



PASSION FOR HYDRAULIC MOTION

CARTRIDGE VALVES · MANIFOLDS · SPECIAL APPLICATIONS

Edizione 2019



TECHNICAL CATALOGUE

EDITION 2019



ALPHABETIC INDEX AND VALVE CODES

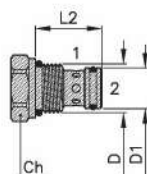
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CAB 10	05.008	DPA 30	04.140	ELP 30/P1	11.010
CAB 20	05.010	DPA 50	04.142	ELP 30/P3	11.040
CAB 20/M-CSL 57	05.200	DPA 70	04.144	ELP 30/Q1	11.010
CAB 28	12.150	DPE 30	04.200	ELP 30/Q2	11.100
CAB 30	05.020	DPE 50	04.205	ELP 30/Q3	11.040
CAB 30/M-CSL 57	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-P0	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-P0	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

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ETD 30/4306	09.140	LPE 20	02.040	RDB 20/B	06.010
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	ODC 20/2202-PN	05.380	VDT 30/2202-PS	05.802
LPA 30/FDR B2	14.180	ODC 20/2202-PN7	05.385	VDT 30/3201	05.690
LPB 10	02.078	ODC 32/2202	12.083	VDT 30/3202	05.690
LPB 20	02.080	ODC 32/2202-PN	12.084	VDT 30/3203	05.610
LPB 20/CSL 03	02.240	PO6-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		

Sizes:

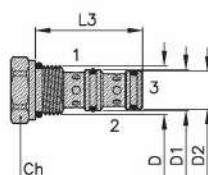
This page represents the four Standard Size, the Special Versions and the Ports number.

2 way


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

Ⓝ Standard Flucor sizes (ISO 6149)

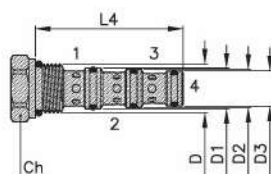
Ⓢ Other sizes

3 way


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

Ⓝ Standard Flucor sizes (ISO 6149)

Ⓢ Other sizes

4 way


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

Ⓝ Standard Flucor sizes (ISO 6149)

Ⓢ Other sizes

ALPHABETIC INDEX AND VALVE CODES

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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 $\pm 10\%$, 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 foreseer, 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 $\pm 10\%$.

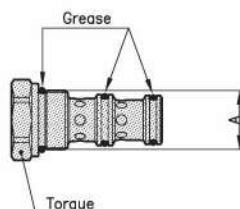
For performances and dimensions see catalogue 09.900 - 09.901 - 09.902 - 09.903 (coils) and catalogue 09.910 (connectors).

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 Flucum's written confirmation of acceptance of order.

1.2 – Unless specifically approved in writing by Flucum, deviant general or special conditions included or referred to by the Customer in his communications to Flucum 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 Flucum.

2.2 – However, if the conditions indicated in the Customer's order differ from those in Flucum'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 Flucum's offer shall be deemed valid only within the period of time it itself 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 Flucum 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 – Flucum 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 Flucum'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 Flucum 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 Flucum'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 Flucum'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 Flucum 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 Flucum 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 Flucum, 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 Flucum 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 Flucum; 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 Flucum's goodwill, the Customer shall bear the risks and expenses for their safe keeping.

5.9 – If the parties have agreed that, in the event of delayed delivery, Flucum 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 not 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.

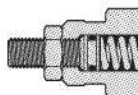
14 – COMPETENT COURT

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.

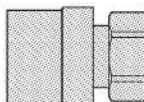
SPECIAL AND STANDARD ADJUSTMENT :

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

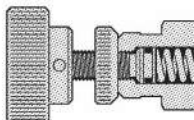
For different solutions please ask our Seals Department. All regulations showed are seal-adjustments.



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



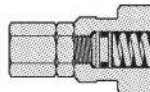
Type **P** Standard adjustment - N type with tamper proof, irremovable after calibration.



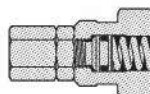
Type **V** Standard adjustment - Handknob with lock ring.



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)



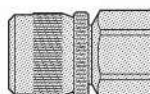
Type **NB** Special adjustment - N type with prevention cap.



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

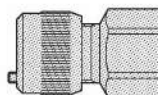


Type **F** Special adjustment - Fixed setting (by factory).



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

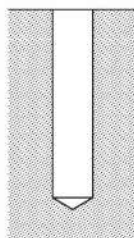


Pneumatic pilot

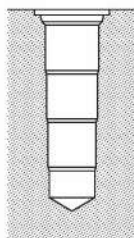
USE OF FORMING TOOLS :

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.

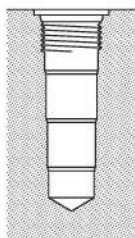
In the under mentioned code-table are marked the cavities code and pre-drilled diameters.



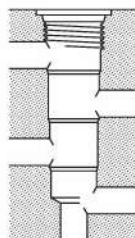
Pre-drilled hole



Forming tool



Tapping



Radial holes

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

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02

03

04

05

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17

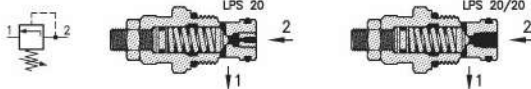





18

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 reset 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't 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 series – direct acting guided conical poppet-type. They have a low pressure peak and a good flow-pressure trend. Generally are used as main pressure relief valve for continuous service.	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 reset. 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.)

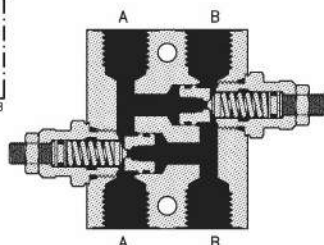
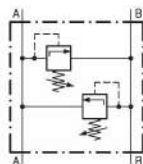
 P max.
 (bar)

 Technical
 schedule

02

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**

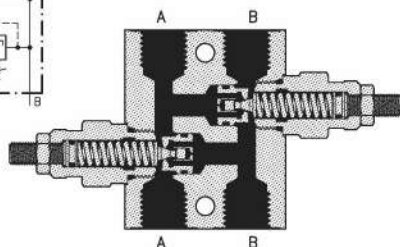
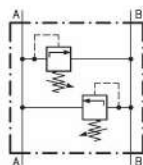
12

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**

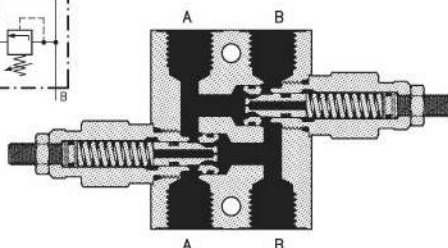
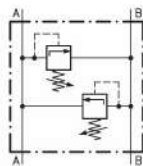
50

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

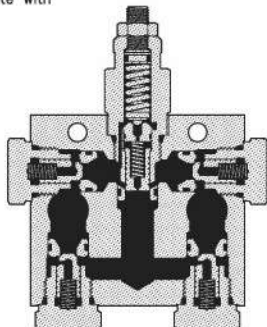
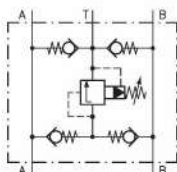
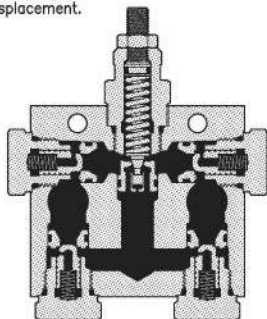
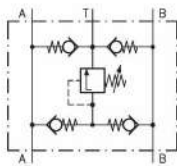
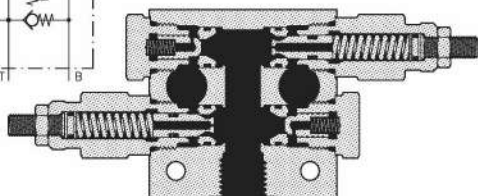
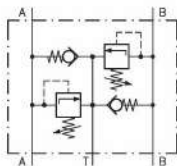
**LPB 70
 CSL 03**

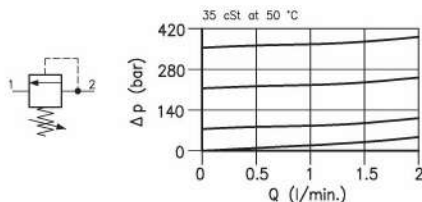
360

350

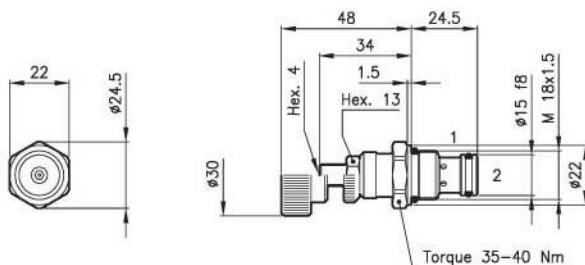
02.270

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

0 = 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

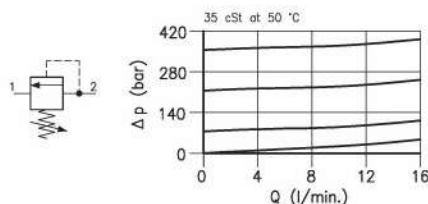
LPS 20/0-V 11 011 113

LPS 20/D-V 11 011 103

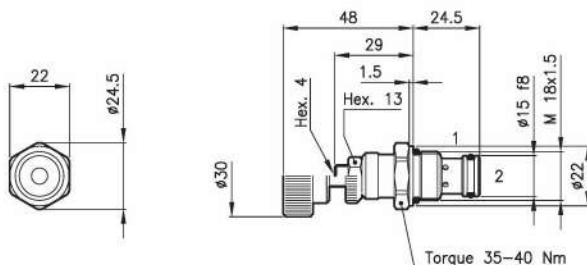
LPS 20/Q-V 11 011 102

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 absolute)		
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

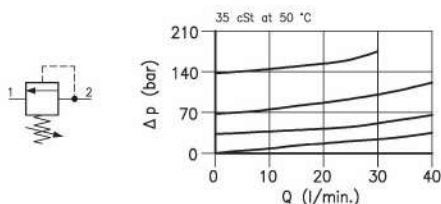
N = Standard adjustment

V = Handknob adjustment

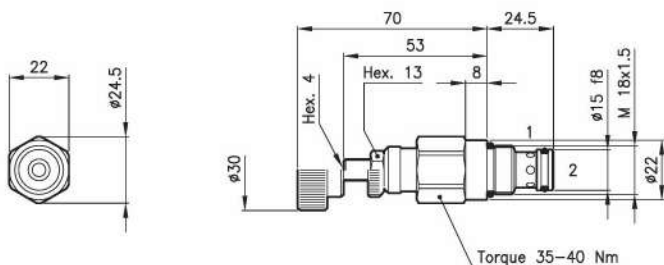

Codes:

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-LO 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

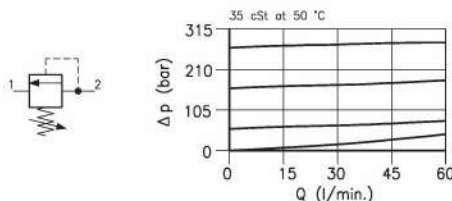
N = Standard adjustment

V = Handknob adjustment

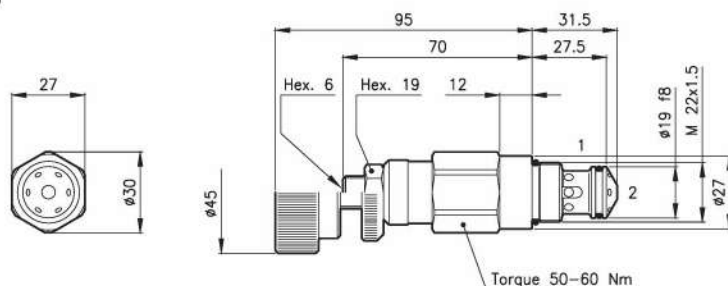

Codes:

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


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

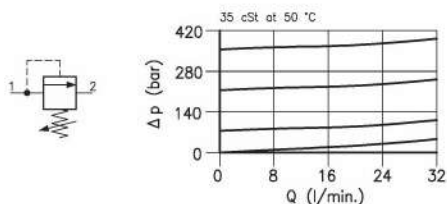
N = Standard adjustment

V = Handknob adjustment

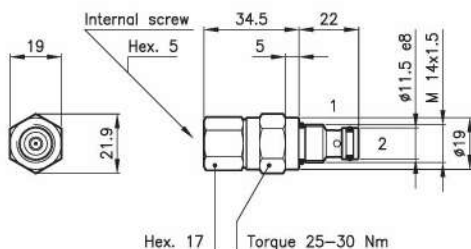
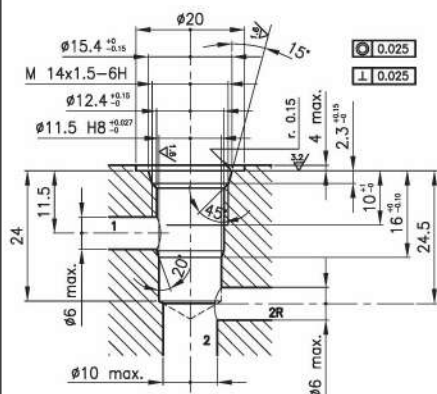

Codes:

LPA 30/O-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/O-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

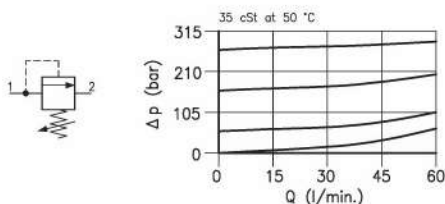
Adjustment type

I = Special adjustment

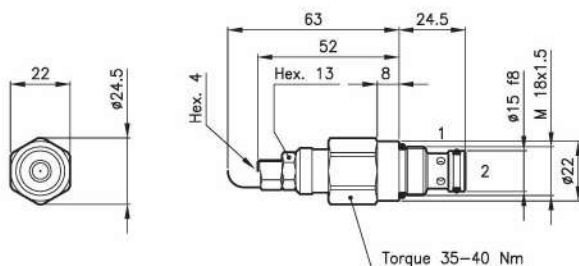

Codes:

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-L0 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

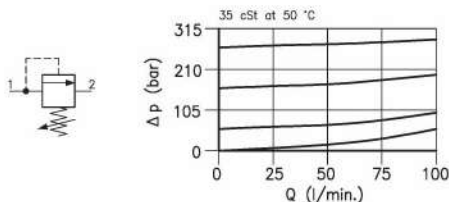
(not available for setting range U type)



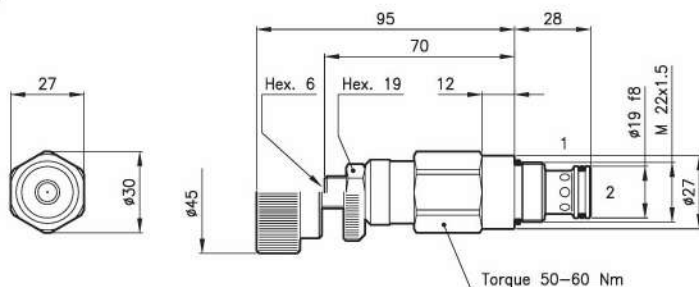
Codes:

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-L0 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

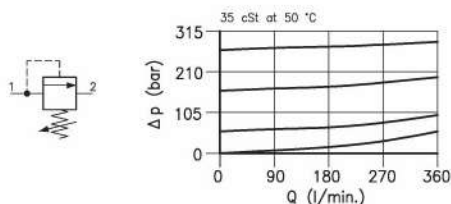
N = Standard adjustment

V = Handknob adjustment

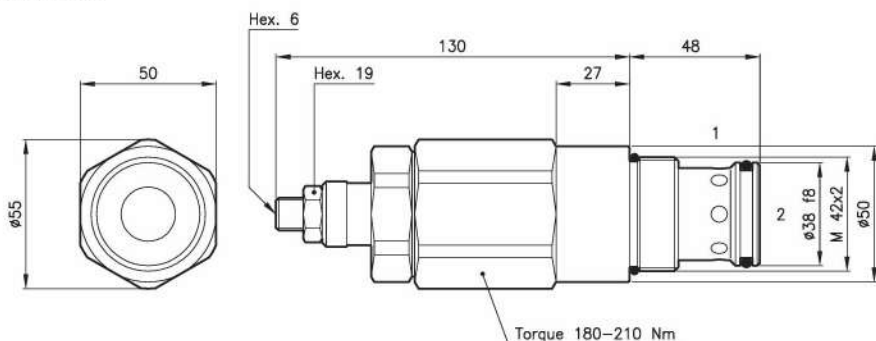

Codes:

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-L0 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

Adjustment type

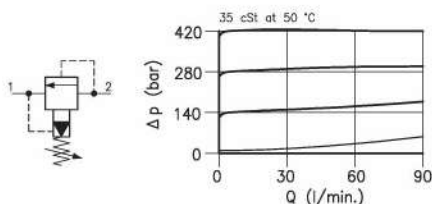
N = Standard adjustment


Codes:

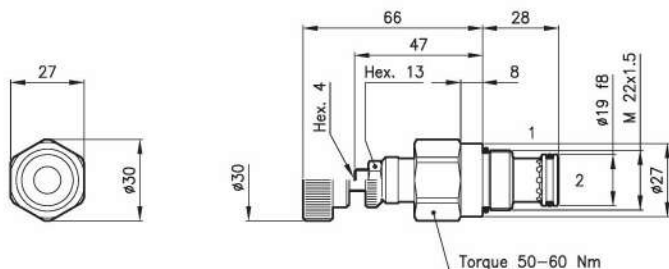
LPB 70/U-N	71 011 118
LPB 70/D-N	71 011 119
LPB 70/T-N	71 011 120

External seals kit 90 620 106

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

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	(cm ³ /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

Adjustment type

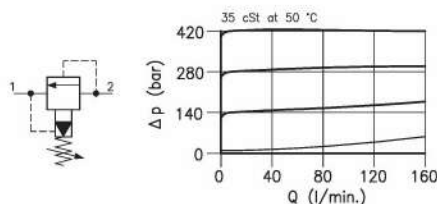
N = Standard adjustment

V = Handknob adjustment

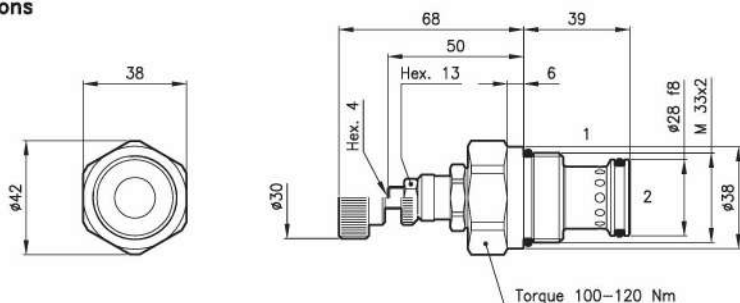
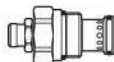

Codes:

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

 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

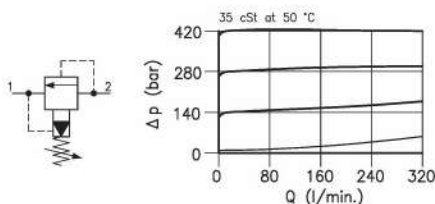
N = Standard adjustment

V = Handknob adjustment

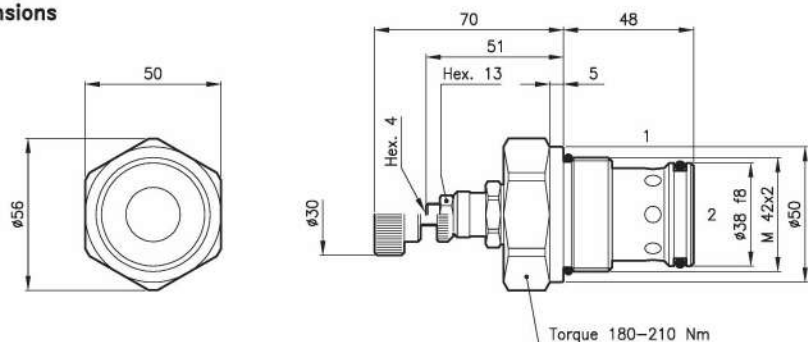
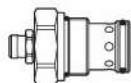

Codes:

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-L0 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	(cm ³ /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 absolute)		
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

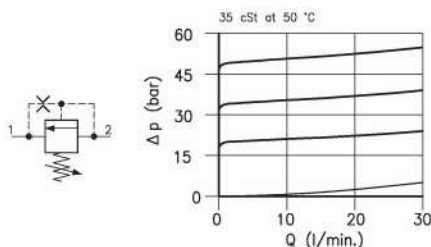
- N** = Standard adjustment
V = Handknob adjustment



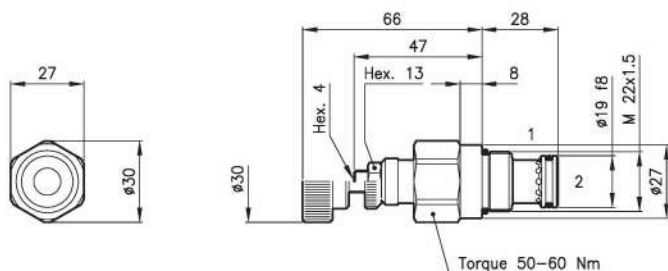
Codes:

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	(cm ³ /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 = Valve type

LPT 30/D-N

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

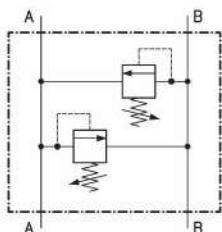
- N** = Standard adjustment
V = Handknob adjustment



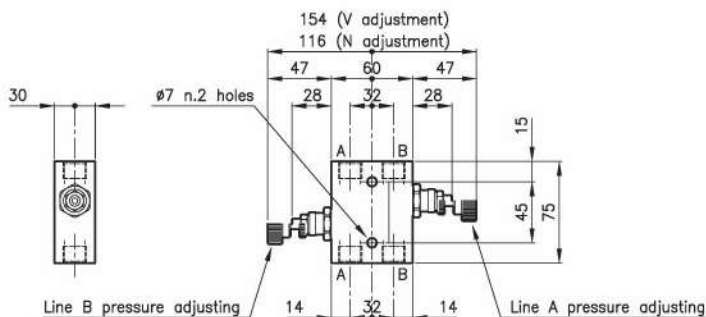
Codes:

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 absolute)		
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

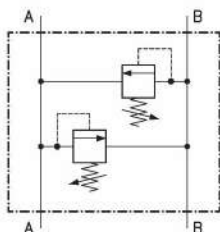
Codes:

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

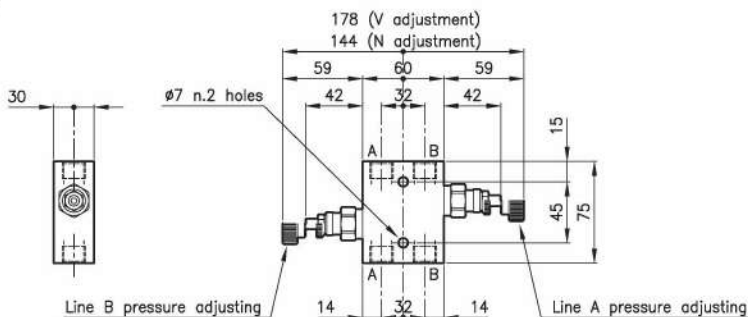
Only body codes:

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 02.060)	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		
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 absolute)		
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

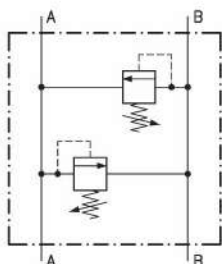
Codes:

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

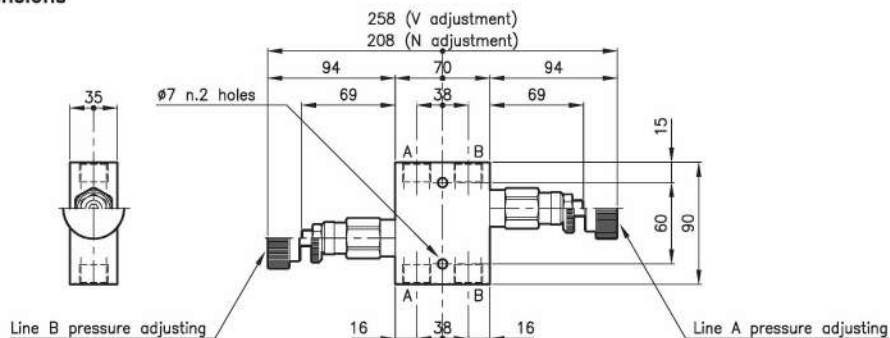
LPA 20/U-N-CSL 03-B06	21 011 133
LPA 20/D-N-CSL 03-B06	21 011 134
LPA 20/U-V-CSL 03-B06	21 011 135
LPA 20/D-V-CSL 03-B06	21 011 136

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		
Reset 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 µm 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

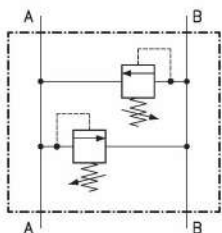
LPA 30/D-V-CSL 03-B08 31 011 150

Only body codes:

Body type 30-CSL 03-B06 38 144 122

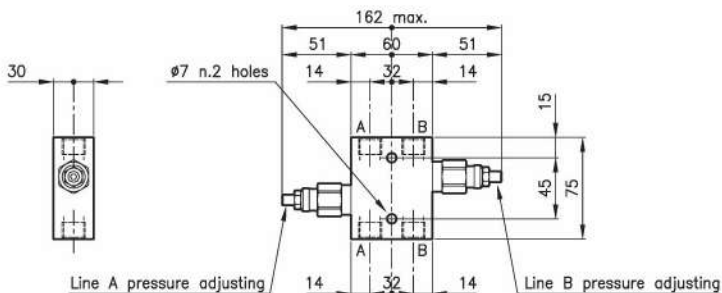
Body type 30-CSL 03-B08 38 144 123

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 absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPB 20/D-N-CSL 03-B06

Valves type

Standard springs

Type	Setting range
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$$U = 10 - 105 \text{ bar}$$
$$D = 70 - 210 \text{ bar}$$
$$T = 140 - 350 \text{ bar}$$

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

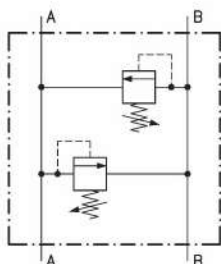
LPB 20/D-N-CSL 03-B06 21 011 127

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

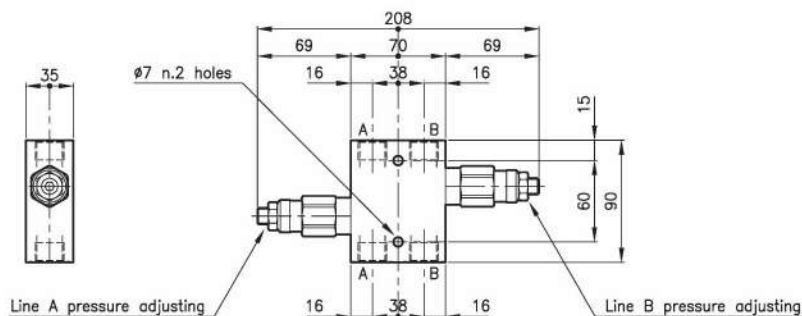
Only body codes:

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


Valves	(For features see catalogue 02.090)	LPB 30
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
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; minerale 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 03-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

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Codes:

LPB 30/U-N-CSL 03-B06 31 011 137

LPB 30/D-N-CSL 03-B06 31 011 138

LPB 30/T-N-CSL 03-B06 31 011 139

LPB 30/U-N-CSL 03-B08 31 011 140

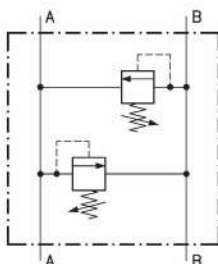
LPB 30/D-N-CSL 03-B08 31 011 141

LPB 30/T-N-CSL 03-B08 31 011 142

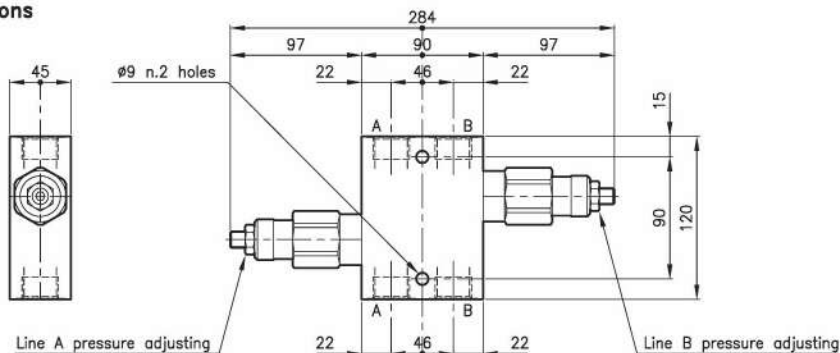
Only body codes:

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 02.100)	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

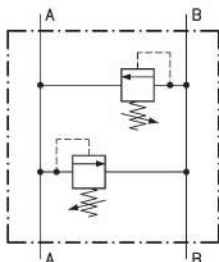
LPB 50/D-N-CSL 03-B12 51 011 126

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

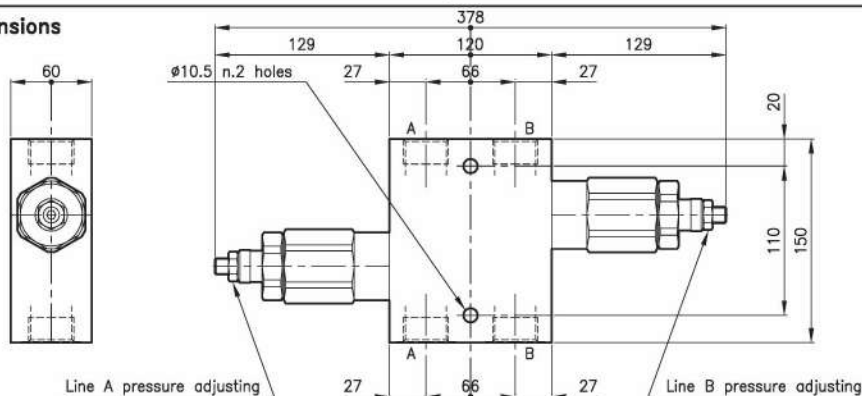
Only body codes:

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 µm absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

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

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

B16 = G 1 ISO 228

B20 = G 1.1/4 ISO 228

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

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

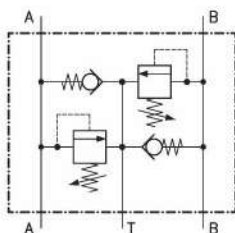
LPB 70/D-N-CSL 03-B20 71 011 128

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

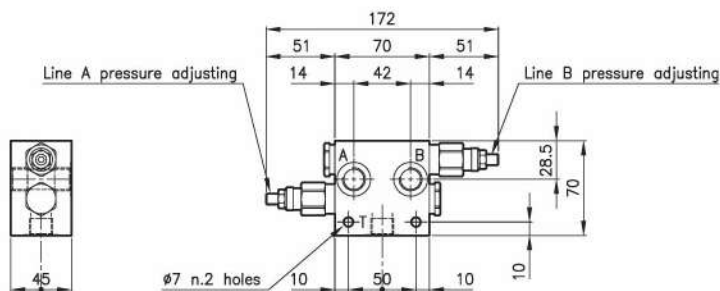
Only body codes:

Body type 50-CSL 03-B16 78 144 104

Body type 50-CSL 03-B20 78 144 105

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		
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 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:

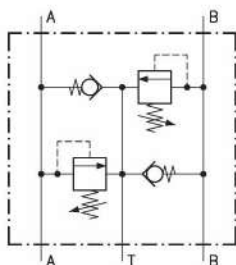
LPB 20/U-N-CSL 04-B06 21 011 145

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

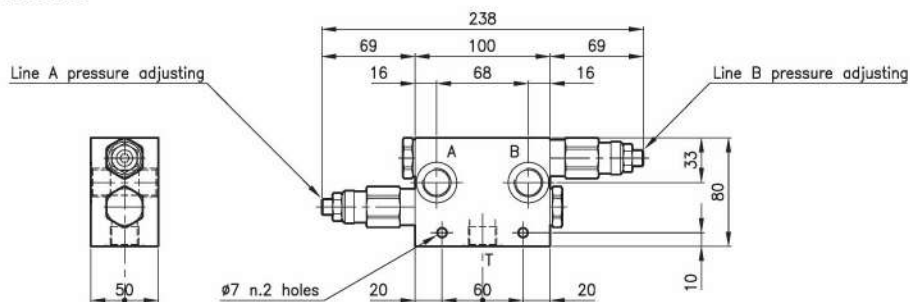
LPB 20/T-N-CSL 04-B06 21 011 147

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

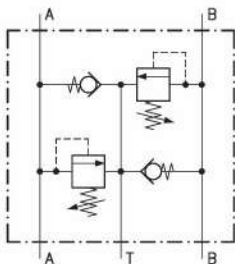
LPB 30/D-N-CSL 04-B08 31 011 135

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

Only body code:

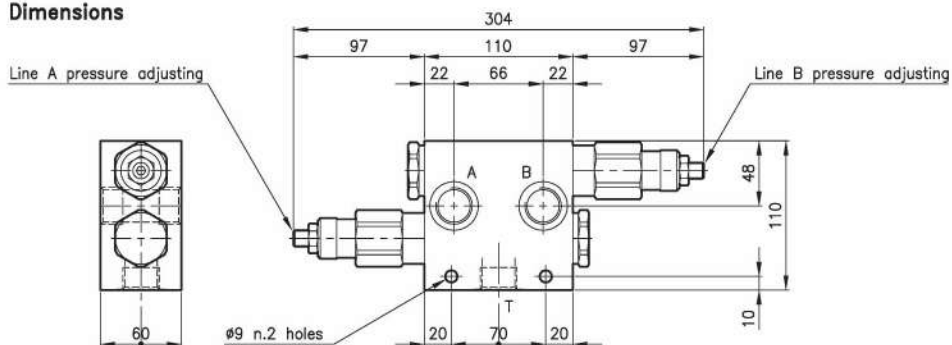
Body type 30-CSL 04-B08 38 144 109

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

Standard springs

Type	Setting range
------	---------------

U = 10 - 105 bar

D = 70 - 210 bar

$$T = 140 - 350 \text{ bar}$$

Adjustment type

N = Standard adjustment

Version

Standard ports

B12 = G 3/4 ISO 228

Codes:

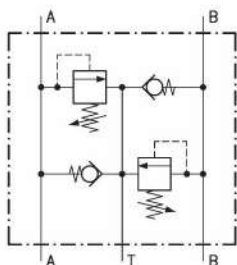
LPB 50/U-N-CSL 04-B12 51 011 119

LPB 50/D-N-CSL 04-B12 51 011 120

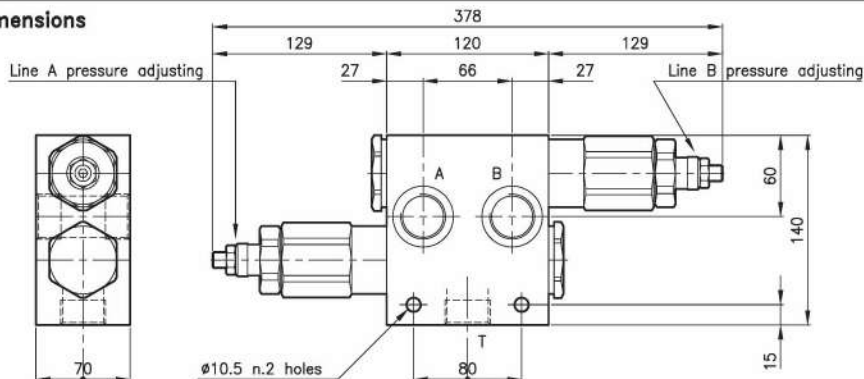
LPB 50/T-N-CSL 04-B12 51 011 121

Only body code:

Body type	50-CSL	04-B12	58	144	115
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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 µm absolutes)		
Standard seals in Polyurethane and Buna N		

Dimensions

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

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

B16 = G 1 ISO 228

Codes:

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

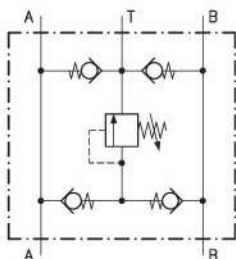
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LPB 70/T-N-CSL 04-B16 71 011 123

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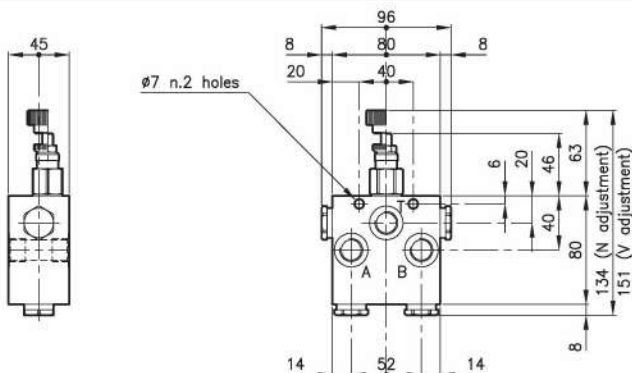
Body type 70-CSL 04-B16 78 144 106

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 absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

LPE 20/D-N-CSL 06-B06

Valve type

Standard springs

Type	Setting range
------	---------------

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

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

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

Adjustment type

N = Standard adjustment

Y = Handknob adjustment



Version

Standard ports

B06 = G 3/8 ISO 228

Codes:

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

LPE 20/D-N-CSL 06-B06 21 011 241

LPE 20/T-N-CSL 06-B06 21 011 242

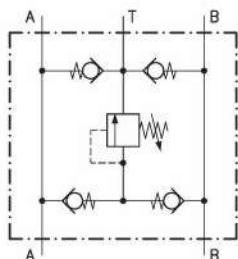
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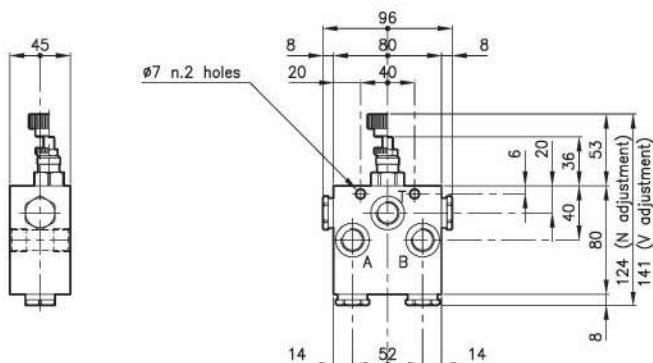
LPE 20/T-V-CSL 06-B06 21 011 245

Only body code:

Body type	20-CSL	06-B06	28	144	117
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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 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 06-B06 21 011 203

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

LPA 20/T-N-CSL 06-B06 21 011 205

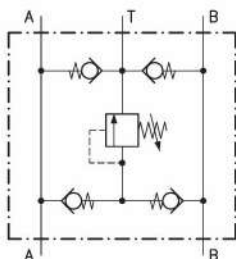
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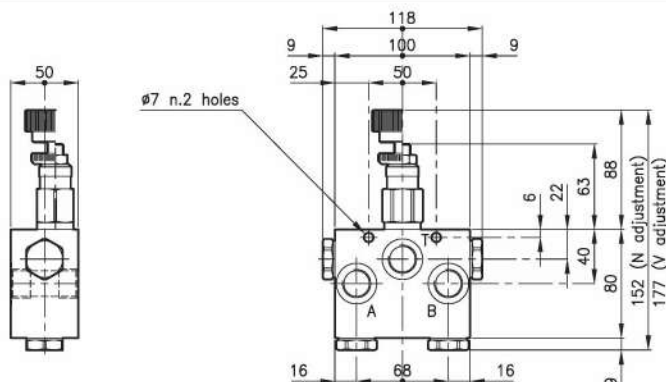
LPA 20/T-V-CSL 06-B06 21 011 208

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

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

B08 = G 1/2 ISO 228

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

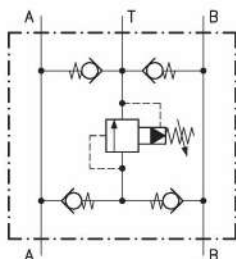
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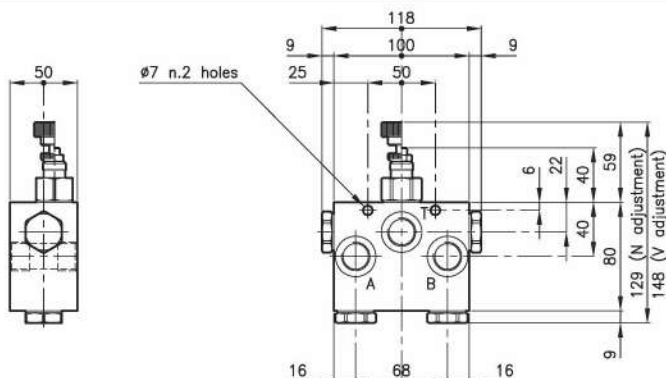
LPA 30/T-V-CSL 06-B08 31 011 197

Only body code:

Body type 30-CSL 06-B08 38 144 124

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

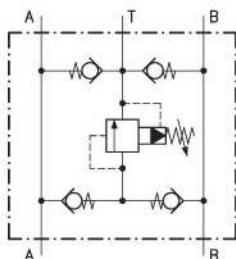
LPI 30/Q-N-CSL 06-B08 31 011 184

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

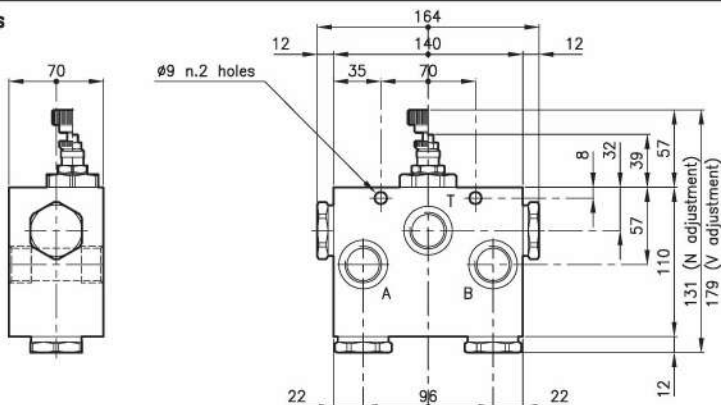
LPI 30/Q-V-CSL 06-B08 31 011 186

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

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 absolute)		
Standard seals in Polyurethane and Buna N		

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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03

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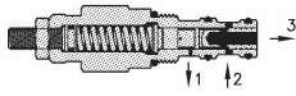

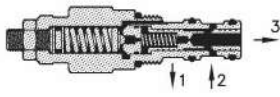

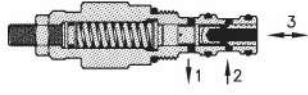

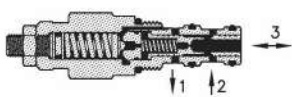
Pressure reducing valves.

