
CML 30-P3-B06/8	38	144	228
CML 30-P3-B06/9	38	144	229
CML 30-P3-B06/10	38	144	230

ALPHABETIC INDEX AND VALVE CODES

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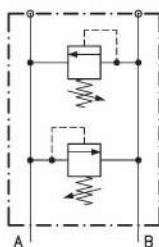
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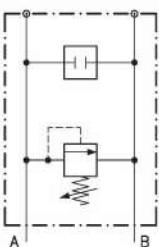
19

Technical features

FDM 03

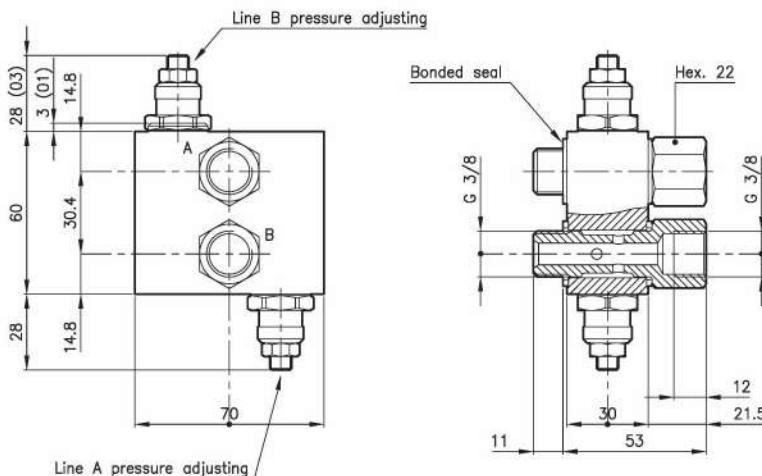


FDM 01



Valves	(For features see catalogue 02.030)	LPS 20/20
	(For features see catalogue 18.020)	T 20/2
Max. flow	(l/min.)	12
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.680
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPS 20/20-D-N-FDM 03-B06

Standard ports

B06 = G 3/8 ISO 228

Valve type

Standard springs

Type Setting range

D = 7 - 210 bar

Adjustment type

N = Standard adjustment

Version

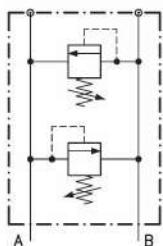
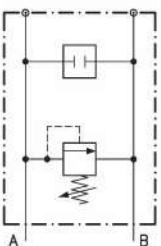
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LPS 20/20-D-N-FDM 01-B06 21 011 197

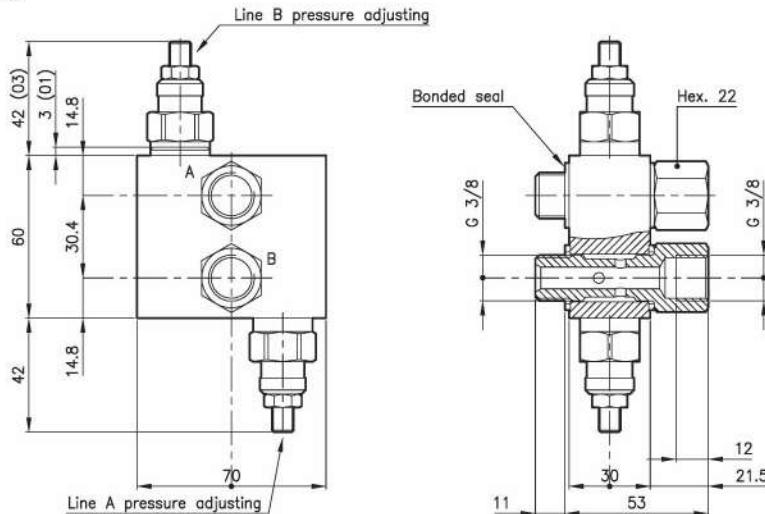
LPS 20/20-D-N-FDM 03-B06 21 011 198

Only body code:

Body type 20-FDM 03-B06 28 147 100

Technical features**FDM 03****FDM 01**

Valves	(For features see catalogue 02.060)	LPA 20
	(For features see catalogue 18.020)	T 20/2
Max. flow	(l/min.)	20
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.770
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPA 20/D-N-FDM 03-B06**

Standard ports

B06 = G 3/8 ISO 228

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment

Codes:

LPA 20/U-N-FDM 01-B06 21 011 193

LPA 20/D-N-FDM 01-B06 21 011 194

LPA 20/U-N-FDM 03-B06 21 011 195

LPA 20/D-N-FDM 03-B06 21 011 196

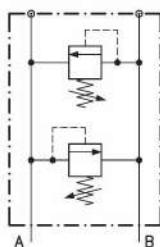
Only body code:

Body type 20-FDM 03-B06 28 147 100

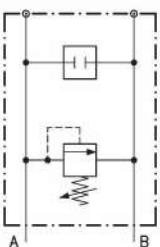
Version

Technical features

FDM 03

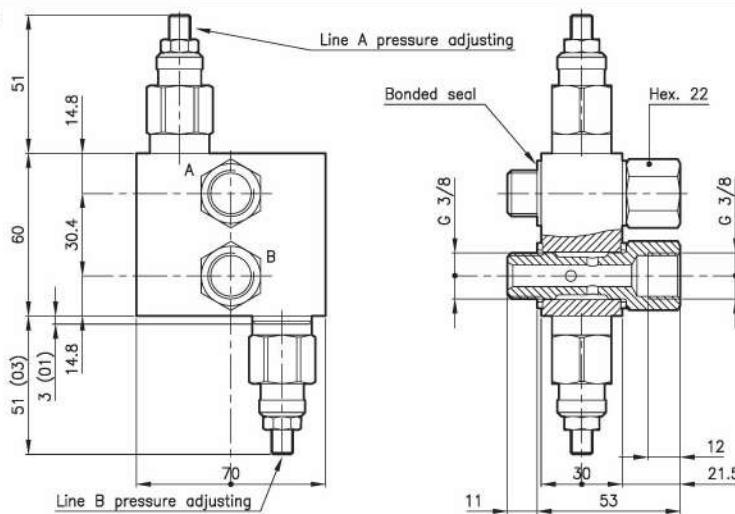


FDM 01



Valves	(For features see catalogue 02.080)	LPB 20
	(For features see catalogue 18.020)	T 20/2
Max. flow	(l/min.)	50
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.780
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering Informations

LPB 20/D-N-FDM 03-B06

Standard ports

B06 = G 3/8 ISO 228

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Adjustment type

N = Standard adjustment

Codes:

LPB 20/U-N-FDM 01-B06 21 011 187

LPB 20/D-N-FDM 01-B06 21 011 188

LPB 20/T-N-FDM 01-B06 21 011 189

LPB 20/U-N-FDM 03-B06 21 011 190

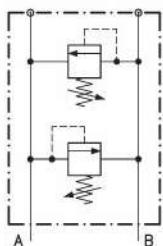
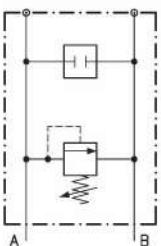
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LPB 20/T-N-FDM 03-B06 21 011 192

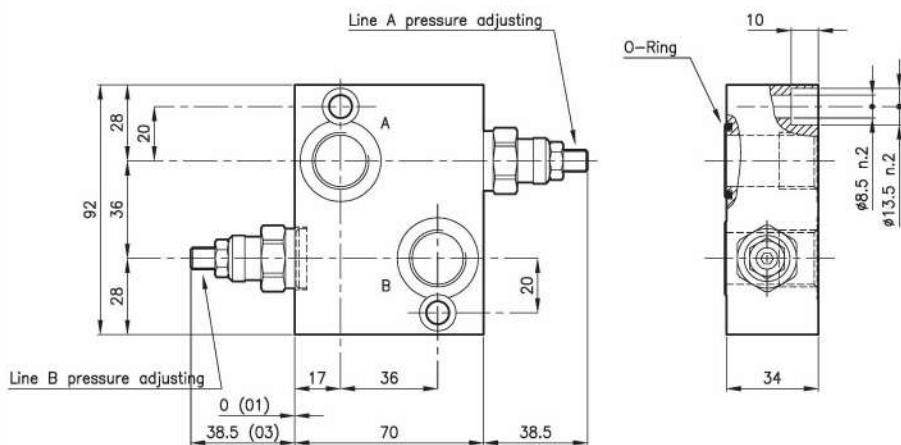
Only body code:

Body type 20-FDM 03-B06 28 147 100

Version

Technical features**FDR 03****FDR 01**

Valves	(For features see catalogue 02.060)	LPA 20
	(For features see catalogue 18.020)	T 20/2
Max. flow	(l/min.)	20
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.840
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****LPA 20/D-N-FDR 03-B08**

Standard ports

B08 = G 1/2 ISO 228

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment

Version

Codes:

LPA 20/U-N-FDR 01-B08 21 011 199

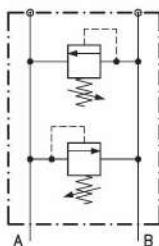
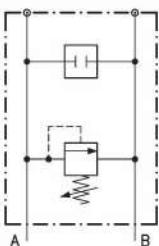
LPA 20/D-N-FDR 01-B08 21 011 200

LPA 20/U-N-FDR 03-B08 21 011 201

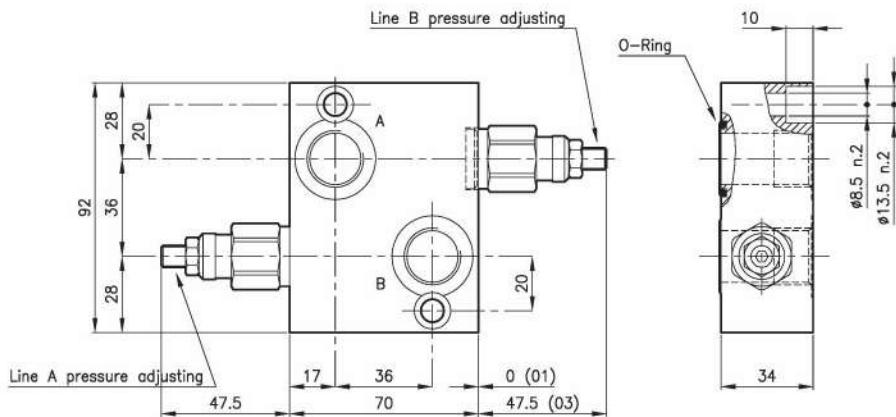
LPA 20/D-N-FDR 03-B08 21 011 202

Only body code:

Body type 20-FDR 03-B08 28 147 120

Technical features**FDR 03****FDR 01**

Valves	(For features see catalogue 02.080)	LPB 20
	(For features see catalogue 18.020)	T 20/2
Max. flow	(l/min.)	50
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.850
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering Informations****LPB 20/D-N-FDR 03-B08**

Standard ports

B08 = G 1/2 ISO 228

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

Adjustment type

N = Standard adjustment



Version

Codes:

LPB 20/U-N-FDR 01-B08 21 011 181

LPB 20/D-N-FDR 01-B08 21 011 182

LPB 20/T-N-FDR 01-B08 21 011 183

LPB 20/U-N-FDR 03-B08 21 011 184

LPB 20/D-N-FDR 03-B08 21 011 185

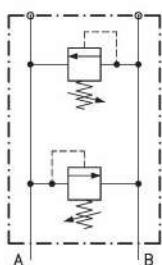
LPB 20/T-N-FDR 03-B08 21 011 186

Only body code:

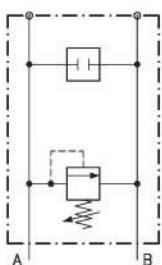
Body type 20-FDR 03-B08 28 147 120

Technical features

FDR 03

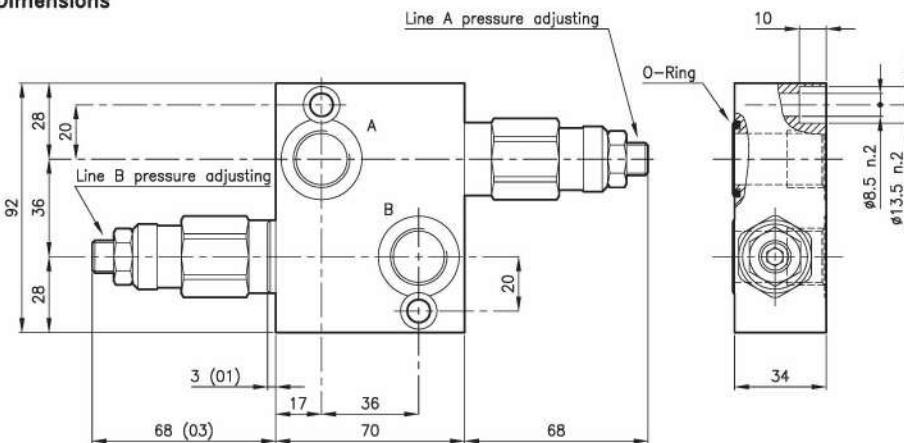


FDR 01



Valves	(For features see catalogue 02.070)	LPA 30
	(For features see catalogue 18.020)	T 30/2
Max. flow	(l/min.)	50
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.150
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPA 30/D-N-FDR 03-B08

Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

Type Setting range

Codes:

U = 10 - 105 bar

LPA 30/U-N-FDR 01-B08 31 011 207

D = 70 - 210 bar

LPA 30/D-N-FDR 01-B08 31 011 208

Adjustment type

LPA 30/U-N-FDR 03-B08 31 011 209

N = Standard adjustment

LPA 30/D-N-FDR 03-B08 31 011 210

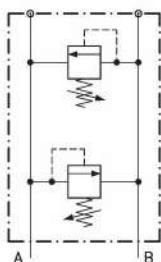
Version

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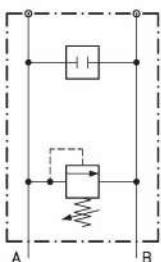
Body type 30-FDR 03-B08 38 147 120

Technical features

FDR 03

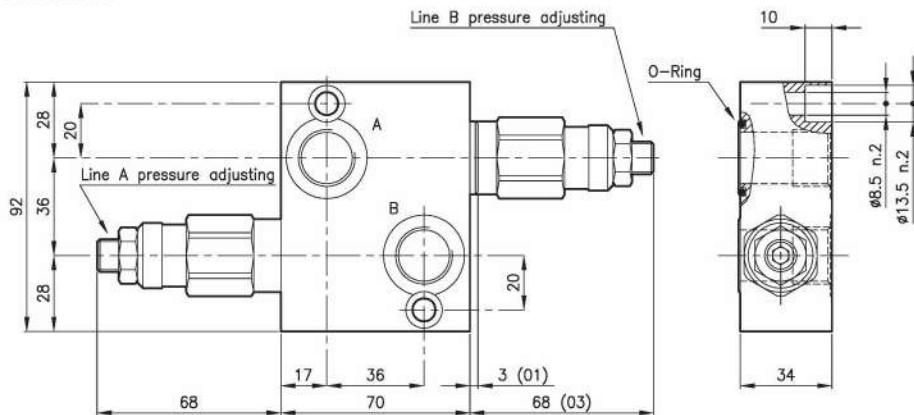


FDR 01



Valves	(For features see catalogue 02.090)	LPB 30
	(For features see catalogue 18.020)	T 30/2
Max. flow	(l/min.)	90
Max. pressure	(bar)	350
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.150
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPB 30/D-N-FDR 03-B08

Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

Type Setting range

Codes:

U = 10 - 105 bar

LPB 30/U-N-FDR 01-B08 31 011 217

D = 70 - 210 bar

LPB 30/D-N-FDR 01-B08 31 011 218

T = 140 - 350 bar

LPB 30/T-N-FDR 01-B08 31 011 219

Adjustment type

LPB 30/U-N-FDR 03-B08 31 011 220

N = Standard adjustment

LPB 30/D-N-FDR 03-B08 31 011 221

Version

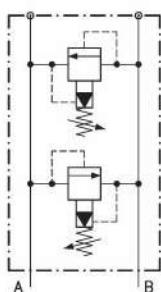
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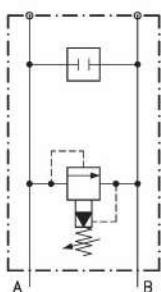
Body type 30-FDR 03-B08 38 147 120

Technical features

FDR 03

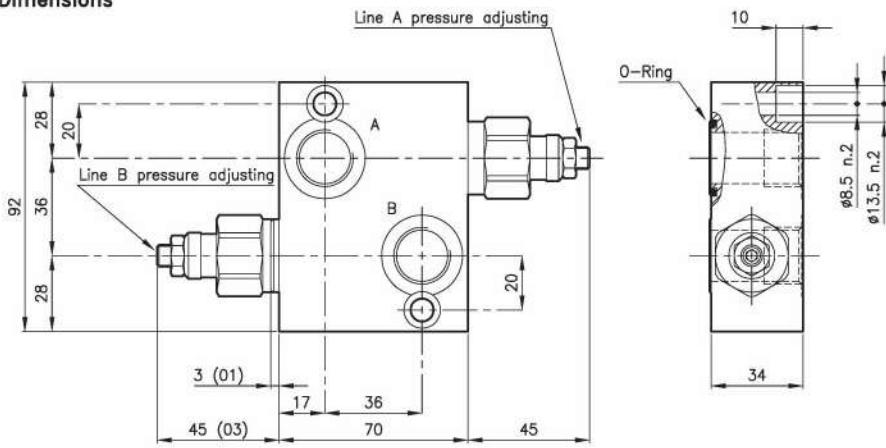


FDR 01



Valves	(For features see catalogue 02.120)	LPI 30
	(For features see catalogue 18.020)	T 30/2
Max. flow	(l/min.)	90
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.980
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPI 30/D-N-FDR 03-B08

Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

Type Setting range

Codes:

D = 14 - 210 bar

LPI 30/D-N-FDR 01-B08 31 011 188

Q = 105 - 420 bar

LPI 30/Q-N-FDR 01-B08 31 011 189

Adjustment type

LPI 30/D-N-FDR 03-B08 31 011 190

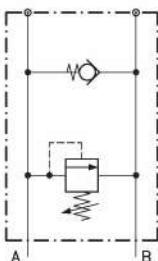
N = Standard adjustment

LPI 30/Q-N-FDR 03-B08 31 011 191

Version

Only body code:

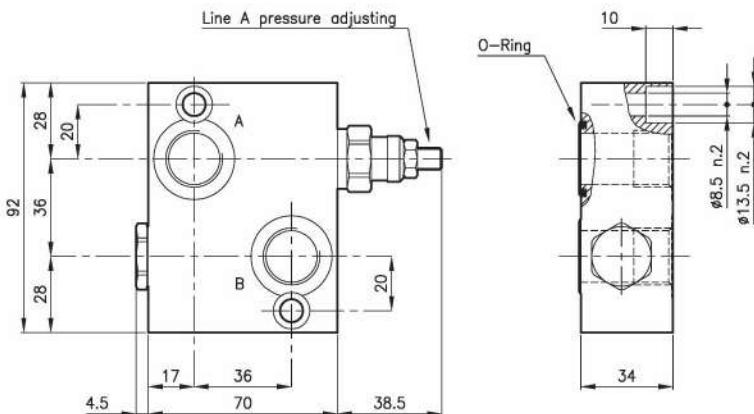
Body type 30-FDR 03-B08 38 147 120

Technical features**FDR 02**

Valves	(For features see catalogue 02.060)	LPA 20
	(For features see catalogue 05.010)	CAB 20
Max. flow	(l/min.)	20
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.780
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

Line A pressure adjusting

**Ordering Informations****LPA 20/D-N-FDR 02-B08**

Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

Type Setting range

Codes:

U = 10 - 105 bar

LPA 20/U-N-FDR 02-B08 21 011 209

D = 70 - 210 bar

LPA 20/D-N-FDR 02-B08 21 011 210

Adjustment type

Only body code:

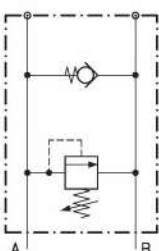
N = Standard adjustment

Body type 20-FDR 03-B08 28 147 120

Version

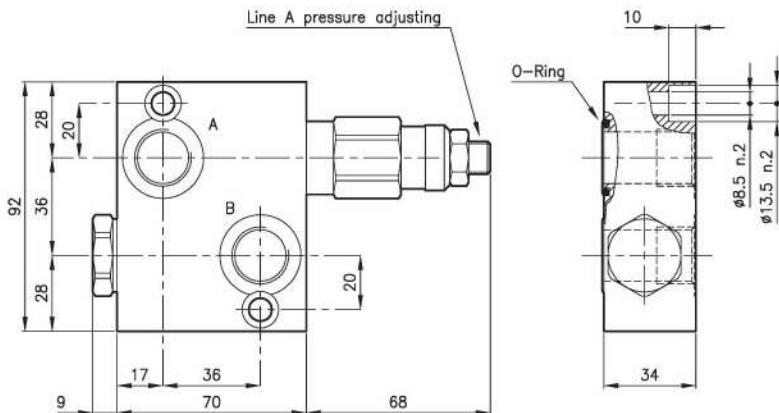
Technical features

FDR 02



Valves	(For features see catalogue 02.070)	LPA 30
	(For features see catalogue 05.020)	CAB 30
Max. flow	(l/min.)	50
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.970
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPA 30/D-N-FDR 02-B08

Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

Type Setting range

Codes:

U = 10 - 105 bar

LPA 30/U-N-FDR 02-B08 31 011 198

D = 70 - 210 bar

LPA 30/D-N-FDR 02-B08 31 011 199

Adjustment type

Only body code:

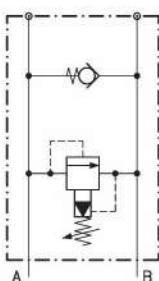
N = Standard adjustment

Body type 30-FDR 03-B08 38 147 120

Version

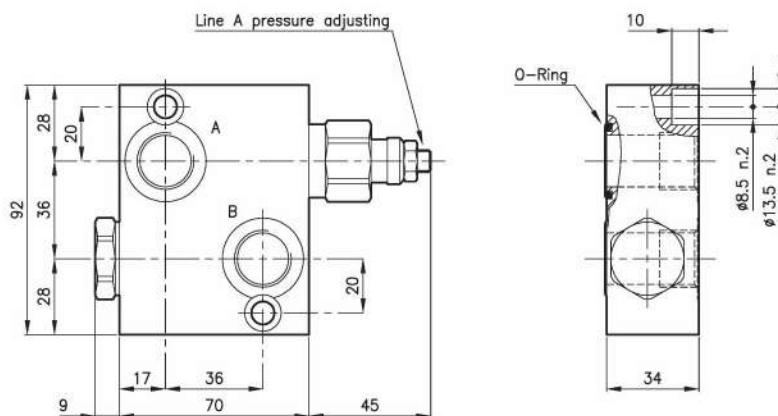
Technical features

FDR 02



Valves	(For features see catalogue 02.120)	LPI 30
	(For features see catalogue 05.020)	CAB 30
Max. flow	(l/min.)	50
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.880
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPI 30/D-N-FDR 02-B08

Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

Type Setting range

D = 14 – 210 bar

Codes:

Adjustment type

N = Standard adjustment

LPI 30/D-N-FDR 02-B08 31 011 206

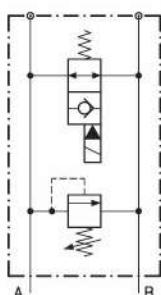
Version

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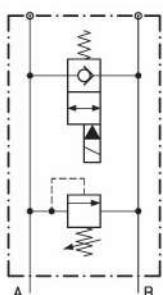
Body type 30-FDR 03-B08 38 147 120

Technical features

FDR B1



FDR B2



Valves

(For features see catalogue 02.060)

LPA 20

(For features see catalogue 08.010)

ECP 20

Max. flow

(l/min.)