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
RPL 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.  	RPL 30	40	420/210	03.070
	RPL 50	90	420/210	03.080
	RPL 70	160	420/210	03.090

Main features

Type

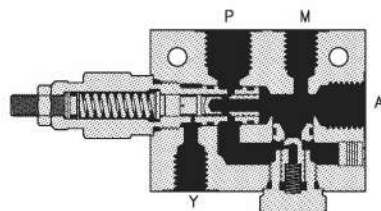
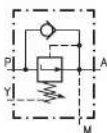
 Q max.
 (l/min.)

 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 free-flow itself to move in direction from A to P.


**RPA 20
 CSL 11**

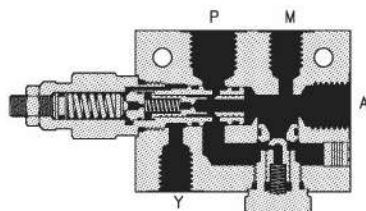
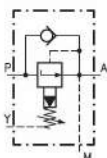
20

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

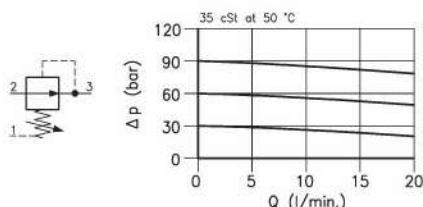
03.120

**RLY 70
 CSL 11**

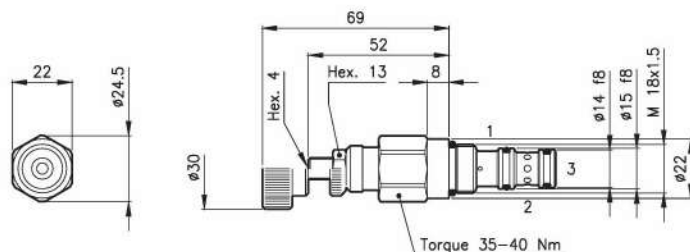
160

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
Q	= 50 - 140 bar	100 bar

Adjustment type

N = Standard adjustment

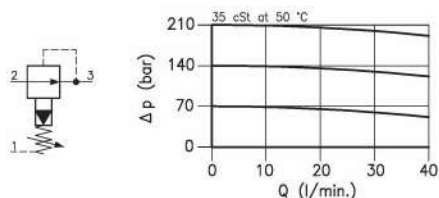
V = Handknob adjustment


Codes:

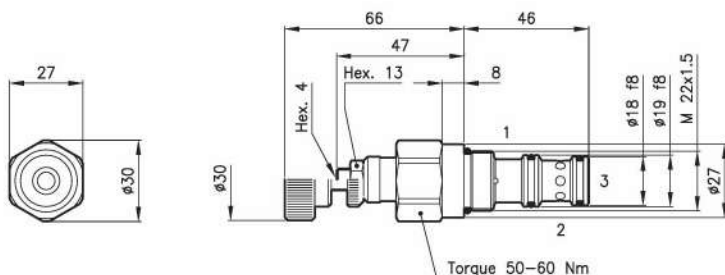
RPA 20/U-N	21 011 113
RPA 20/D-N	21 011 114
RPA 20/T-N	21 011 115
RPA 20/Q-N	21 011 291
RPA 20/U-V	21 011 116
RPA 20/D-V	21 011 117
RPA 20/T-V	21 011 118
RPA 20/Q-V	21 011 339

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

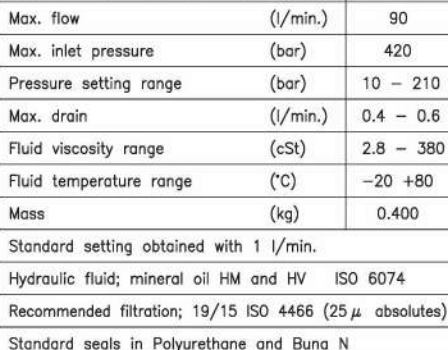
V = Handknob adjustment


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

S 50/3

[illegible]

RLY 50/D-N

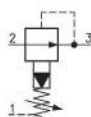
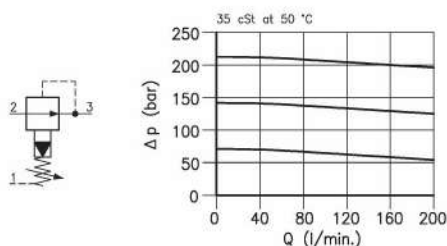
A technical drawing of a bolt and nut assembly. The bolt is shown in profile, with a hexagonal head and a threaded shank. A nut is threaded onto the shank. The drawing is a line drawing with no shading.

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

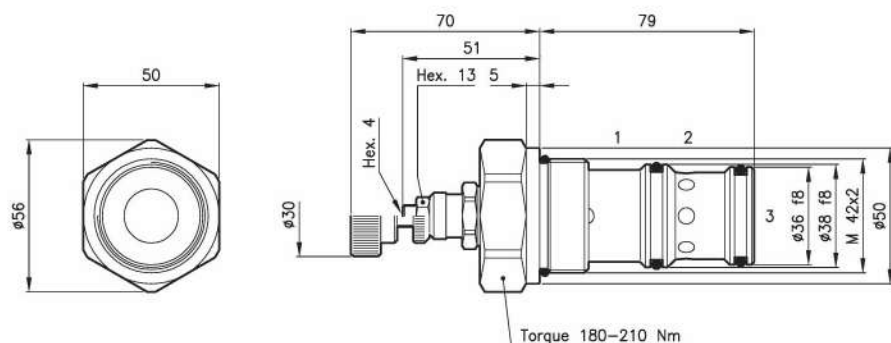
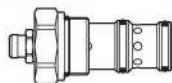
V = Handknob adjustment

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 obtains 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

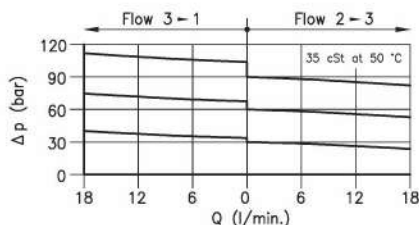
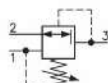

Codes:

RLY 70/D-N 71 011 106

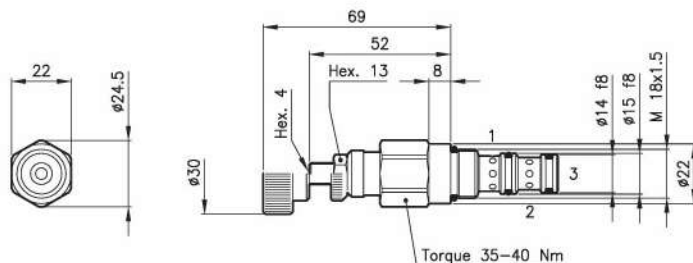
RLY 70/D-V 71 011 107

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

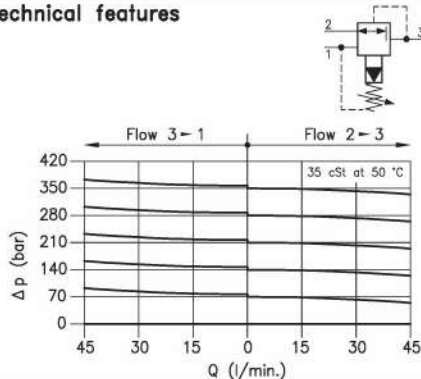
V = Handknob adjustment


Codes:

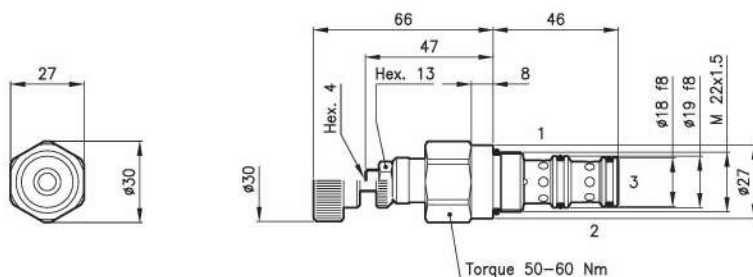
RLD 20/U-N	21 011 148
RLD 20/D-N	21 011 149
RLD 20/T-N	21 011 150
RLD 20/U-V	21 011 151
RLD 20/D-V	21 011 152
RLD 20/T-V	21 011 153

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 absolute)		
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

Adjustment type

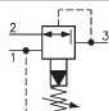
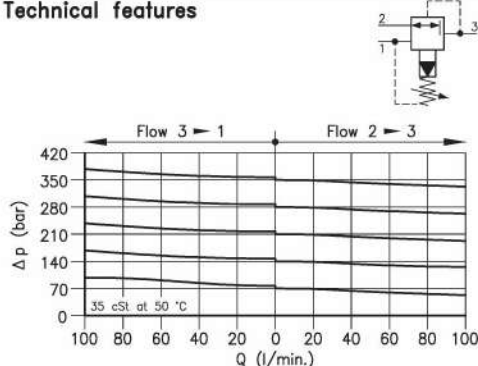
N = Standard adjustment

V = Handknob adjustment

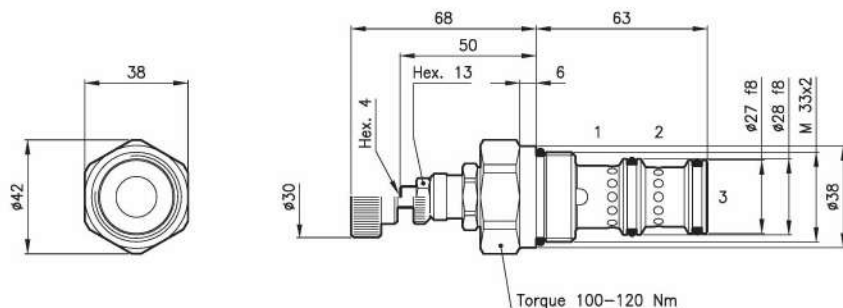
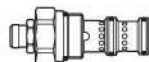

Codes:

RLP 30/D-N	31 011 115
RLP 30/Q-N	31 011 239
RLP 30/D-V	31 011 116
RLP 30/Q-V	31 011 244
External seals kit	90 620 104

 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
RPL 50/D-N
RPL 50 = Valve type


Standard spring

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

Adjustment type

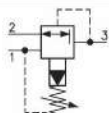
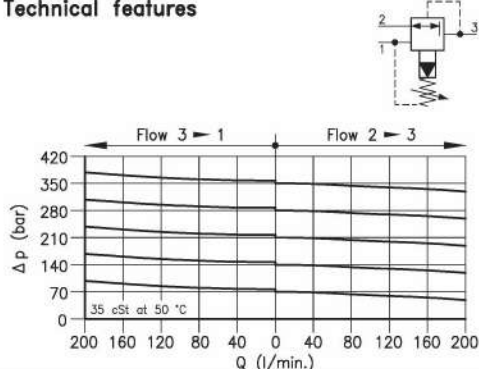
- N** = Standard adjustment
- V** = Handknob adjustment



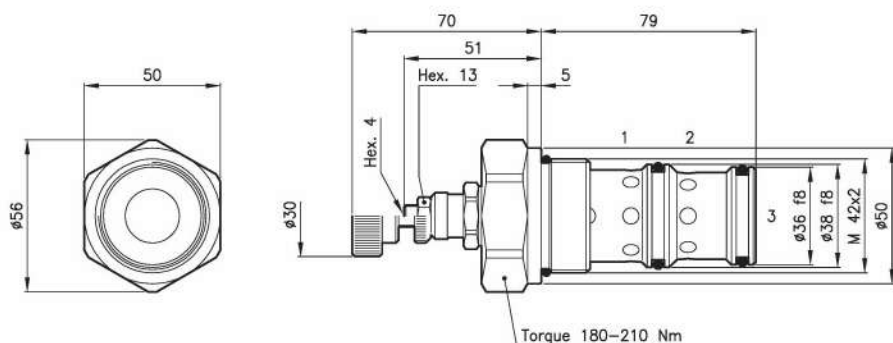
Codes:

RPL 50/D-N	51 011 109
RPL 50/Q-N	51 011 159
RPL 50/D-V	51 011 110
RPL 50/Q-V	51 011 160
External seals kit	90 620 107

RPL 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 absolute)		
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

Adjustment type

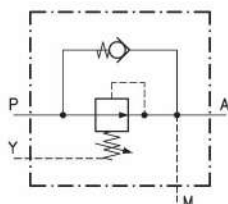
- N** = Standard adjustment
- V** = Handknob adjustment



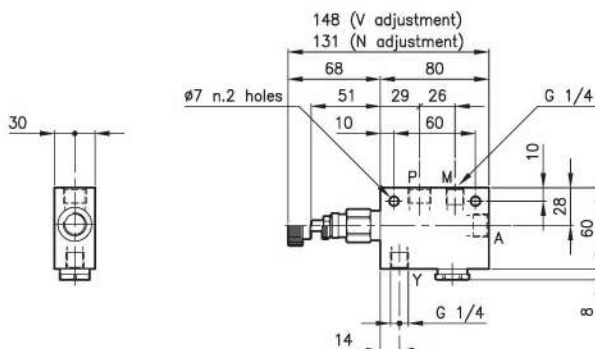
Codes:

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

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 µm 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 ports (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

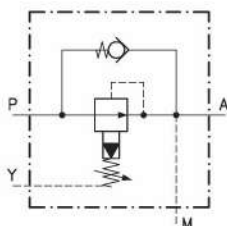
RPA 20/D-V-CSL 11-B06 21 011 169

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

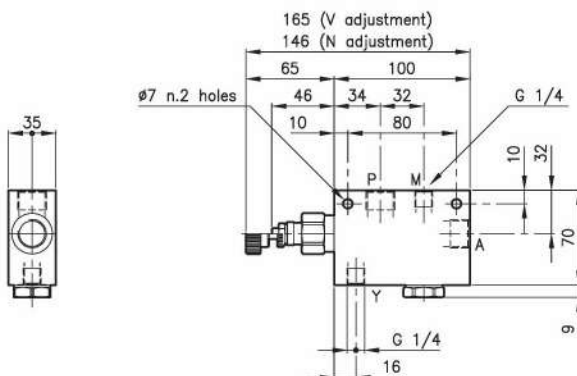
Only body codes:

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 absolute)		
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 bar

Adjustment type

N = Standard adjustment

V = Handknob adjustment

Version

Standard ports (P-A)

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Codes:

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

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

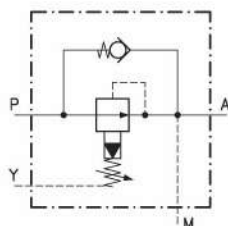
RLY 30/D-N-CSL 11-B08 31 011 169

RLY 30/D-V-CSL 11-B08 31 011 170

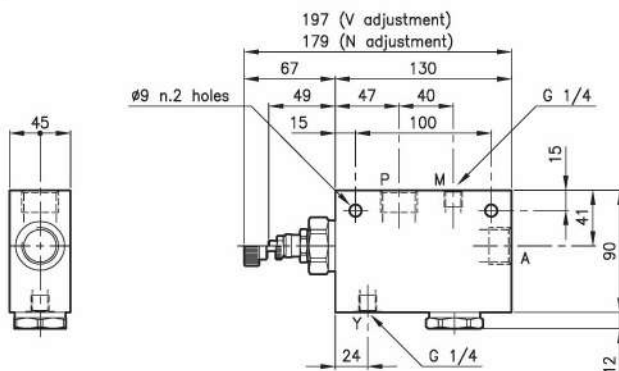
Only body codes:

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 _____

Standard spring _____

Type Setting range _____

D = 10 - 210 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:

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

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

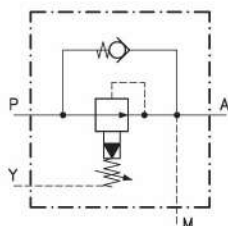
RLY 50/D-N-CSL 11-B12 51 011 146

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

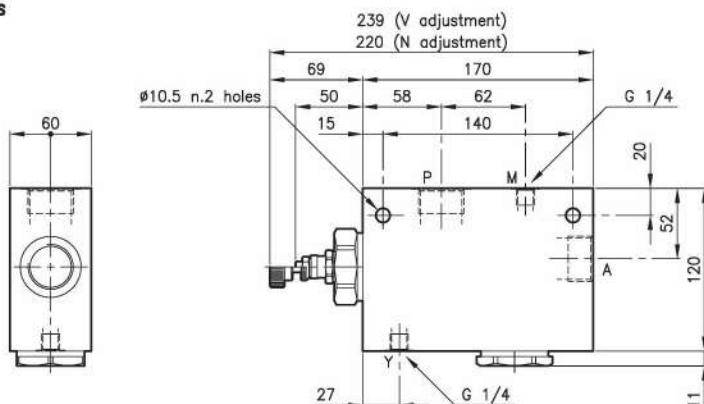
Only body codes:

Body type 50-CSL 11-B08 58 144 117

Body type 50-CSL 11-B12 58 144 118

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 absolute)		
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

00

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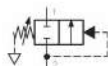
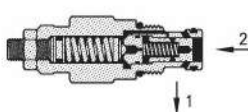
SCHEDULES

20

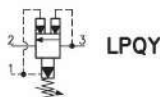
Sequence and unloading valves, secondary-pressure insensitive.

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.

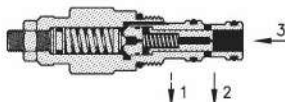
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
LPQ series – pilot operated spool-type. Are used to unload a line under pressure or as sequence valve. At setting pressure achievement the valve opens itself allowing the free passage with a very low pressure drop. The valve closes when pressure falls under a 7 bar value.	LPQ 30	70	420	04.010
	LPQ 50	160	420	04.020
	LPQ 70	320	420	04.030
VDT .. /2202 series – spool-type. Internal pilot sequence valves adjusting throught a connected atmospherical pressure spring, indifferent to circuit's pressure.	VDT 20/2202	20	350	04.032
	VDT 30/2202	40	350	04.034
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. More over, 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
	LPQY 30	70	420	04.042
	LPY 50	160	420	04.050
	LPY 70	320	420	04.060



LPY



LPQY



Main features
Type
Q max.
 (l/min.)

P max.
 (bar)

Technical
schedule
LCS 20 series – direct acting differential.

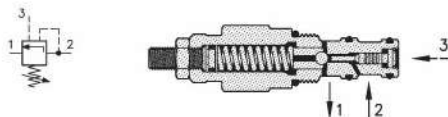
Differential Area Unloading relief valves, are mainly used to charge accumulators or for pump unloading in high–low pressure circuits.

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 (hight–low pressure)
- version ELP 30/D3–1.23 (accumulators)

For advice please ask our technical department.


LCS 20

1.5

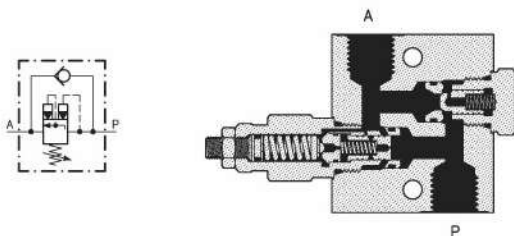
350

04.075

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.


**LPQ 30
 CSL 10**

70

420

04.080

**LPQ 50
 CSL 10**

160

420

04.090

**LPQ 70
 CSL 10**

320

420

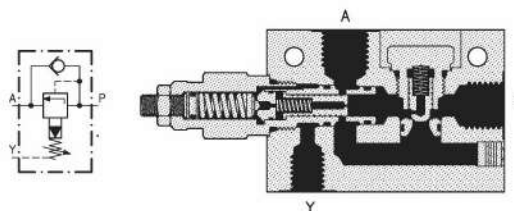
04.100

LPY series CSL 10 circuits.

They are sequence pilot operated valves with external drain.

The line Y (drain 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.


**LPY 30
 CSL 10**

70

420

04.110

**LPY 50
 CSL 10**

160

420

04.120

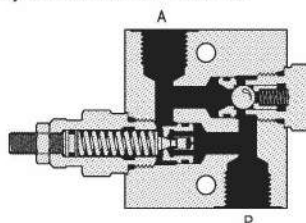
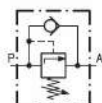
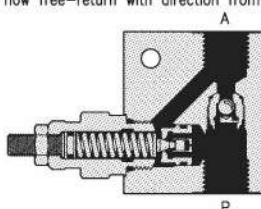
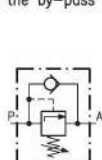
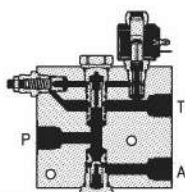
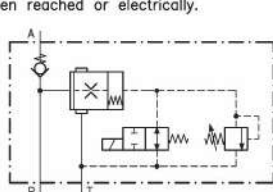
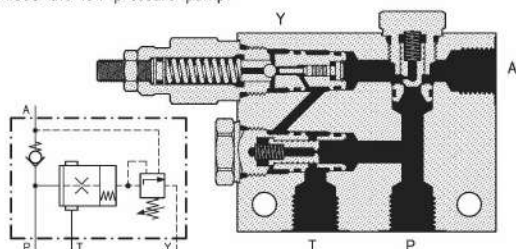
**LPY 70
 CSL 10**

320

420

04.130

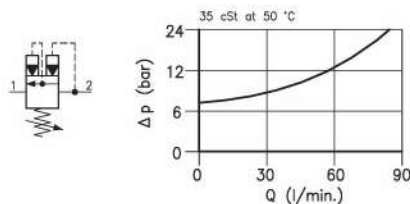
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
DPA series These valves are used to unloading an pump once a certain pressure has been reached in the main circuit. They are either used on an accumulator circuit to unload the pump when the accumulator charge pressure has been reached 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 unexpansive 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 of valve LPQ 30 - CSL 10.	LPA 30 CSL 10	50	350	04.170



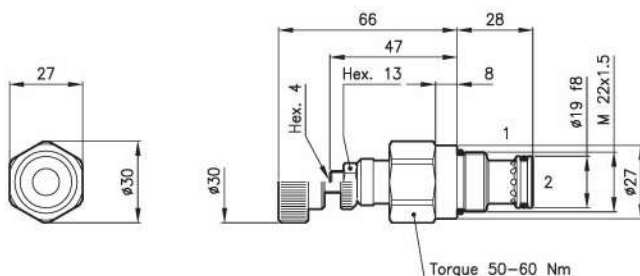
Technical features

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. reset pressure	(bar)	7
Max. leakage	(cm ³ /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:

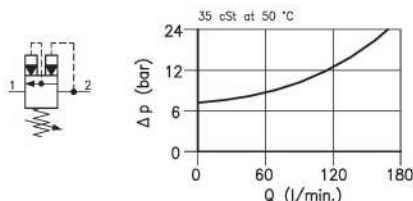
LPQ 30/D-N	31 011 125
LPQ 30/Q-N	31 011 126
LPQ 30/D-V	31 011 127
LPQ 30/Q-V	31 011 128
External seals kit	90 620 103

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

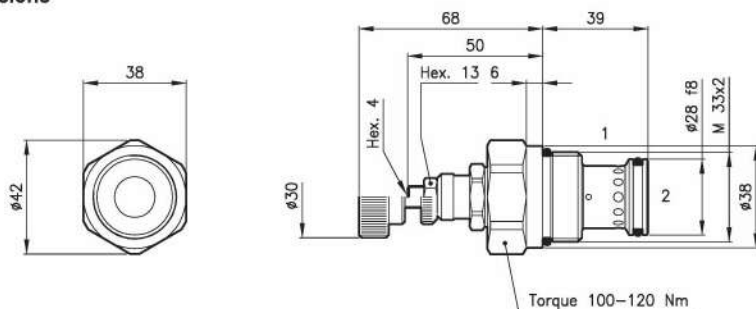
Technical features

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.

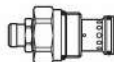
The valve closes when pressure falls under a 7 bar value.



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. reseal pressure	(bar)	7
Max. leakage	(cm ³ /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

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:

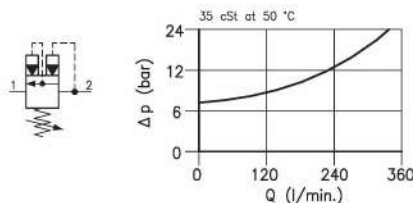
LPQ 50/D-N	51 011 111
LPQ 50/Q-N	51 011 112
LPQ 50/D-V	51 011 113
LPQ 50/Q-V	51 011 114
External seals kit	90 620 106

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

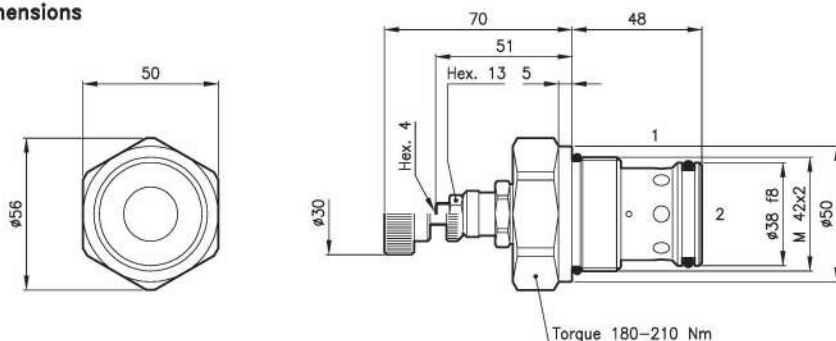
Technical features

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.

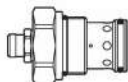
The valve closes when pressure falls under a 7 bar value.



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. reset pressure	(bar)	7
Max. leakage	(cm ³ /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 absolutes)		
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

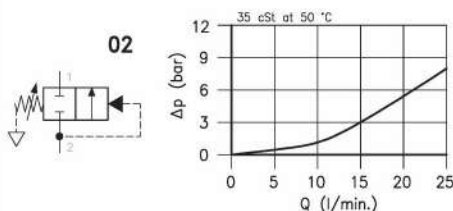
- N = Standard adjustment
 V = Handknob adjustment



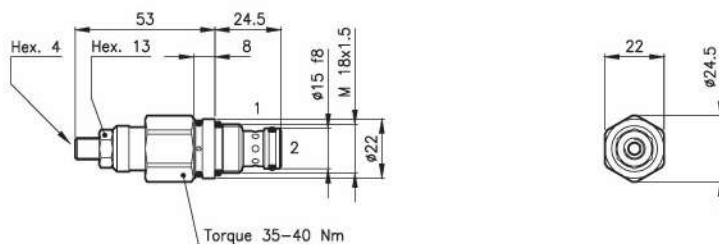
Codes:

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–L0 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

2202 =

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

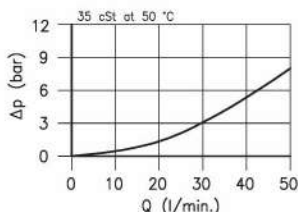
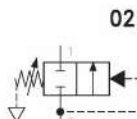
VDT 20/2202-D-N 22 011 190

VDT 20/2202-T-N 22 011 191

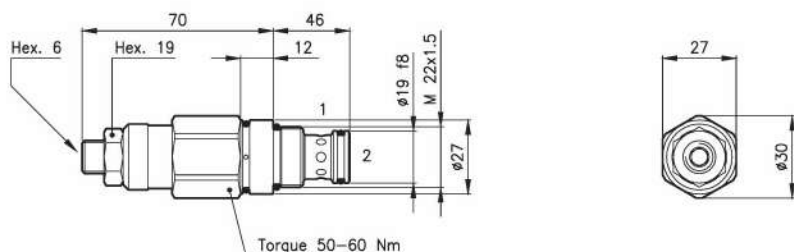
VDT 20/2202-Q-N 22 011 192

External seals kit 90 620 100

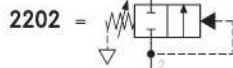
 VDT 20 valves can be assembled
 on standard bodies 20-L0 series;
 for dimensions see catalogue 16.010

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)	0.280
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

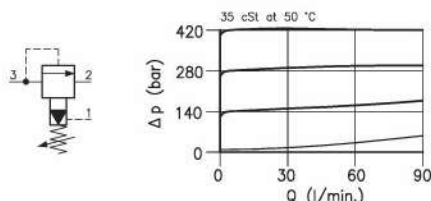

Codes:

VDT 30/2202-0-N 32 011 162

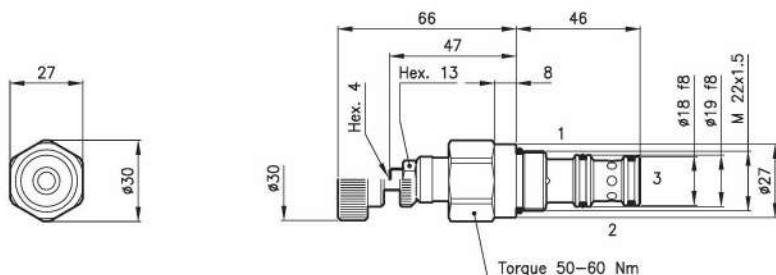
VDT 30/2202-Q-N 32 011 172

External seals kit 90 620 103

 VDT 30 valves can be assembled
 on standard bodies 30-L0 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:

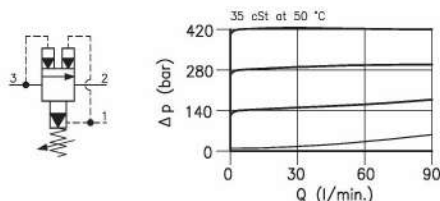
LPY 30/D-N	31 011 130
LPY 30/Q-N	31 011 131
LPY 30/D-V	31 011 132
LPY 30/Q-V	31 011 133
External seals kit	90 620 104

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

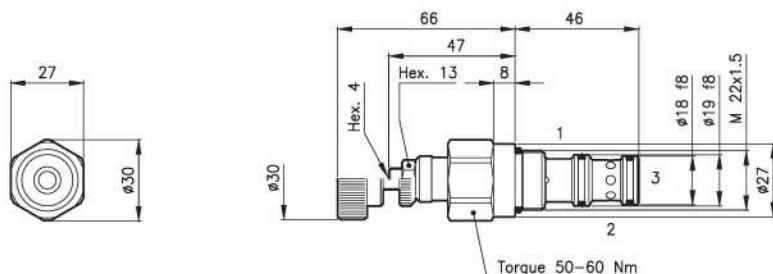
Technical features

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. reseal pressure	(bar)	7
Max. leakage	(cm ³ /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

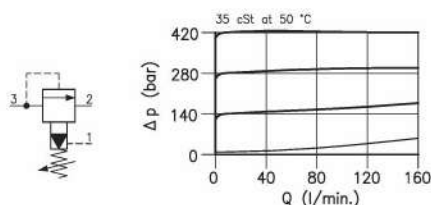
V = Handknob adjustment



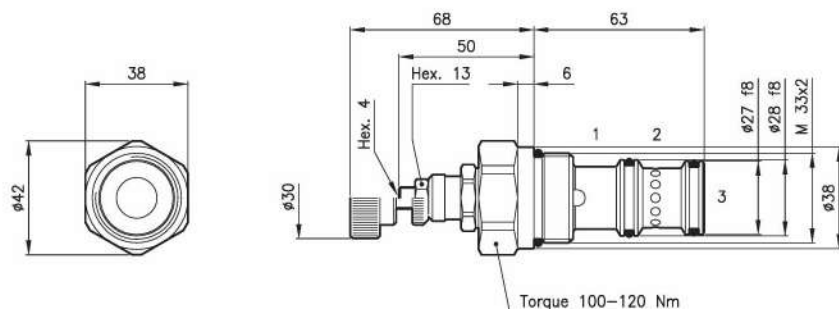
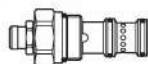
Codes:

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

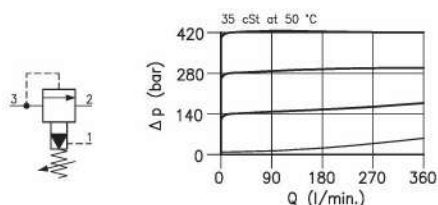
N = Standard adjustment

V = Handknob adjustment

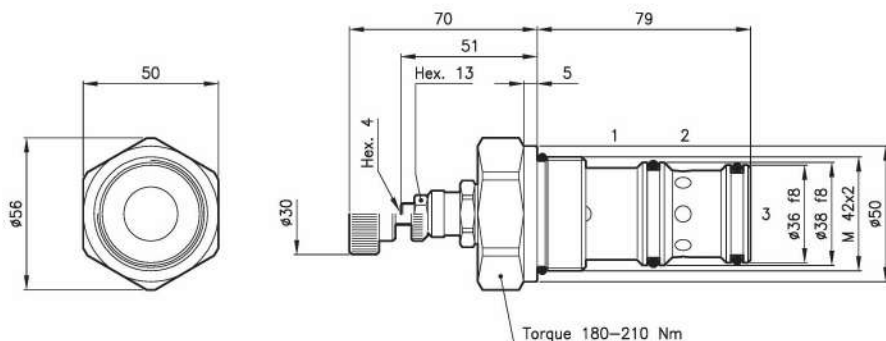
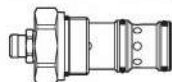

Codes:

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

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)



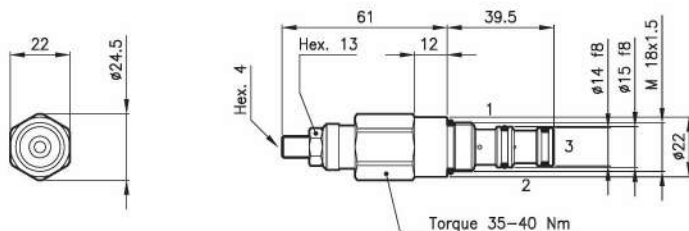
Calculation of Pr value

$$Pr = \frac{P \cdot d}{100}$$

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



Standard springs

Type	Setting range	Factory set
D	= 10 - 210 bar	140 bar
Q	= 70 - 315 bar	210 bar

Adjustment type

N = Standard adjustment



Codes:

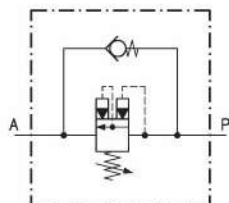
LCS 20/D-N	21 011 268
LCS 20/Q-N	21 011 269
External seals kit	90 620 101

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

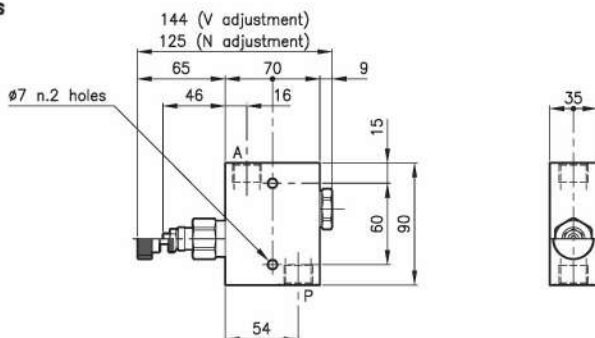
Technical features

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. reseal 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:

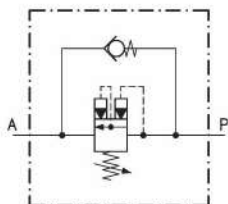
Body type 30-CSL 10-B06 38 144 127

Body type 30-CSL 10-B08 38 144 128

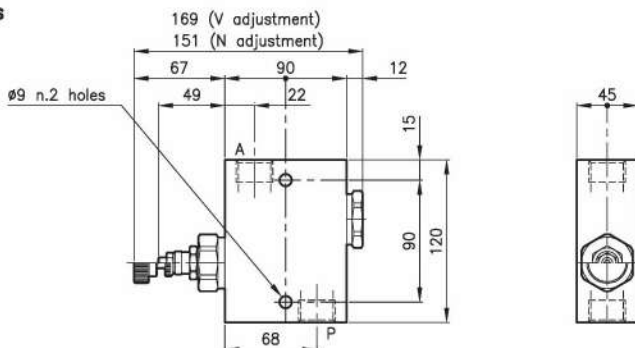
Technical features

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 04.020)	LPQ 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
Max. reseal pressure	(bar)	7
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	2.090
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 50/D-N-CSL 10-B12

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

B12 = G 3/4 ISO 228

Codes:

LPQ 50/D-N-CSL 10-B08 51 011 128

LPQ 50/Q-N-CSL 10-B08 51 011 129

LPQ 50/D-V-CSL 10-B08 51 011 130

LPQ 50/Q-V-CSL 10-B08 51 011 131

LPQ 50/D-N-CSL 10-B12 51 011 132

LPQ 50/Q-N-CSL 10-B12 51 011 133

LPQ 50/D-V-CSL 10-B12 51 011 134

LPQ 50/Q-V-CSL 10-B12 51 011 135

Only body codes:

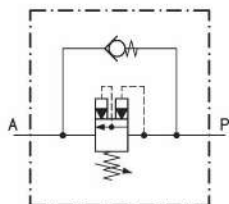
Body type 50-CSL 10-B08 58 144 119

Body type 50-CSL 10-B12 58 144 120

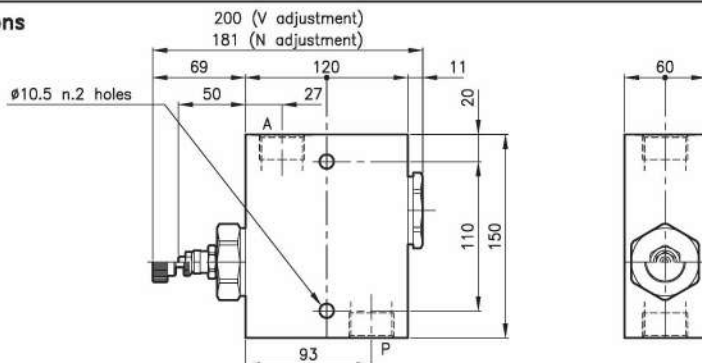
Technical features

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. reset 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 µm 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:

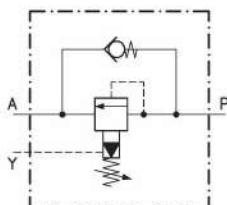
Body type 70-CSL 10-B16 78 144 110

Body type 70-CSL 10-B20 78 144 111

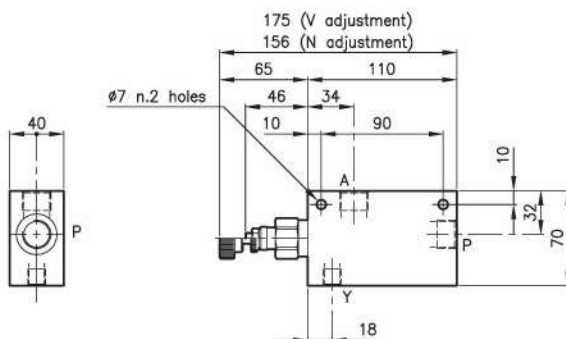
Technical features

The line Y (drain 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:

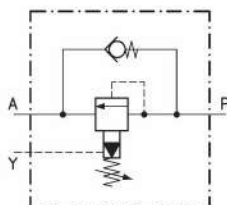
Body type 30-CSL 10Y-B06 38 144 129

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

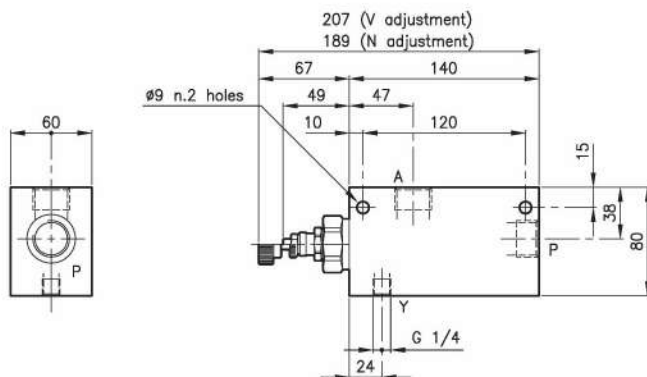
Technical features

The line Y (drain 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:

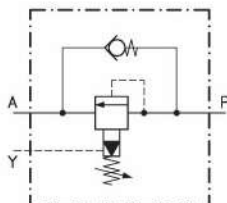
Body type 50-CSL 10Y-B08 58 144 121

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

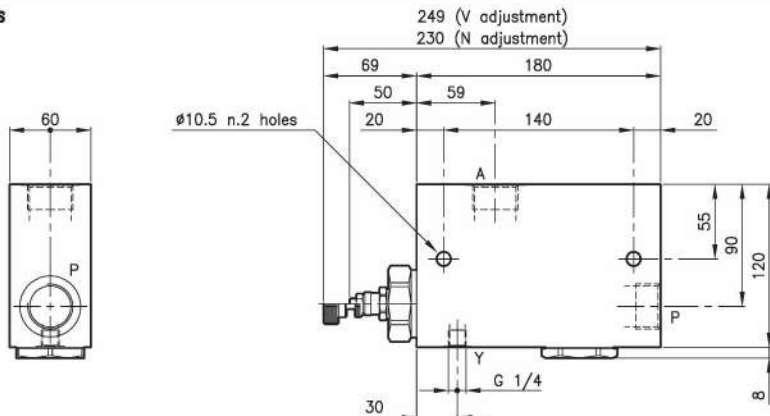
Technical features

The line Y (drain 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 04.060)	LPY 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
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	4.800
Standard setting obtained with 10 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
LPY 70/D-N-CSL 10-B20

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

B16 = G 1 ISO 228

B20 = G 1.1/4 ISO 228

Codes:

LPY 70/D-N-CSL 10-B16 71 011 138

LPY 70/Q-N-CSL 10-B16 71 011 139

LPY 70/D-V-CSL 10-B16 71 011 140

LPY 70/Q-V-CSL 10-B16 71 011 141

LPY 70/D-N-CSL 10-B20 71 011 142

LPY 70/Q-N-CSL 10-B20 71 011 143

LPY 70/D-V-CSL 10-B20 71 011 144

LPY 70/Q-V-CSL 10-B20 71 011 145

Only body codes:

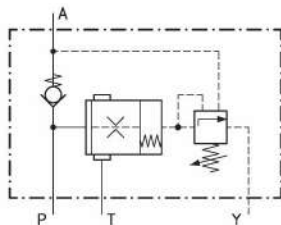
Body type 70-CSL 10Y-B16 78 144 112

Body type 70-CSL 10Y-B20 78 144 113

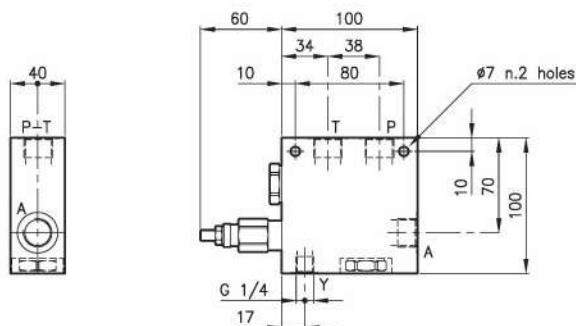
Technical features

They are used to unload a 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

Standard springs (LCS 20)

Type Setting range

D = 10 - 210 bar

Q = 70 - 315 bar

Adjustment type

N = Standard adjustment

Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Codes:

DPA 30/D-N-B06 31 011 231

DPA 30/Q-N-B06 31 011 232

DPA 30/D-N-B08 31 011 234

DPA 30/Q-N-B08 31 011 235

Only body codes:

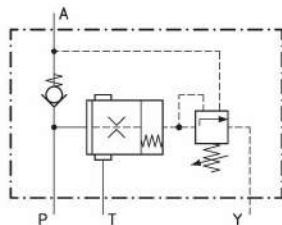
Body type 30-DPA-B06 38 144 178

Body type 30-DPA-B08 38 144 179

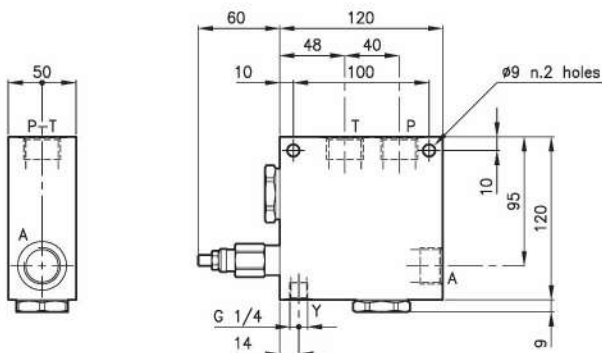
Technical features

They are used to unload a 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 absolute)		
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:

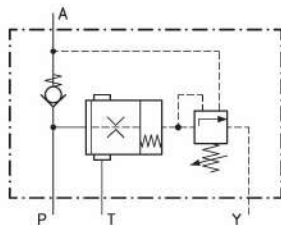
Body type 50-DPA-B08 58 144 136

Body type 50-DPA-B12 58 144 137

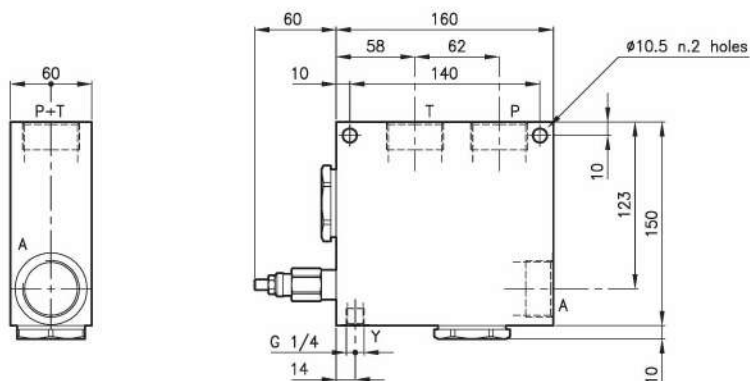
Technical features

They are used to unload a 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 µm 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 71 011 156

DPA 70/D-N-B20 71 011 158

DPA 70/Q-N-B20 71 011 159

Only body codes:

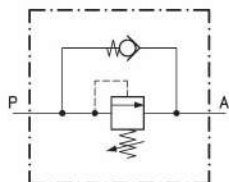
Body type 70-DPA-B16 78 144 118

Body type 70-DPA-B20 78 144 119

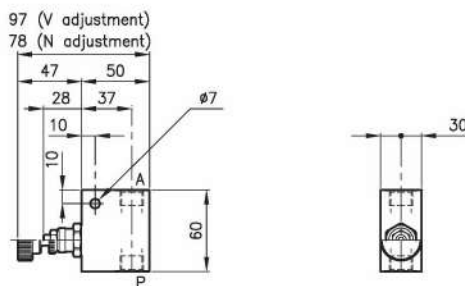
Technical features

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 µm 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

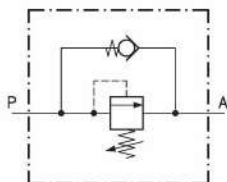
Only body code:

Body type 20-CSL 10-B06 28 144 116

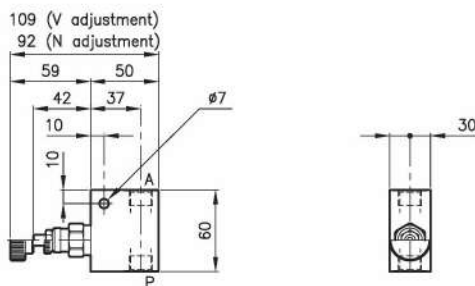
Technical features

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 µm 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

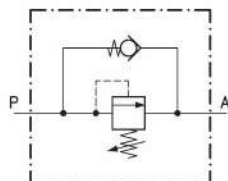
Only body code:

Body type 20-CSL 10-B06 28 144 116

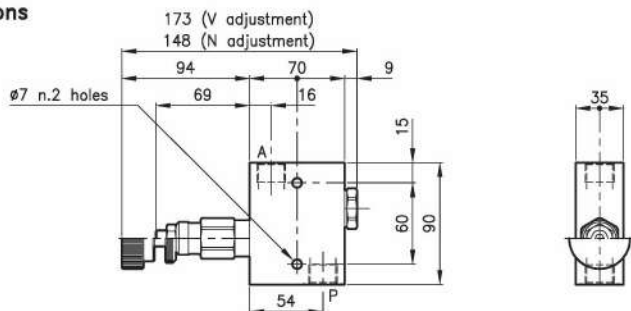
Technical features

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 05.060)	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 µm 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

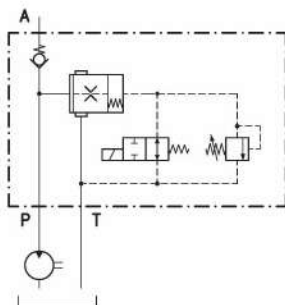
LPA 30/U-N-CSL 10-B08	31 011 177
LPA 30/D-N-CSL 10-B08	31 011 178
LPA 30/T-N-CSL 10-B08	31 011 179
LPA 30/U-V-CSL 10-B08	31 011 180
LPA 30/D-V-CSL 10-B08	31 011 181
LPA 30/T-V-CSL 10-B08	31 011 182

Only body codes:

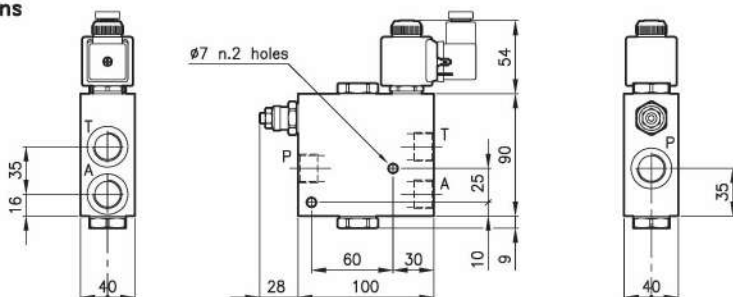
Body type 30-CSL 10-B06	38 144 127
Body type 30-CSL 10-B08	38 144 128

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 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

B08 = G 1/2 ISO 228

Connector DIN 43650

HA = standard for coils C

HR = rectifier for coils A

Coil type

18H = standard 18 Watt

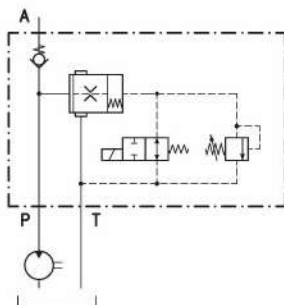
Only body code:

Body type 30-DPE-B08

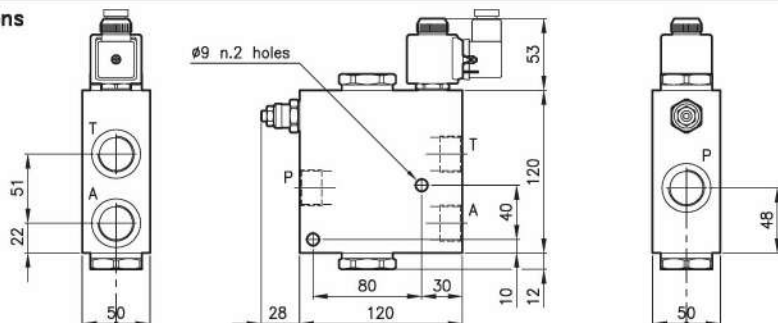
38 144 206

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 11.020)	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 absolute)		
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

00

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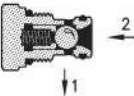

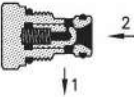

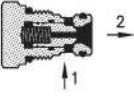
SCHEDULES

20

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.

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.	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.	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.	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.	EAC 30	60	420	05.065
 				

Pilot check valves.

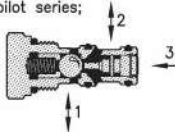
The directional pilot poppet-type valves are available into two executions: poppet-type and ball-type. On piloting piston of every valves there is a seal which can be removed by request. For pilot ratios and pressure drop see technical detailed schedules.

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

CAT 30

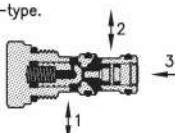
35

210

05.091

CAP pilot series — guided conical poppet-type.

Recommended version for heavy applications and high pressure; they have good performances and long life.


CAP 20

30

350

05.100

CAP 30

50

350

05.110

CAP 50

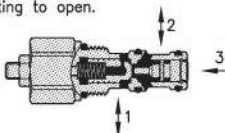
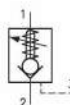
100

350

05.120

CAP pilot series — with stroke limiting to open.

They allow to limiting poppet stroke to open.


CAP 20/L

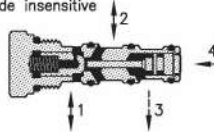
30

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

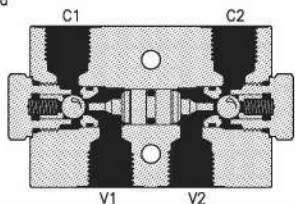
50

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 30/CSL 57

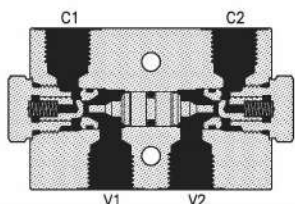
35

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 30/CSL 57

50

350

05.230

CAE 50/CSL 57

100


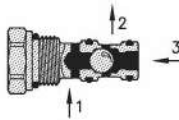





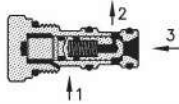
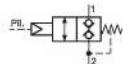
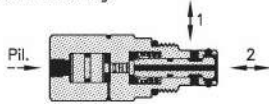

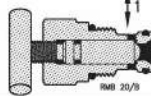
350

05.240

Shuttle valves.

The shuttle valves are available in different executions and accomplish many cyrcuital 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
 	CCI 30	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 simplify 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 apply 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 non 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

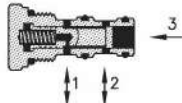
 Q max.
(l/min.)

 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

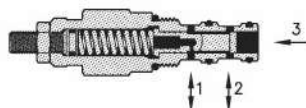
100

350

05.620

VDT 20/3203-IB series.

They are a version which contemplates the regulation for pressure setting.


VDT 20/3203

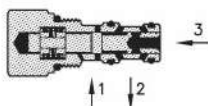
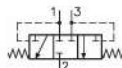
25

350

 05.601
05.605

VDT ../3306 series.

Shuttle valves for hydrostatic transmissions in closed circuits.


VDT 30/3306

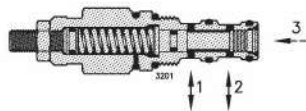
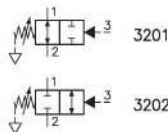
40

420

05.650

VDT ../32.. series - normally open or closed.

Hydraulic pilot directional valves adjusting through a connected atmospheric 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

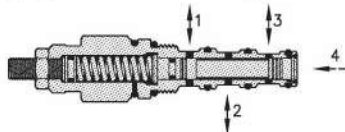
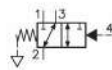
50

350

05.690

VDT ../4203 series - shuttle valves.

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


VDT 20/4203

25

350

05.740

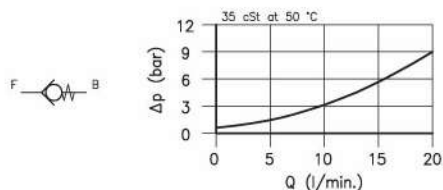
VDT 30/4203

50

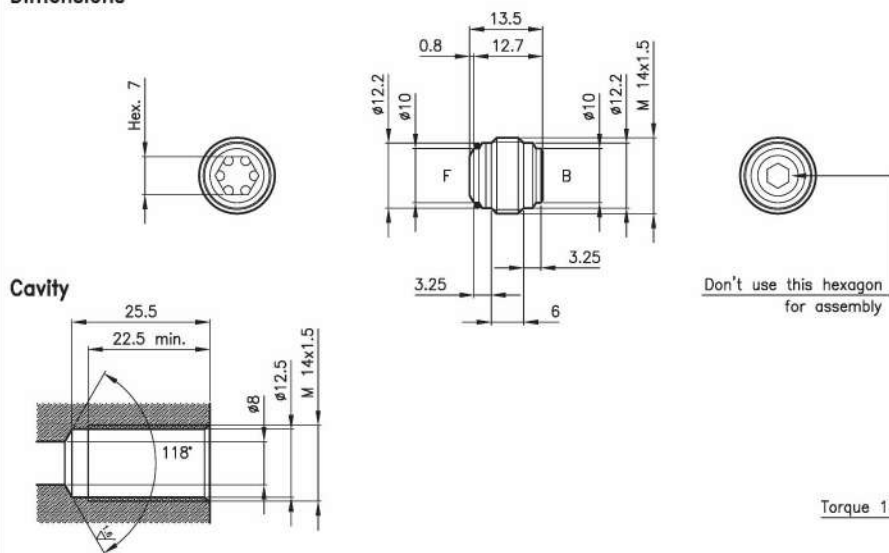
350

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	20	350	05.780
	VDT 30/4205	40	350	05.790
	VDT 20/4211	20	350	05.780
	VDT 30/4211	40	350	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	20	350	05.800
	VDT 30/2201-PS	40	350	05.802
	VDT 20/2202-PS	20	350	05.800
	VDT 30/2202-PS	40	350	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

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


Torque 10 Nm

Ordering informations
CB 20/D05-P
CB 20 = Valve type

D05 = M 14x1.5

Standard spring

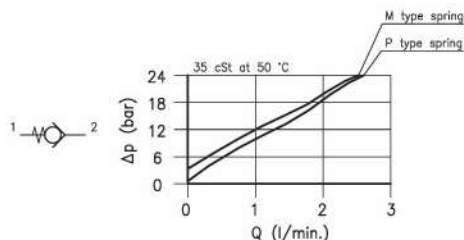
P = 1 bar

Codes:

CB 20/D05-P 27 011 100

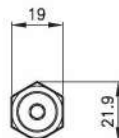
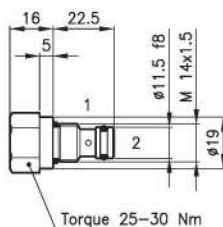
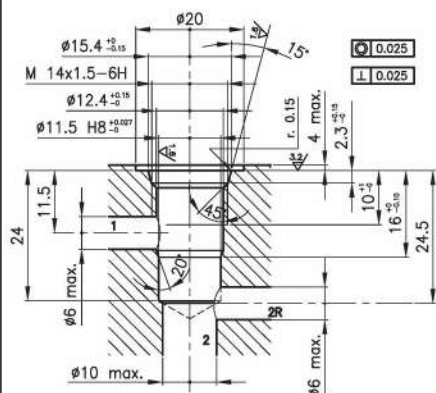
External O-Ring 90 607 107

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 $\phi 1$ mm

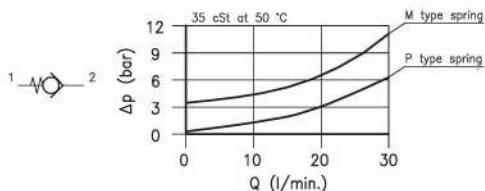
Codes:

CAB 10/P–1 12 011 100

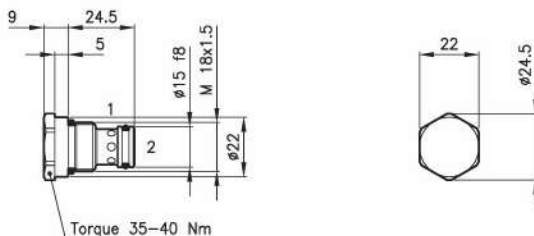
CAB 10/M–1 12 011 101

External seals kit 90 620 121

CAB 10 valves can be assembled on standard bodies 10–LO 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


Standard springs

P = 0.35 bar

M = 3.5 bar

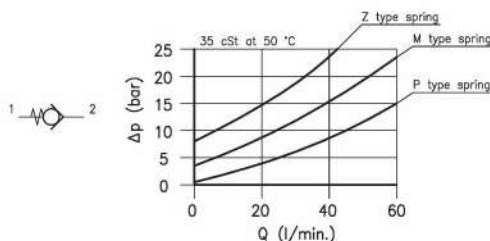
Codes:

CAB 20/P 22 011 100

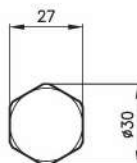
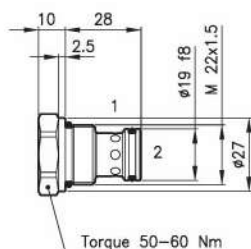
CAB 20/M 22 011 101

External seals kit 90 620 100

 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:

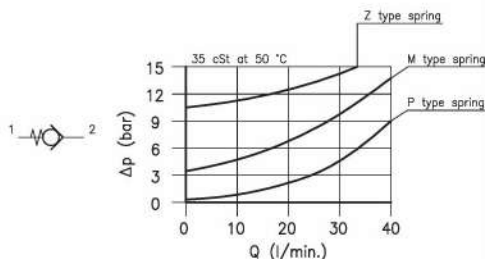
CAB 30/P 32 011 100

CAB 30/M 32 011 101

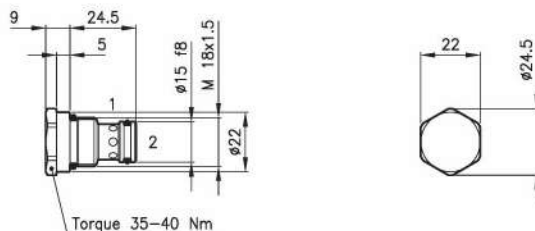
CAB 30/Z 32 011 123

External seals kit 90 620 103

 CAB 30 valves can be assembled
 on standard bodies 30–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)	0.35-3.5-11
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:

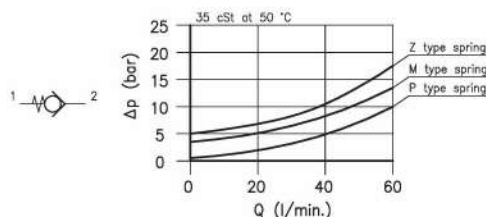
CAE 20/P 22 011 106

CAE 20/M 22 011 107

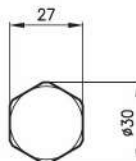
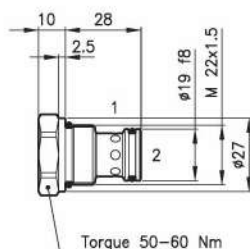
CAE 20/Z 22 011 164

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:

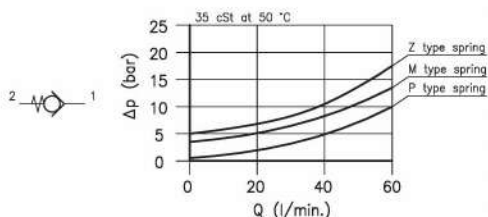
CAE 30/P 32 011 102

CAE 30/M 32 011 103

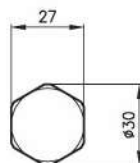
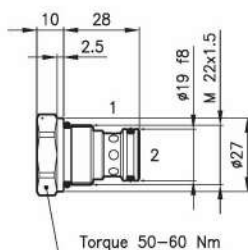
CAE 30/Z 32 011 158

External seals kit 90 620 103

 CAE 30 valves can be assembled
 on standard bodies 30–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
EAC 30/P
EAC 30 = Valve type


Standard springs

P = 0.35 bar

M = 3.5 bar

Z = 5 bar

Codes:

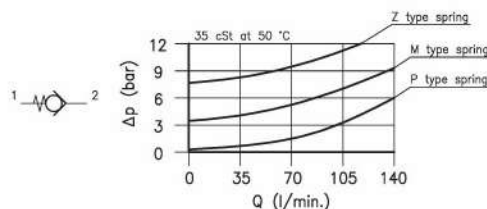
EAC 30/P 32 011 176

EAC 30/M 32 011 177

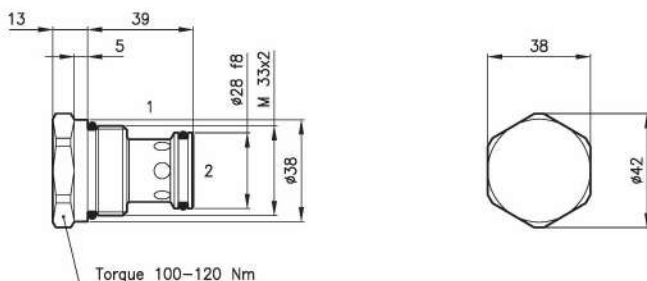
EAC 30/Z 32 011 178

External seals kit 90 620 103

 EAC 30 valves can be assembled
 on standard bodies 30–L0 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:

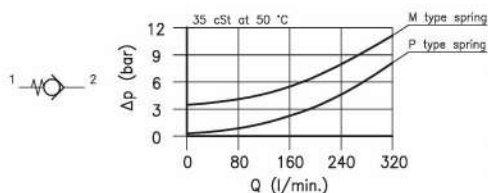
CAE 50/P 52 011 100

CAE 50/M 52 011 101

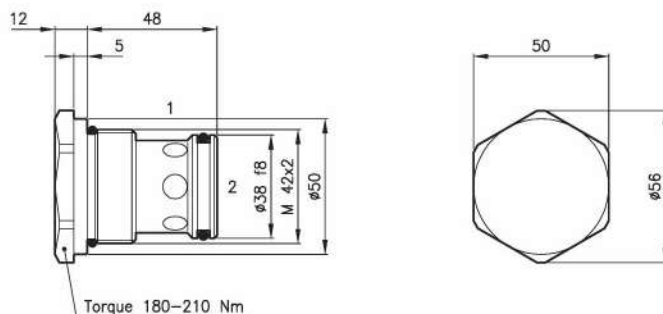
CAE 50/Z 52 011 116

External seals kit 90 620 106

 CAE 50 valves can be assembled
 on standard bodies 50–L0 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

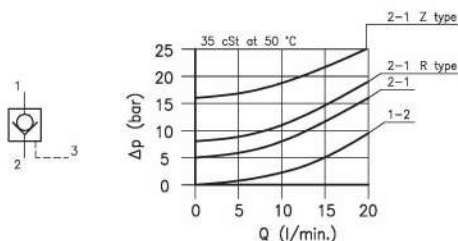
Codes:

CAE 70/P 72 011 100

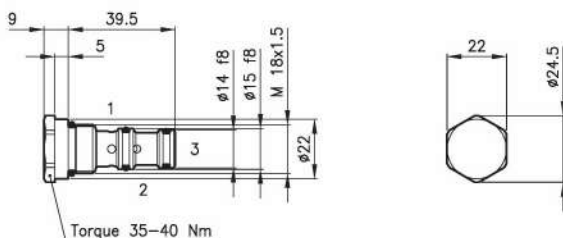
CAE 70/M 72 011 101

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

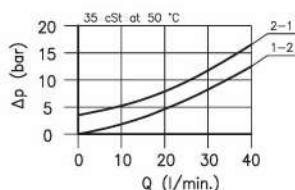
Z = 17 bar

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

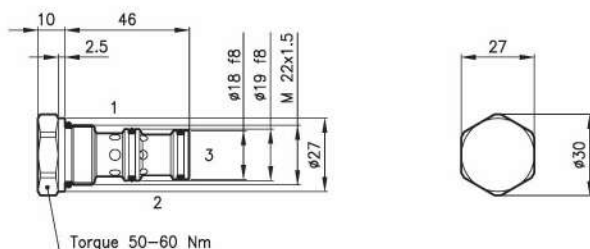
Codes:

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 absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions

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


Standard spring

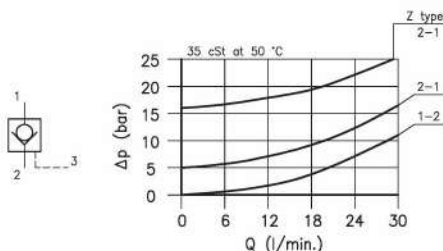
M = 3.5 bar

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

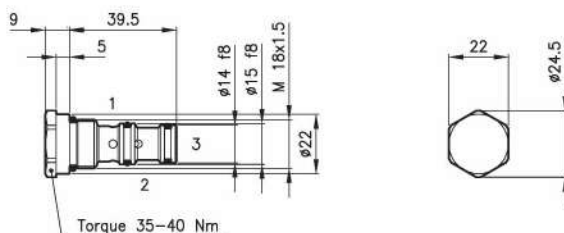
Codes:

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

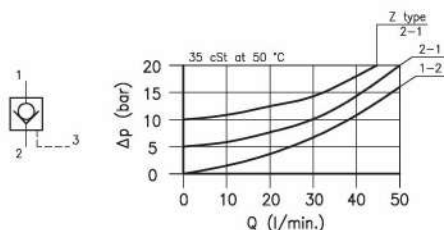
Z = 17 bar

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

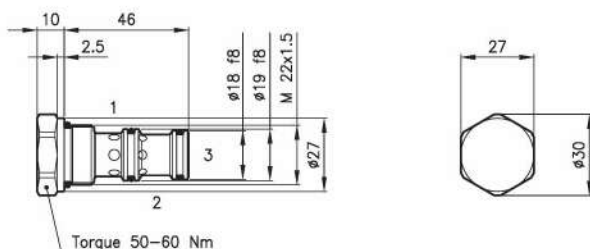
Codes:

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

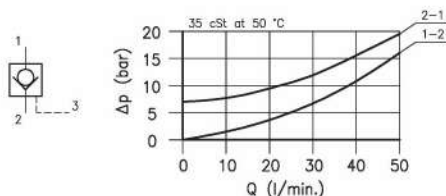
Z = 10 bar

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

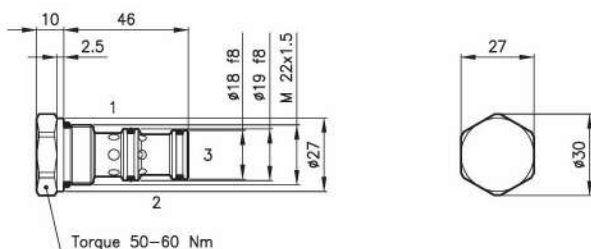
Codes:

CAP 30/M	32 011 104
CAP 30/M-S	32 011 105
CAP 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)

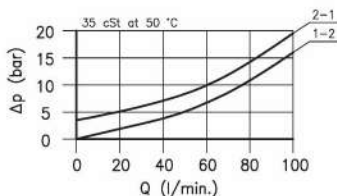
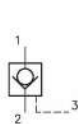
Codes:

CAP 30/M-3.4 32 011 156

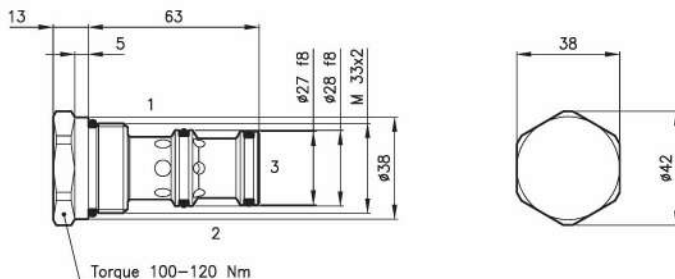
CAP 30/M-3.4-S 32 011 157

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

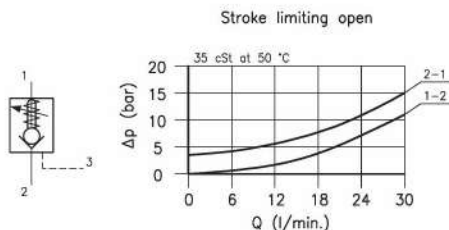
S = Without O-Ring on the pilot piston
 (Omit in Standard version)

Codes:

CAP 50/M	52 011 103
CAP 50/M-S	52 011 104
External seals kit	90 620 107

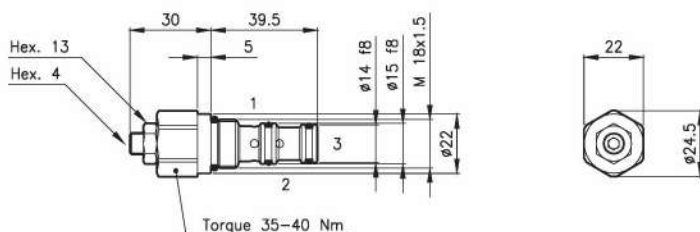
 CAP 50 valves can be assembled
 on standard bodies 50-C3 series;
 for dimensions see catalogue 16.010

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 absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions



Ordering informations

CAP 20/M-L-S

CAP 20 = Valve type



Standard spring

$$M = 3.5 \text{ bar}$$

L = Stroke limiting to open

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

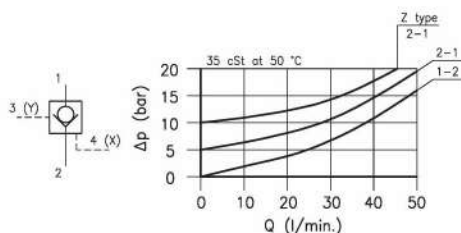
Codes:

CAP 20/M-L 22 011 160

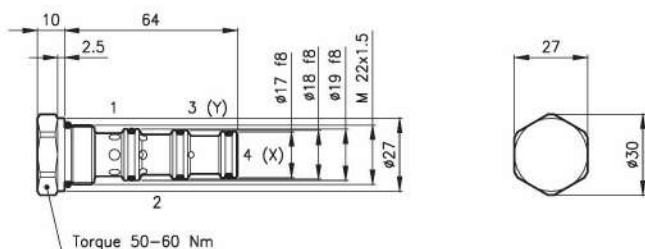
CAP 30/M-L-S 32 011 233

External seals kit	90 620 101
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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 /l)	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

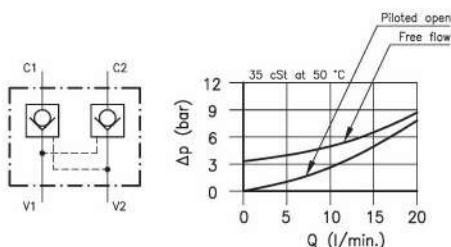
Z = 10 bar

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

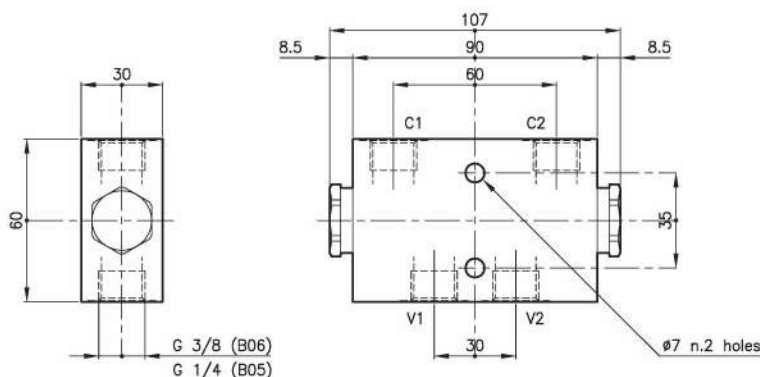
Codes:

CDP 30/M	32 011 143
CDP 30/M-S	32 011 144
CDP 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