20

Max. pressure

(bar)

210

Fluid viscosity range

(cSt)

2.8 - 380

Fluid temperature range

(°C)

-20 +80

Mass

(kg)

0.850

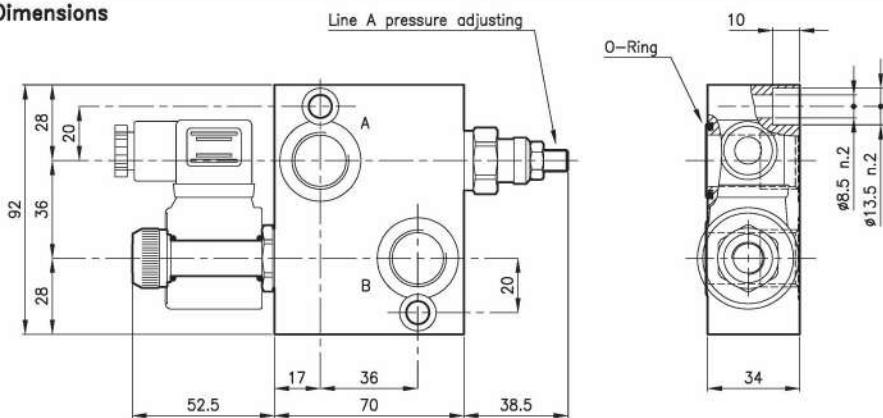
Hydraulic fluid; mineral oil HM and HV ISO 6074

Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)

Standard seals in Polyurethane and Buna N

Dimensions

Line A pressure adjusting



Ordering informations

LPA 20/D-N-FDR B1-B08

Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

Type Setting range

Codes:

U = 10 - 105 bar

LPA 20/U-N-FDR B1-B08 21 011 211

D = 70 - 210 bar

LPA 20/D-N-FDR B1-B08 21 011 212

Adjustment type

LPA 20/U-N-FDR B2-B08 21 011 213

N = Standard adjustment

LPA 20/D-N-FDR B2-B08 21 011 214

Version

Only body code:

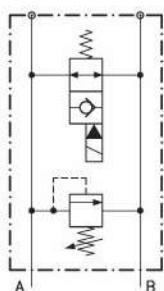
22B1 =

Body type 20-FDR 03-B08 28 147 120

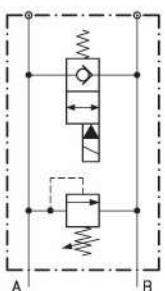
22B2 =

Technical features

FDR B1



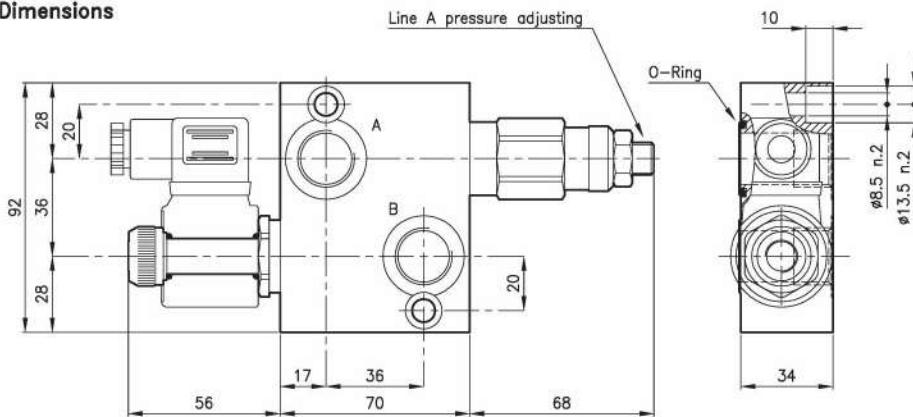
FDR B2



Valves	(For features see catalogue 02.070)	LPA 30
	(For features see catalogue 08.020)	ECP 30
Max. flow	(l/min.)	50
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.040
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

Line A pressure adjusting



Ordering informations

LPA 30/D-N-FDR B1-B08

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment



Version

22B1 =

22B2 =

Standard ports

B08 = G 1/2 ISO 228

Codes:

LPA 30/U-N-FDR B1-B08 31 011 200

LPA 30/D-N-FDR B1-B08 31 011 201

LPA 30/U-N-FDR B2-B08 31 011 202

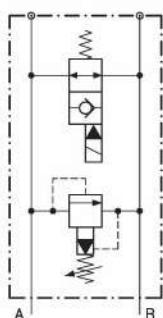
LPA 30/D-N-FDR B2-B08 31 011 203

Only body code:

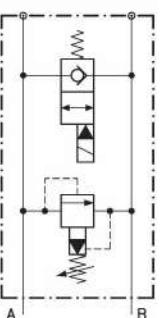
Body type 30-FDR 03-B08 38 147 120

Technical features

FDR B1

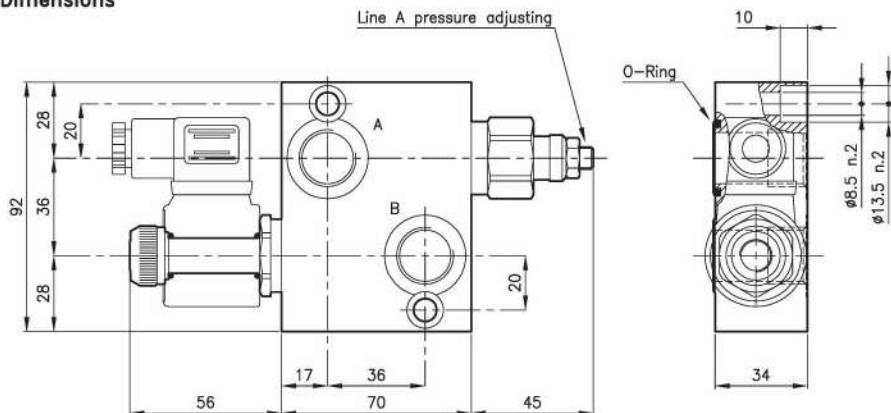


FDR B2



Valves	(For features see catalogue 02.120)	LPI 30
	(For features see catalogue 08.020)	ECP 30
Max. flow	(l/min.)	50
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.950
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPI 30/D-N-FDR B1-B08

Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

Type Setting range

D = 14 - 210 bar

Adjustment type

N = Standard adjustment

Codes:

LPI 30/D-N-FDR B1-B08 31 011 204

Version

22B1 =

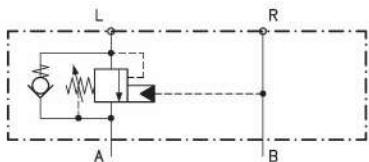
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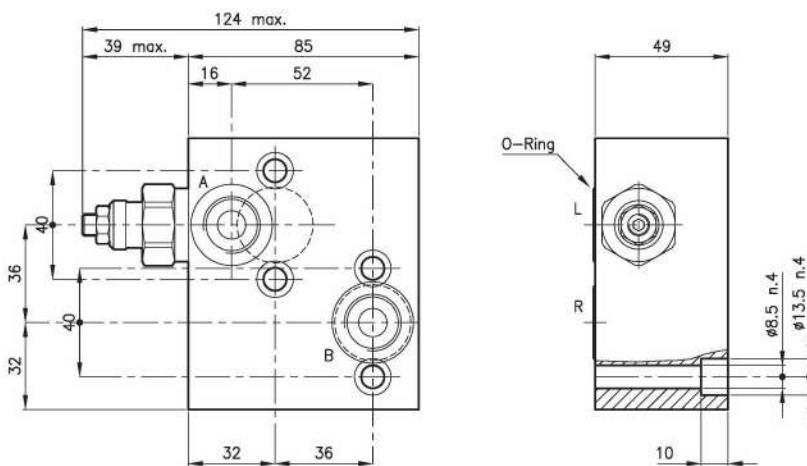
Body type 30-FDR 03-B08 38 147 120

Technical features



Valve	(For features see catalogue 07.060)	CMQ 30
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.300

Dimensions



Ordering informations

CMQ 30/T-L-FDR 22-B08

CMQ 30 = Valve type

Standard springs

Type Setting range Factory set

D = 25 - 125 bar 105 bar

T = 105 - 420 bar 280 bar

Adjustment type

L = Adjustment with overset protection

Version

Standard ports

B08 = G 1/2 ISO 228

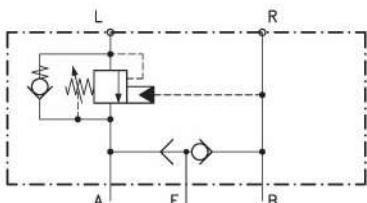
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CMQ 30/D-L-FDR 22-B08 34 011 110
CMQ 30/T-L-FDR 22-B08 34 011 111

Only body code:

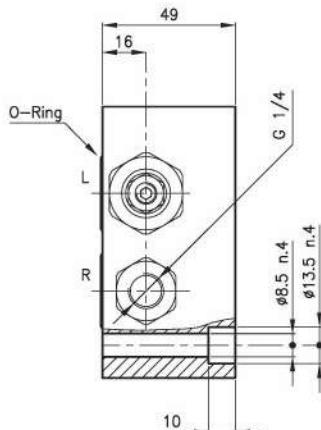
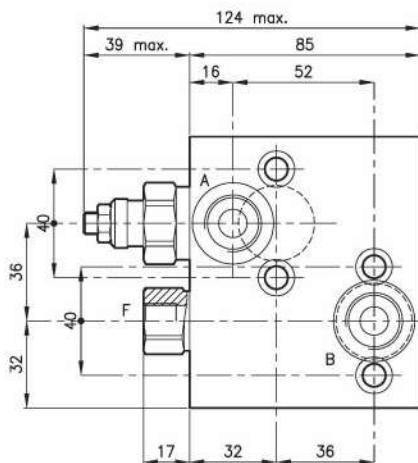
Body type 30-FDR 22-B08 38 147 131

Technical features



Valves	(For features see catalogue 07.060)	CMQ 30
	(For features see catalogue 05.320)	CCE 20
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.350

Dimensions



Ordering informations

CMQ 30/T-L-FDR 23-B08

CMQ 30 = Valve type

Standard springs

Type Setting range Factory set

D = 25 - 125 bar 105 bar

T = 105 - 420 bar 280 bar

Adjustment type

L = Adjustment with overset protection

Version

Standard ports

B08 = G 1/2 ISO 228

Codes:

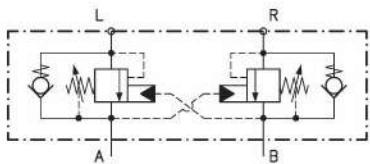
CMQ 30/D-L-FDR 23-B08 34 011 112

CMQ 30/T-L-FDR 23-B08 34 011 113

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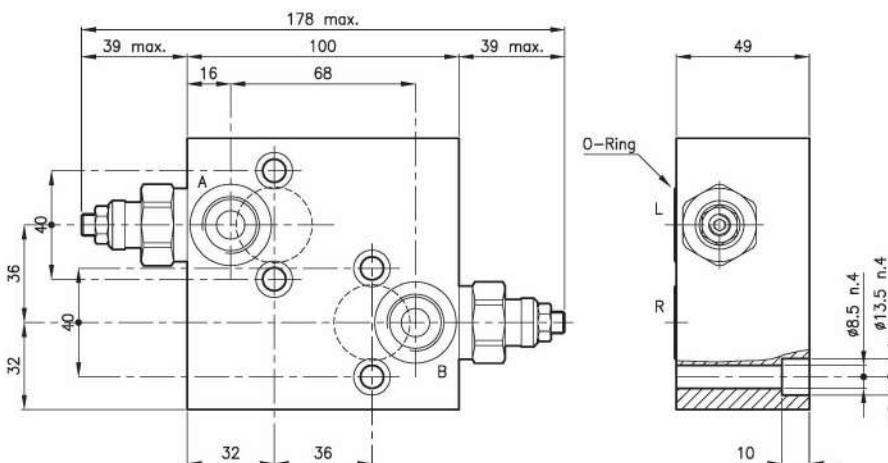
Body type 30-FDR 23-B08 38 147 132

Technical features



Valves	(For features see catalogue 07.060)	CMQ 30
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.750

Dimensions



Ordering informations

CMQ 30/T-L-FDR 25-B08

CMQ 30 = Valve type

Standard springs

Type Setting range Factory set

D = 25 - 125 bar 105 bar

T = 105 - 420 bar 280 bar

Adjustment type

L = Adjustment with overset protection

Version

Standard ports

B08 = G 1/2 ISO 228

Codes:

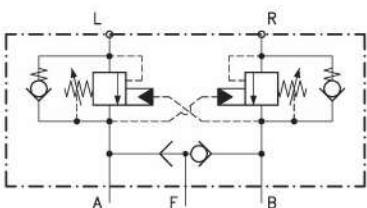
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CMQ 30/T-L-FDR 25-B08 34 011 115

Only body code:

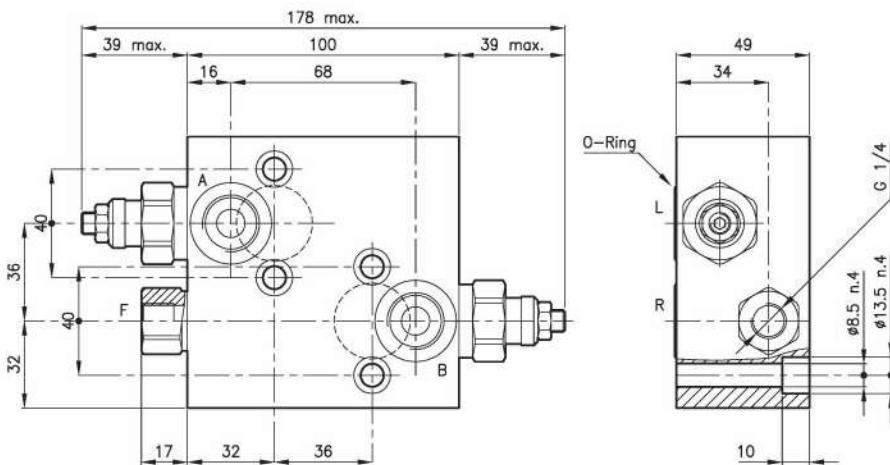
Body type 30-FDR 25-B08 38 147 134

Technical features



Valves	(For features see catalogue 07.060)	CMQ 30
	(For features see catalogue 05.320)	CCE 20
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.750

Dimensions



Ordering informations

CMQ 30/T-L-FDR 26-B08

CMQ 30 = Valve type

Standard springs

Type Setting range Factory set

D = 25 - 125 bar 105 bar

T = 105 - 420 bar 280 bar

Adjustment type

L = Adjustment with overset protection

Version

Standard ports

B08 = G 1/2 ISO 228

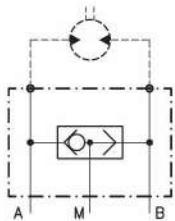
Codes:

CMQ 30/D-L-FDR 26-B08 34 011 116

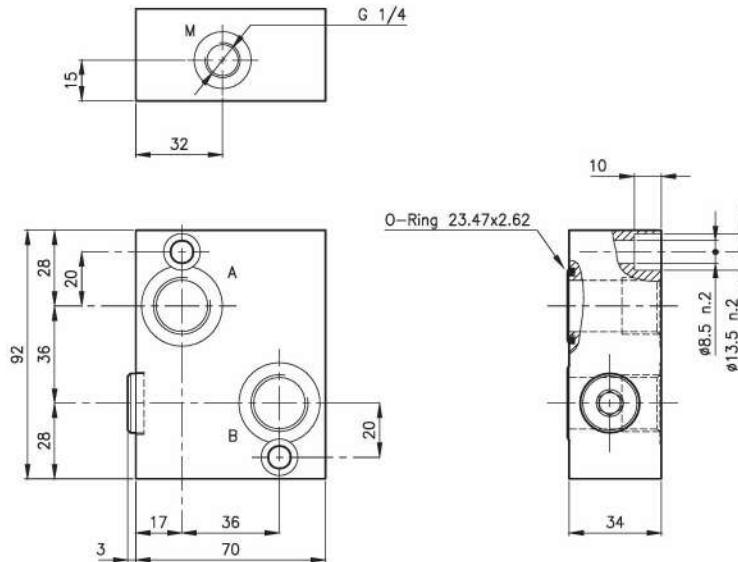
CMQ 30/T-L-FDR 26-B08 34 011 117

Only body code:

Body type 30-FDR 26-B08 38 147 135

Technical features**FDR 29**

Valves	(For features see catalogue 07.060)	CCI 20
Max. flow	(l/min.)	20
Max. system pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.740
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions**Ordering informations****CCI 20/FDR 29-B08**

Valve type

Codes:

Version

CCI 20/FDR 29-B08

22 011 167

Standard ports

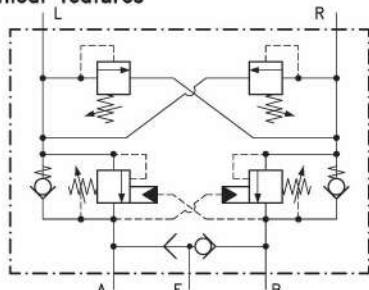
Only body code:

B08 = G 1/2 ISO 228

Body type 20-FDR 29-B08

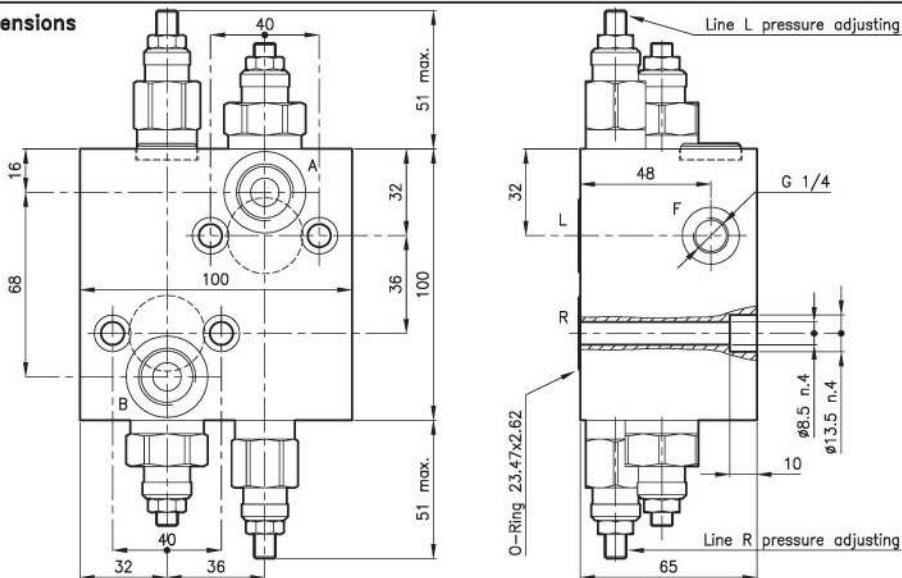
28 147 138

Technical features



Valves	(For features see catalogue 07.060)	CMQ 30
	(For features see catalogue 02.080)	LPB 20
	(For features see catalogue 05.300)	CCI 20
Max. flow	(l/min.)	50
Max. system pressure	(bar)	315
Max. setting pressure	(bar)	420
Pilot ratio		8:1
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	2.500

Dimensions



Ordering informations

CMQ 30/D-L-U-N-FDR 31-B08

CMQ 30 = Valve type

Standard springs (CMQ 30)

Type Setting range

$$D = 25 - 125 \text{ bar}$$

T = 105 - 420 bar

Adjustment type (CMQ 30)

L = Adjustment

Only body code:

Standard ports

B08 = G 1/2 ISO 228

Version

Adjustment type (LPB 20)

N = Standard adj

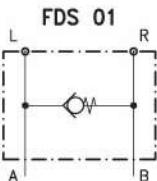
Standard springs (1)

Type Setting range

$$H = 10 - 105 \text{ bar}$$

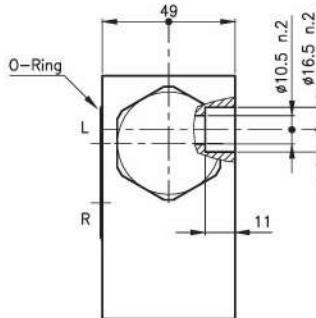
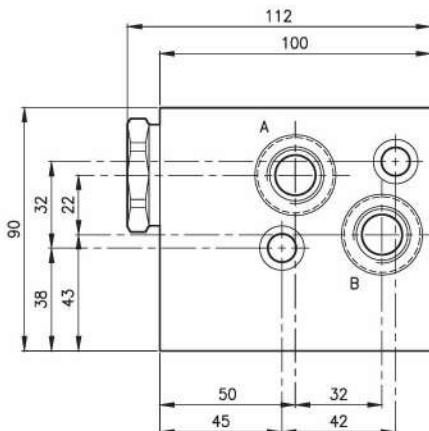
$$D = 70 - 310 \text{ bars}$$

Technical features



Valves	(For features see catalogue 05.070)	CAE 50
Max. flow	(l/min.)	135
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.460
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAE 50/M-FDS 01-B08

CAE 50 = Valve type

Standard ports

Standard springs

B08 = G 1/2 ISO 228

P = 0.35 bar

Codes:

M = 3.5 bar

CAE 50/M-FDS 01-B08

52 011 130

Z = 8 bar

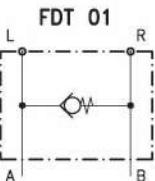
Only body code:

Version

Body type 50-FDS 01-B08

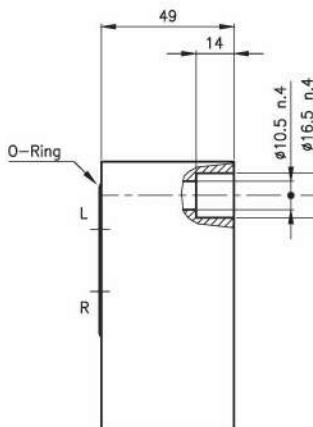
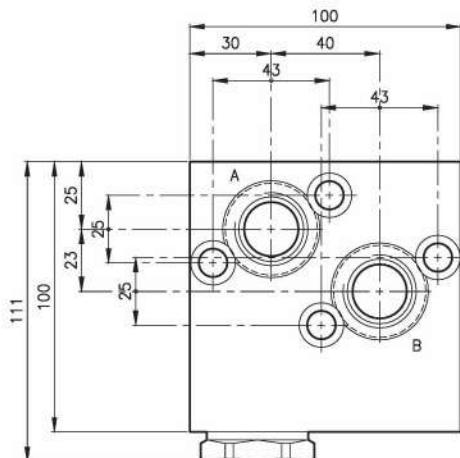
58 147 140

Technical features



Valves	(For features see catalogue 05.070)	CAE 50
Max. flow	(l/min.)	135
Max. pressure	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	1.600
Hydraulic fluid; mineral oil HM and HV	ISO 6074	
Recommended filtration; 19/15 ISO 4466 (25 µ absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAE 50/M-FDT 01-B12

CAE 50 = Valve type

Standard springs

P = 0.35 bar

M = 3.5 bar

Z = 8 bar

Version

Standard ports

B12 = G 3/4 ISO 228

Codes:

CAE 50/M-FDT 01-B12

52 011 127

Only body code:

Body type 50-FDT 01-B12

58 147 160

ALPHABETIC INDEX AND VALVE CODES

INFORMATIONS

PRESSURE RELIEF VALVES

PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

PROPORTIONAL SOLENOID VALVES

LOGIC VALVES

M 20x1.5 & 3/4-16 UNF SERIES VALVES

SANDWICH BODIES (CETOP)

VALVES FOR HYDRAULIC MOTORS

INTEGRATED CIRCUITS

STANDARD BODIES

CAVITY

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ALPHABETIC INDEX AND VALVE CODES

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PRESSURE REDUCING VALVES

SEQUENCE VALVES

DIRECTIONAL CONTROL VALVES

FLOW CONTROL VALVES

MOTION CONTROL VALVES

SOLENOID VALVES POPPET-TYPE

SOLENOID VALVES SPOOL-TYPE

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CAVITY

ACCESSORIES

SCHEDULES

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This series of bodies, realized in anodized aluminium alloy and in galvanized steel, includes all standard versions normally available. On request they can be supplied with different uses.

For out standard uses choiche please see technical schedule 17.010 (D - I - S type ports).