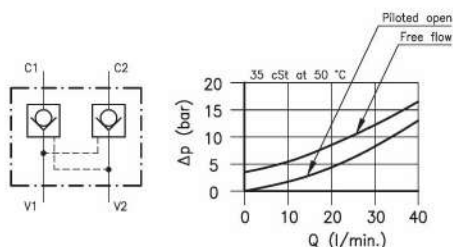
CAB 20/M-S-CSL 57-B05 22 011 126

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

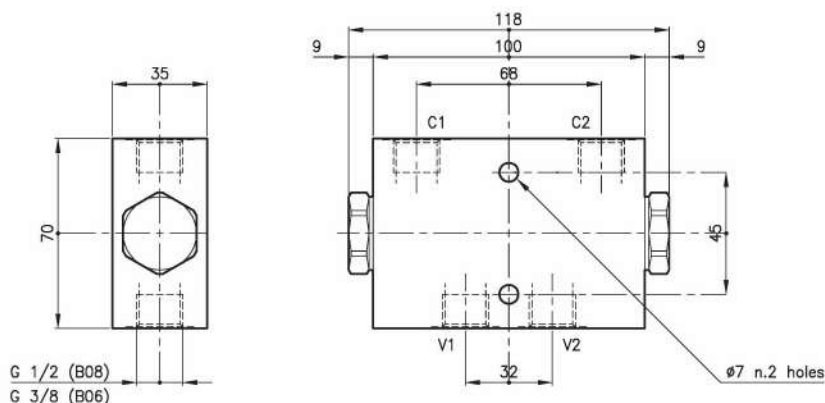
Only body codes:

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

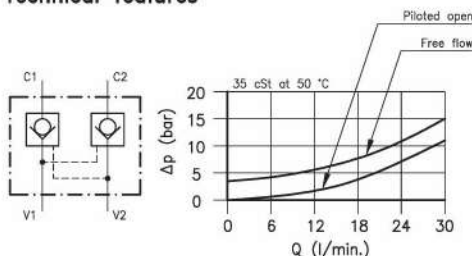
CAB 30/M-S-CSL 57-B06 32 011 132

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

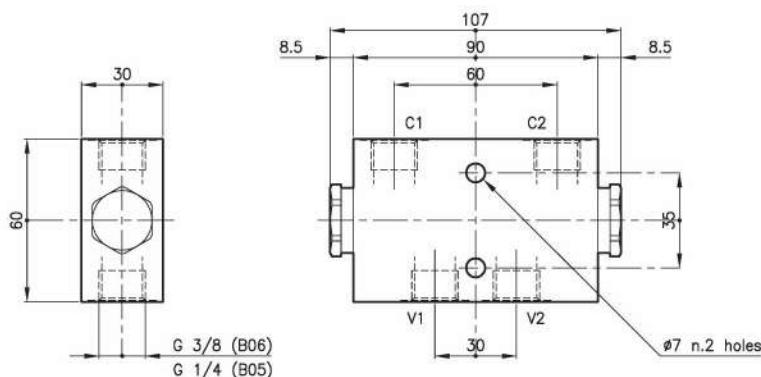
Only body codes:

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

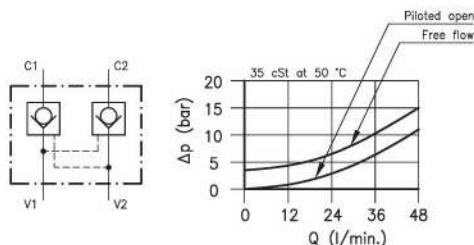
CAE 20/M-S-CSL 57-B05 22 011 122

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

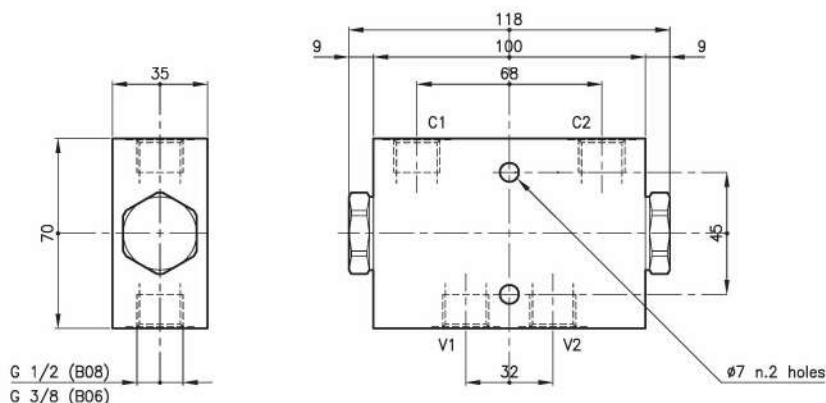
Only body codes:

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

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:

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

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

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

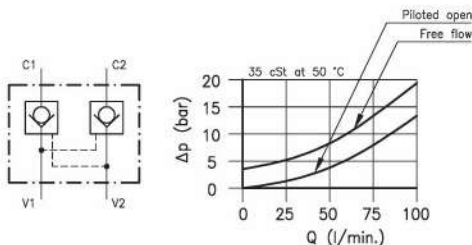
CAE 30/M-S-CSL 57-B08 32 011 129

Only body codes:

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

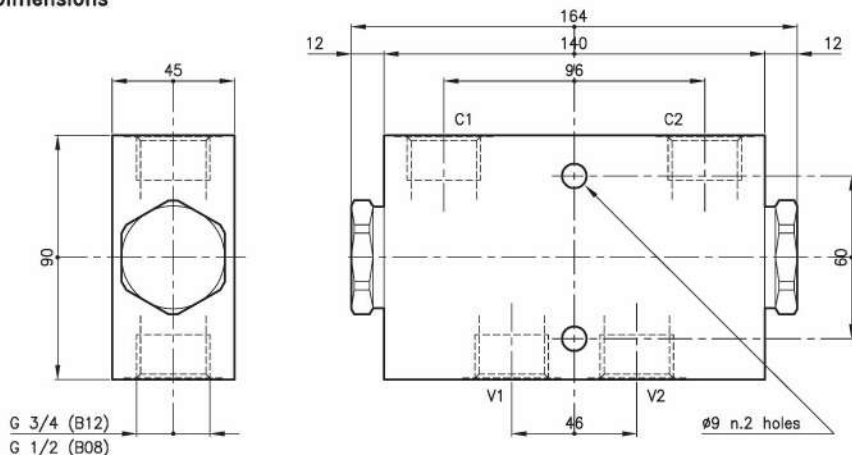
Body type 30-CSL 57-B08/FE 38 144 181

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

Standard spring

$$M = 3.5 \text{ bar}$$

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

Version

Standard ports

B08 = G 1/2 ISO 228

B12 = G 3/4 ISO 228

Codes:

CAE 50/M-CSL 57-B08 52 011 106

CAE 50/M-CSL 57-B12	52	011	107
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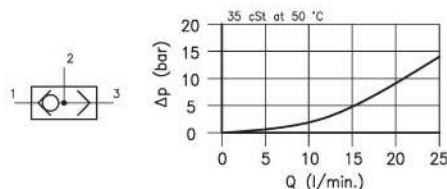
CAE 50/M-S-CSL 57-B08 52 011 108

CAE 50/M-S-CSL 57-B12 52 011 109

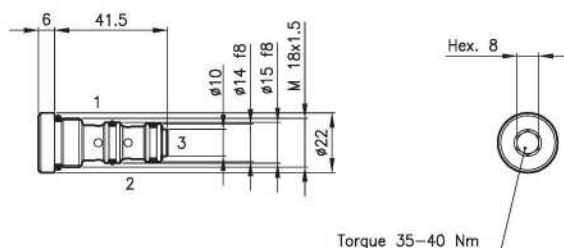
Only body codes:

Body type	50-CSL	57-B08/FE	58	144	111
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Body type	50-CSL	57-B12/FE	58	144	112
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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

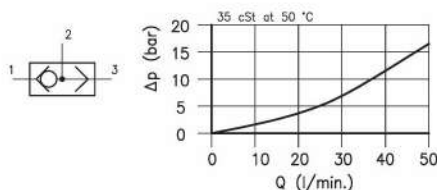


Codes:

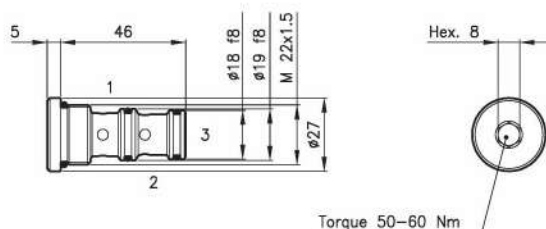
CCI 20 22 011 102

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		

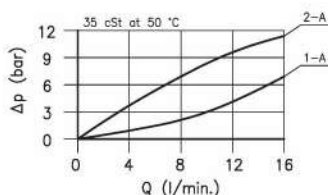
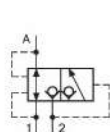
Dimensions

Ordering informations
CCI 30
CCI 30 = Valve type


Codes:

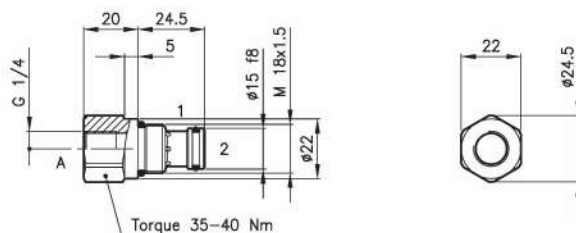
CCI 30 32 011 112

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:

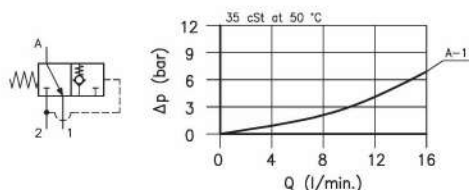
CCE 20/B05 22 011 103

External seals kit 90 620 100

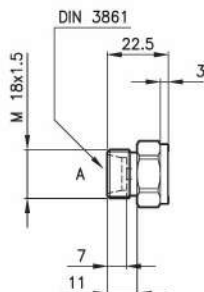
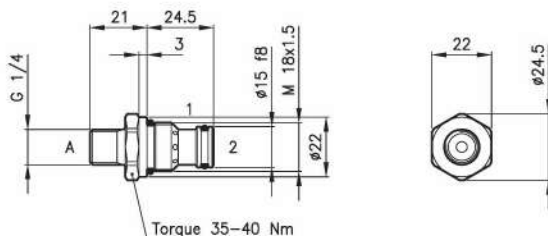
CCE 20 valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

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

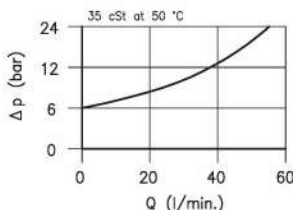
External seals kit 90 620 100

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

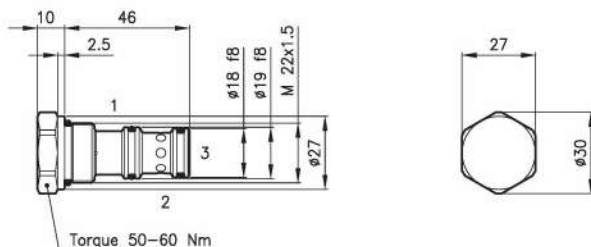
Technical features

The CPA 30 are pilot to closed check valves normally open in one direction; they close when enough pressure is apply 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

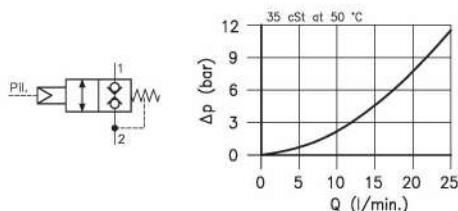
Z = 6 bar

Codes:

CPA 30/Z 32 011 122

External seals kit 90 620 104

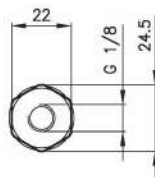
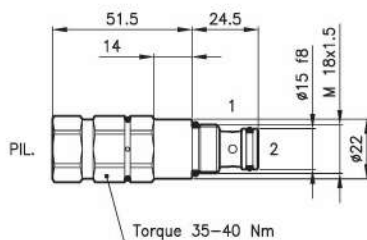
CPA 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

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

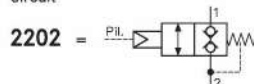
Pressure of chamber 2 influences the necessary pilot pressure for valve's drive (pilot ratio 3:1).


Ordering informations
OCD 20/2202-PN

OCD 20 = Valve type



Circuit



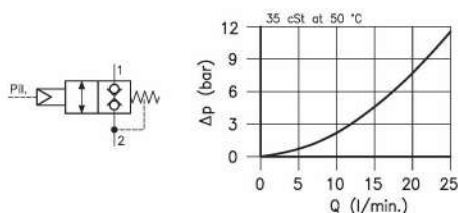
PNEUMATIC Pilot = 2.5 - 4.5 bar

Codes:

OCD 20/2202-PN 22 011 199

External seals kit 90 620 100

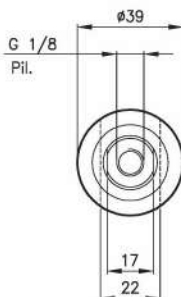
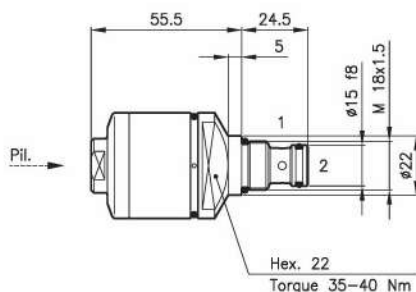
OCD 20/22.. valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

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

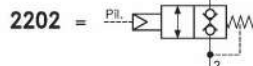
Pressure of chamber 2 influences the necessary pilot pressure for valve's drive (pilot ratio 20:1).


Ordering informations
OCD 20/2202-PN7

OCD 20 = Valve type



Circuit



PNEUMATIC Pilot = 7 bar

Codes:

OCD 20/2202-PN7 22 011 198

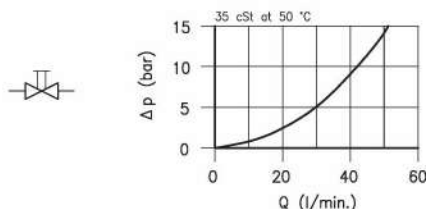
External seals kit 90 620 100

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

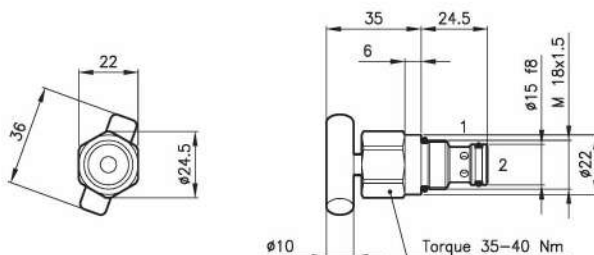
Technical features

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



Adjustment type

B = Handknob adjustment



Codes:

RMB 20/B 22 011 146

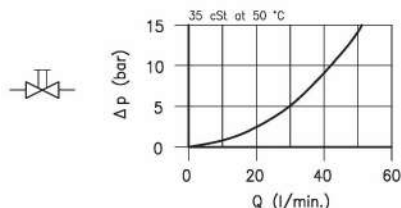
External seals kit 90 620 100

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

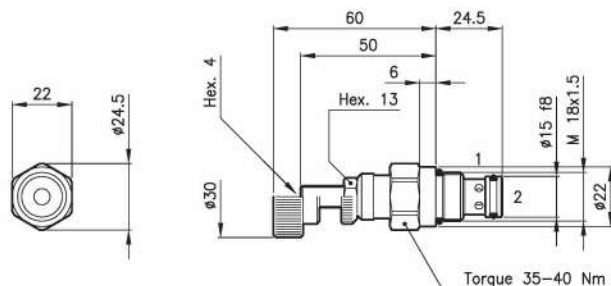
Technical features

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



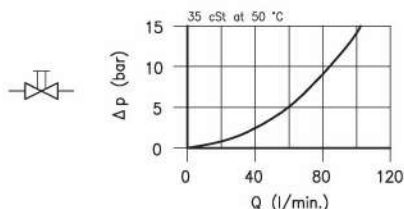
Codes:

RMB 20/N	22 011 112
RMB 20/V	22 011 111
External seals kit	90 620 100

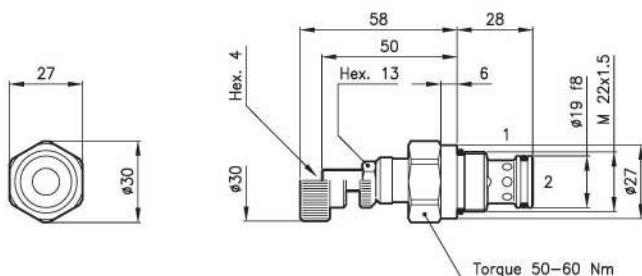
RMB 20 valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

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



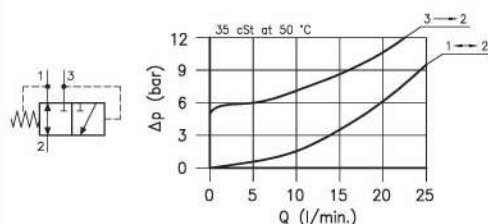
Codes:

RMB 30/N 32 011 141

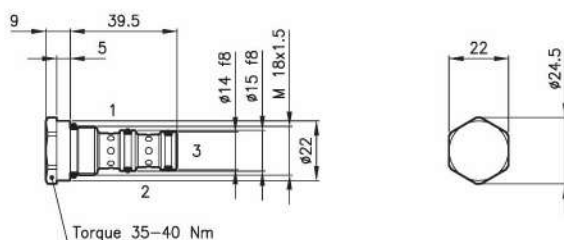
RMB 30/V 32 011 140

External seals kit 90 620 103

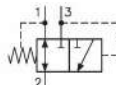
RMB 30 valves can be assembled on standard bodies 30-LO series; for dimensions see catalogue 16.010

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

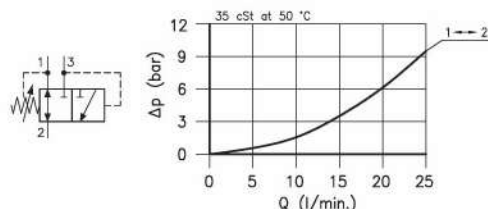
3203 =


Codes:

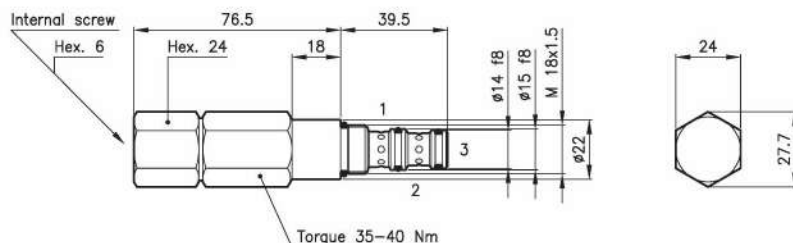
VDT 20/3203 22 011 113

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

3203 =

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

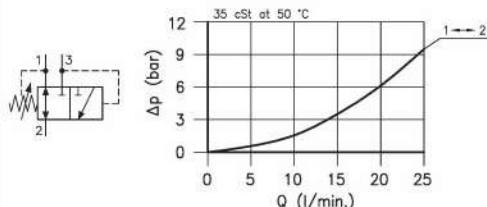
Adjustment type

IB = Special adjustment

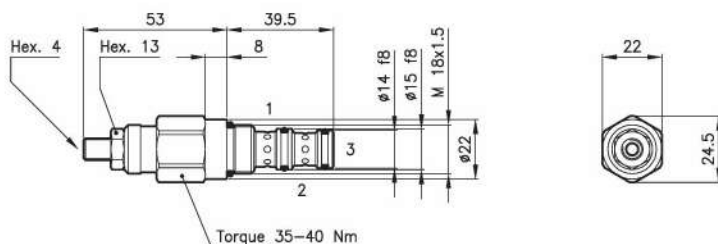

Codes:

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

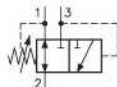
VDT 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

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

3203 =


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

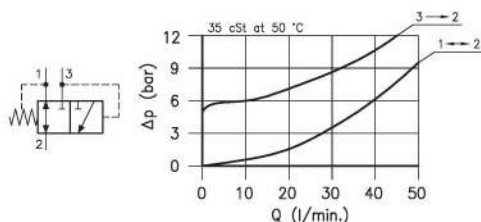
Adjustment type

N = Standard adjustment

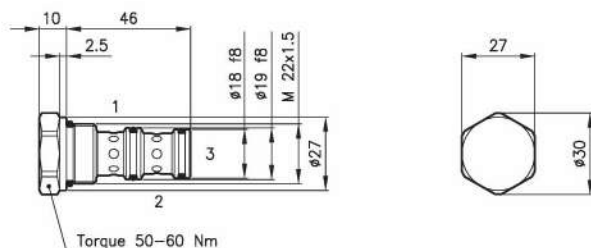

Codes:

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

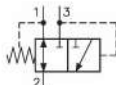
VDT 20 valves can be assembled
on standard bodies 20-C3 series;
for dimensions see catalogue 16.010

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

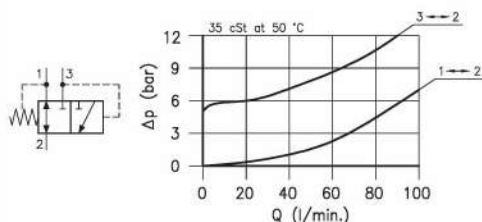
3203 =


Codes:

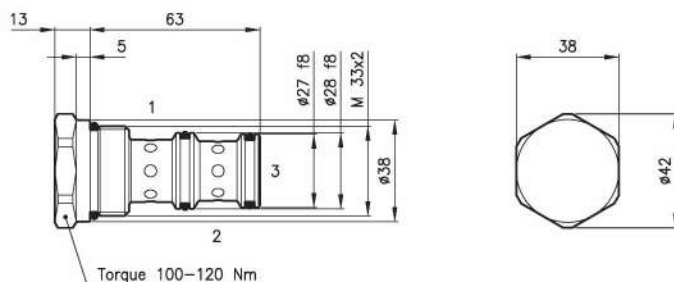
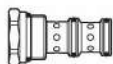
VDT 30/3203 32 011 134

External seals kit 90 620 104

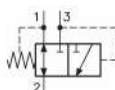
VDT 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

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

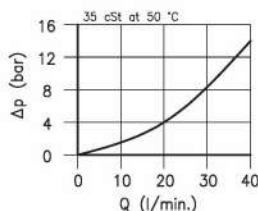
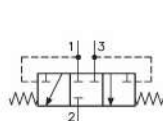
3203 =


Codes:

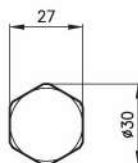
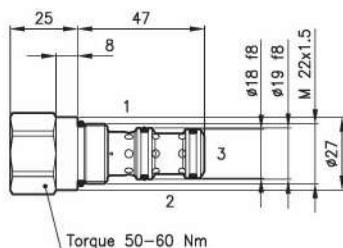
VDT 50/3203 52 011 102

External seals kit 90 620 107

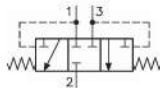
 VDT 50 valves can be assembled
 on standard bodies 50-C3 series;
 for dimensions see catalogue 16.010

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

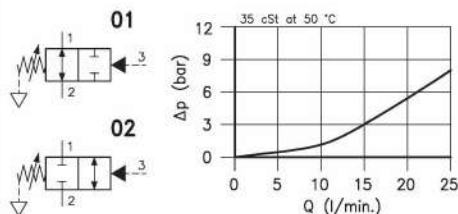
Z = 9 bar Shuttle pressure

Codes:

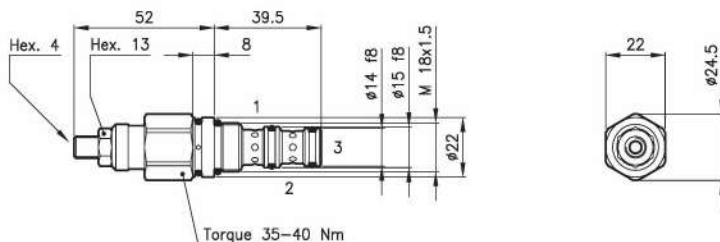
VDT 30/3306-M	32 011 117
VDT 30/3306-Z	32 011 171

External seals kit	90 620 104
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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

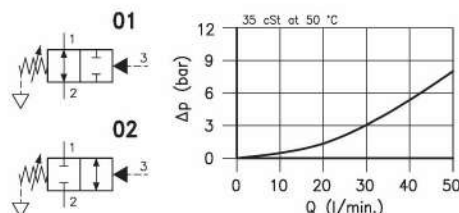
VDT 20/3202-D-N 22 011 132

VDT 20/3202-T-N 22 011 133

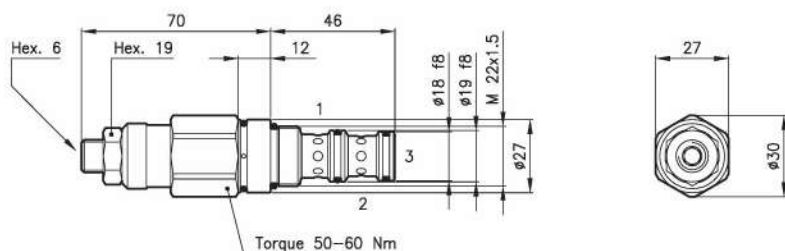
VDT 20/3202-Q-N 22 011 181

External seals kit 90 620 101

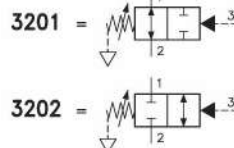
 VDT 20 valves can be assembled
 on standard bodies 20-C3 series;
 for dimensions see catalogue 16.010

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

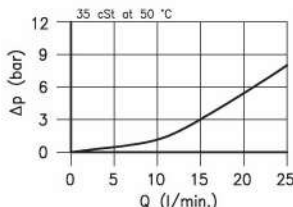
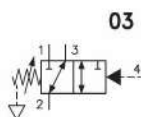
Adjustment type

N = Standard adjustment

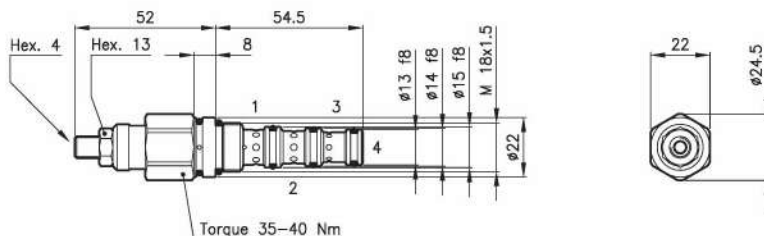

Codes:

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

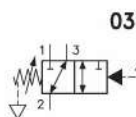
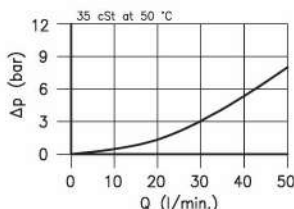
N = Standard adjustment


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

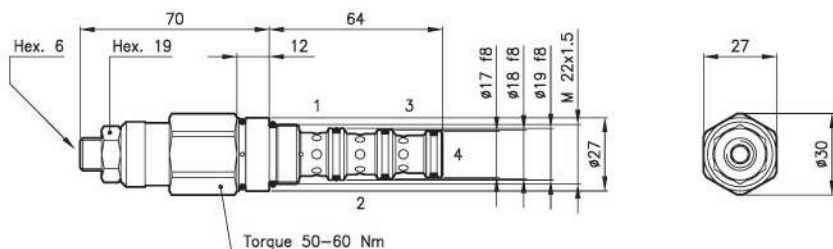
Codes:

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

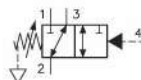
VDT 20 valves can be assembled
 on standard bodies 20-C4 series;
 for dimensions see catalogue 16.011

Technical features

03


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

4203 =


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

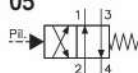
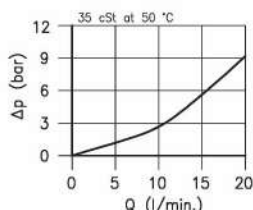
VDT 30/4203-D-N 32 011 136

VDT 30/4203-T-N 32 011 137

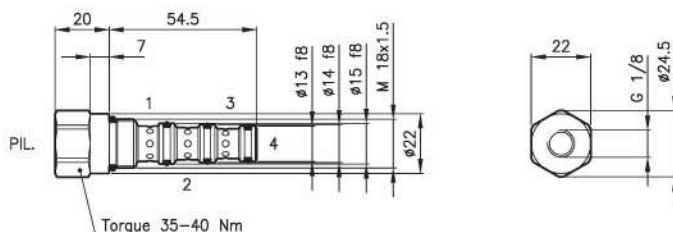
VDT 30/4203-Q-N 32 011 161

External seals kit 90 620 105

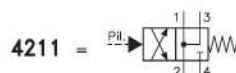
 VDT 30 valves can be assembled
 on standard bodies 30-C4 series;
 for dimensions see catalogue 16.011

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	(cm ³)	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

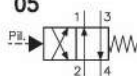
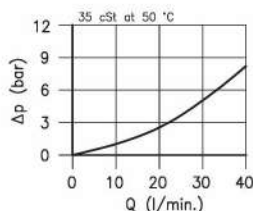
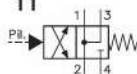

Circuits



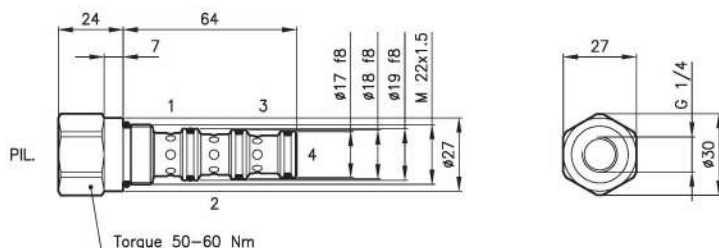
Codes:

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


Circuits

4205 =

4211 =

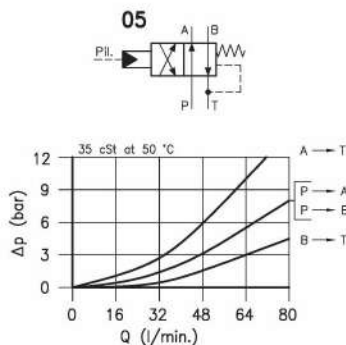
Codes:

VDT 30/4205 32 011 118

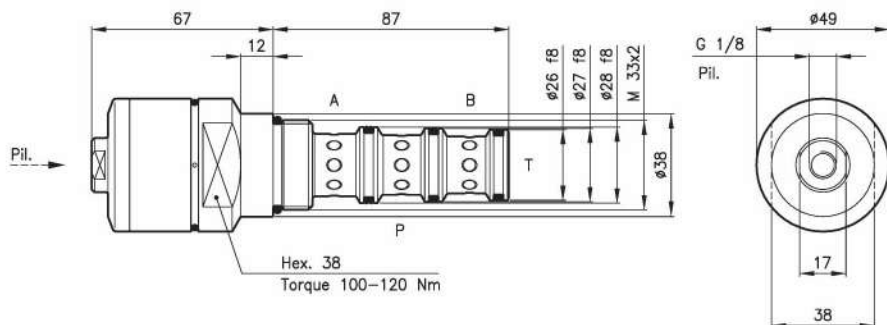
VDT 30/4211 32 011 119

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


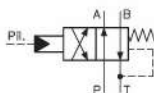
Cavity	(For dimensions see catalogue 17.000)	S 50/4
Max. flow	(l/min.)	80
Nominal flow	(l/min.)	60
Max. pressure way P-A-B	(bar)	315
Max. pressure way T	(bar)	40
Pilot pressure	(bar)	2
Max. leakage	(cm ³ /min.)	40
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.560
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

4205 =


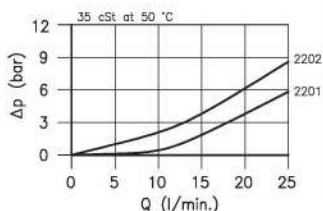
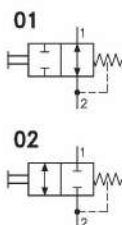
PNEUMATIC Pilot = 2 bar

Codes:

VDT 50/4205-PN 52 011 117

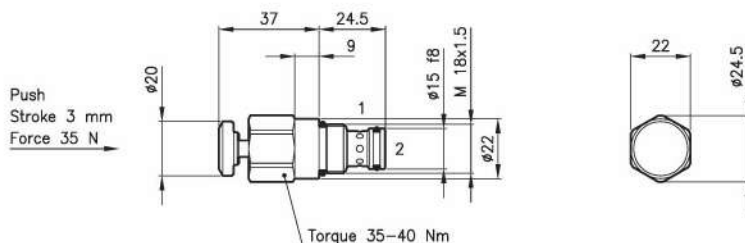
External seals kit 90 620 108

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:

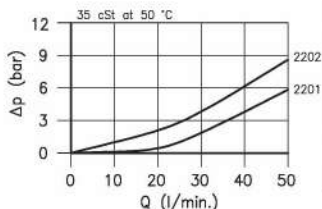
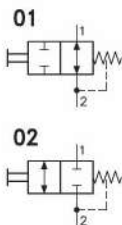
VDT 20/2201-PS 22 011 177

VDT 20/2202-PS 22 011 185

External seals kit 90 620 100

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

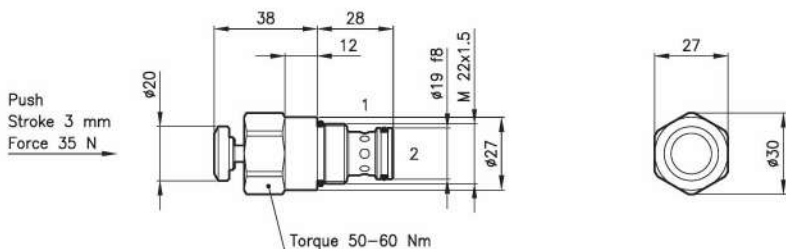
Technical features



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)	0.180
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



Circuits

2201 = 

2202 = 

Manual control type

PS = Push type spring return



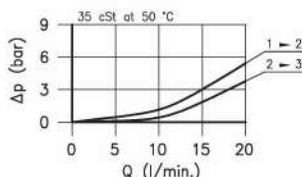
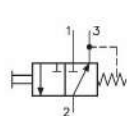
Codes:

VDT 30/2201-PS 32 011 192

VDT 30/2202-PS 32 011 193

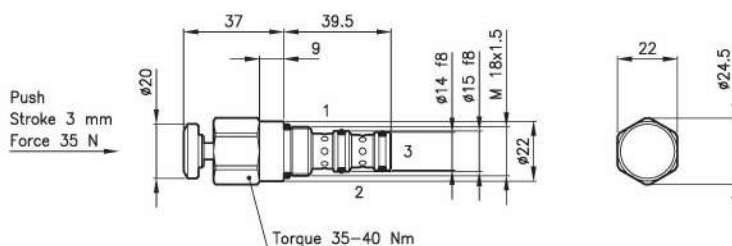
External seals kit	90 620 103
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VDT 30/22.. valves can be assembled on standard bodies 30-LO series; for dimensions see catalogue 16.010

Technical features


Cavity	(For dimensions see catalogue 17.000)	S 20/3
Nominal flow	(l/min.)	20
Max. pressure	(bar)	350
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

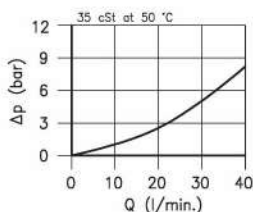
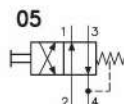
PS = Push type spring return


Codes:

VDT 20/3204-PS 22 011 140

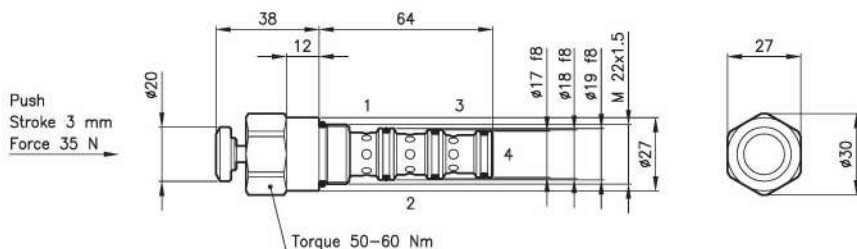
External seals kit 90 620 101

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		

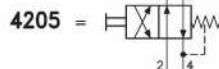
Pressure of chamber 4 influences the necessary force for valve's drive.

Dimensions

Ordering informations
VDT 30/4205-PS

VDT 30 = Valve type



Circuits



Manual control type

PS = Push type spring return

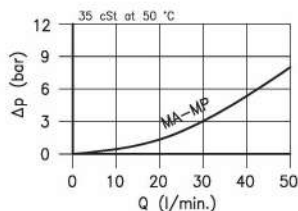
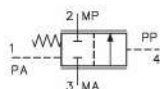


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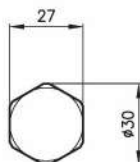
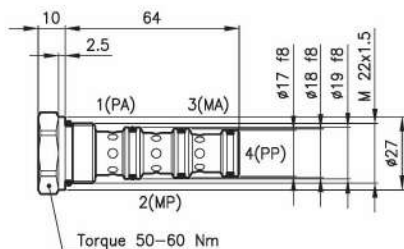
VDT 30/4205-PS 32 011 198

External seals kit 90 620 105

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

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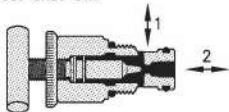

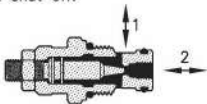

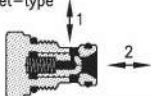


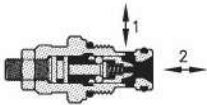

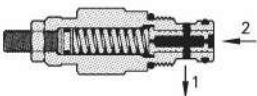

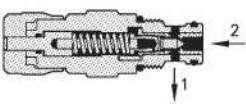
19

SCHEDULES

20

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.

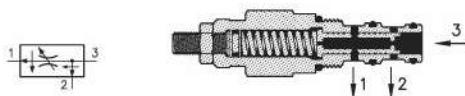
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
RDB series – bidirectional poppet-type. They have a very fine adjustment which allows to control also narrow flow at high pressure in both the flow's directions. Completely closed they guarantee a perfect shut off. External parts realized 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
	RDB 30	50	350	06.020
CAS series – with reverse free flow check poppet-type fixed setting.  	CAS 20	35	420	06.025
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.   	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 vales 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

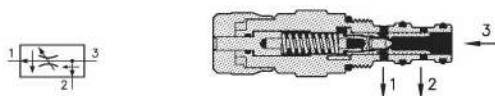
DPC 50

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

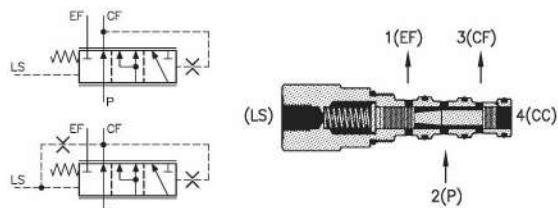
DPZ 50

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 ratio.
 These three-way valves must be seated in a four-way cavity with chamber 4 closed.


DCC 30

5-40

210

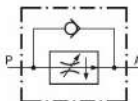
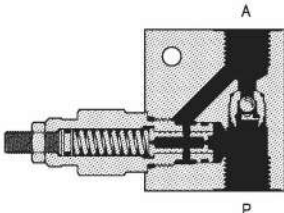
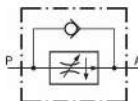
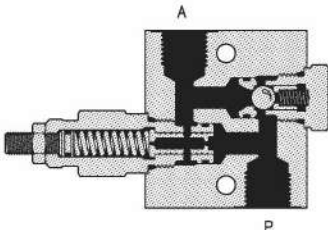
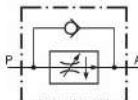
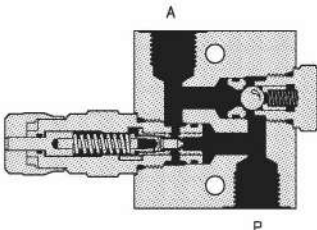
06.150

DCC 50

15-120

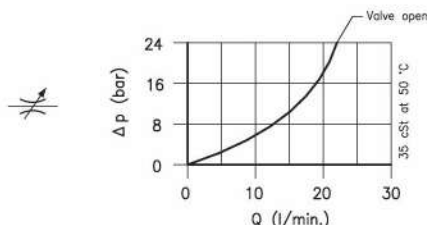
210

06.160

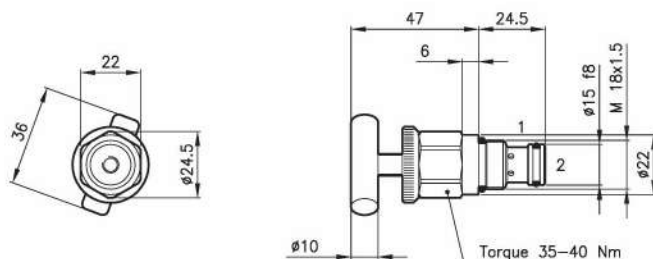
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
<p>RDC series CSL 10 circuit. They are composed of a flow regulator pressure compenctated RDC 20 type and a check valve that allows the free reverse flow.</p>  	RDC 20 CSL 10	20	315	06.180
<p>RDC series CSL 10 circuit. They are composed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

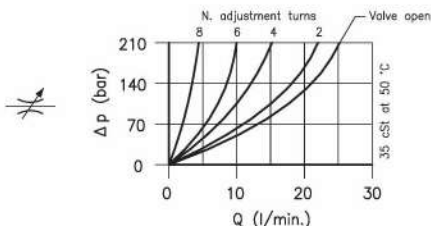
RDB 20/B 23 011 126

External seals kit 90 620 100

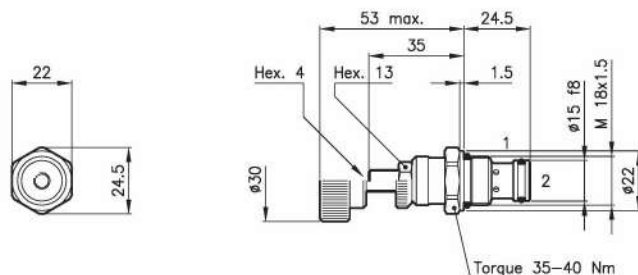
RDB 20/B valves can be assembled on standard bodies 20-LO series; for dimensions see catalogue 16.010

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 (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 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

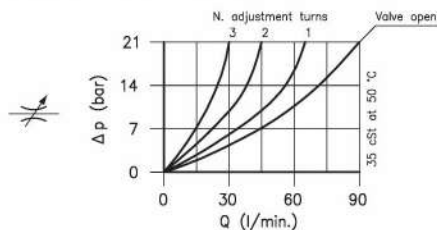
RDB 20 valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

Technical features

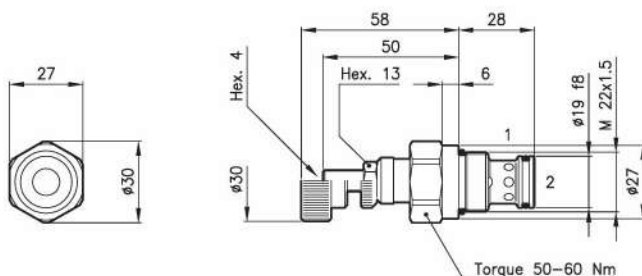
The bidirectional needle valves RDB 30 are a version particularly suitable for the use combined with logic valves for flow control.

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



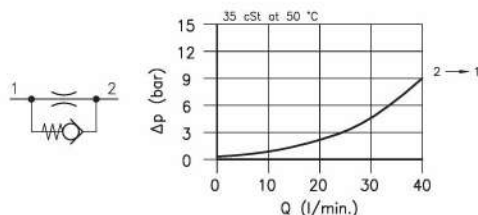
Codes:

RDB 30/N 33 011 141

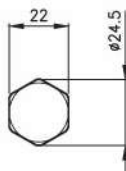
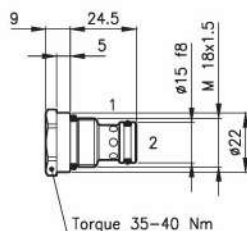
RDB 30/V 33 011 142

External seals kit 90 620 103

RDB 30 valves can be assembled on standard bodies 30-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	
Internal hole	(mm)	ø0.5	ø0.6	ø0.7
		ø0.8	ø0.9	ø1
		ø1.2	ø1.3	ø1.5
		ø1.7	ø2	
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

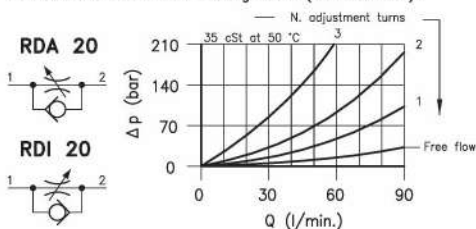
Technical features

Unidirectional needle valves

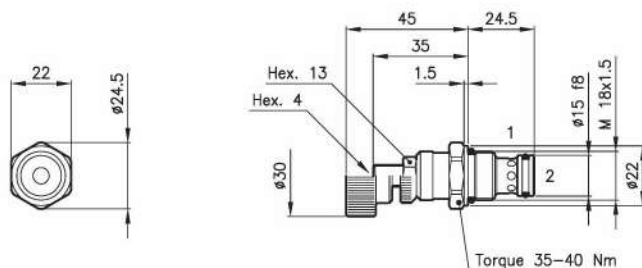
RDA 20 version for flow's control in direction 2 - 1

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 (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

Valve type



RDA 20 =



RDI 20 =

Adjustment type

N = Standard adjustment

V = Handknob adjustment


RDA 20/N

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

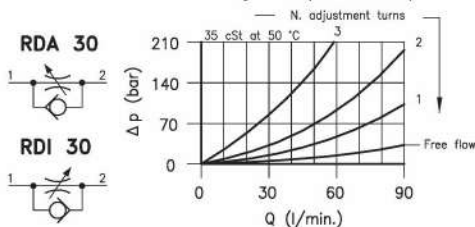
Technical features

Unidirectional needle valves

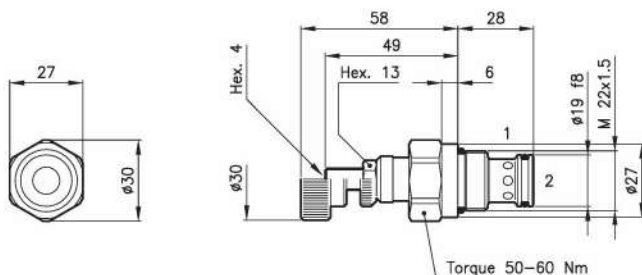
RDA 30 version for flow's control in direction 2 - 1

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

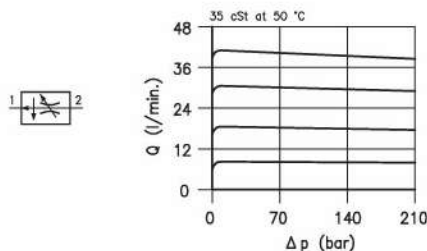
N = Standard adjustment

V = Handknob adjustment

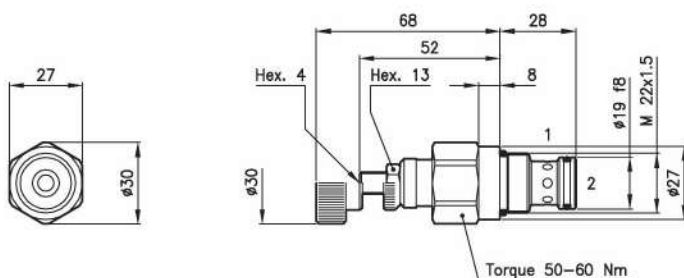

Codes:

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 30/2
Flow setting range	type U	3 – 6
± 10% (l/min.)	type D	6 – 11
	type T	13 – 25
	type Q	25 – 45
Max. pressure	(bar)	315
Flow viscosity range	(cSt)	2.8 – 380
Flow temperature range	(°C)	-20 +80
Mass (Standard adjustment type N)	(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		

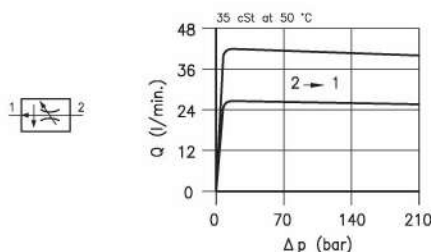
Dimensions

Ordering informations
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
RDC 30/D-N

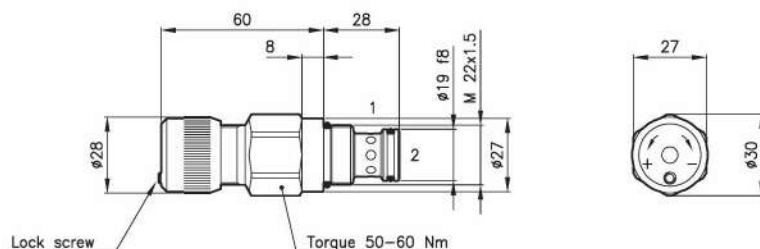
Codes:

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

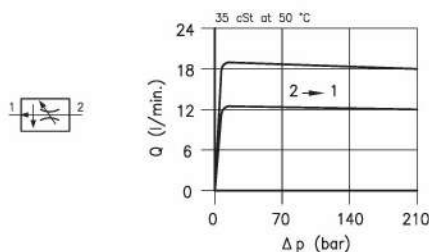
Codes:

RDC 30/20-HF 33 011 187

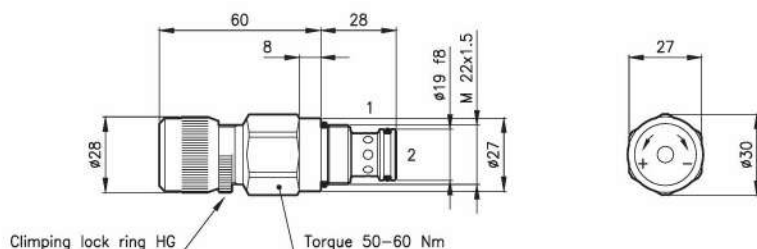
RDC 30/50-HF 33 011 188

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

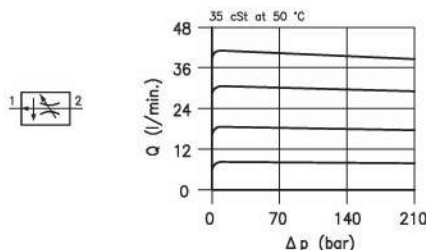
RDZ 30/Q-H 33 011 118

RDZ 30/D-HG 33 011 139

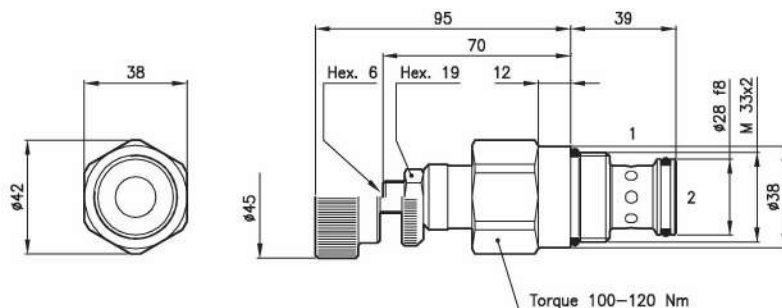
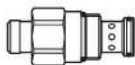
RDZ 30/Q-HG 33 011 140

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
	type U	4 - 8
	type D	8 - 16
	type T	16 - 30
	type Q	30 - 60
Flow setting range	type U	4 - 8
± 10% (l/min.)	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	(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 = 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

RDC 50/D-N


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

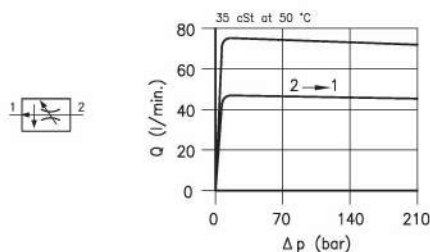
RDC 50/D-V 53 011 113

RDC 50/T-V 53 011 114

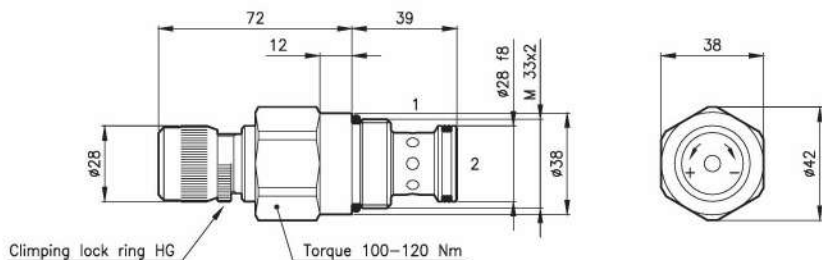
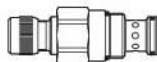
RDC 50/Q-V 53 011 115

External seals kit 90 620 106

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

Technical features


Cavity	(For dimensions see catalogue 17.000)	S 50/2
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)	0.480
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

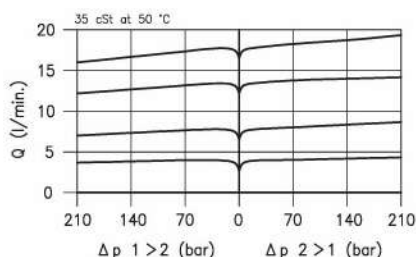
RDZ 50/Q-H 53 011 123

RDZ 50/D-HG 53 011 124

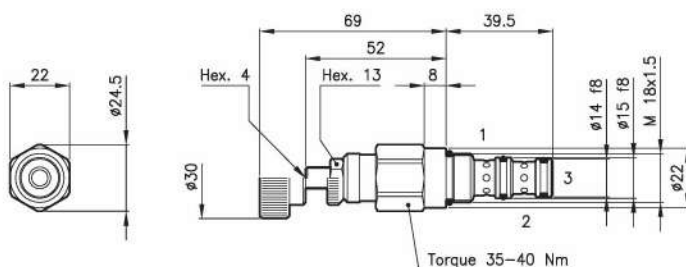
RDZ 50/Q-HG 53 011 125

External seals kit 90 620 106

 RDZ 50 valves can be assembled
 on standard bodies 50-L0 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 $\pm 10\%$ (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
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

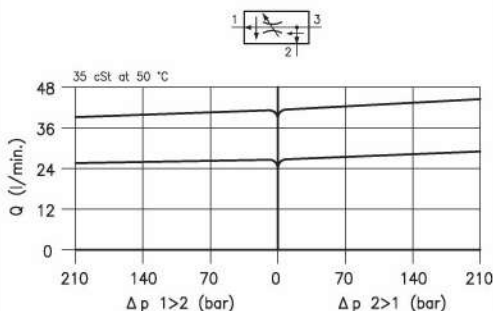
N = Standard adjustment
V = Handknob adjustment

DPC 20/D-N

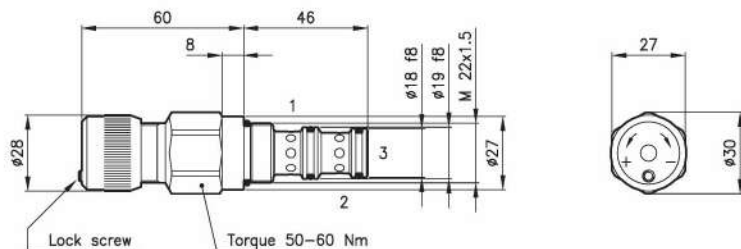

Codes:

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
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)	0.260
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolute)		
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

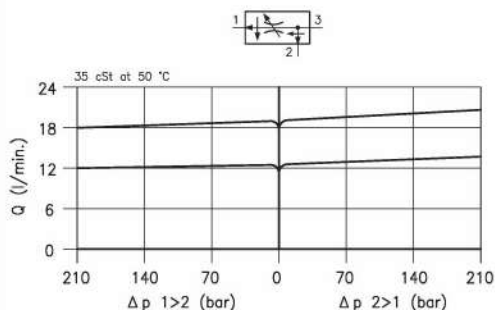
Codes:

DPC 30/20-HF 33 011 184

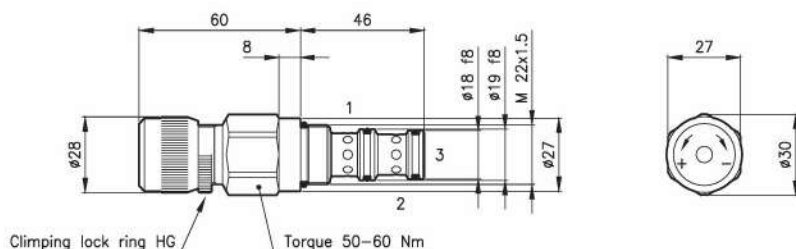
DPC 30/50-HF 33 011 186

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

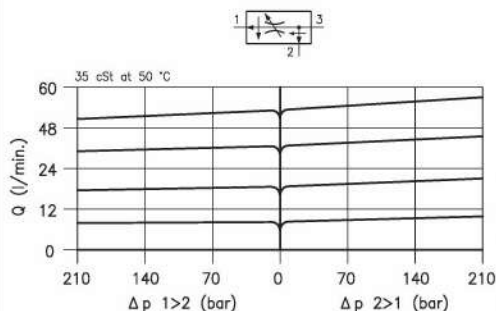
DPZ 30/Q-H 33 011 100

DPZ 30/D-HG 33 011 146

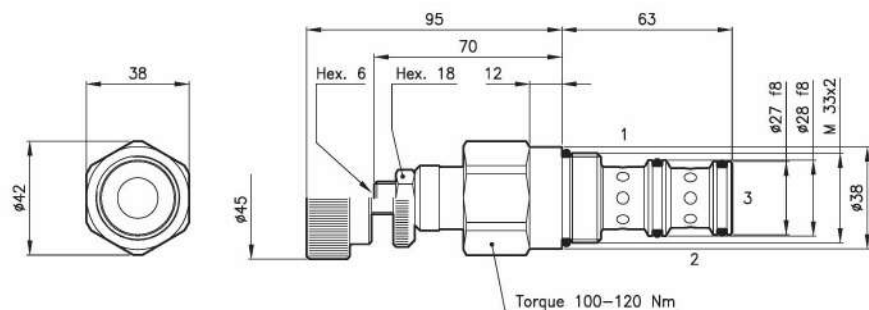
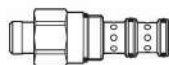
DPZ 30/Q-HG 33 011 147

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
Flow setting range $\pm 10\%$ (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)	0.580
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 = Valve type


Flow setting range

U = 4 – 8 l/min

D = 8 – 16 l/min

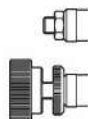
T = 16 – 30 l/min

Q = 30 – 60 l/min

Adjustment type

N = Standard adjustment

V = Handknob adjustment

DPC 50/D-N


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

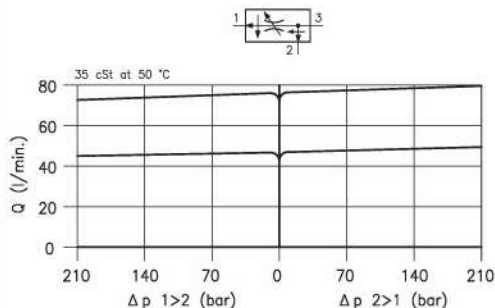
DPC 50/D-V 53 011 117

DPC 50/T-V 53 011 118

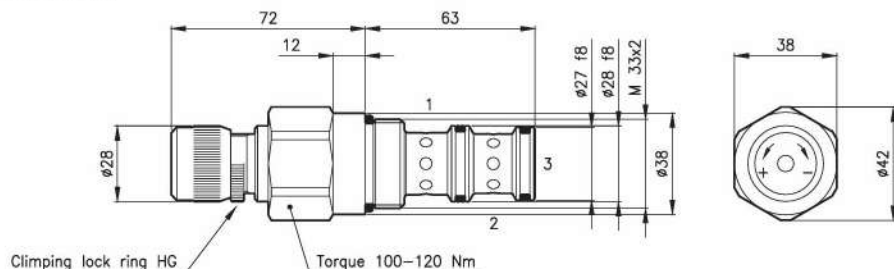
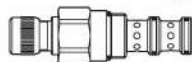
DPC 50/Q-V 53 011 119

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 53 011 127

DPZ 50/D-HG 53 011 128

DPZ 50/Q-HG 53 011 129

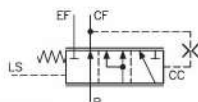
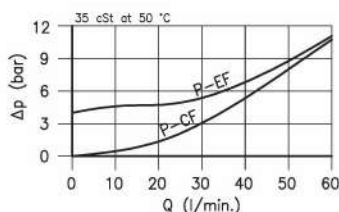
External seals kit 90 620 107

 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.

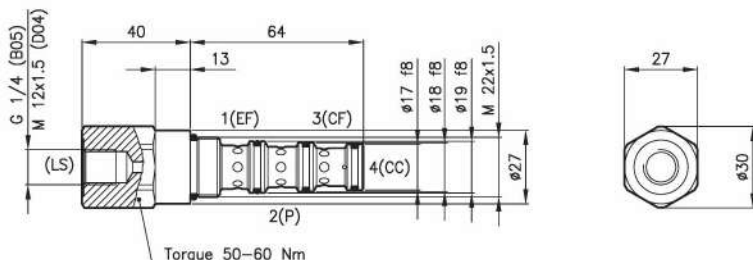
The lines P, LS, and EF must be protected with separated relief valves.



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:

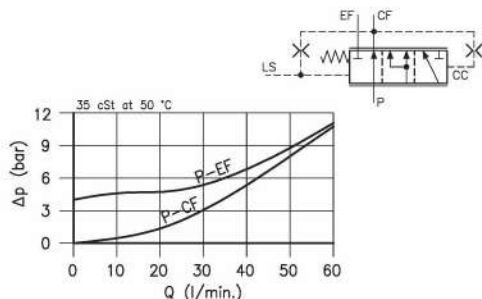
LSV 30/M-B05	33 011 144
LSV 30/M-D04	33 011 143
External seals kit	90 620 105

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.

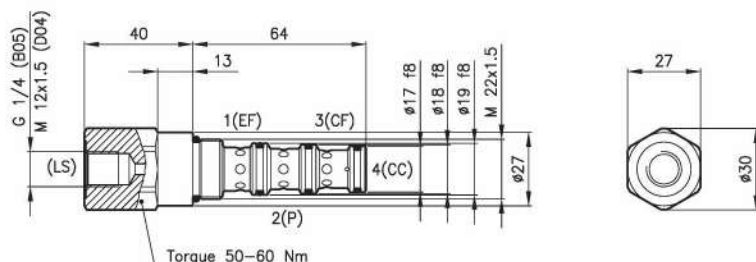
The lines P, LS, and EF must be protected with separated relief valves.



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

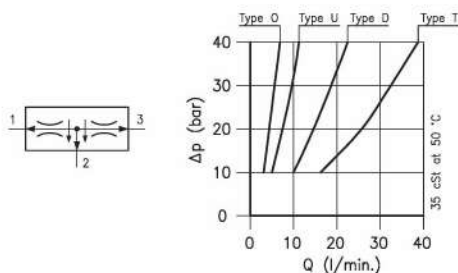
Codes:

LSV 30B/M-B05 33 011 157

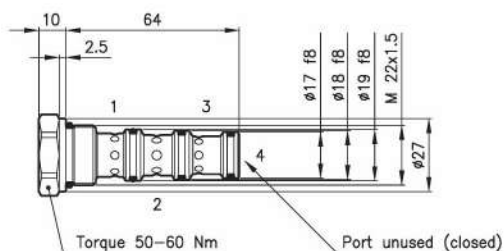
LSV 30B/M-D04 33 011 145

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
Inlet flow range (l/min.)	type O	3 - 7
	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 μm 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

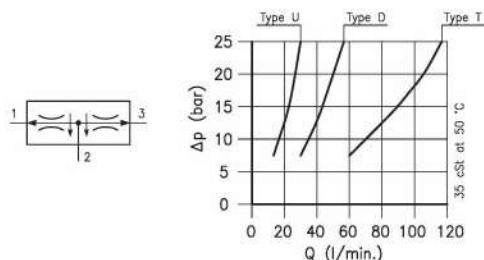
D = 10 - 24 l/min

T = 18 - 40 l/min

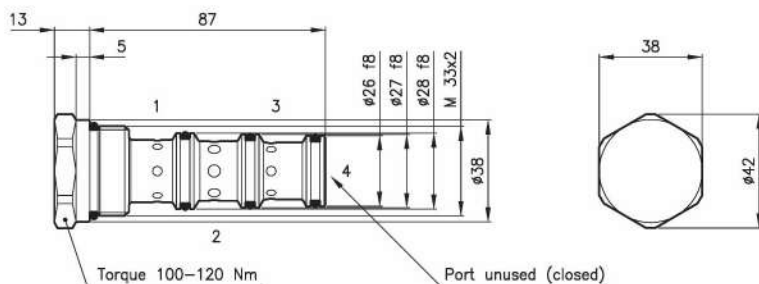
Codes:

DCC 30/O	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
	type U	15 - 30
Inlet flow range (l/min.)	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

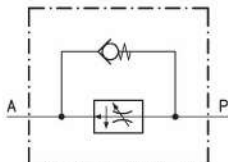
External seals kit 90 620 108

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 the they keep flow adjusted uniform indipendently 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

 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

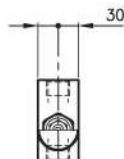
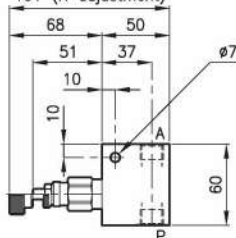
(kg) 0.400

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

 118 (V adjustment)
 101 (N adjustment)

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

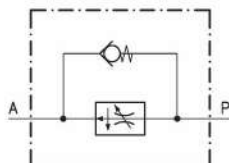
Only body code:

Body type 20-CSL 10-B06 28 144 116

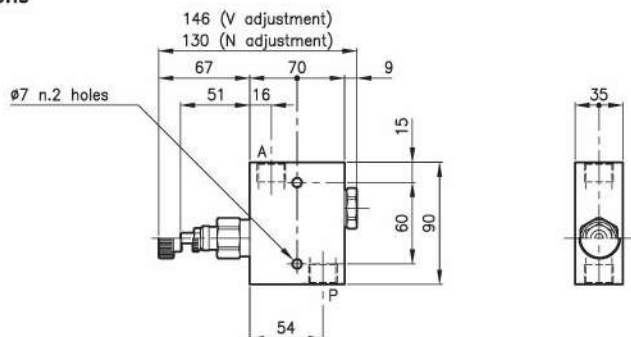
Technical features

The main valve are used as pressure compensated flow control and the they keep flow adjusted uniform indipendently 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
Flow setting range 10% (l/min.)	type U	3 - 6
	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

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

Version

Standard ports

B06 = G 3/8 ISO 228

B08 = G 1/2 ISO 228

Only body codes:

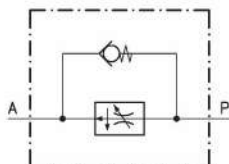
Body type 30-CSL 10-B06 38 144 127

Body type 30-CSL 10-B08 38 144 128

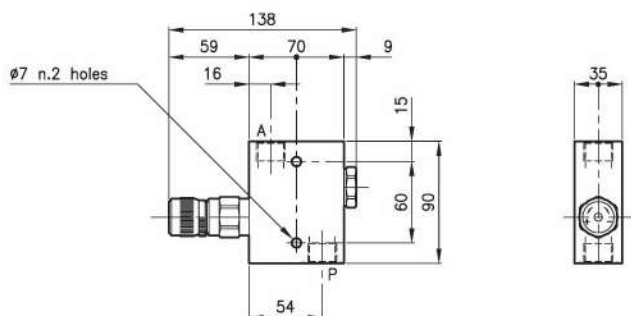
Technical features

The main valve are used as pressure compensated flow control and the they keep flow adjusted uniform indipendently 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:


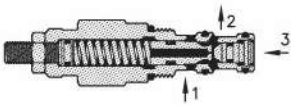
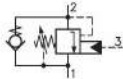
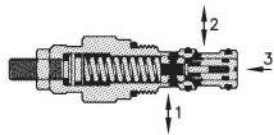
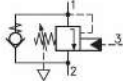
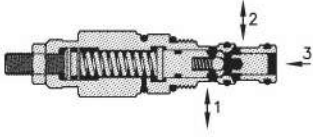
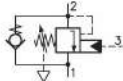
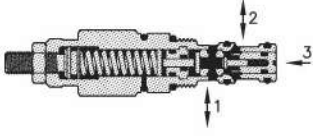
Body type 30-CSL 10-B06 38 144 127

Body type 30-CSL 10-B08 38 144 128

ALPHABETIC INDEX AND VALVE CODES	00
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Motion control or overcenter valves.

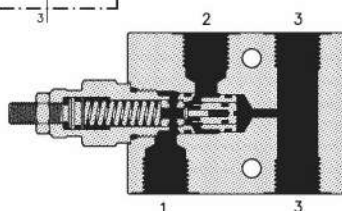
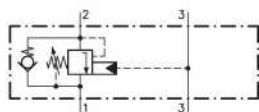
As primary function these motion control or overcenter valves control the actuators' speed in relation to inlet flow, keep them blocked up, prevent pressure uncontrollable increases and avoid cavitation during movements. If placed directly on actuators they also guarantee the pipe's safety.

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

CMQ-CMB series PP

Overcenter valve in a special manifold for simple acting function.


**CMB 20/
PP**

 Q max.
(l/min.)

20

 P max.
(bar)

270

 Technical
schedule

07.190

**CMQ 30/
PP**

50

350

07.192

**CMQ 50/
PP**

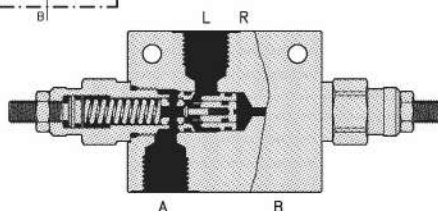
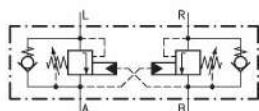
90

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**

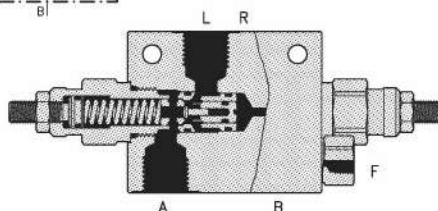
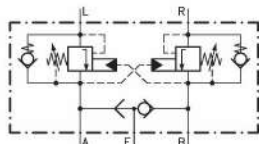
90

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

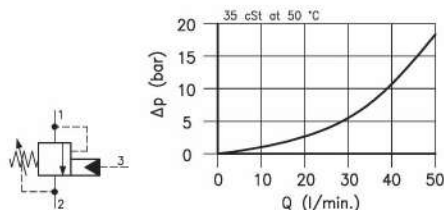
07.240

**CMQ 50/
CSL 26**

90

350

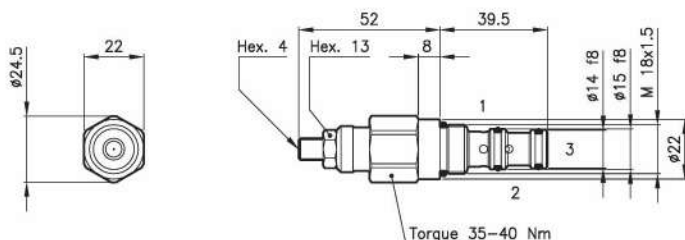
07.250

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 = Valve type



CMS 20/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

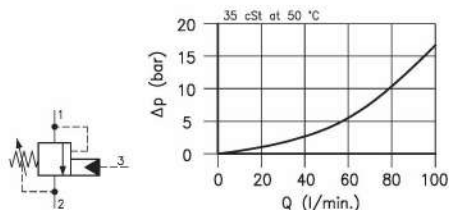
N = Standard adjustment



Codes:

CMS 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

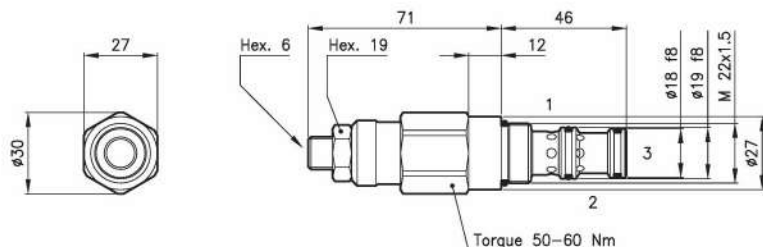
CMS 20 valves can be assembled on standard bodies 20-C3 series; for dimensions see catalogue 16.010

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 = 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

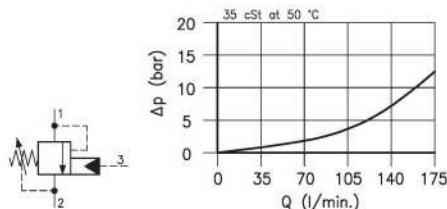
N = Standard adjustment

CMS 30/T-N


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

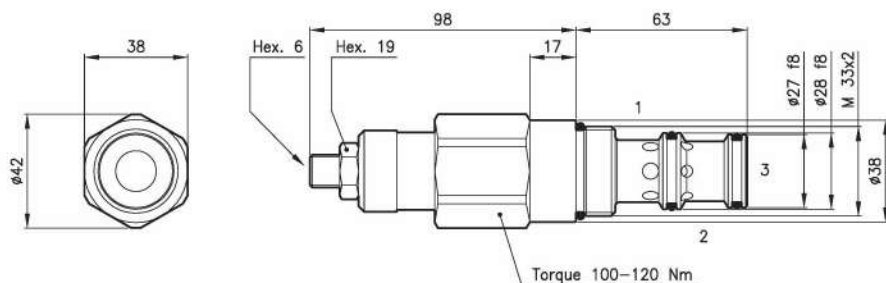
CMS 30 valves can be assembled
 on standard bodies 30-C3 series;
 for dimensions see catalogue 16.010

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 = 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

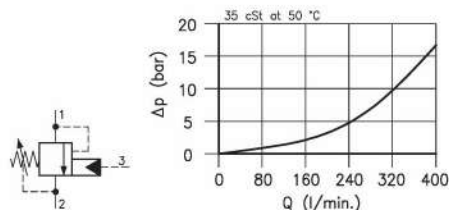
CMS 50/T-N



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

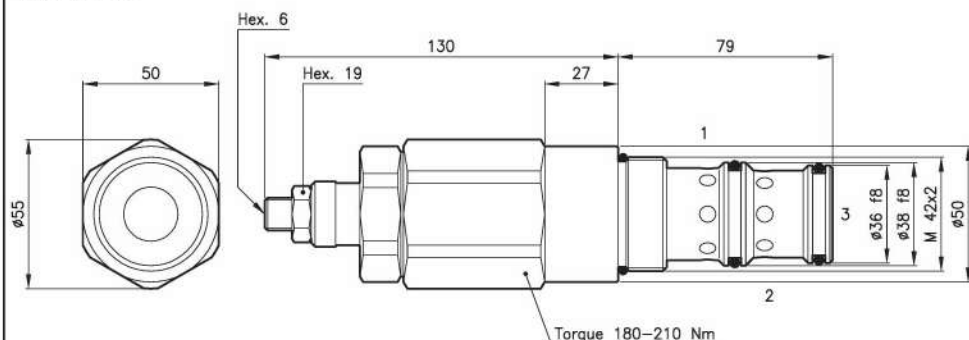
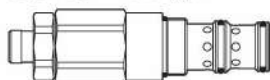
CMS 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

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 = 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

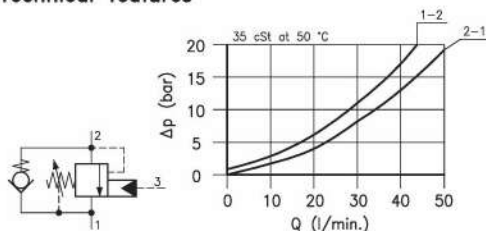
N = Standard adjustment

CMS 70/T-N


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

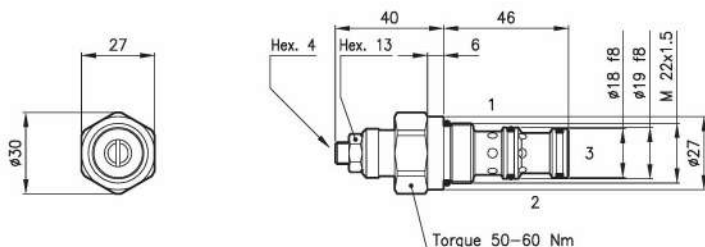
CMS 70 valves can be assembled
 on standard bodies 70-C3 series;
 for dimensions see catalogue 16.010

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

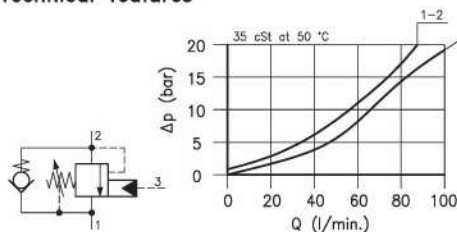
Adjustment type

L = Adjustment with oversight protection

Codes:

CMQ 30/D-L	34 011 101
CMQ 30/T-L	34 011 102
External seals kit	90 620 104

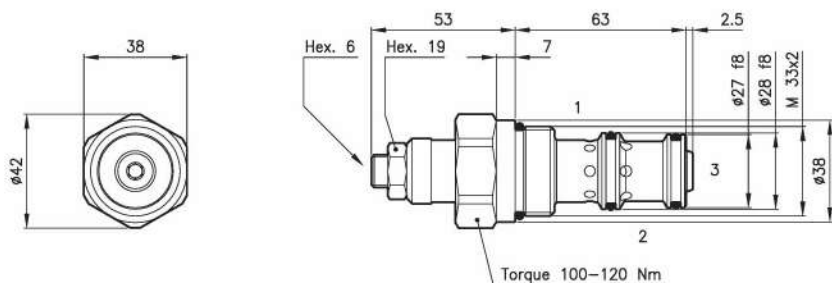
CMQ 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features


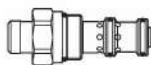
$$PP = \frac{(SP + BP) - LP}{8}$$

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		
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
CMQ 50/T-L

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

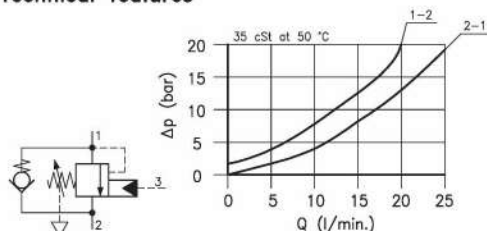
L = Adjustment with overset protection



Codes:

CMQ 50/D-L	54 011 100
CMQ 50/T-L	54 011 101
External seals kit	90 620 107

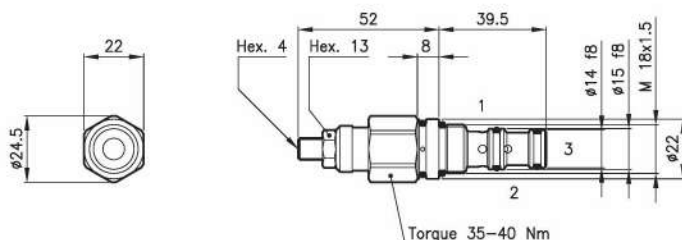
CMQ 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

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		
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
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

Adjustment type

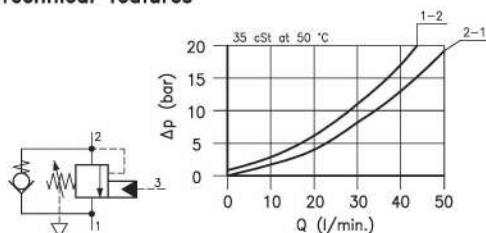
N = Standard adjustment



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

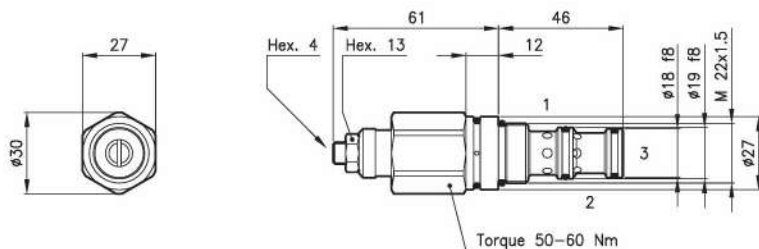
CMB 20 valves can be assembled
 on standard bodies 20-C3 series;
 for dimensions see catalogue 16.010

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

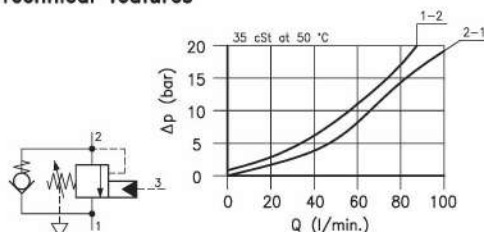
Adjustment type

L = Adjustment with oversight protection

Codes:

CMC 30/D-L	34 011 122
CMC 30/T-L	34 011 123
External seals kit	90 620 104

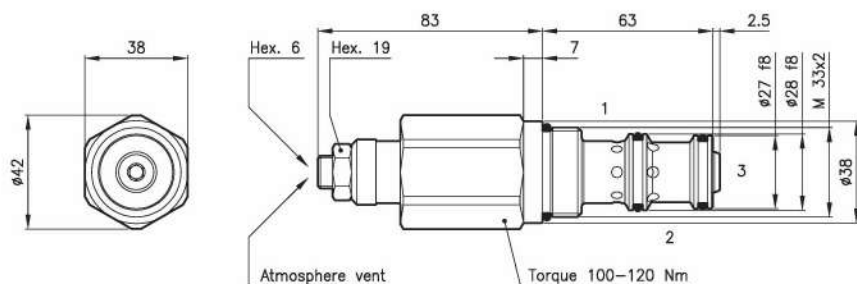
CMC 30 valves can be assembled
 on standard bodies 30-C3 series;
 for dimensions see catalogue 16.010

Technical features


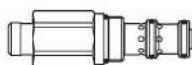
$$PP = \frac{SP - LP}{8}$$

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		
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 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

Adjustment type

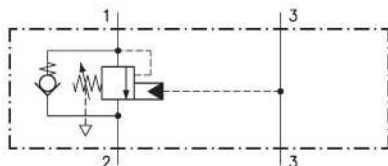
L = Adjustment with overset protection



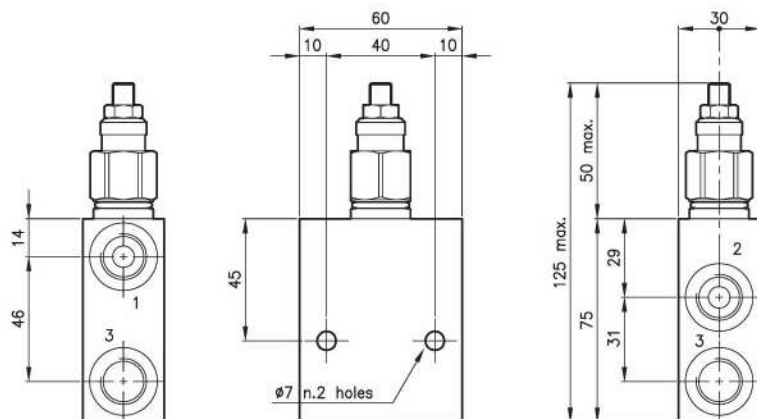
Codes:

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

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	Factory set
U	25 - 125 bar	70 bar
D	50 - 205 bar	140 bar
T	105 - 320 bar	280 bar

Adjustment type

N = Standard adjustment


Version

Standard ports

B05 = G 1/4 ISO 228

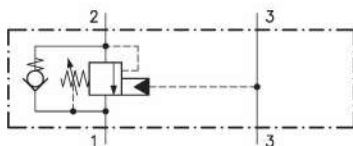
B06 = G 3/8 ISO 228

Codes:

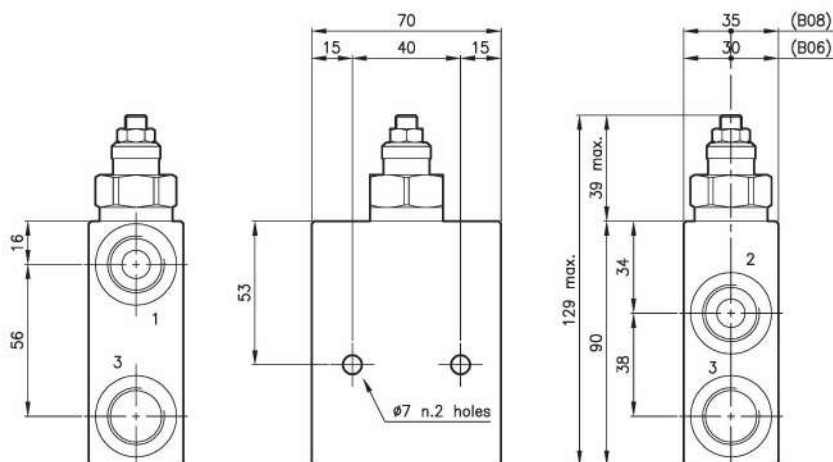
CMB 20/U-N-PP-B05	24 011 123
CMB 20/D-N-PP-B05	24 011 124
CMB 20/T-N-PP-B05	24 011 125
CMB 20/U-N-PP-B06	24 011 126
CMB 20/D-N-PP-B06	24 011 127
CMB 20/T-N-PP-B06	24 011 128

Only bodies code:

Body type 20-PP-B05	28 144 152
Body type 20-PP-B06	28 144 153

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)	0.790

Dimensions

Ordering informations
CMQ 30/T-L-PP-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

B06 = G 3/8 ISO 228

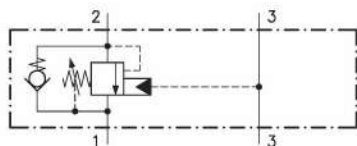
B08 = G 1/2 ISO 228

Codes:

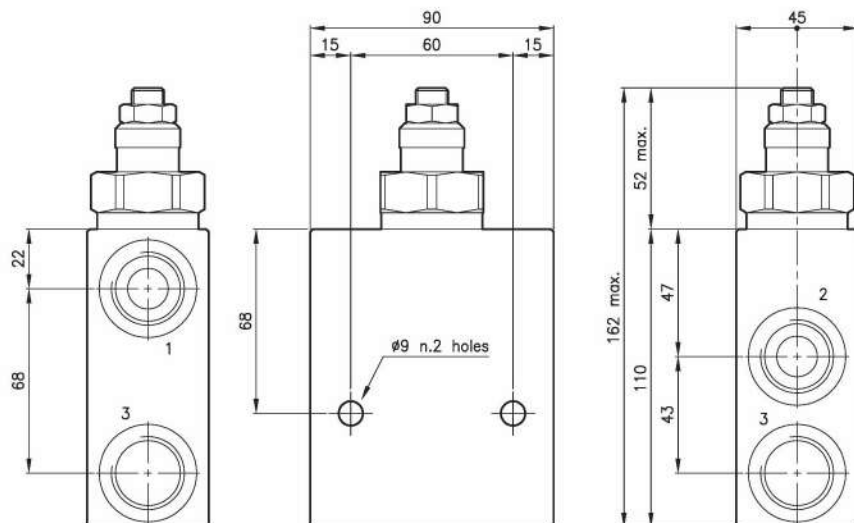
CMQ 30/D-L-PP-B06	34 011 155
CMQ 30/T-L-PP-B06	34 011 156
CMQ 30/D-L-PP-B08	34 011 157
CMQ 30/T-L-PP-B08	34 011 158

Only bodies code:

Body type 30-PP-B06	38 144 120
Body type 30-PP-B08	38 144 236

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

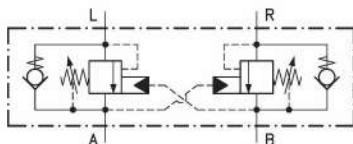
B12 = G 3/4 ISO 228

Codes:

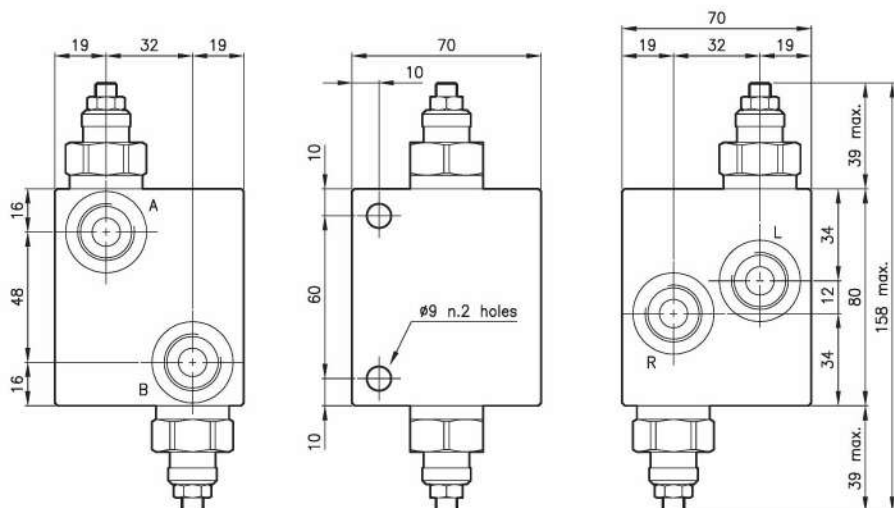
CMQ 50/D-L-PP-B08	54 011 122
CMQ 50/T-L-PP-B08	54 011 123
CMQ 50/D-L-PP-B12	54 011 124
CMQ 50/T-L-PP-B12	54 011 125

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 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

B06 = G 3/8 ISO 228

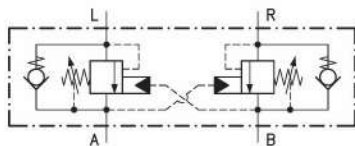
B08 = G 1/2 ISO 228

Codes:

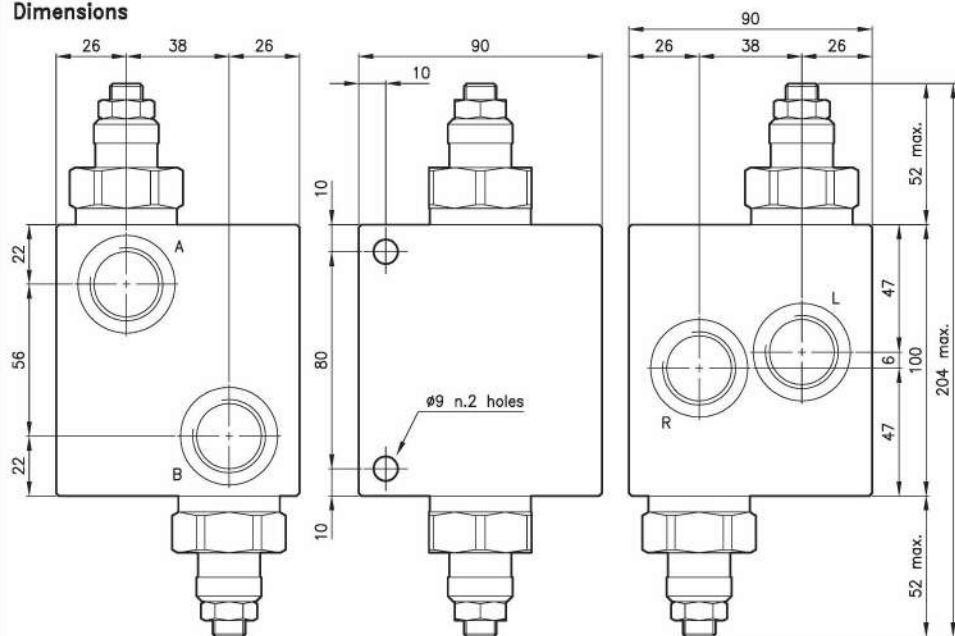
CMQ 30/D-L-CSL 25-B06	34 011 106
CMQ 30/T-L-CSL 25-B06	34 011 107
CMQ 30/D-L-CSL 25-B08	34 011 108
CMQ 30/T-L-CSL 25-B08	34 011 109

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	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

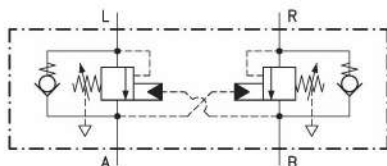
B12 = G 3/4 ISO 228

Codes:

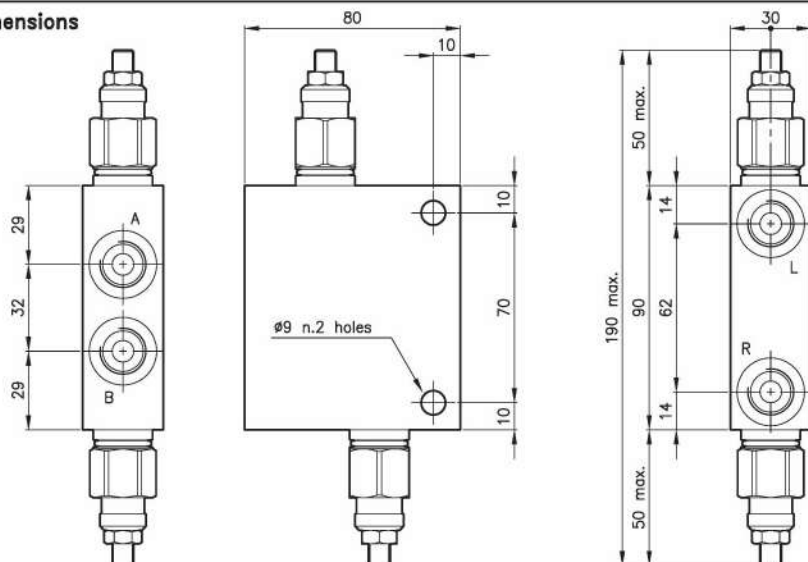
CMQ 50/D-L-CSL 25-B08	54 011 107
CMQ 50/T-L-CSL 25-B08	54 011 108
CMQ 50/D-L-CSL 25-B12	54 011 109
CMQ 50/T-L-CSL 25-B12	54 011 110

Only bodies code:

Body type 50-CSL 25-B08	58 144 134
Body type 50-CSL 25-B12	58 144 135

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 springs

Type	Setting range	Factory set
U	25 - 125 bar	70 bar
D	50 - 205 bar	140 bar
T	105 - 320 bar	280 bar

Adjustment type

N = Standard adjustment


Version

Standard ports

B05 = G 1/4 ISO 228

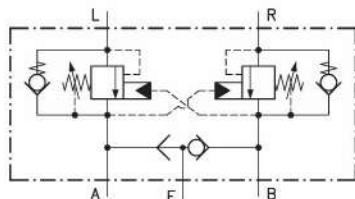
B06 = G 3/8 ISO 228

Codes:

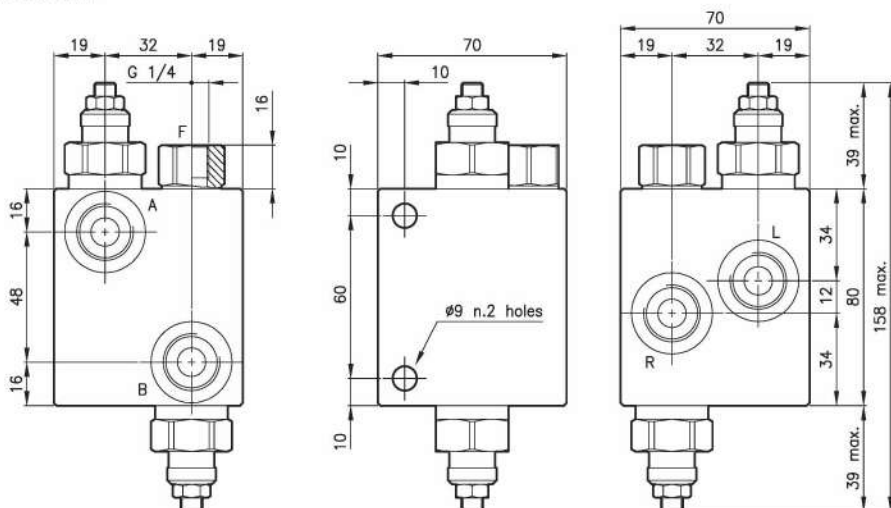
CMB 20/U-N-CSL 25-B05	24 011 108
CMB 20/D-N-CSL 25-B05	24 011 109
CMB 20/T-N-CSL 25-B05	24 011 110
CMB 20/U-N-CSL 25-B06	24 011 111
CMB 20/D-N-CSL 25-B06	24 011 112
CMB 20/T-N-CSL 25-B06	24 011 113

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 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 with shuttle valve

Standard ports

B06 = G 3/8 ISO 228

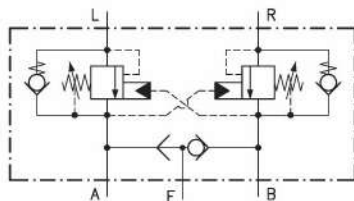
B08 = G 1/2 ISO 228

Codes:

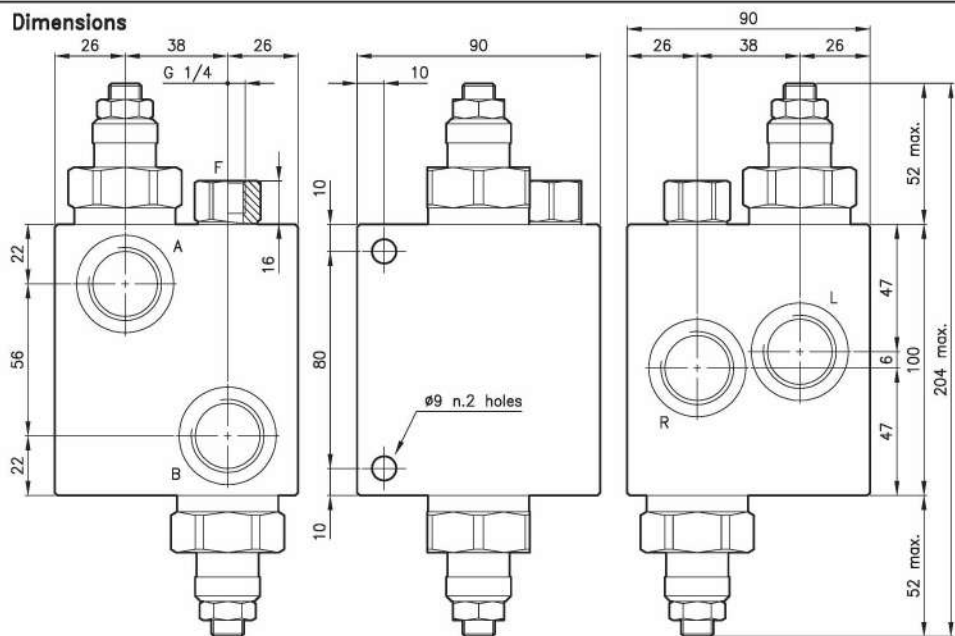
CMQ 30/D-L-CSL 26-B06	34 011 143
CMQ 30/T-L-CSL 26-B06	34 011 144
CMQ 30/D-L-CSL 26-B08	34 011 145
CMQ 30/T-L-CSL 26-B08	34 011 146

Only bodies code:

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 springs

Type	Setting range	Factory set
D	25 - 125 bar	105 bar
T	105 - 420 bar	280 bar

Adjustment type

L = Adjustment with oversight protection

Version with shuttle valve

Standard ports

B08 = G 1/2 ISO 228

B12 = G 3/4 ISO 228

Codes:

CMQ 50/D-L-CSL 26-B08	54 011 111
CMQ 50/T-L-CSL 26-B08	54 011 112
CMQ 50/D-L-CSL 26-B12	54 011 113
CMQ 50/T-L-CSL 26-B12	54 011 114

Only bodies code:

Body type 50-CSL 26-B08	58 144 138
Body type 50-CSL 26-B12	58 144 139

ALPHABETIC INDEX AND VALVE CODES

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MOTION CONTROL VALVES

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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.

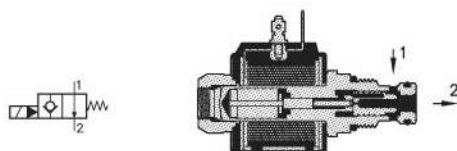
The duty current coils (12-24 Volt) can be directly fed; otherwise for alternate current coils (20-110-220 Volt 50/60 Hz) a connector with rectifier bridge is required, which can be supplied on request.

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

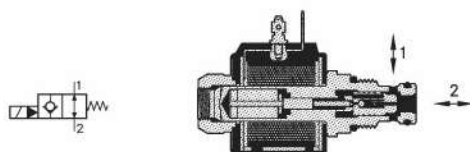
200

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

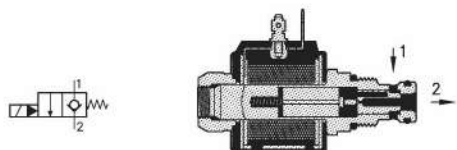
200

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

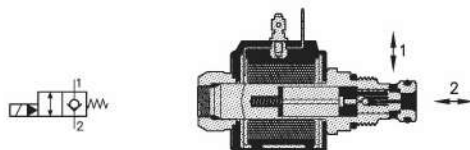
200

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

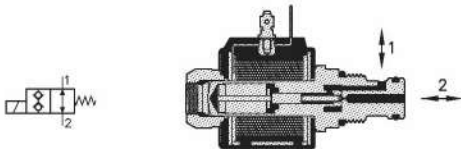
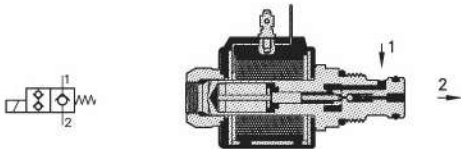
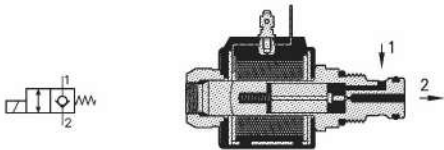
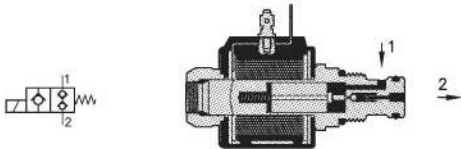
08.060

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 direstions 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 the 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

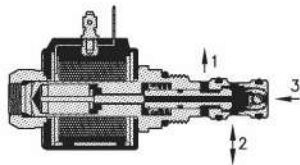
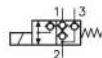
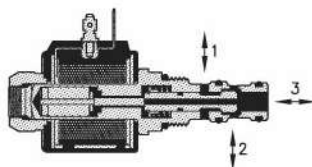
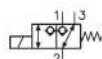
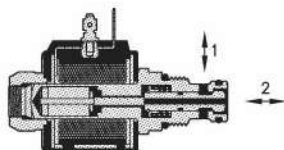
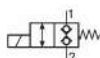
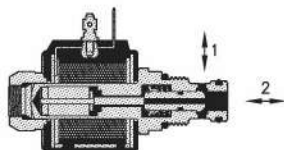
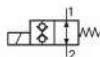
Direct acting solenoid valves dual poppet-type.

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.

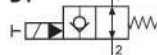
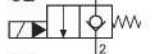
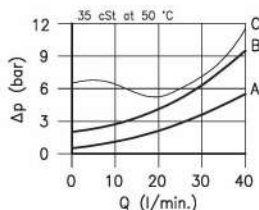
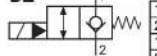
The solenoid ECD series utilize power coils and are suitable for working till 315 bar.

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

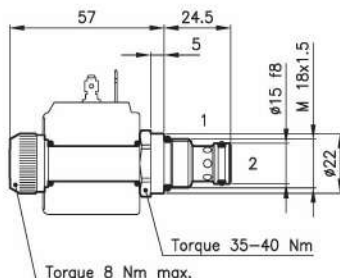
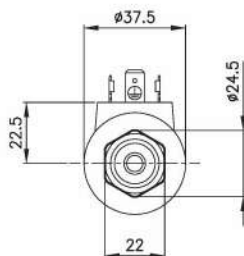


Technical features
C1

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 (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 absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
ECP 20/22C1-MO

ECP 20/22.. = Valve type



Circuits

22C1 =

22B1 =

22C2 =

22B2 =

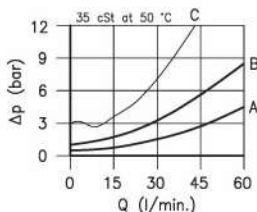
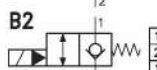
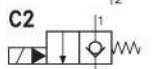
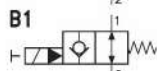
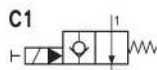
 MO = Manual override (Only C1 and B1 version)
 (Omit if not request)

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

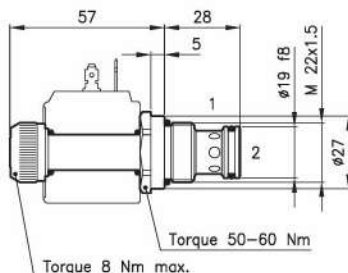
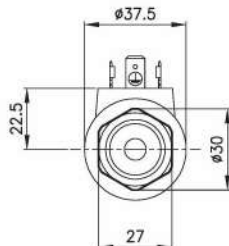
 ECP 20/22.. valves can be assembled
 on standard bodies 20-L0 series;
 for dimensions see catalogue 16.010

 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


	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 (Mean value)
It change in function of circuits pressure, flow and fluid viscosity.		
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



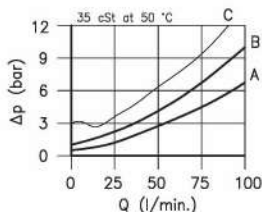
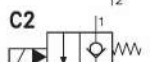
MO = Manual override (Only C1 and B1 version)
(Omit if not request)

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

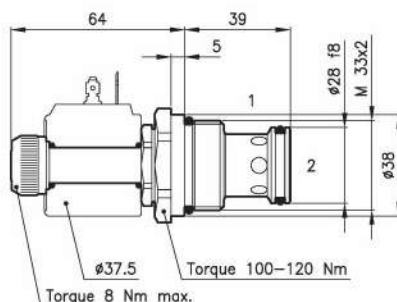
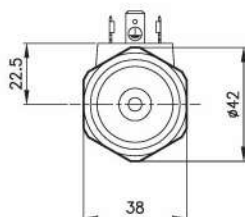
ECP 30/22.. valves can be assembled on standard bodies 30-L0 series; for dimensions see catalogue 16.010

On the ECP 30 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

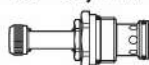
Technical features


	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

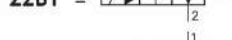
Cavity	(For dimensions see catalogue 17.000)	S 50/2
Max. flow	(l/min.)	90
Max. pressure	(bar)	210
Response time	(ms)	80 - 120 (Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.400
Hydraulic fluid; mineral oil HM and HV		ISO 6074
Recommended filtration; 19/15 ISO 4466 (25 μ absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
ECP 50/22C1-MO

ECP 50/22.. = Valve type



Circuits



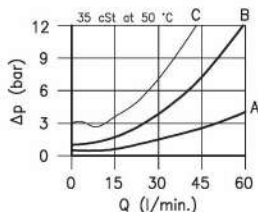
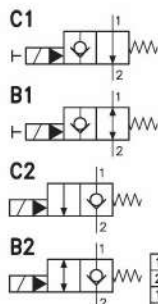
MO = Manual override (Only C1 and B1 version)
(Omit if not request)

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

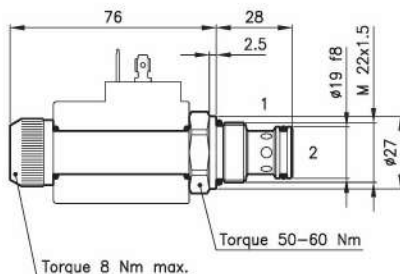
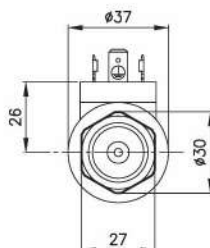
ECP 50/22.. valves can be assembled on standard bodies 50-L0 series; for dimensions see catalogue 16.010

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 (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 absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
EPP 30/22C1-MO

EPP 30/22.. = Valve type



Circuits

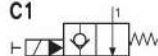

MO = Manual override (Only C1 and B1 version)
 (Omit if not request)

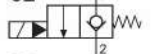
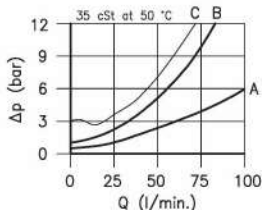
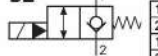
Codes:

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

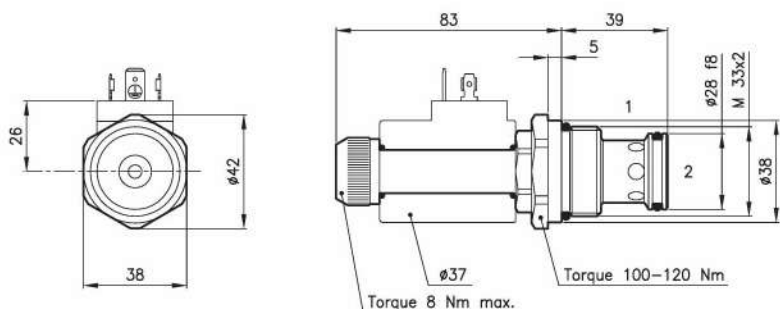
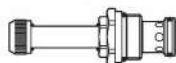
 On the EPP 30 valves must be
 assembled the Coils B30 series;
 for dimensions, features and codes
 see catalogues 09.900 and 09.901.

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 (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

22C1 =

22B1 =

22C2 =

22B2 =

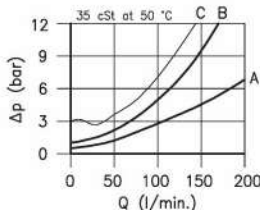
MO = Manual override (Only C1 and B1 version)
 (Omit if not request)

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

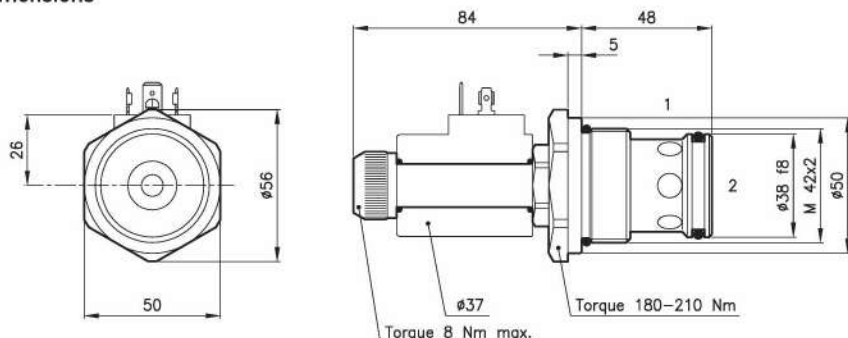
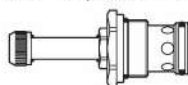
EPP 50/22.. valves can be assembled on standard bodies 50-L0 series; for dimensions see catalogue 16.010

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 (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)	0.680
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

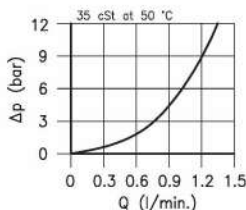
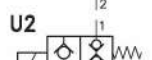
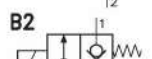
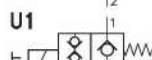
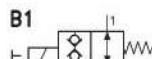

MO = Manual override (Only C1 and B1 version)
 (Omit if not request)

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

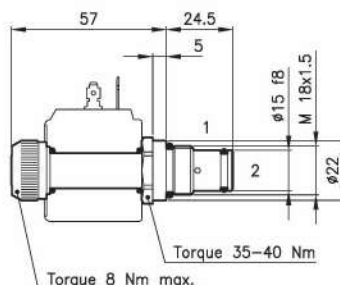
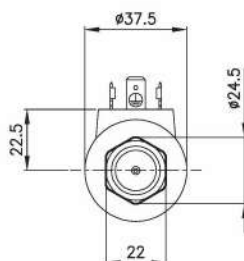
EPP 70/22.. valves can be assembled on standard bodies 70-L0 series; for dimensions see catalogue 16.010

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


In B2 version the flow from 2 to 1 needs a pressure about 180 bar.

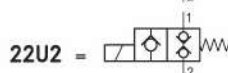
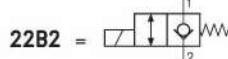
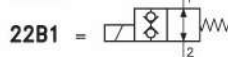
Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	1.2
Max. pressure	(bar)	210
Response time	(ms)	20 - 40 (Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 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



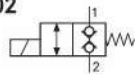
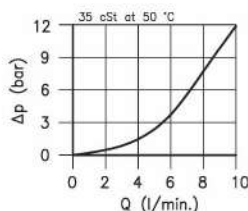
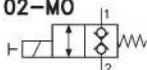
MO = Manual override (Only B1 and U1 version)
(Omit if not request)

Codes:

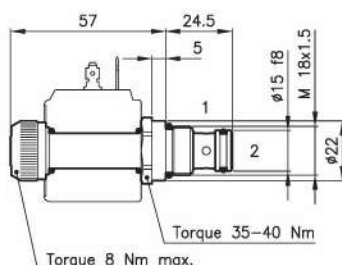
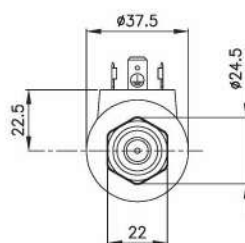
ECD 20/22B1	25 011 109
ECD 20/22B1-MO	25 011 147
ECD 20/22U1	25 011 120
ECD 20/22U1-MO	25 011 146
ECD 20/22B2	25 011 104
ECD 20/22U2	25 011 105
External seals kit	90 620 100

ECD 20/22.. valves can be assembled on standard bodies 20-L0 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 (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)	0.120
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

Circuit
2202 =
MO = Manual override
 (Omit if not request)

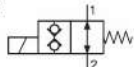
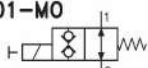
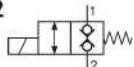
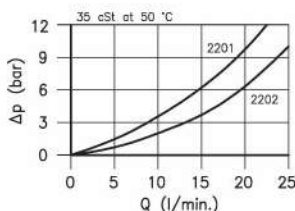
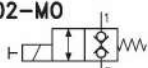
Codes:

ECD 20/2202	25 011 129
ECD 20/2202-MO	25 011 133

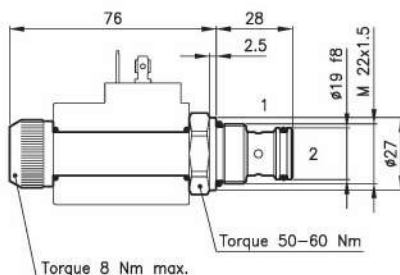
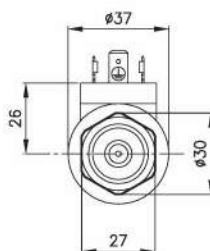
External seals kit	90 620 100
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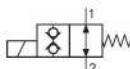
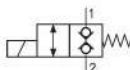
ECD 20/22.. valves can be assembled on standard bodies 20-L0 series; for dimensions see catalogue 16.010

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
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 (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
ECD 30/2202-MO
ECD 30/22.. = Valve type

Circuits
2201 =

2202 =

MO =

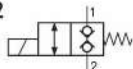
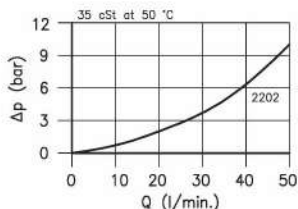
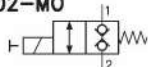
 Manual override
 (Omit if not request)

Codes:

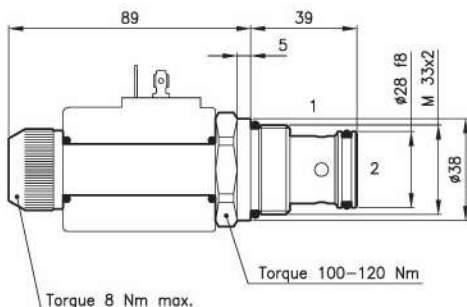
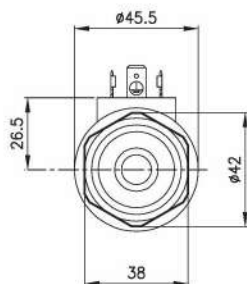
ECD 30/2201	35 011 129
ECD 30/2201-MO	35 011 145
ECD 30/2202	35 011 117
ECD 30/2202-MO	35 011 131
External seals kit	90 620 103

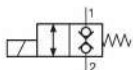
 ECD 30/22.. valves can be assembled
 on standard bodies 30-L0 series;
 for dimensions see catalogue 16.010

 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 (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

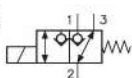
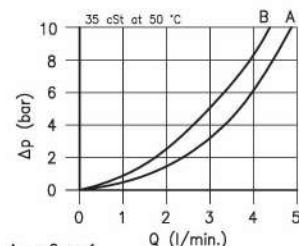
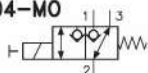
Circuits
2202 =

MO = Manual override
 (Omit if not request)

Codes:

ECD 50/2202	55 011 113
ECD 50/2202-MO	55 011 114
External seals kit	90 620 106

ECD 50/22.. valves can be assembled on standard bodies 50-L0 series; for dimensions see catalogue 16.010

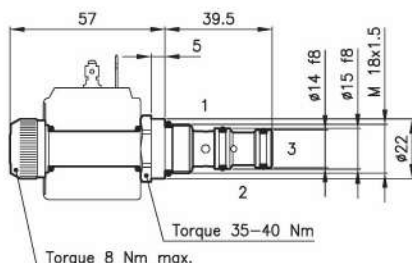
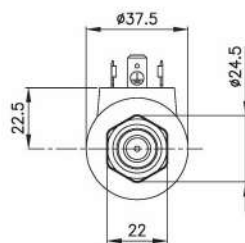
On the ECD 50 valves must be assembled the Coils B50 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features
04

04-MO


A = 2 ↔ 1

B = 2 ↔ 3

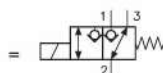
Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	5
Max. pressure	(bar)	210
Response time	(ms)	20 - 40 (Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.140
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 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

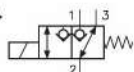
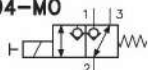
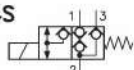
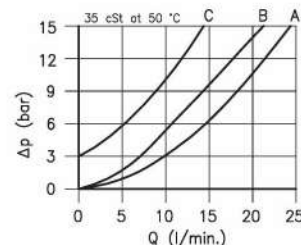
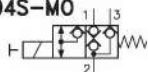
3204

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.