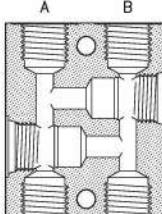
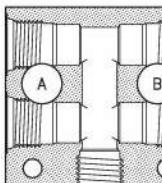
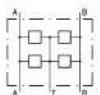
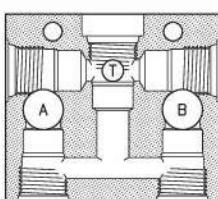
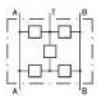
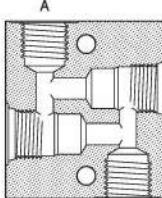
	Ordering Code Aluminium Bodies	Ordering Code Steel Bodies	Valve cavity	Ports	Technical schedule
Body LO type - 2 way	10-LO-B05 18 144 100 20-LO-B05 28 144 104 20-LO-B06 28 144 101 28-LO-B05 28 144 128 28-LO-B06 28 144 142 30-LO-B06 38 144 101 30-LO-B08 38 144 103 32-LO-B05 38 144 140 50-LO-B08 58 144 100 50-LO-B12 58 144 101 70-LO-B16 78 144 100 70-LO-B20 78 144 101	10-LO-B05/FE 18 144 101 20-LO-B05/FE 28 144 118 20-LO-B06/FE 28 144 119 28-LO-B05/FE 28 144 140 28-LO-B06/FE 28 144 141 30-LO-B06/FE 38 144 131 30-LO-B08/FE 38 144 132 50-LO-B08/FE 58 144 124 50-LO-B12/FE 58 144 125 70-LO-B16/FE 78 144 114 70-LO-B20/FE 78 144 115	S 10/2 S 20/2 S 20/2 S 28/2 S 28/2 S 30/2 S 30/2 S 32/2 S 50/2 S 50/2 S 70/2 S 70/2	G 1/4 (B05) G 1/4 (B05) G 3/8 (B06) G 1/4 (B05) G 3/8 (B06) G 3/8 (B06) G 1/2 (B08) G 1/4 (B05) G 1/2 (B08) G 3/4 (B12) G 1 (B16) G 1.1/4 (B20)	16.010 16.010 16.010 16.010 16.010 16.010 16.010 16.010 16.010 16.010 16.010 16.010
Body C3 type - 3 way	20-C3-B05 28 144 102 20-C3-B06 28 144 103 28-C3-B05 28 144 136 28-C3-B06 28 144 129 30-C3-B06 38 144 102 30-C3-B08 38 144 105 50-C3-B08 58 144 102 50-C3-B12 58 144 103 70-C3-B16 78 144 102 70-C3-B20 78 144 103	20-C3-B05/FE 28 144 120 20-C3-B06/FE 28 144 121 28-C3-B05/FE 28 144 143 28-C3-B06/FE 28 144 144 30-C3-B06/FE 38 144 133 30-C3-B08/FE 38 144 134 50-C3-B08/FE 58 144 126 50-C3-B12/FE 58 144 127 70-C3-B16/FE 78 144 116 70-C3-B20/FE 78 144 117	S 20/3 S 20/3 S 28/3 S 28/3 S 30/3 S 30/3 S 50/3 S 50/3 S 70/3 S 70/3	G 1/4 (B05) G 3/8 (B06) G 1/4 (B05) G 3/8 (B06) G 3/8 (B06) G 1/2 (B08) G 1/2 (B08) G 3/4 (B12) G 1 (B16) G 1.1/4 (B20)	16.010 16.010 16.010 16.010 16.010 16.010 16.010 16.010 16.010 16.010
Body CC type - 3 way	30-CC-B05 38 144 108 30-CC-B06 38 144 115 30-CC-B08 38 144 116 50-CC-B08 58 144 106 50-CC-B12 58 144 107	30-CC-B05/FE 38 144 135 30-CC-B06/FE 38 144 136 30-CC-B08/FE 38 144 136 50-CC-B08/FE 58 144 128 50-CC-B12/FE 58 144 129	S 30/4 S 30/4 S 30/4 S 50/4 S 50/4	G 1/4 (B05) G 3/8 (B06) G 1/2 (B08) G 1/2 (B08) G 3/4 (B12)	16.011 16.011 16.011 16.011 16.011
Body C4 type - 4 way	20-C4-B05 28 144 105 20-C4-B06 28 144 106 28-C4-B05 28 144 145 28-C4-B06 28 144 147 30-C4-B06 38 144 100 30-C4-B08 38 144 104 50-C4-B08 58 144 104 50-C4-B12 58 144 105	20-C4-B05/FE 28 144 122 20-C4-B06/FE 28 144 123 28-C4-B05/FE 28 144 146 28-C4-B06/FE 28 144 124 30-C4-B06/FE 38 144 137 30-C4-B08/FE 38 144 138 50-C4-B08/FE 58 144 130 50-C4-B12/FE 58 144 131	S 20/4 S 20/4 S 28/4 S 28/4 S 30/4 S 30/4 S 50/4 S 50/4	G 1/4 (B05) G 3/8 (B06) G 1/4 (B05) G 3/8 (B06) G 3/8 (B06) G 1/2 (B08) G 1/2 (B08) G 3/4 (B12)	16.011 16.011 16.011 16.011 16.011 16.011 16.011 16.011

This series of bodies, realized in anodized aluminium alloy includes all standard versions normally available.

On request they can be supplied in galvanized steel and with different uses.

For out standard uses choiche please see technical schedule 17.010 (D - I - S type ports).

Technical schedule - Typical cartridges used and external dimensions.

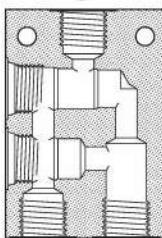
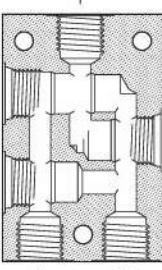
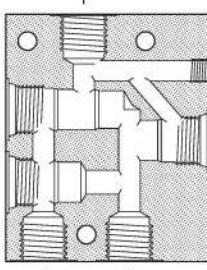
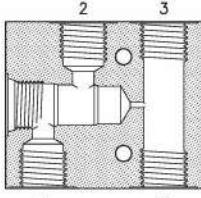
	Ordering Code Aluminium Bodies	Valve cavity	Ports	Technical schedule
Body CSL 03 type  A B		20-CSL 03-B05 28 144 107	S 20/2	G 1/4 (B05)
		20-CSL 03-B06 28 144 108	S 20/2	G 3/8 (B06)
		30-CSL 03-B06 38 144 122	S 30/2	G 3/8 (B06)
		30-CSL 03-B08 38 144 123	S 30/2	G 1/2 (B08)
		50-CSL 03-B08 58 144 113	S 50/2	G 1/2 (B08)
		50-CSL 03-B12 58 144 114	S 50/2	G 3/4 (B12)
		70-CSL 03-B16 78 144 104	S 70/2	G 1 (B16)
		70-CSL 03-B20 78 144 105	S 70/2	G 1.1/4 (B20)
Body CSL 04 type  A B T		20-CSL 04-B05 28 144 150	S 20/2	G 1/4 (B05)
		20-CSL 04-B06 28 144 111	S 20/2	G 3/8 (B06)
		30-CSL 04-B06 38 144 207	S 30/2	G 3/8 (B06)
		30-CSL 04-B08 38 144 109	S 30/2	G 1/2 (B08)
		50-CSL 04-B08 58 144 147	S 50/2	G 1/2 (B08)
		50-CSL 04-B12 58 144 115	S 50/2	G 3/4 (B12)
		70-CSL 04-B16 78 144 106	S 70/2	G 1 (B16)
		70-CSL 04-B20 78 144 124	S 70/2	G 1.1/4 (B20)
Body CSL 06 type  A B T		20-CSL 06-B05 28 144 151	S 20/2	G 1/4 (B05)
		20-CSL 06-B06 28 144 117	S 20/2	G 3/8 (B06)
		30-CSL 06-B06 38 144 208	S 30/2	G 3/8 (B06)
		30-CSL 06-B08 38 144 124	S 30/2	G 1/2 (B08)
		50-CSL 06-B08 58 144 148	S 50/2	G 1/2 (B08)
		50-CSL 06-B12 58 144 116	S 50/2	G 3/4 (B12)
		70-CSL 06-B16 78 144 107	S 70/2	G 1 (B16)
		70-CSL 06-B20 78 144 125	S 70/2	G 1.1/4 (B20)
Body CSL 10 type  A B P		20-CSL 10I-B05 28 144 157	S 20/2	G 1/4 (B05)
		20-CSL 10I-B06 28 144 158	S 20/2	G 3/8 (B06)
		30-CSL 10-B06 38 144 127	S 30/2	G 3/8 (B06)
		30-CSL 10-B08 38 144 128	S 30/2	G 1/2 (B08)
		50-CSL 10-B08 58 144 119	S 50/2	G 1/2 (B08)
		50-CSL 10-B12 58 144 120	S 50/2	G 3/4 (B12)
		70-CSL 10-B16 78 144 110	S 70/2	G 1 (B16)
		70-CSL 10-B20 78 144 111	S 70/2	G 1.1/4 (B20)

This series of bodies, realized in anodized aluminium alloy includes all standard versions normally available.

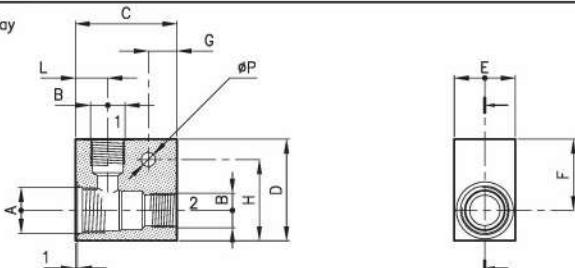
On request they can be supplied in galvanized steel and with different uses.

For out standard uses choice please see technical schedule 17.010 (D - I - S type ports).

Technical schedule - Typical cartridges used and external dimensions.

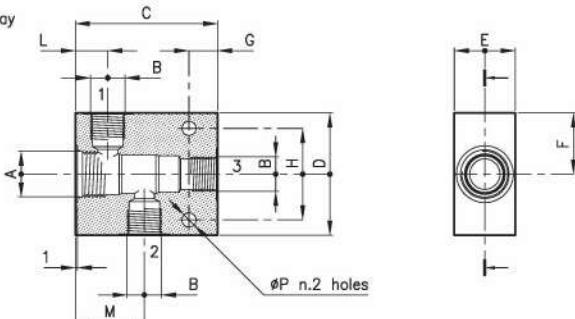
	Ordering Code Aluminium Bodies	Valve cavity	Ports	Technical schedule
Body CSL 17 type				
		30-CSL 17-B08 38 144 149	S 30/2 S 30/3	G 1/2 (B08) 10.180
Body CSL 17B and 17P type				
 		30-CSL 17B-B08 38 144 203	S 30/2 S 30/3	G 1/2 (B08) /
		30-CSL 17P-B08 38 144 231	S 30/2 S 30/3	G 1/2 (B08) 10.195
Body PP type				
		20-PP-B05 28 144 152	S 20/3	G 1/4 (B05) 07.190
		20-PP-B06 28 144 153	S 20/3	G 3/8 (B06) 07.190
		30-PP-B06 38 144 120	S 30/3	G 3/8 (B06) 07.192
		30-PP-B08 38 144 236	S 30/3	G 1/2 (B08) 07.192
		50-PP-B08 58 144 149	S 50/3	G 1/2 (B08) 07.194
		50-PP-B12 58 144 150	S 50/3	G 3/4 (B12) 07.194

Body type LO - 2 way



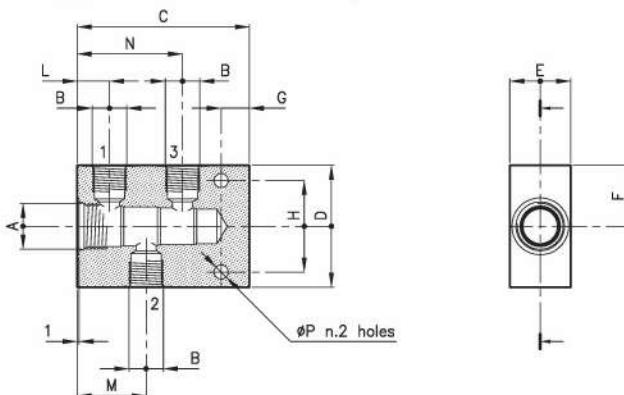
Series	Aluminium	Steel	A	B	C	D	E	F	G	H	L	M	N	P
10	10-LO-B05	--B05/FE	M 14x1.5	G 1/4 (B05)	40	40	25	27	10	30	12.5			7
20	20-LO-B05	--B05/FE	S 20/2	G 1/4 (B05)	50	45	30	30	14	35	14			7
	20-LO-B06	--B06/FE	M 18x1.5	G 3/8 (B06)	50	45	30	30	14	35	14			7
28	28-LO-B05	--B05/FE	S 28/3	G 1/4 (B05)	50	45	30	30	14	35	15			7
	28-LO-B06	--B06/FE	3/4-16 UNF	G 3/8 (B06)	50	45	30	30	14	35	15			7
30	30-LO-B06	--B06/FE	S 30/2	G 3/8 (B06)	50	50	30	35	14	40	16			7
	30-LO-B08	--B08/FE	M 22x1.5	G 1/2 (B08)	50	50	30	35	14	40	16			7
32	32-LO-B05		M 20x1.5	G 1/4 (B05)	50	50	30	30	20	44	14			7
50	50-LO-B08	--B08/FE	S 50/2	G 1/2 (B08)	70	70	45	45	14	55	22			9
	50-LO-B12	--B12/FE	M 33x2	G 3/4 (B12)	70	70	45	45	14	55	22			9
70	70-LO-B16	--B16/FE	S 70/2	G 1 (B16)	90	90	60	60	30	70	27			10.5
	70-LO-B20	--B20/FE	M 42x2	G 1.1/4 (B20)	90	90	60	60	30	70	27			10.5