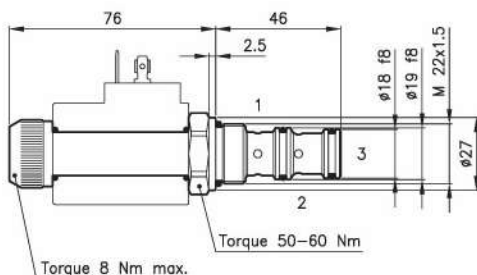
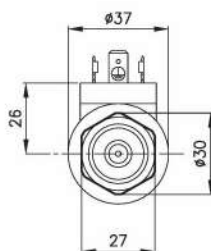
Technical features
04

04-MO

04S

04S-MO


A = 2 ↔ 1 (3204)

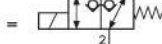
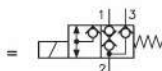
B = 2 → 3 (3204) 2 ↔ 1 (3204S)

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	00
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SOLENOID VALVES POPPET-TYPE	08
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PROPORTIONAL SOLENOID VALVES	10
LOGIC VALVES	11
M 20x1.5 & 3/4-16 UNF SERIES VALVES	12
SANDWICH BODIES (CETOP)	13
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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 duple 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

ETD 30/4306

30

315

09.140

ETD 50/4306

60

315

09.150

ETD 20/4309

15

315

09.130

ETD 30/4309

30

315

09.140

ETD 50/4309

60

315

09.150

ETD../43.. series - four-way type centre open.
ETD 20/4307

12

315

09.160

ETD 30/4307

25

315

09.170

ETD 50/4307

45

315

09.180

ETD 20/4308

12

315

09.160

ETD 30/4308

25

315

09.170

ETD 50/4308

45

315

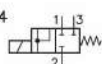
09.180

Circuits available on request.

On Customers request, solenoid valves with not standard circuits can be supplied.

The circuits under mentioned are models already manufactured.

3214



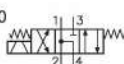
4212



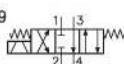
33S2



4310



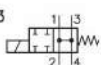
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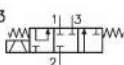
42R8



4213



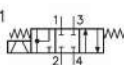
33S3



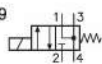
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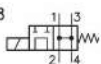
4321



4209



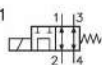
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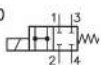
4316



4211

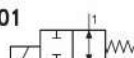
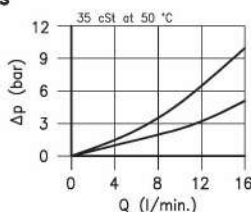
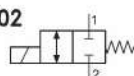
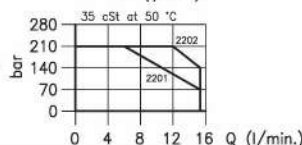


4220

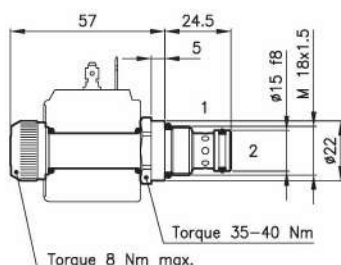
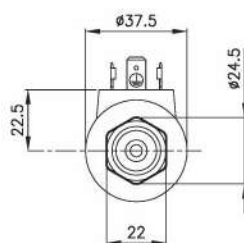


4317



Technical features
01

02

Use limits

 With flow from 2 to 1
 limit the flow of 30%

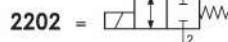
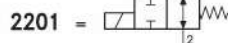
Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(With flow from 1 to 2) (l/min.)	15
Max. pressure	(bar)	210
Max. leakage	(cm ³ /min.)	20
Response time	(ms)	20 - 40 (Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic flow; mineral 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

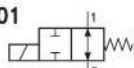
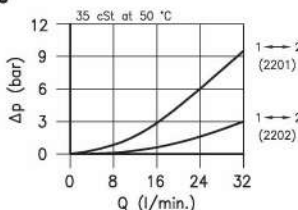
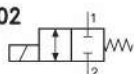


Codes:

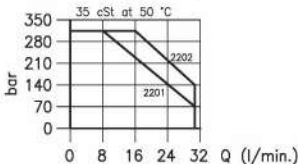
ETD 20/2201	25 011 113
ETD 20/2202	25 011 110
External seals kit	90 620 100

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

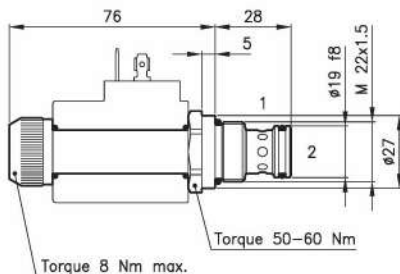
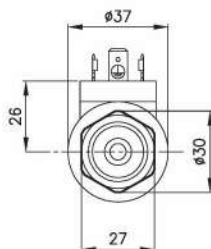
 On the ETD 20 valves must be
 assembled the Coils B20 series;
 for dimensions, features and codes
 see catalogues 09.900 and 09.901.

Technical features
01

02


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

2201 =

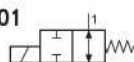
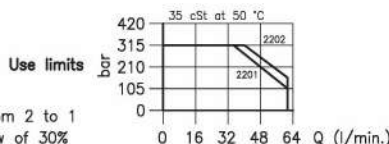
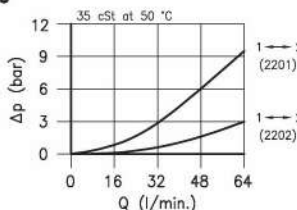
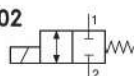
2202 =

Codes:

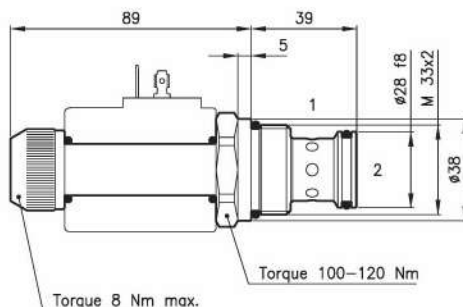
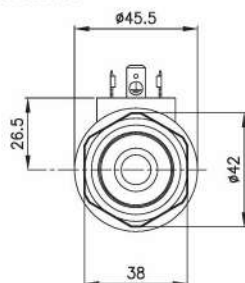
ETD 30/2201	35 011 120
ETD 30/2202	35 011 130
External seals kit	90 620 103

 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
01

02

 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	(cm ³ /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



Circuits

2201 =

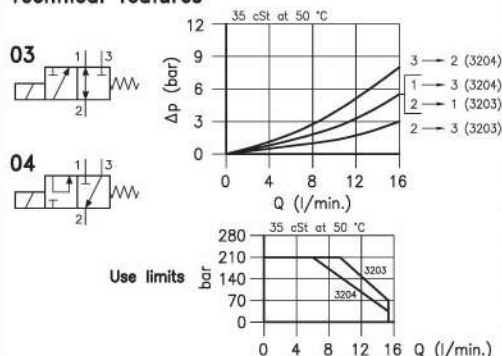
2202 =

Codes:

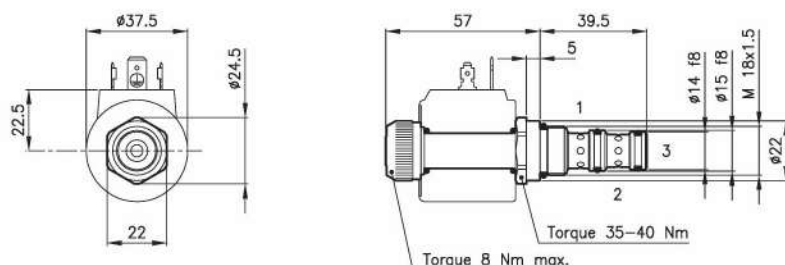
ETD 50/2201	55 011 111
ETD 50/2202	55 011 115
External seals kit	90 620 106

 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


Cavity	(For dimensions see catalogue 17.000)	S 20/3
Max. flow	(l/min.)	15
Max. pressure	(bar)	210
Max. leakage	(cm ³ /min.)	20
Response time	(ms)	20 - 40 (Mean value)
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

3203 =

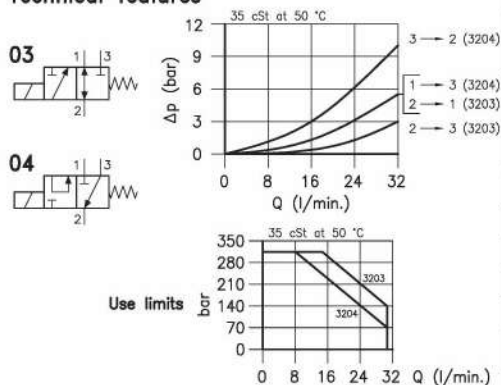
3204 =

Codes:

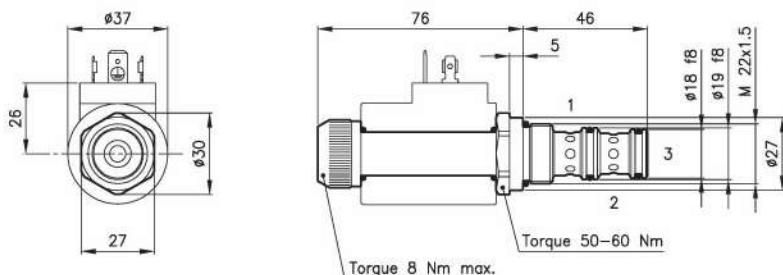
ETD 20/3203	25 011 115
ETD 20/3204	25 011 108
External seals kit	90 620 101

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


Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(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)	0.230
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

3203 =

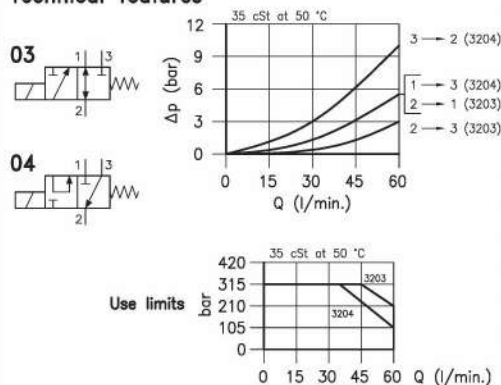
3204 =

Codes:

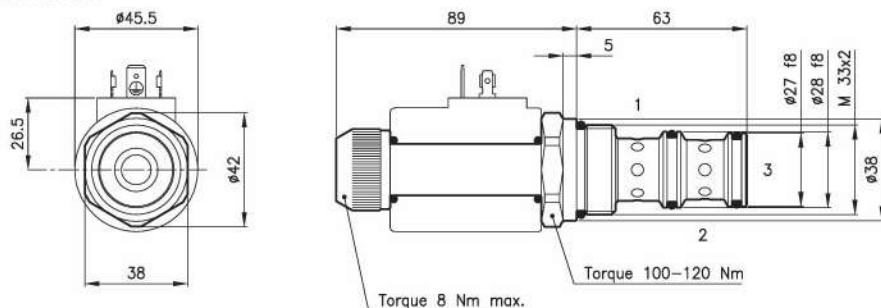
ETD 30/3203	35 011 123
ETD 30/3204	35 011 124
External seals kit	90 620 104

ETD 30/32.. valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

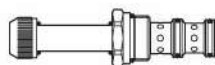
On the ETD 30 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

Technical features


Cavity	(For dimensions see catalogue 17.000)	S 50/3
Max. flow	(l/min.)	60
Max. pressure	(bar)	315
Max. leakage	(cm ³ /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

3203 =

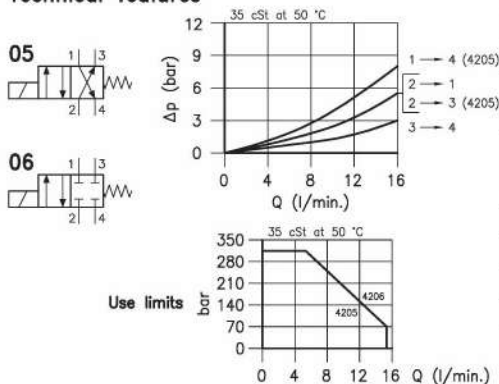
3204 =

Codes:

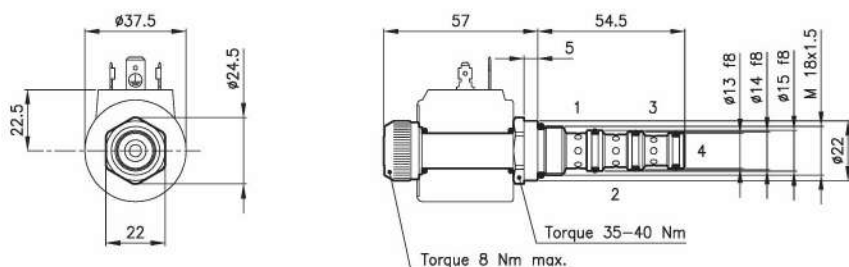
ETD 50/3203	55 011 112
ETD 50/3204	55 011 126
External seals kit	90 620 107

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	(cm ³ /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

4205 =

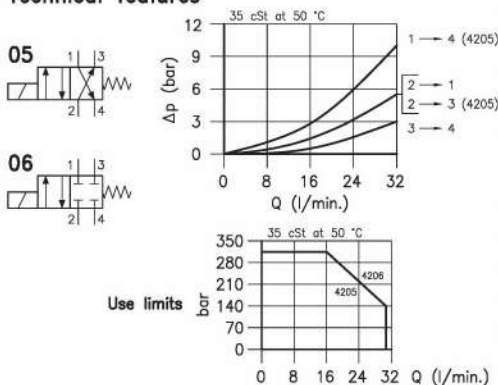
4206 =

Codes:

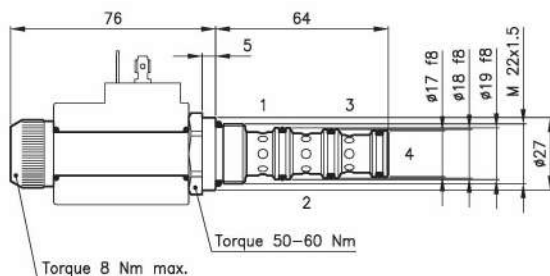
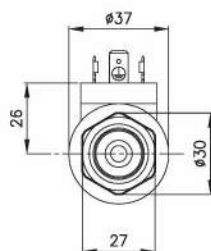
ETD 20/4205	25 011 121
ETD 20/4206	25 011 122
External seals kit	90 620 102

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


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	(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)	0.250
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



Circuits

4205 =

4206 =

Codes:

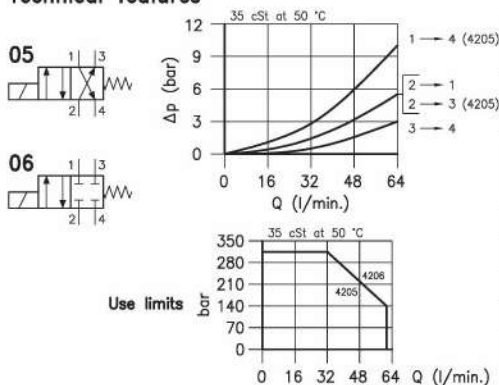
ETD 30/4205 35 011 125

ETD 30/4206 35 011 152

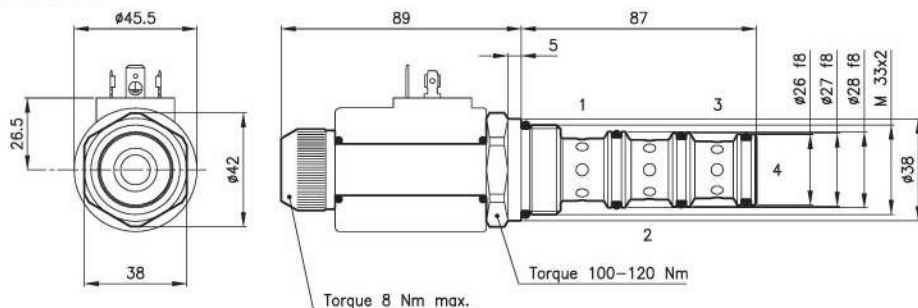
External seals kit 90 620 105

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	(cm ³ /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

4205 =

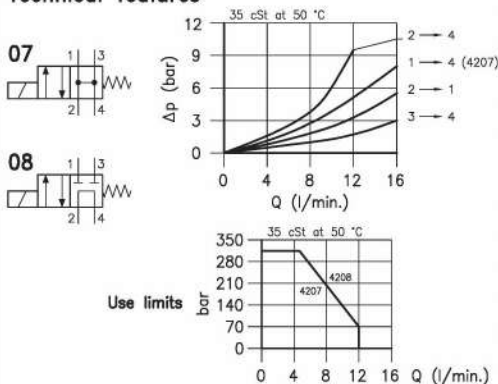
4206 =

Codes:

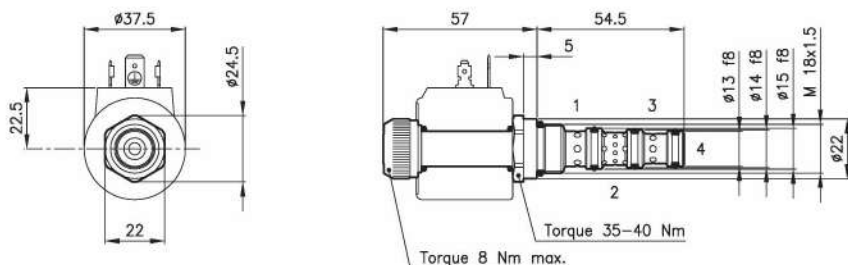
ETD 50/4205	55 011 118
ETD 50/4206	55 011 123
External seals kit	90 620 108

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


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)	210
Max. leakage	(cm ³ /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 20/4207
ETD 20/42.. = Valve type

Centre open



Circuits

4207 =

4208 =

Codes:

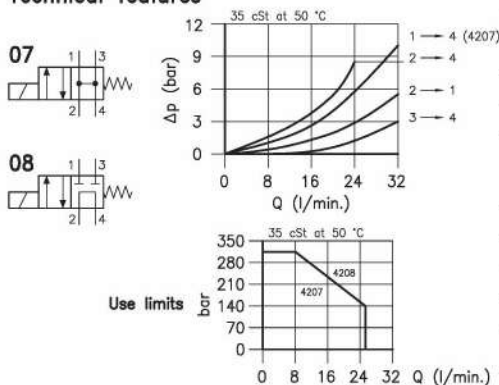
ETD 20/4207 25 011 123

ETD 20/4208 25 011 124

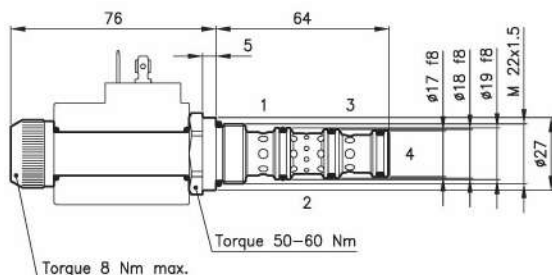
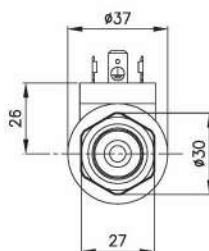
External seals kit 90 620 102

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	(cm ³ /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 30/4207

ETD 30/42.. = Valve type
 Centre open



Circuits

4207 =

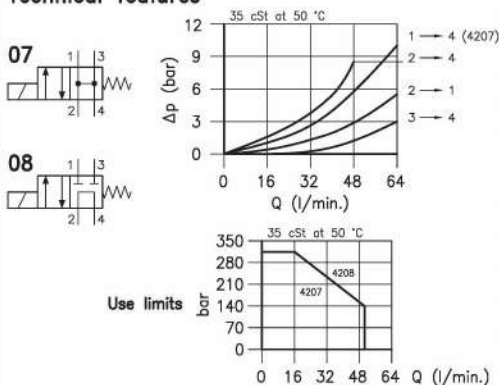
4208 =

Codes:

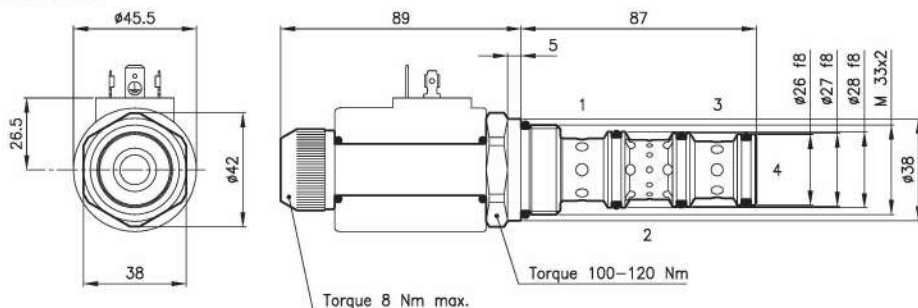
ETD 30/4207	35 011 118
ETD 30/4208	35 011 133
External seals kit	90 620 105

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

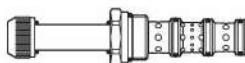
On the ETD 30 valves must be
 assembled the Coils B30 series;
 for dimensions, features and codes
 see catalogues 09.900 and 09.901.

Technical features


Cavity	(For dimensions see catalogue 17.000)	S 50/4
Max. flow	(l/min.)	45
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm ³ /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)	0.480
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

4207 =
4208 =

Codes:

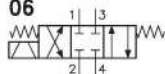
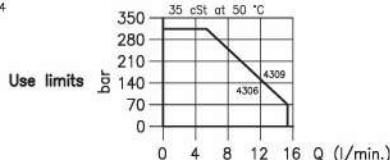
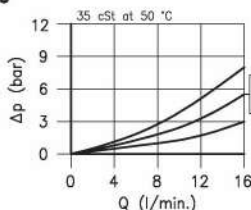
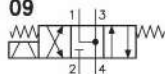
ETD 50/4207 55 011 124

ETD 50/4208 55 011 125

External seals kit 90 620 108

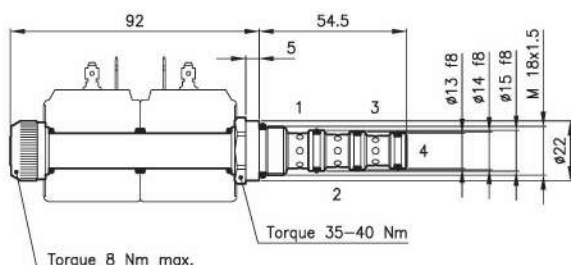
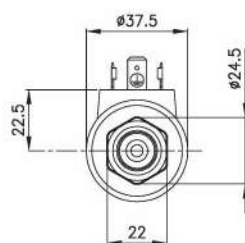
ETD 50/42.. valves can be assembled on standard bodies 50-C4 series; for dimensions see catalogue 16.011

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
06

09


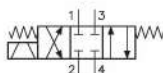
Use limits

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	(cm ³ /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)	0.170
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


Circuits

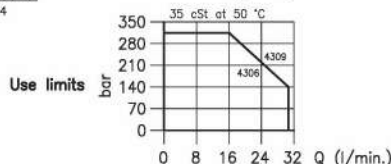
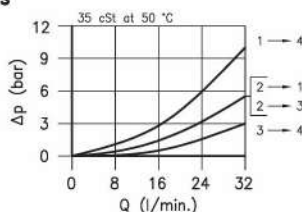
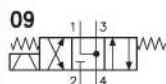
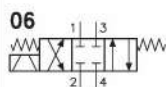
4306 =

4309 =


Codes:

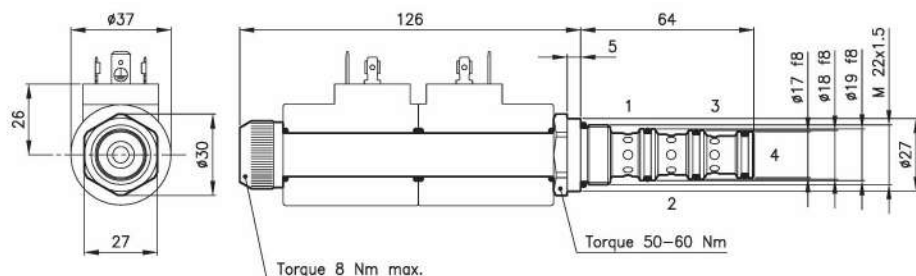
ETD 20/4306	25 011 125
ETD 20/4309	25 011 126
External seals kit	90 620 102

 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


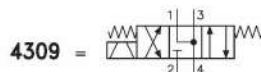
Cavity	(For dimensions see catalogue 17.000)	S 30/4
Max. flow	(l/min.)	30
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm ³ /min.)	25
Response time	(ms)	30 - 60 (Mean value)
It change in function of circuits, pressure, flow and fluid viscosity.		
Fluid viscosity range	(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

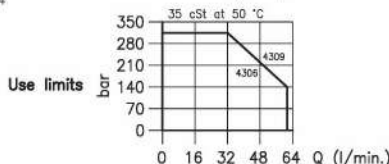
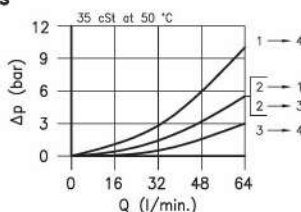
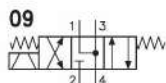
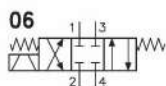


Codes:

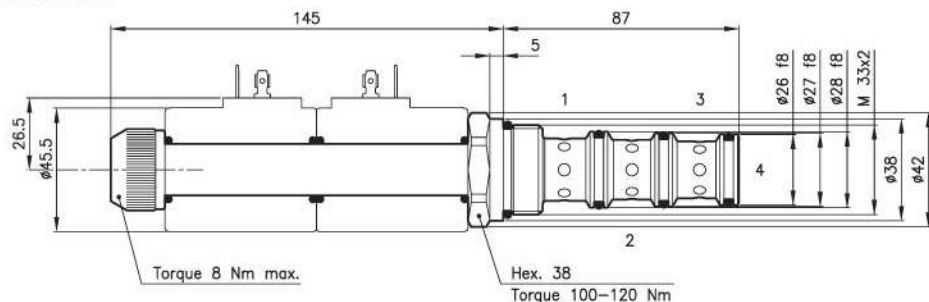
ETD 30/4306	35 011 149
ETD 30/4309	35 011 113
External seals kit	90 620 105

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


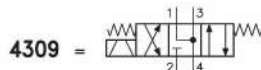
Cavity	(For dimensions see catalogue 17.000)	S 50/4
Max. flow	(l/min.)	60
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	210
Max. leakage	(cm ³ /min.)	40
Response time	(ms)	40 - 80 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.580
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4486 (25 μ absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
ETD 50/4306

ETD 50/43.. = Valve type
 Centre closed



Circuits

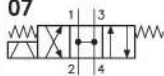
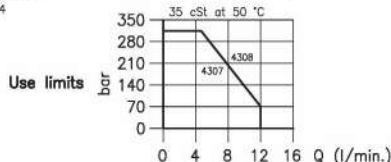
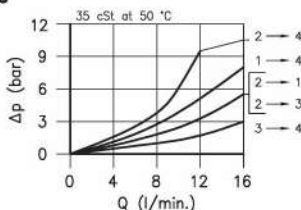
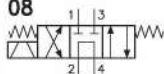


Codes:

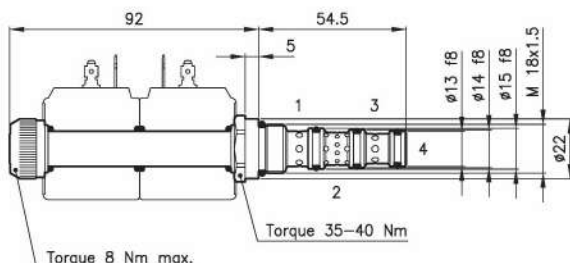
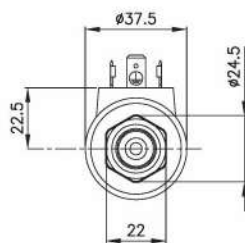
ETD 50/4306	55 011 127
ETD 50/4309	55 011 128
External seals kit	90 620 108

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
07

08


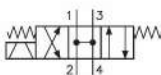
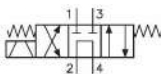
Cavity	(For dimensions see catalogue 17.000)	S 20/4
Max. flow	(l/min.)	12
Max. pressure way 1-2-3	(bar)	315
Max. pressure way 4	(bar)	50
Max. leakage	(cm ³ /min.)	20
Response time	(ms)	20 - 40 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.170
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

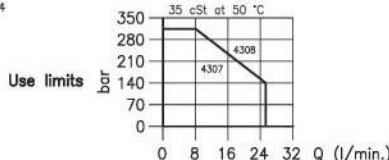
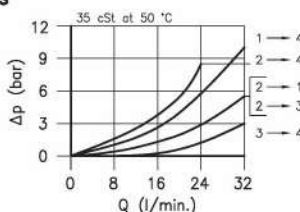
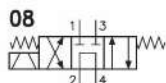
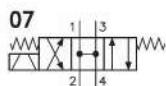
4307 =

4308 =


Codes:

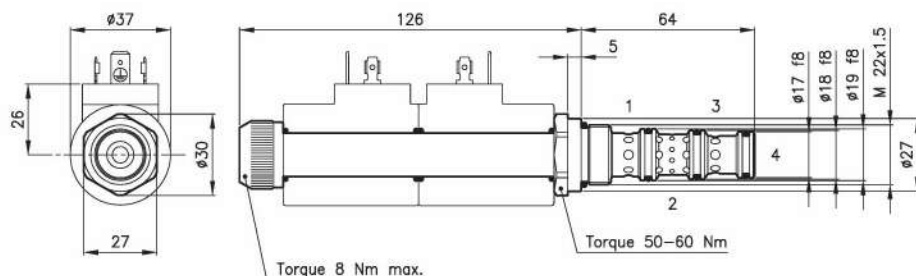
ETD 20/4307	25 011 127
ETD 20/4308	25 011 128
External seals kit	90 620 102

ETD 20/43.. valves can be assembled on standard bodies 20-C4 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	(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)	0.310
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

4307 =

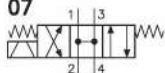
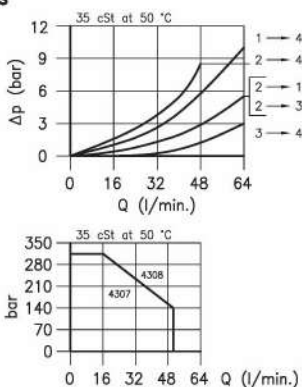
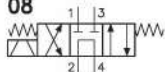
4308 =

Codes:

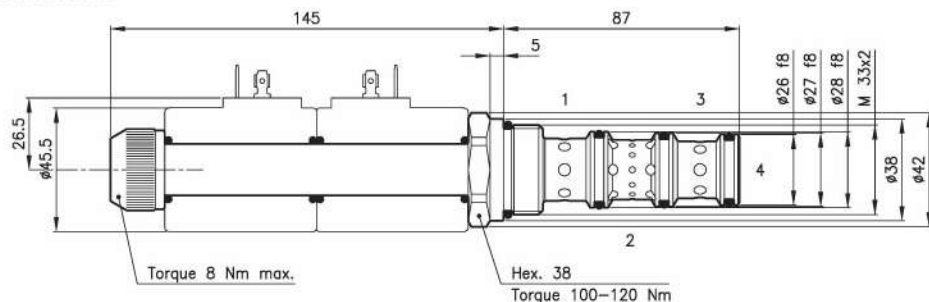
ETD 30/4307	35 011 132
ETD 30/4308	35 011 119
External seals kit	90 620 105

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


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	(cm ³ /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)	0.580
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.

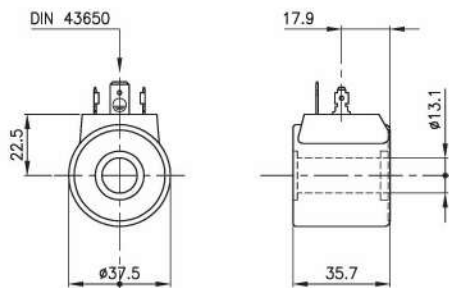
Protection Class (with connector assembled) IP 65 DIN 40050

Encapsulation with nylon 6 and fiberglass

Insulation Coil Class F - VDE 0580

Insulation Copper wire Class H - VDE 0580

Coils **B20** Series (DIN 43650)



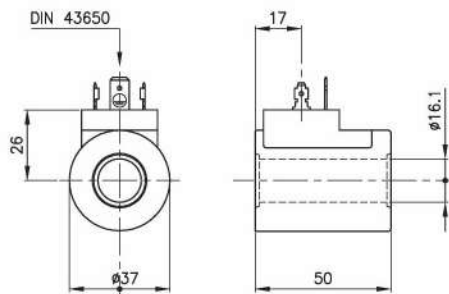
Power 18 Watt
 Voltage range $\pm 10\%$
 Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			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)



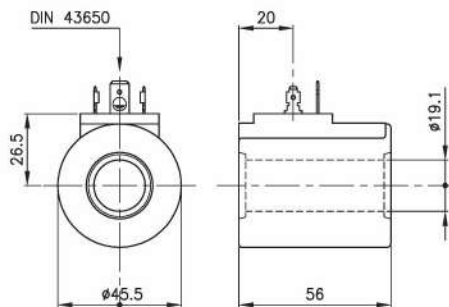
Power 28.5 Watt
 Voltage range $\pm 10\%$
 Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			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 $\pm 10\%$
 Duty cycle ED 100%

* (1) Nominal current

* (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			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.

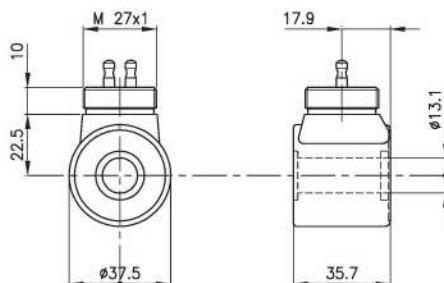
Protection Class (with connector assembled) IP 67 DIN 40050

Encapsulation with nylon 6 and fiberglass

Insulation Coil Class F - VDE 0580

Insulation Copper wire Class H - VDE 0580

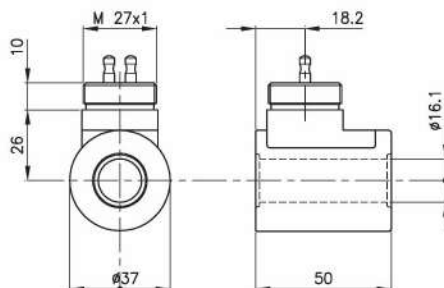
Coils **B20** Series (KOSTAL)



Power 18 Watt
 Voltage range $\pm 10\%$
 Duty cycle ED 100%
 * (1) Nominal current
 * (2) Resistance 20°C $\pm 5\%$

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

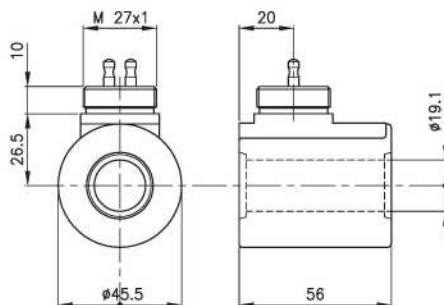
Coils **B30** Series (KOSTAL)



Power 28.5 Watt
 Voltage range $\pm 10\%$
 Duty cycle ED 100%
 * (1) Nominal current
 * (2) Resistance 20°C $\pm 5\%$

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 $\pm 10\%$
 Duty cycle ED 100%
 * (1) Nominal current
 * (2) Resistance 20°C $\pm 5\%$

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

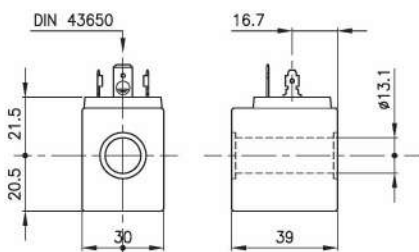
This Coils series include connection DIN 43650 – KOSTAL M 24x4 – AMP JUNIOR – DEUTSCH

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

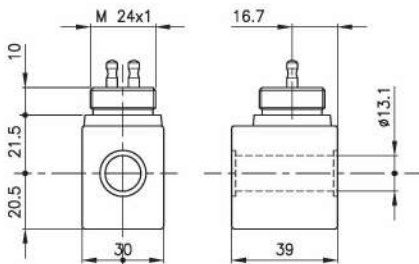
Coils B28 Series (DIN 43650)


Power 18 Watt

 Voltage range $\pm 10\%$ Duty cycle ED 100%

 * (1) Nominal current * (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			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

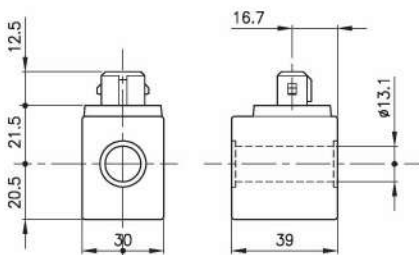
 Voltage range $\pm 10\%$

Duty cycle ED 100%

* (1) Nominal current

 * (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			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

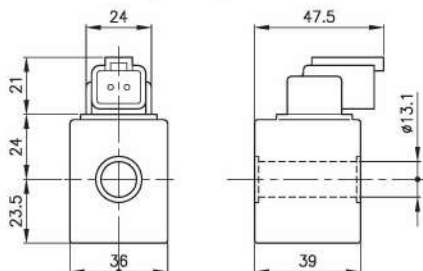
 Voltage range $\pm 10\%$

Duty cycle ED 100%

* (1) Nominal current

 * (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			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 $\pm 10\%$

Duty cycle ED 100%

* (1) Nominal current

 * (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			Ampere	Ohm
B28-12C-22D	25 125 135	12	1.83	6.5
B28-24C-22D	25 125 136	24	0.92	26.1

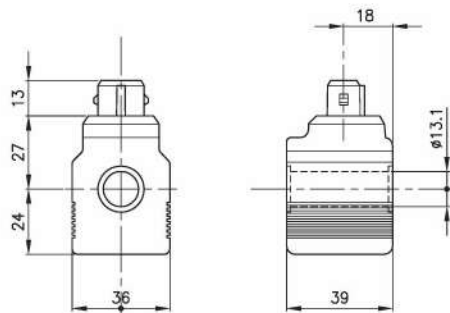
Coils series with connection AMP JUNIOR

Protection Class (with connector assembled) IP 65 DIN 40050

Encapsulation with nylon 6 and fiberglass

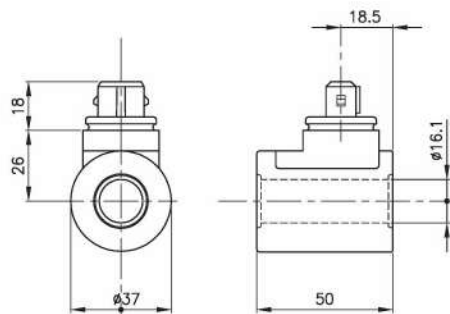
Insulation Coil Class F - VDE 0580

Insulation Copper wire Class H - VDE 0580

Coils B20 Series (AMP JUNIOR)


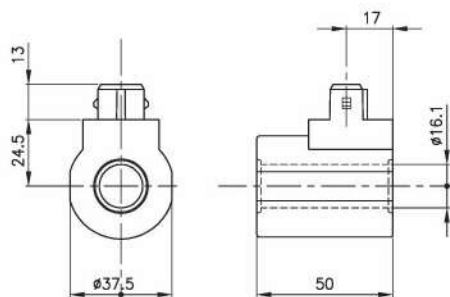
Power 22 Watt
 Voltage range $\pm 10\%$
 Duty cycle ED 100%
 * (1) Nominal current
 * (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			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 $\pm 10\%$
 Duty cycle ED 100%
 * (1) Nominal current
 * (2) Resistance 20°C $\pm 5\%$

Type	Code	Volt	* (1) * (2)	
			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 $\pm 10\%$
 Duty cycle ED 100%
 * (1) Nominal current
 * (2) Resistance 20°C $\pm 5\%$

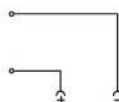
Type	Code	Volt	* (1) * (2)	
			Ampere	Ohm
B30-12C-26J	35 125 125	12	2.16	5.60
B30-24C-26J	35 125 126	24	1.08	22.3
B30-27C-26J	35 125 127	27	0.96	28.2

Technical features

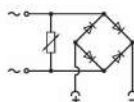
Standard connectors HA type are used for connection off all DC coils.