Body type C3 - 3 way



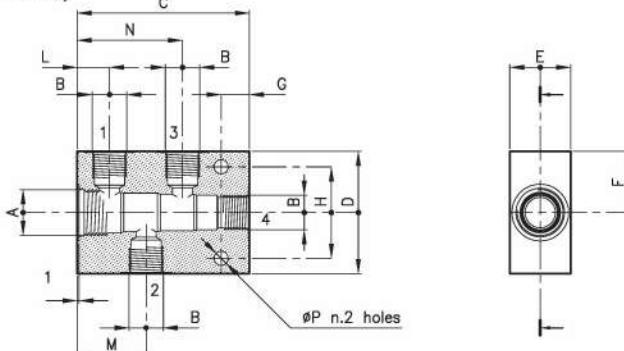
Series	Aluminium	Steel	A	B	C	D	E	F	G	H	L	M	N	P
20	20-C3-B05	--B05/FE	S 20/3	G 1/4 (B05)	60	60	30	30	14	35	14	29		7
	20-C3-B06	--B06/FE	M 18x1.5	G 3/8 (B06)	60	60	30	30	14	35	14	29		7
28	28-C3-B05	--B05/FE	S 28/3	G 1/4 (B05)	60	60	30	30	14	35	16	30		7
	28-C3-B06	--B06/FE	3/4-16 UNF	G 3/8 (B06)	60	60	30	30	14	35	16	30		7
30	30-C3-B06	--B06/FE	S 30/3	G 3/8 (B06)	70	60	30	30	14	45	16	34		7
	30-C3-B08	--B08/FE	M 22x1.5	G 1/2 (B08)	75	70	35	35	14	45	16	34		7
50	50-C3-B08	--B08/FE	S 50/3	G 1/2 (B08)	90	90	45	45	14	60	22	47		9
	50-C3-B12	--B12/FE	M 33x2	G 3/4 (B12)	90	90	45	45	14	60	22	47		9
70	70-C3-B16	--B16/FE	S 70/3	G 1 (B16)	120	120	60	60	25	90	27	58		10.5
	70-C3-B20	--B20/FE	M 42x2	G 1.1/4 (B20)	120	120	60	60	25	90	27	58		10.5

Body type CC - 3 way (version for flow divider DCC series)



Series	Aluminium	Steel	A	B	C	D	E	F	G	H	L	M	N	P
30	30-CC-B05		S 30/4 M 22x1.5	G 1/4 (B05)	85	60	30	30	14	45	16	34	52	7
	30-CC-B06	..-B06/FE		G 3/8 (B06)	85	60	30	30	14	45	16	34	52	7
	30-CC-B08	..-B08/FE		G 1/2 (B08)	90	70	35	35	14	45	16	34	52	7
50	50-CC-B08	..-B08/FE	S 50/4 M 33x2	G 1/2 (B08)	115	90	45	45	14	60	22	47	72	9
	50-CC-B12	..-B12/FE		G 3/4 (B12)	115	90	45	45	14	60	22	47	72	9

Body type C4 - 4 way



Series	Aluminium	Steel	A	B	C	D	E	F	G	H	L	M	N	P
20	20-C4-B05	..-B05/FE	S 20/4 M 18x1.5	G 1/4 (B05)	74	60	30	30	14	35	14	29	44	7
	20-C4-B06	..-B06/FE		G 3/8 (B06)	74	60	30	30	14	35	14	29	44	7
28	28-C4-B05	..-B05/FE	S 28/4 3/4-16 UNF	G 1/4 (B05)	74	60	30	30	14	35	16	29	44	7
	28-C4-B06	..-B06/FE		G 3/8 (B06)	74	60	30	30	14	35	16	29	44	7
30	30-C4-B06	..-B06/FE	S 30/4 M 22x1.5	G 3/8 (B06)	85	60	30	30	14	45	16	34	52	7
	30-C4-B08	..-B08/FE		G 1/2 (B08)	90	70	35	35	14	45	16	34	52	7
50	50-C4-B08	..-B08/FE	S 50/4 M 33x2	G 1/2 (B08)	115	90	45	45	14	60	22	47	72	9
	50-C4-B12	..-B12/FE		G 3/4 (B12)	115	90	45	45	14	60	22	47	72	9
70			S 70/3 M 42x2											

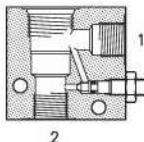
This series of bodies, realized in anodized aluminium alloy includes all standard versions normally available.

On request they can be supplied in galvanized steel and with different uses.

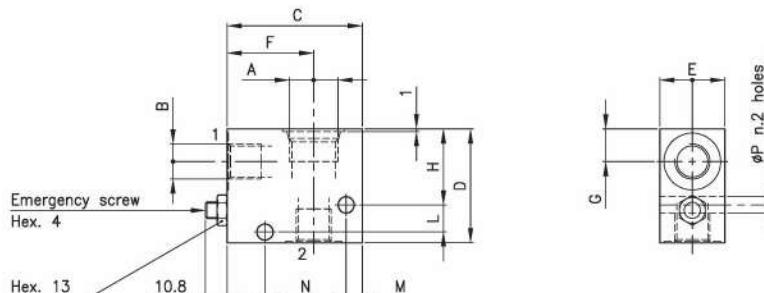
For out standard uses choice please see technical schedule 17.010 (D - I - S type ports).

2 WAY EMERGENCY BODIES

Body LO/E type - 2 way



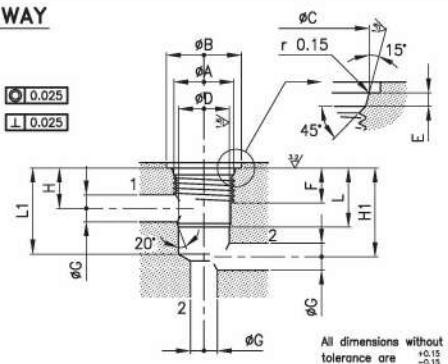
Type	Valve cavity	Ports	Mass kg
20-LO/E-B05	S 20/2	G 1/4 (B05)	0.230
20-LO/E-B06	S 20/2	G 3/8 (B06)	0.230
28-LO/E-B06	S 28/2	G 3/8 (B06)	0.230
30-LO/E-B06	S 30/2	G 3/8 (B06)	0.270
30-LO/E-B08	S 30/2	G 1/2 (B08)	0.270
50-LO/E-B08	S 50/2	G 1/2 (B08)	0.610
50-LO/E-B12	S 50/2	G 3/4 (B12)	0.610



Series	Ordering Code	A	B	C	D	E	F	G	H	L	M	N	P
20	20-LO/E-B05 (28 111 101)	S 20/2	G 1/4 (B05)	55	50	30	35	14	30	15	6	30	6.5
	20-LO/E-B06 (28 111 102)	M 18x1.5	G 3/8 (B06)	55	50	30	35	14	30	15	6	30	6.5
28		S 28/2											
	28-LO/E-B06 (28 111 100)	3/4-16 UNF	G 3/8 (B06)	55	50	30	35	14	30	15	6	30	6.5
30	30-LO/E-B06 (38 111 137)	S 30/2	G 3/8 (B06)	60	55	30	35	16	30	20	6	40	6.5
	30-LO/E-B08 (38 111 138)	M 22x1.5	G 1/2 (B08)	60	55	30	35	16	30	20	6	40	6.5
50	50-LO/E-B08 (58 111 123)	S 50/2	G 1/2 (B08)	70	70	45	45	22	48	15	6	50	6.5
	50-LO/E-B12 (58 111 124)	M 33x2	G 3/4 (B12)	70	70	45	45	22	48	15	6	50	6.5

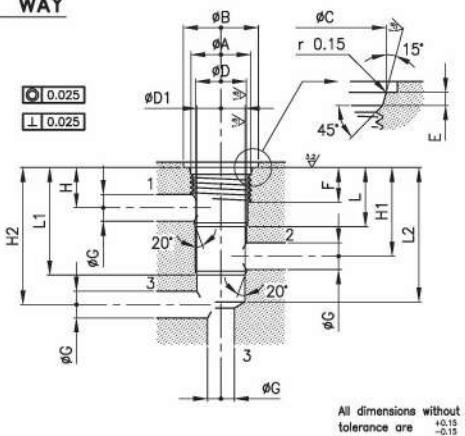
ALPHABETIC INDEX AND VALVE CODES	00
INFORMATIONS	01
PRESSURE RELIEF VALVES	02
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ACCESSORIES	18
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2 WAY



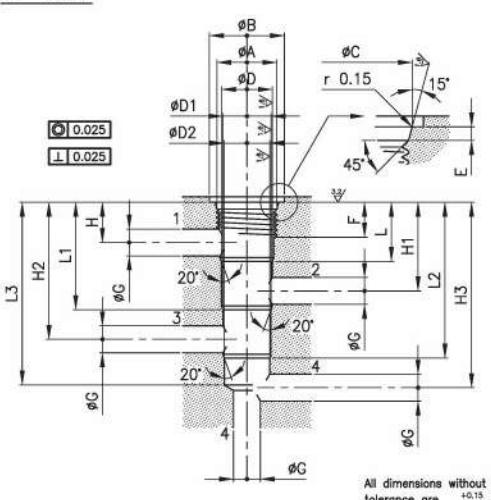
	S 20/2	S 30/2	S 50/2	S 70/2
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	23	28	40	50
C	$19.8^{+0.10}_{-0}$	$23.8^{+0.10}_{-0}$	$35.4^{+0.10}_{-0}$	$44.4^{+0.10}_{-0}$
D	$15^{+0.027}_{-0}$	$19^{+0.033}_{-0}$	$28^{+0.033}_{-0}$	$38^{+0.039}_{-0}$
E	$2.6^{+0.20}_{-0.20}$	$2.6^{+0.20}_{-0.20}$	$3.3^{+0.20}_{-0.20}$	$3.3^{+0.20}_{-0.20}$
F	11	13	16	19
G	8	10.5	15	20
H	13	15	21	26
H1	28	33	46	57
L	18.5	22	32	39
L1	27	32	42	52

3 WAY



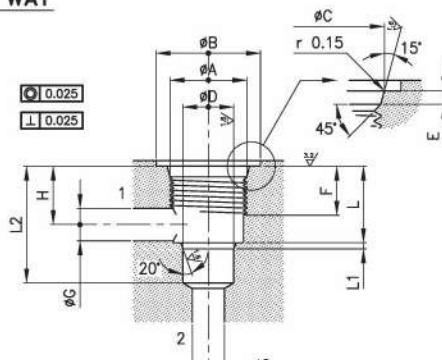
	S 20/3	S 30/3	S 50/3	S 70/3
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	23	28	40	50
C	$19.8^{+0.10}_{-0}$	$23.8^{+0.10}_{-0}$	$35.4^{+0.10}_{-0}$	$44.4^{+0.10}_{-0}$
D	$15^{+0.027}_{-0}$	$19^{+0.033}_{-0}$	$28^{+0.033}_{-0}$	$38^{+0.039}_{-0}$
D1	$14^{+0.027}_{-0}$	$18^{+0.027}_{-0}$	$27^{+0.033}_{-0}$	$36^{+0.039}_{-0}$
E	$2.6^{+0.20}_{-0.20}$	$2.6^{+0.20}_{-0.20}$	$3.3^{+0.20}_{-0.20}$	$3.3^{+0.20}_{-0.20}$
F	11	13	16	19
G	8	10.5	15	20
H	13	15	21	26
H1	28	33	46	57
H2	43	51	71	88
L	18.5	22	32	39
L1	33.5	40	56	70
L2	42	50	66	83

4 WAY



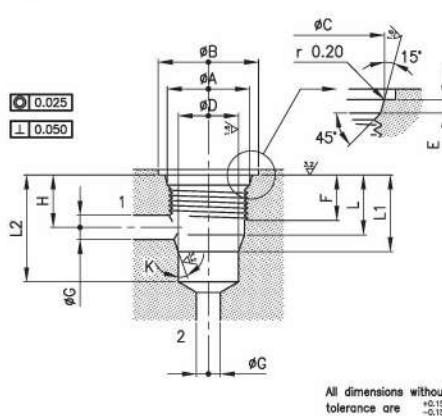
	S 20/4	S 30/4	S 50/4	S 70/4
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	23	28	40	50
C	$19.8^{+0.10}_{-0}$	$23.8^{+0.10}_{-0}$	$35.4^{+0.10}_{-0}$	$44.4^{+0.10}_{-0}$
D	$15^{+0.027}_{-0}$	$19^{+0.033}_{-0}$	$28^{+0.033}_{-0}$	$38^{+0.039}_{-0}$
D1	$14^{+0.027}_{-0}$	$18^{+0.027}_{-0}$	$27^{+0.033}_{-0}$	$36^{+0.039}_{-0}$
D2	$13^{+0.027}_{-0}$	$17^{+0.027}_{-0}$	$26^{+0.033}_{-0}$	$34^{+0.039}_{-0}$
E	$2.6^{+0.20}_{-0.20}$	$2.6^{+0.20}_{-0.20}$	$3.3^{+0.20}_{-0.20}$	$3.3^{+0.20}_{-0.20}$
F	11	13	16	19
G	8	10.5	15	20
H	13	15	21	26
H1	28	33	46	57
H2	43	51	71	88
H3	58	69	96	119
L	18.5	22	32	39
L1	33.5	40	56	70
L2	48.5	58	80	101
L3	57	68	90	114

2 WAY

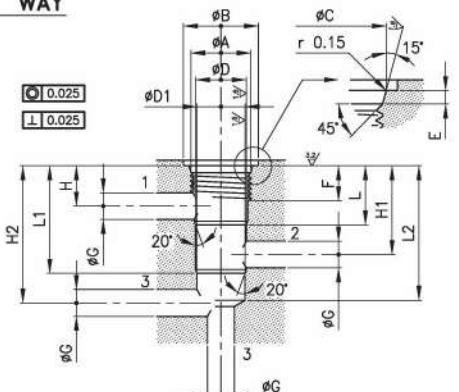
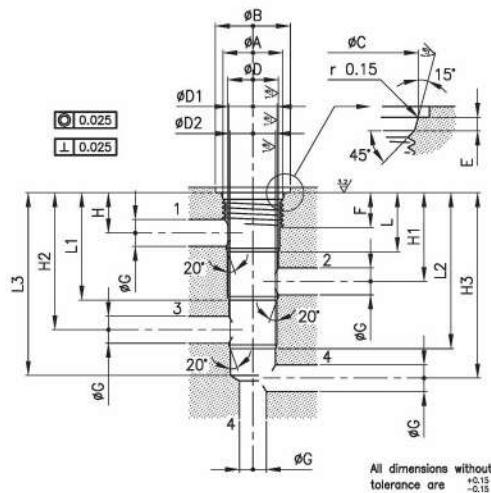


	S 28/2		
A	3/4-16 UNF		
B	25		
C	20.6 $^{+0.10}_{-0}$		
D	12.7 $^{+0.05}_{-0}$		
E	2.6 $^{+0.30}_{-0}$		
F	12		
G	8.5		
H	14		
L	18.5 $^{+0.15}_{-0.15}$		
L1	1 $^{+0.15}_{-0}$		
L2	29 $^{+0.50}_{-0}$		

2 WAY



	S 29/2	S 32/2P	S 32/2B
A	3/4-16 UNF	M 20x1.5	M 20x1.5
B	25	24	28
C	20.6 $^{+0.10}_{-0}$	21.4 $^{+0.20}_{-0}$	22.2 $^{+0.10}_{-0}$
D	15.87 $^{+0.05}_{-0}$	15 $^{+0.027}_{-0}$	15 $^{+0.027}_{-0}$
E	2.6 $^{+0.30}_{-0}$	3.2 $^{+0.20}_{-0}$	3.2 $^{+0.20}_{-0}$
F	14	12	12
G	8	6	6
H	13	13	13
L		14.5	14.5
L1	20.5		
L2	29	26.5	26.5
K	20°	30°	35°

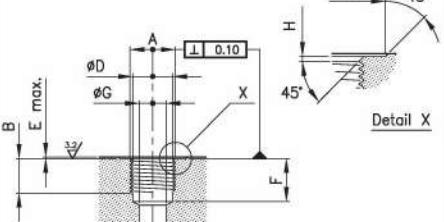
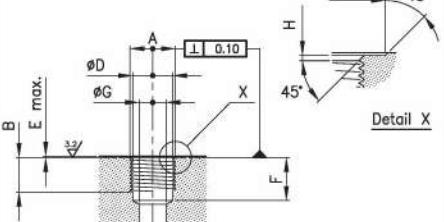
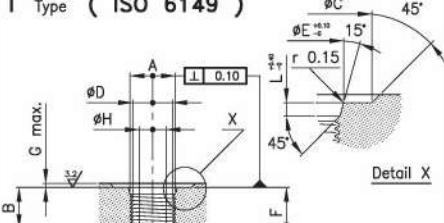
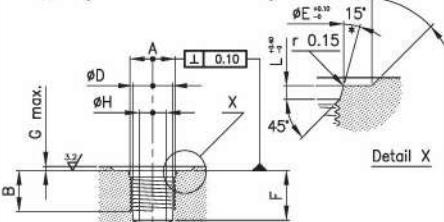
3 WAY**4 WAY****S 28/3**

A	3/4-16 UNF
B	25
C	$20.6^{+0.10}_{-0.05}$
D	$15.87^{+0.05}_{-0.05}$
D1	$14.27^{+0.05}_{-0.05}$
E	$2.6^{+0.30}_{-0.05}$
F	12.5
G	6
H	15
H1	29
H2	44
L	20.5
L1	34.5
L2	50

S 28/4

A	3/4-16 UNF
B	25
C	$20.6^{+0.10}_{-0.05}$
D	$15.87^{+0.05}_{-0.05}$
D1	$14.27^{+0.05}_{-0.05}$
D2	$12.70^{+0.05}_{-0.05}$
E	$2.6^{+0.30}_{-0.05}$
F	12.5
G	6
H	15
H1	29
H2	43
H3	58
L	20.5
L1	34.5
L2	49
L3	60

On standard bodies are normally provided with ports B (UNI 338-66).
Also bodies with ports D - I - S type can be supplied on request.

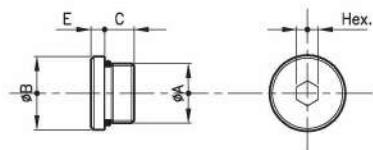
	Code	A	B	C	D	E	F	G	H	
B Type (UNI 338-66)										
	B04	G 1/8	8	16.5	8.50	1.5	12	4	0.75	
	B05	G 1/4	12	21.2	11.50	1.5	16	6.5	1.00	
	B06	G 3/8	12	24.5	15.00	1.5	16	9.5	1.00	
	B08	G 1/2	14	29.2	18.75	2.0	19	13	1.25	
	B12	G 3/4	16	35.6	24.25	2.0	23	19	1.25	
	B16	G 1	18	43.5	30.50	3.0	26	25	1.50	
	B20	G 1.1/4	20	53	39.00	3.0	29	32	1.50	
D Type (UNI 4534-64)										
	D04	M 12x1.5	12	21.2	10.25	1.5	16	4	1.00	
	D05	M 14x1.5	12	22.8	12.25	1.5	16	6.5	1.00	
	D06	M 18x1.5	12	26	16.25	2.0	16	9.5	1.00	
	D08	M 22x1.5	14	32.4	20.25	2.0	19	13	1.00	
	D12	M 26x1.5	16	35.6	24.25	2.0	23	19	1.00	
	D16	M 33x2	18	43.5	30.50	3.0	26	25	1.50	
	D20	M 42x2	20	53	39.50	3.0	29	32	1.50	
	Code	A	B	C	D	E	F	G	H	
I Type (ISO 6149)										
	I04	M 12x1.5	11.5	22	10.25	13.8	14	1.5	4	2.4
	I05	M 14x1.5	11.5	25	12.25	15.8	14	1.5	6.5	2.4
	I06	M 18x1.5	14.5	29	16.25	19.8	16.5	2	9.5	2.4
	I08	M 22x1.5	15.5	34	20.25	23.8	18	2	13	2.4
	I12	M 27x2	19	40	24.50	29.4	22	2	19	3.1
	I16	M 33x2	19	46	30.50	35.4	22	2.5	25	3.1
	I20	M 42x2	19.5	56	39.50	44.4	22.5	2.5	32	3.1
S Type (SAE-UNF-2B)										
	S04	7/16-20	12	21	9.8	12.4	14	1.5	4	2.4
	S05	1/2-20	12	23	11.4	14	14	1.5	6.5	2.4
	S06	9/16-18	13	25	12.8	15.6	16	2	9.5	2.5
	S08	3/4-16	15	30	17.4	20.6	18	2	13	2.5
	S12	1.1/16-12	19	41	24.7	29.2	23	2	19	3.3
	S16	1.5/16-12	19	49	31	35.5	23	2.5	25	3.3
	S20	1.5/8-12	19	58	39	43.5	23	2.5	32	3.3

*(S04-S05-S06 = 12')

ALPHABETIC INDEX AND VALVE CODES

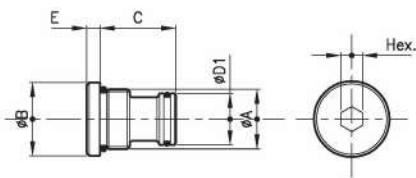
INFORMATIONS	00
PRESSURE RELIEF VALVES	01
PRESSURE REDUCING VALVES	02
SEQUENCE VALVES	03
DIRECTIONAL CONTROL VALVES	04
FLOW CONTROL VALVES	05
MOTION CONTROL VALVES	06
SOLENOID VALVES POPPET-TYPE	07
SOLENOID VALVES SPOOL-TYPE	08
PROPORTIONAL SOLENOID VALVES	09
LOGIC VALVES	10
M 20x1.5 & 3/4-16 UNF SERIES VALVES	11
SANDWICH BODIES (CETOP)	12
VALVES FOR HYDRAULIC MOTORS	13
INTEGRATED CIRCUITS	14
STANDARD BODIES	15
CAVITY	16
ACCESSORIES	17
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	19
	20

External plug



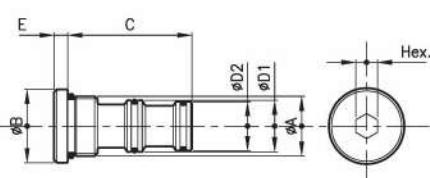
Type	T 20	T 30	T 50	T 70
Code	29011102	39011102	59011102	79011100
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	22	27	38	50
C	10	11	14.5	18
E	4	5	6	8
Hex.	8	8	10	14

2 WAY



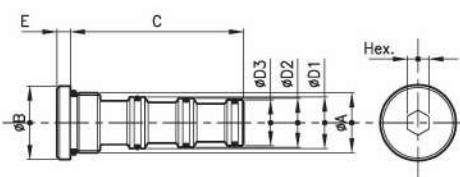
Type	T 20/2	T 30/2	T 50/2	T 70/2
Code	29011103	39011100	59011100	79011101
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	22	27	38	50
C	24.5	28	39	48
D1	15	19	28	38
E	4	5	6	8
Hex.	8	8	10	14

3 WAY



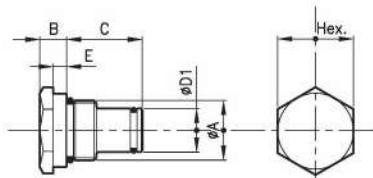
Type	T 20/3	T 30/3	T 50/3	T 70/3
Code	29011104	39011101	59011101	79011102
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	22	27	38	50
C	39.5	46	63	79
D1	15	19	28	38
D2	14	18	27	36
E	4	5	6	8
Hex.	8	8	10	14

4 WAY



Type	T 20/4	T 30/4	T 50/4
Code	29011105	39011103	59011103
A	M 18x1.5	M 22x1.5	M 33x2
B	22	27	38
C	54.5	64	88
D1	15	19	28
D2	14	18	27
D3	13	17	26
E	4	5	6
Hex.	8	8	10

2 WAY



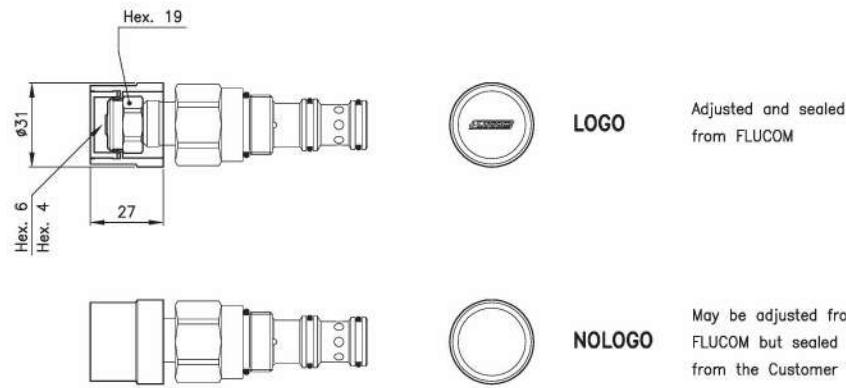
Type	T 28/2	T 29/2	T 32/2
Code	29011101	29011108	39011104
A	3/4-16 UNF	3/4-16 UNF	M 20x1.5
B	9	9	9
C	27	26.5	25
D1	12.7	15.82	15
E	5	5	5
Hex.	24	24	24

Functional description

FLUCOM introduces a new sealing system suitable for same type of cartridges. Once that the plug has been plugged in, it is no more possible to change the adjustment without tampering the seal.

Three different kind of sealing system are available:

- 1) LOGO : cartridges are adjusted and sealed directly from FLUCOM
- 2) NOLOGO : cartridges may be adjusted from FLUCOM as well as from the Customer but sealed from the Customer himself.
- 3) KIT : complete kit allowing the changes in adjusting and sealing

Dimensions

KIT - M 8x1 cod. 90 788 130

KIT - M 12x1.25 cod. 90 788 131

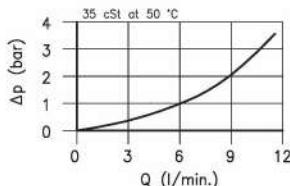
Cartridges supporting the sealing system

LPS 20	RPA 20	RDA/RDI 20/30
LPE 20	RLY 30/50	RDC 20/30/50
LPA 20/30	RLD 20	DPC 20/30/50
LPI 30/50	RLP 30/50	CMS 20/30/50
LPB 20/30/50	LPQ 30/50	CMQ 30/50
LPT 30	LPY 30/50	CMB 20
VDT 20/30	LCS 20	CMC 30/50

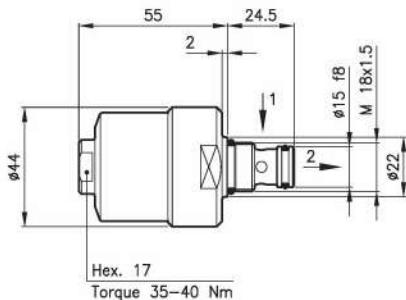
Technical features

This range of filters may be used on pressure line for piloting circuits or small plants.

The special building shape allows the fitting-up inside the manifolds or inside standard bodies, with considerable benefit in costs and with overall dimensions reduction. On request they can be supplied with 25 micron filtration.



Cavity	(For dimensions see catalogue 17.000)	S 20/2
Nominal flow	(l/min.)	6
Max. pressure	(bar)	350
Breakdown pressure	(bar)	20
Nominal filtering	(μm)	10
Absolute filtering	(μm)	15
Fluid viscosity range	(cSt)	2.8 – 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.450
Standard seals in Buna N		

Dimensions**Ordering Informations**

FMP 20/05-10

FMP 20 = Filter type

Size

05 = standard

Nominal filtering

10 = 10 micron

Codes:

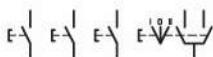
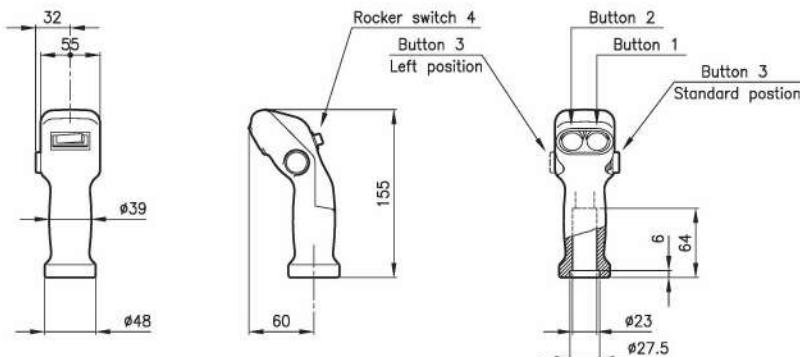
FMP 20/05-10	27 011 104
Filtering element	27 187 100

CAE 20 filters can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

Technical features

Multifunction lever grip made of anticorrosive plastic material inclusive of side M5 grubber screw.
 Electrical controls ensured by push button serie with IP 66 degree and a rocker switch with rubber cover.
 It's used mainly when is necessary to combine a movement of traditional directional control valve with one or more solenoid valves.

Nominal voltage	(Volt)	12/24
Max. inductive charge	(Ampere)	5
Max. resistive charge	(Ampere)	10
Temperature range	(°C)	-20 +80
Protection class	(DIN 40050)	IP 66
Full charge last	(cycles)	1.000.000
Mass	(kg)	0.500

**Dimensions****Ordering informations**

PMI 600/1R-2R-3Y-4T

Series _____

Type _____

Button No. 1 _____

1T = Plugged

1R = Red button

1Y = Yellow button

Button No. 2 _____

2T = Plugged

2R = Red button

2Y = Yellow button

Rocker switch No. 4

4T = Plugged

4C = Switch

4D = Button



Button No. 3 _____

3T = Plugged

3R = Red button

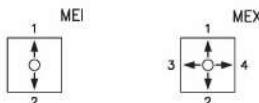
3Y = Yellow button

3RL = Red button (left position)

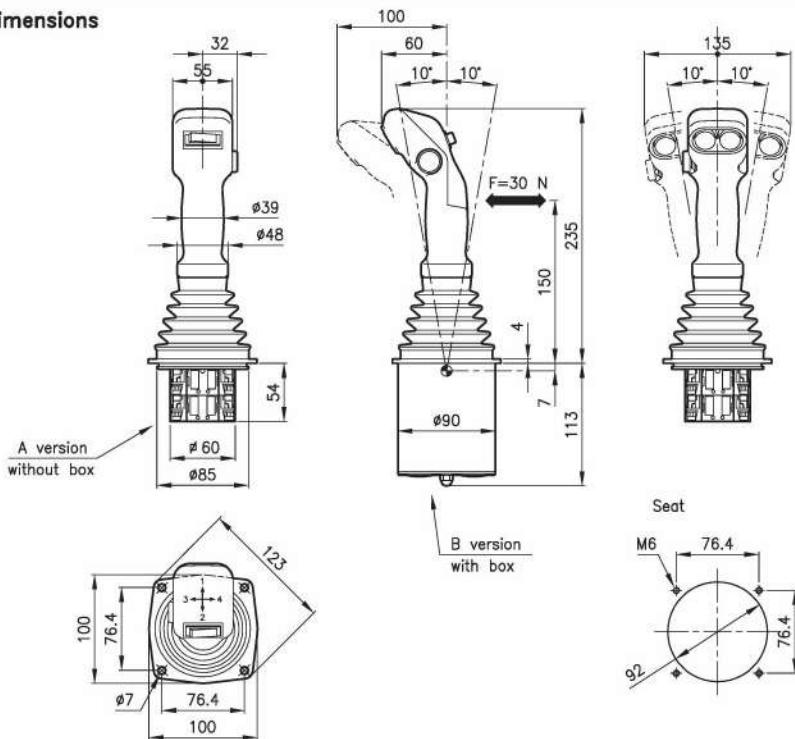
3YL = Yellow button (left position)

Technical features

They are electrical Joystick for on-off remote control. In addition to the movement on two axes, a series of buttons and one switch three pole are foreseen in order to control the commutation and the security of the solenoids which are to be energized. The electrical circuit, the number of controls and the functions are defined each time according to the Customers requirements. In the complete configuration the standard electric circuit make it possible to control as 18 solenoids.



Nominal voltage	(Volt)	12/24
Max. inductive charge	(Ampere)	5
Max. resistive charge	(Ampere)	10
Temperature range	(°C)	-20 +80
Protection class	(DIN 40050)	IP 66
Full charge last	(cycles)	1.000.000
Crash resistance (IEC 68-2-27)		5 g
Vibration resistance (40-500 Hz)		10 g
Mass	(kg)	0.980

Dimensions**Ordering informations**

MEX 600-B-65011XXX

Series _____

No. schema and code _____

MEI = one axis

External box

MEX = two axes

A = without box

Type _____

B = with box

ALPHABETIC INDEX AND VALVE CODES

- INFORMATIONS
- PRESSURE RELIEF VALVES
- PRESSURE REDUCING VALVES
- SEQUENCE VALVES
- DIRECTIONAL CONTROL VALVES
- FLOW CONTROL VALVES
- MOTION CONTROL VALVES
- SOLENOID VALVES POPPET-TYPE
- SOLENOID VALVES SPOOL-TYPE
- PROPORTIONAL SOLENOID VALVES
- LOGIC VALVES
- M 20x1.5 & 3/4-16 UNF SERIES VALVES
- SANDWICH BODIES (CETOP)
- VALVES FOR HYDRAULIC MOTORS
- INTEGRATED CIRCUITS
- STANDARD BODIES
- CAVITY
- ACCESSORIES
- SCHEDULES**

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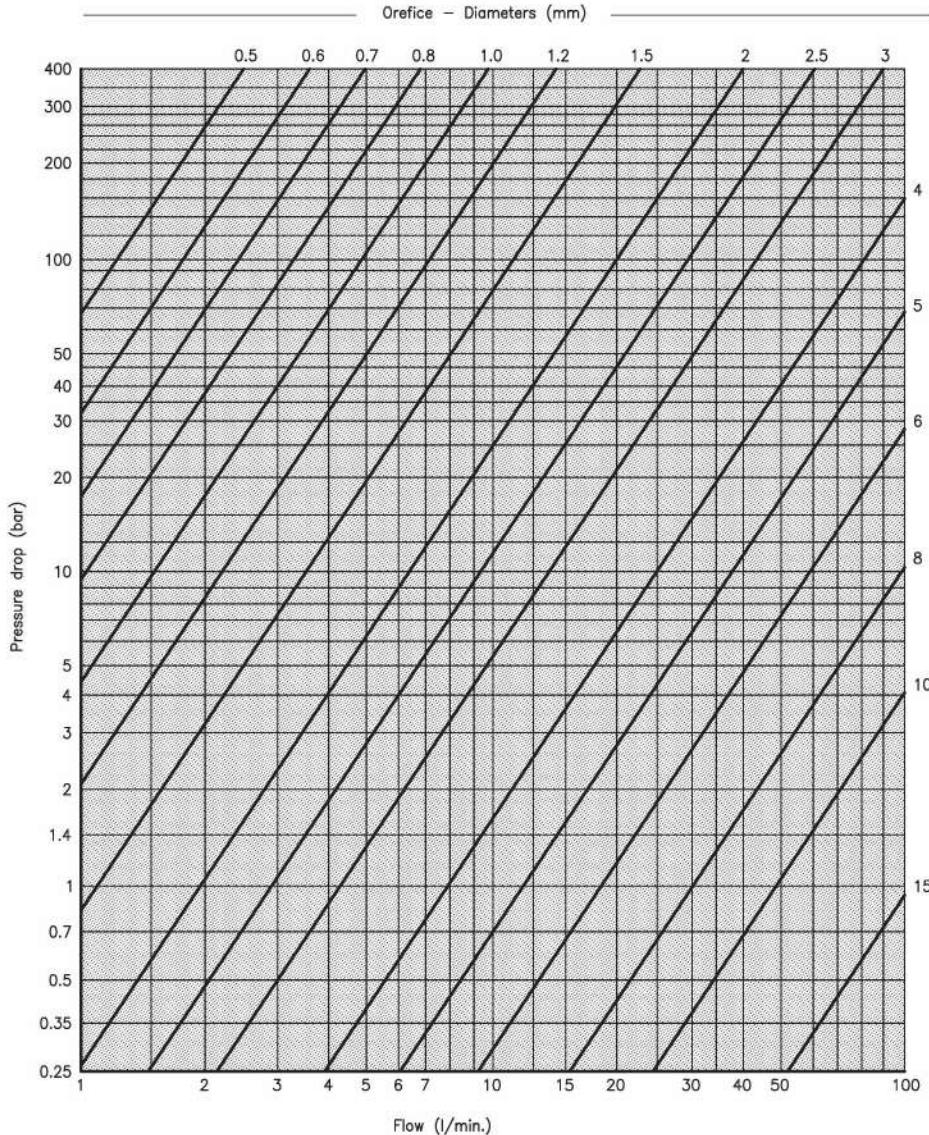
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The functions and the switching velocities of cartridge valves can be influenced by manipulating the metering-in and metering-out for pilot lines; this is possible by the mounting of orifices the serp. places.

The following diagram can be used for selecting the resp. orifice diameter.



Notes

Notes

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