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.

HA Type



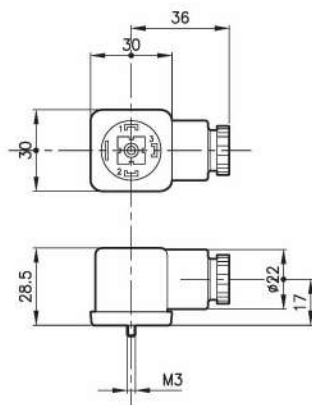
HR Type



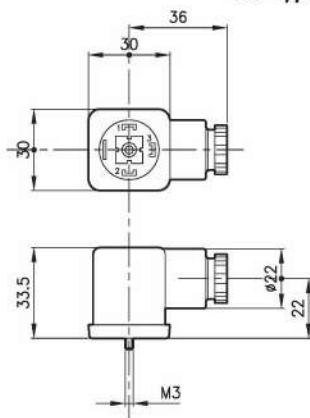
Nominal voltage	Volt	250
Poles number		2 + +
Protection		Nylon glass
Contacts seat		Nylon glass
Contacts nominal current	Ampere	10
Contacts max. current	Ampere	16
Contacts resistance	mOhm	4
Cables max. section	mm ²	1.5
Terminal cable		PG9
Cable diameter	mm	6 – 8
Protection class DIN 40050		IP 65
Insulation class VDE 0110		C group
Profiled seal in nitrile		

Dimensions

HA Type



HR Type


Ordering informations

Type

HA = Standard

HR = With rectifier

Color

A = Grey

B = Black

HA-B

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.

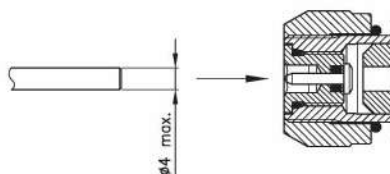
The emergency MO type, PS type and MS type can be foreseen for all ECD 20-30-50 solenoid valves circuits and for circuits 22B1 and 22C1 type (normally open) of solenoid valves EPP 30-50-70 type.

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)

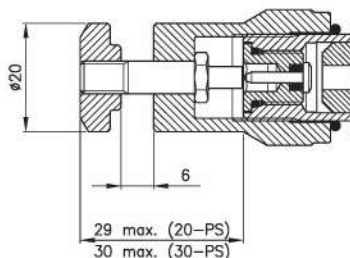
(30-MO 35 011 144)



EMERGENCY OVERRIDE PS TYPE

(20-PS 25 011 174)

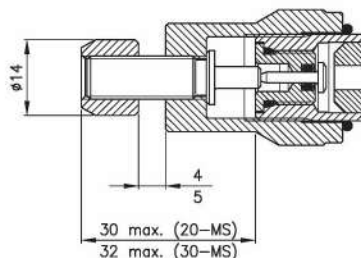
(30-PS 35 011 161)



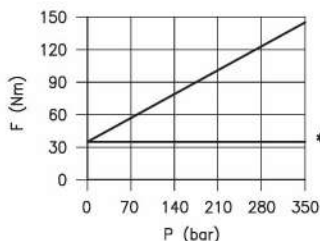
EMERGENCY OVERRIDE MS TYPE

(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

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PRESSURE REDUCING VALVES

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SEQUENCE VALVES

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DIRECTIONAL CONTROL VALVES

05

FLOW CONTROL VALVES

06

MOTION CONTROL VALVES

07

SOLENOID VALVES POPPET-TYPE

08

SOLENOID VALVES SPOOL-TYPE

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11

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12

SANDWICH BODIES (CETOP)

13

VALVES FOR HYDRAULIC MOTORS

14

INTEGRATED CIRCUITS

15

STANDARD BODIES

16

CAVITY

17

ACCESSORIES

18

19

SCHEDULES

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.

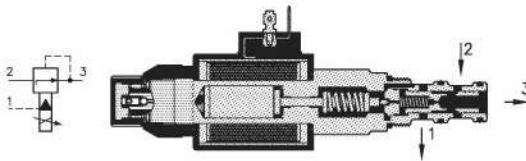
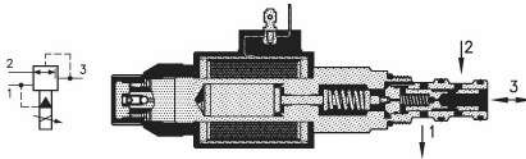
The special constructive shape allows the first setting regulation range during the assembling phase with an infinitude of regulation chances. They can be indifferently assembled with Flucom's Electronic Card or with any other normalized.

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.

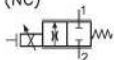
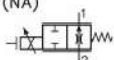
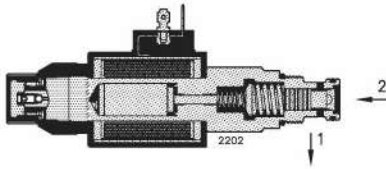
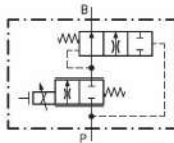
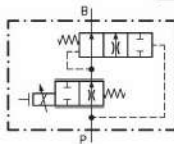
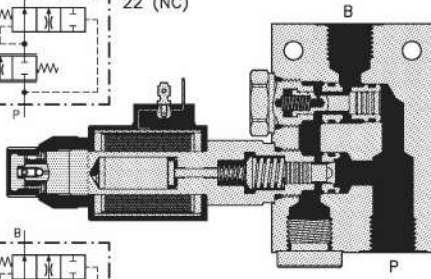
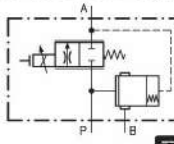
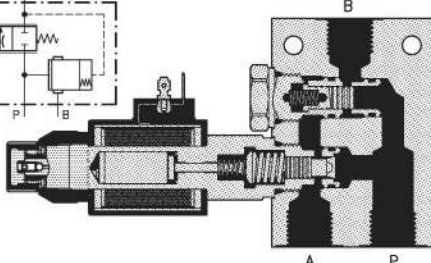
These are proportional pressure reducing valves manufactured in several sizes, acting as reducing or reducing-relieving valve. They distinguish themselves for their first rate connection between quality and price.

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	

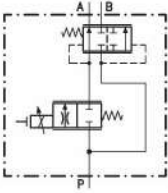
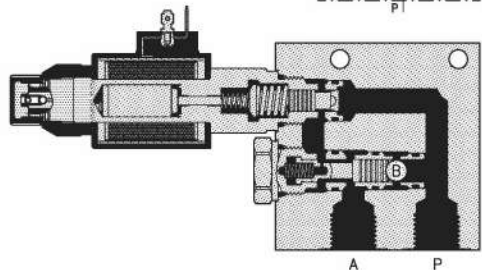
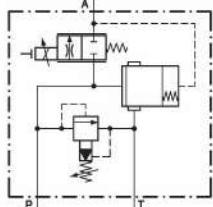
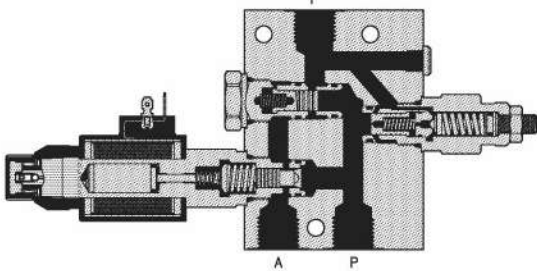
Flow controls.

Proportional solenoid valves PSS 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.				
2202 (NC) 	PSS 30/ 2202	30/60	315	10.160
2201 (NA) 	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.				
22 (NC) 	PPQ 30/22	20/40	315	10.170
21 (NA) 	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
				

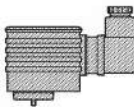
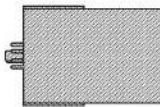

Flow controls.

Proportional solenoid valves PPS series are flow regulator not compensated, normally closed or normally open, wich is controlled by a remote electronic card. Operating on potentiometer throught 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			10.259
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			10.272
	FRP2			10.280

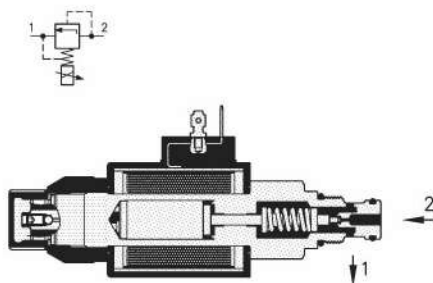
Technical features

Direct acting pressure relief valves type PPS 20 are regulated from proportional solenoid which is controlled by a remote electronic card and modifies setting, changing the poppet acting force.

By de-energised valve, flow coming from 2 is drained in 1 at a minimum setting pressure.

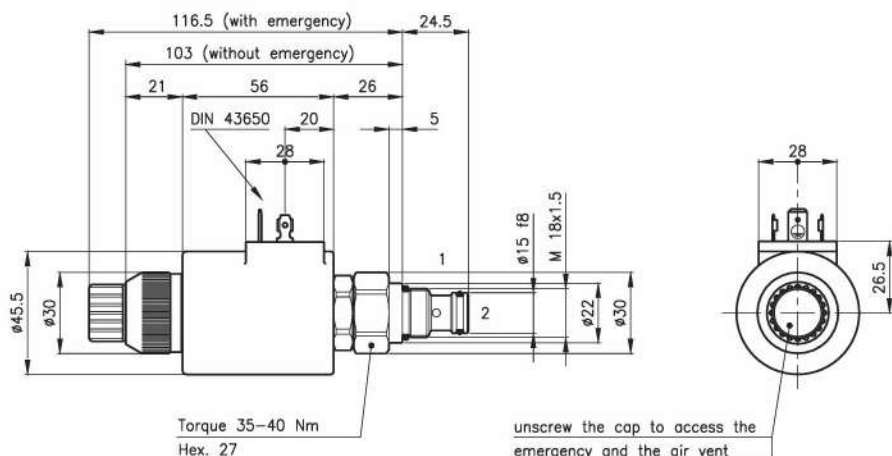
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.

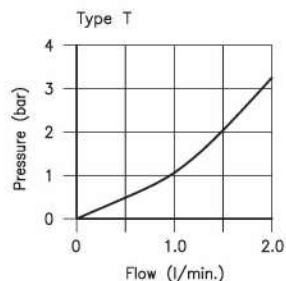
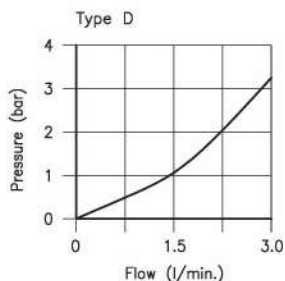
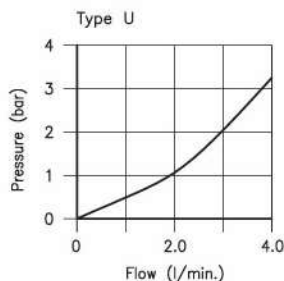


Cavity	(For dimensions see catalogue 17.000)	S 20/2
Max. flow	(l/min.)	1.5
Max. inlet pressure	(bar)	315
Max. pressure on line 1	(bar)	175
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	10
Mass	(kg)	0.600
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 19/15 ISO 4466 (25 μ absolutes)		
Standard seals in Polyurethane and Buna N		

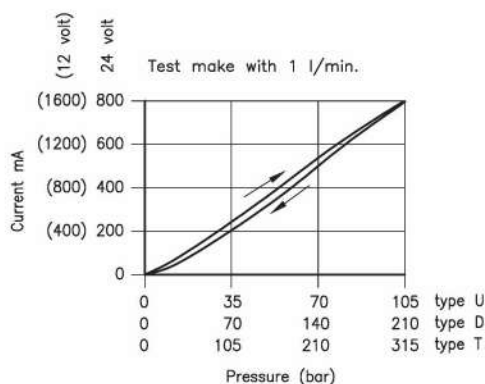
Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F 155	
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP 65	
Frequency PWM optimal (dither)		180 (±5Hz)	

Dimensions


PRESSURE DROP (de-energized solenoid)



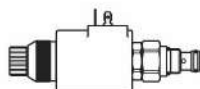
TYPICAL RELIEVING PRESSURE (2 to 1 at Various of Control Current)



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-L0 series; for dimensions see catalogue 16.010

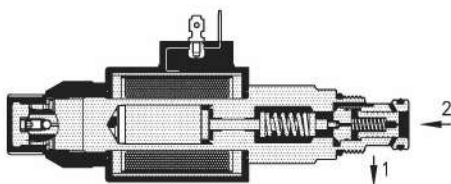
Technical features

Pilot pressure relief valves type PPI 30 are regulated from proportional solenoid which is controlled by a remote electronic card and modifies setting, changing the piloting system acting force.

By de-energised valve, flow coming from 2 is drained in 1 at a minimum setting pressure.

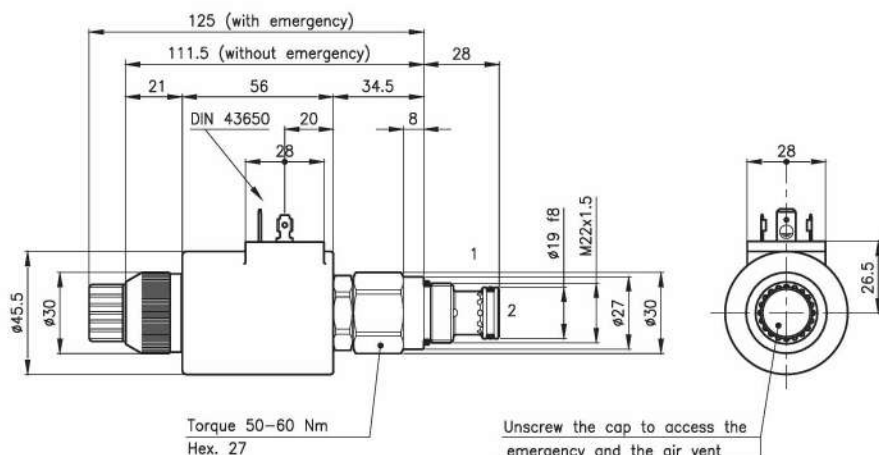
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.



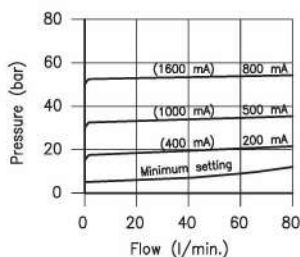
Cavity	(For dimensions see catalogue 17.000)	S 30/2
Max. flow	(l/min.)	70
Max. inlet pressure	(bar)	315
Max. pressure on line 1	(bar)	175
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	25
Mass	(kg)	0.620
Hydraulic fluid; mineral oil HM and HV ISO 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)	

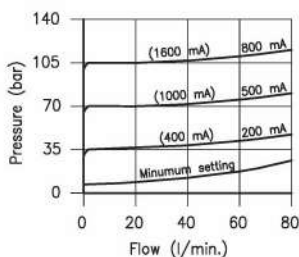
Dimensions


TYPICAL RELIEVING PRESSURE (2 to 1 at Various of Control Current)

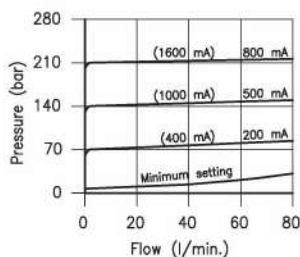
Type O (5–50 bar)



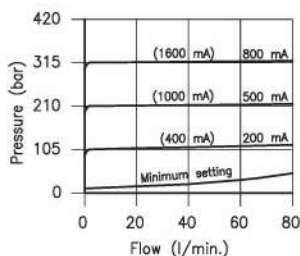
Type U (7–105 bar)



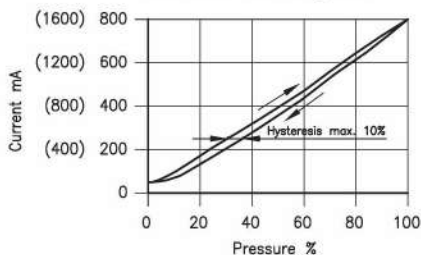
Type D (10–210 bar)



Type T (14–315 bar)



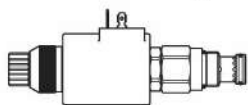
(12 volt)
24 volt
Current–Pressure ratio
Test make with 10 l/min.



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/O–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/O–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

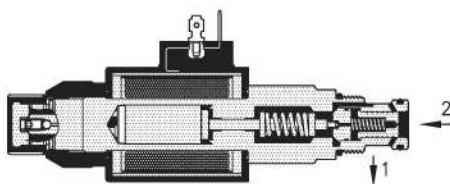
Technical features

Pilot pressure relief valves type PPI 50 are regulated from proportional solenoid which is controlled by a remote electronic card and modifies setting, changing the piloting system acting force.

By de-energised valve, flow coming from 2 is drained in 1 at a minimum setting pressure.

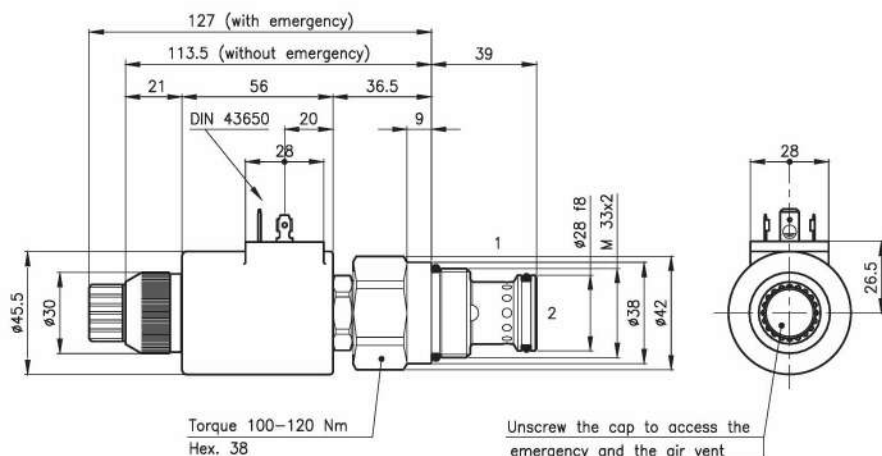
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.



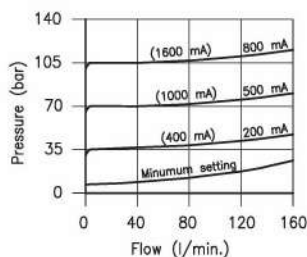
Cavity	(Far dimensions see catalogue 17.000)	S 50/2
Max. flow	(l/min.)	160
Max. inlet pressure	(bar)	315
Max. pressure on line 1	(bar)	175
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	25
Mass	(kg)	0.740
Hydraulic fluid; mineral oil HM and HV ISO 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)	

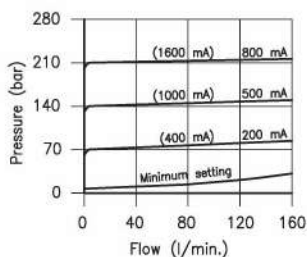
Dimensions


TYPICAL RELIEVING PRESSURE (2 to 1 at Various of Control Current)

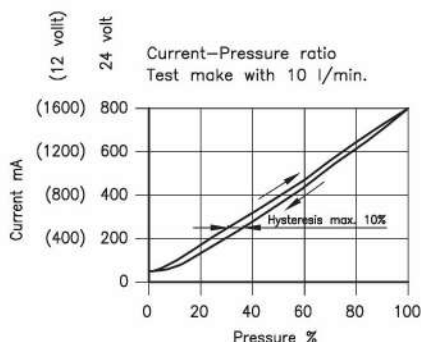
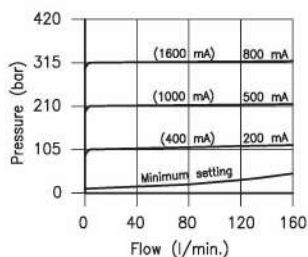
Type U (7–105 bar)



Type D (10–210 bar)



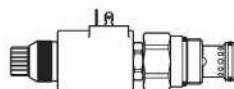
Type T (14–315 bar)



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

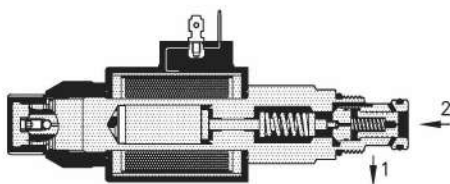
Technical features

Pilot pressure relief valves type PPI 70 are regulated from proportional solenoid which is controlled by a remote electronic card and modifies setting, changing the piloting system acting force.

By de-energised valve, flow coming from 2 is drained in 1 at a minimum setting pressure.

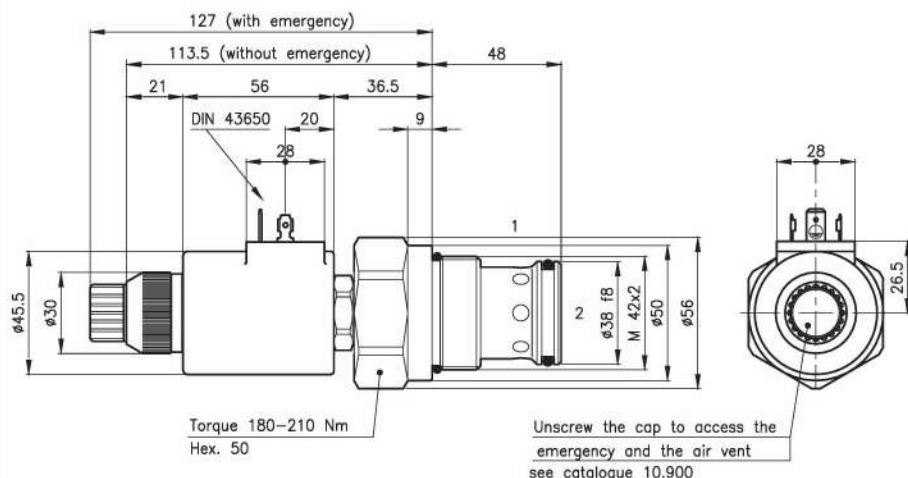
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.



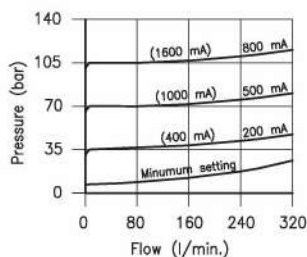
Cavity	(For dimensions see catalogue 17.000)	S 70/2
Max. flow	(l/min.)	320
Max. inlet pressure	(bar)	350
Max. pressure on line 1	(bar)	175
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. leakage	(cm ³ /min.)	25
Mass	(kg)	0.940
Hydraulic fluid; mineral oil HM and HV ISO 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)	

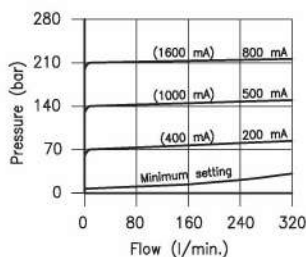
Dimensions


TYPICAL RELIEVING PRESSURE (2 to 1 at Various of Control Current)

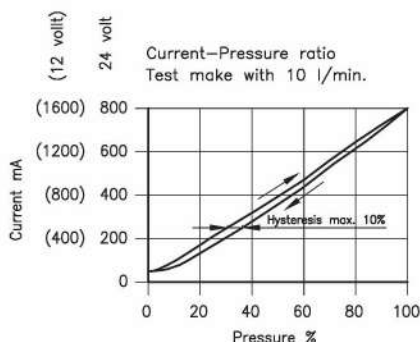
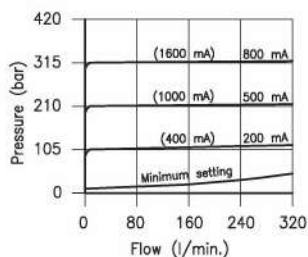
Type U (7–105 bar)



Type D (10–210 bar)



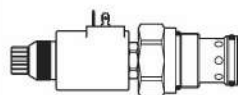
Type T (14–315 bar)



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:

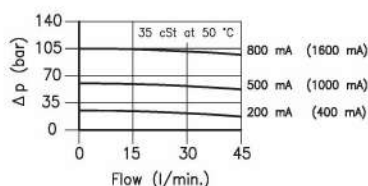
Coil P50-24C-22H 55 125 114

Coil P50-12C-22H 55 125 113

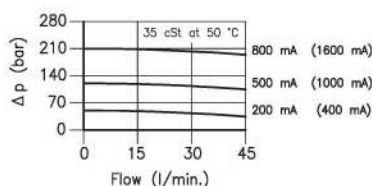
PPI 70 valves can be assembled on standard bodies 70-LO series; for dimensions see catalogue 16.010

TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT

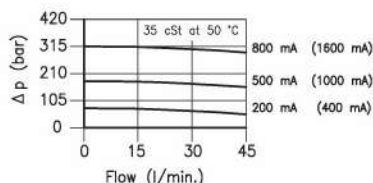
Type U (7-105 bar)



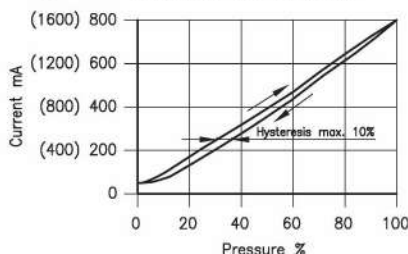
Type D (10-210 bar)



Type T (14-315 bar)



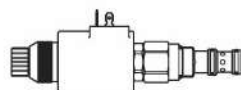
Current-Pressure ratio
Test make with 10 l/min.



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
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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

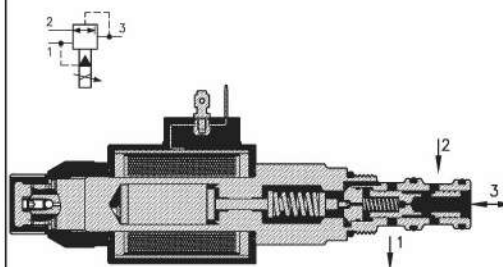
Pilot pressure reducing-relieving valves type PLP 30 are regulated from proportional solenoid which is controlled by a remote electronic card and modifies setting, changing the piloting system acting force.

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.

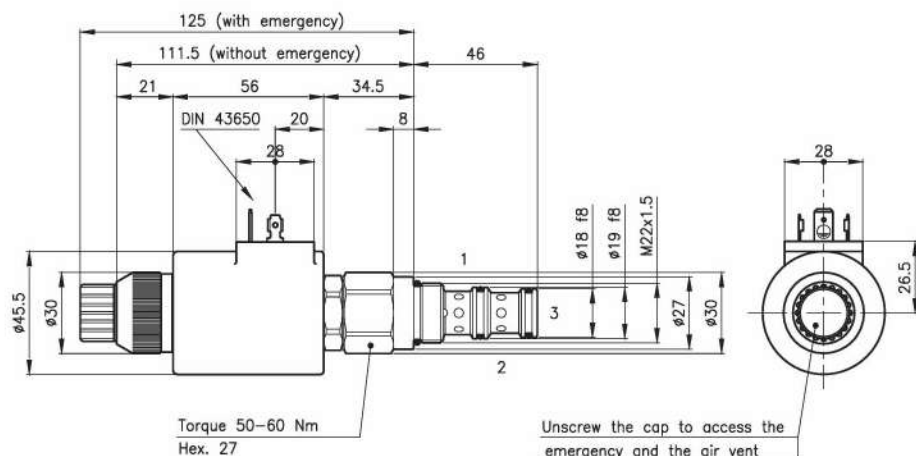
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain numberless precise and repeatable adjustments.

For electronic control card technical features see from General Catalogue page n. 10.250.



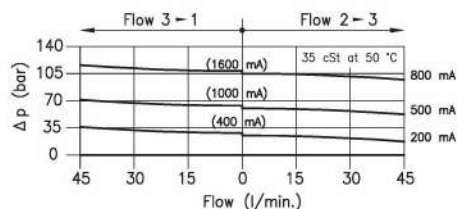
Cavity	(For dimensions see catalogue 17.000)	S 30/3
Max. flow	(l/min.)	45
Max. pressure on line 2	(bar)	315
Max. pressure on line 1	(bar)	210
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Max. drain	(cm ³ /min.)	600
Mass	(kg)	0.640
Hydraulic fluid; mineral oil HM and HV ISO 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)	

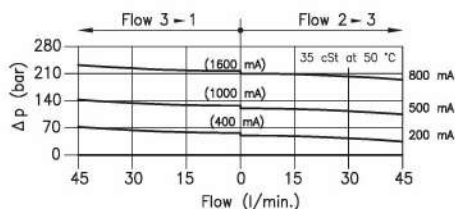
Dimensions


TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT

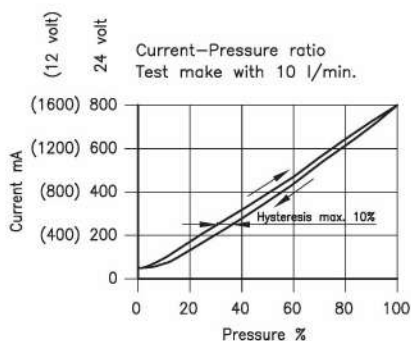
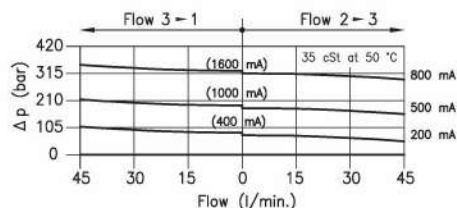
Type U (7–105 bar)



Type D (10–210 bar)



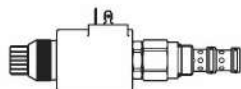
Type T (14–315 bar)



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

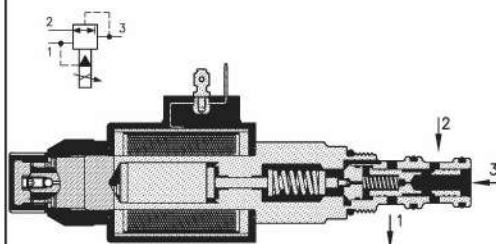
Pilot pressure reducing-relieving valves type PLP 50 are regulated from proportional solenoid which is controlled by a remote electronic card and modifies setting, changing the piloting system acting force.

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.

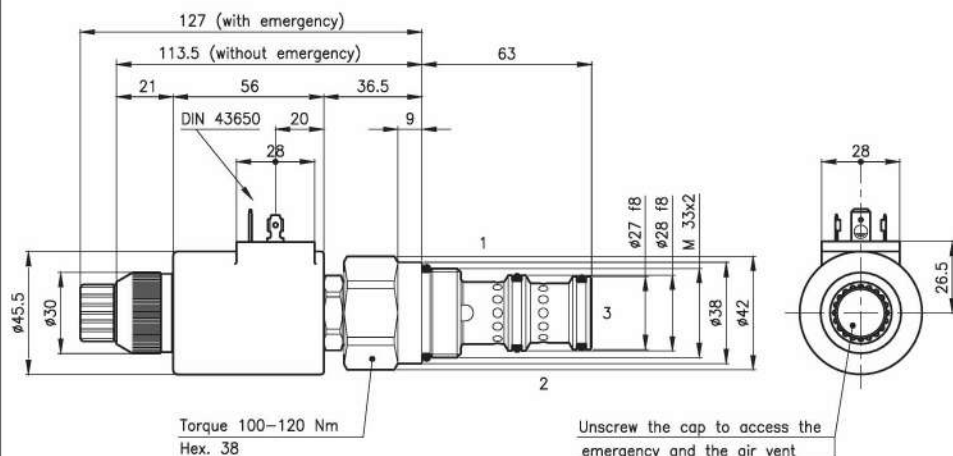
For electronic control card technical features see from General Catalogue page n. 10.250.



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		

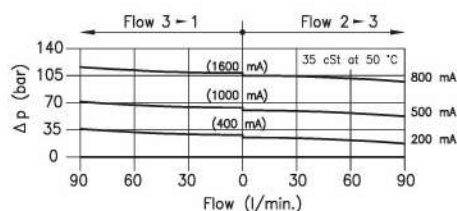
Nominal voltage	(Volt)	12	24
Current range	(mA)	1600	800
Nominal power	(Watt)	22	
Resistance	(Ω)	6.8	26
Insulation class	(VDE 0580)	F 155	
Rating	(ED%)	100	
Protection class	(DIN 40050)	IP 65	
Frequency PWM optimal (dither)		180 (±5Hz)	

Dimensions

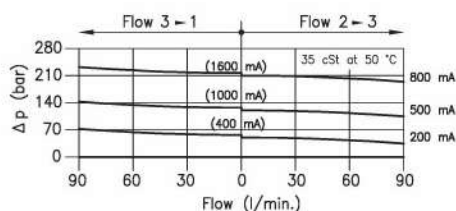


TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT

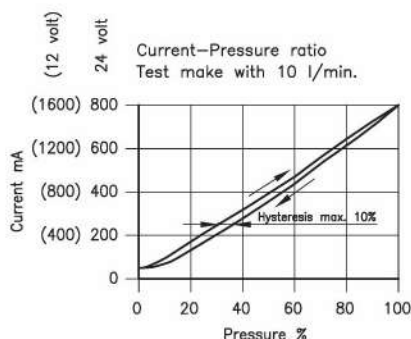
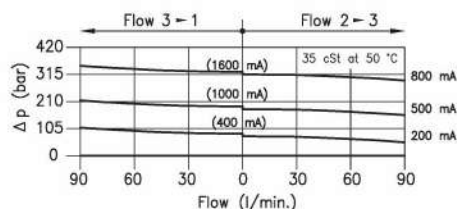
Type U (7–105 bar)



Type D (10–210 bar)



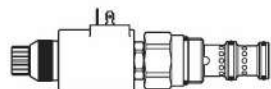
Type T (14–315 bar)



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

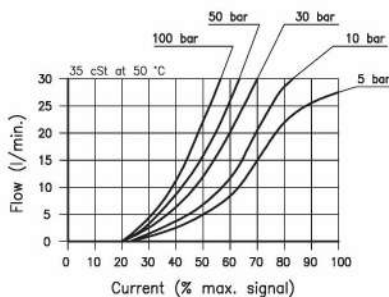
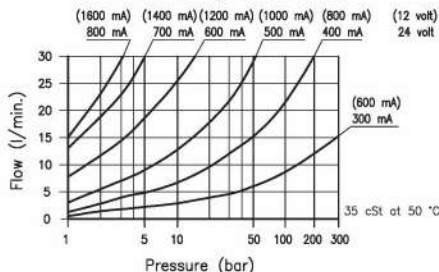
Code only coil:

Coil P50-24C-22H	55 125 114
Coil P50-12C-22H	55 125 113

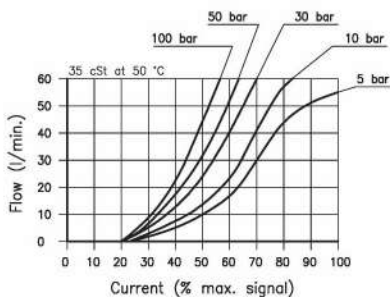
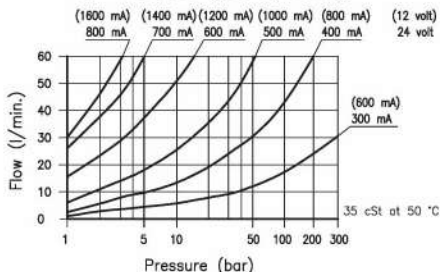
PLP 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT

"D" Version (30 l/min.)



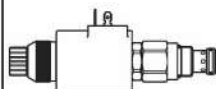
"Q" Version (60 l/min.)



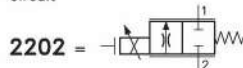
Ordering informations

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

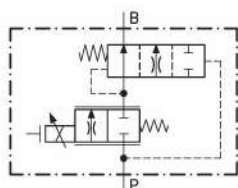
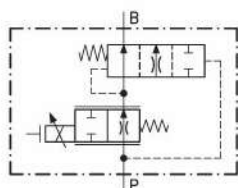
W = Optional without Emergency

Technical features

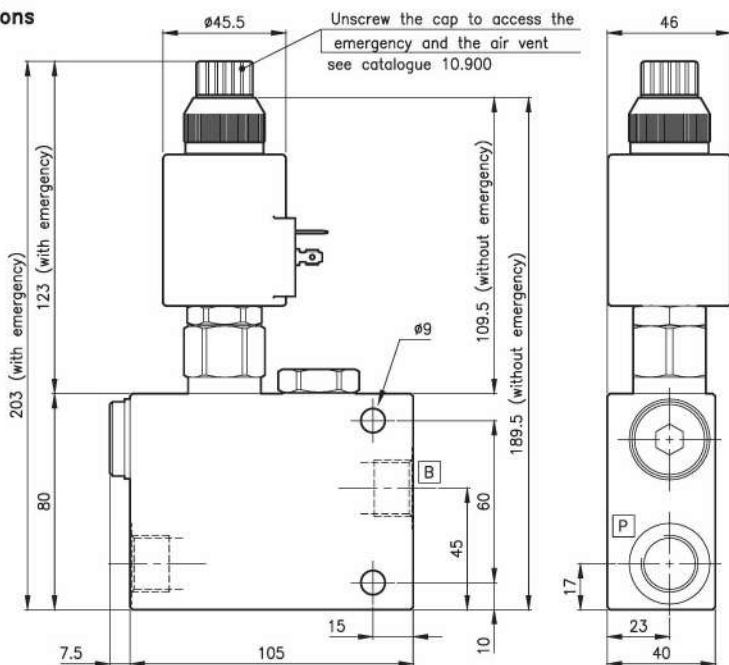
Proportional solenoid valves PPQ 30/2 are flow regulator compensated, normally closed or open, which is controlled by a remote electronic card.

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.

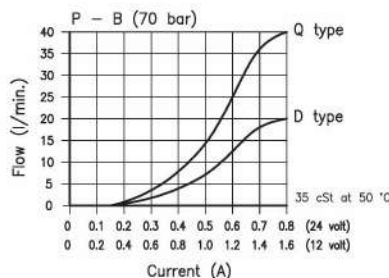
For technical features of electronic control cards see from General Catalogue page n. 10.250.


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)

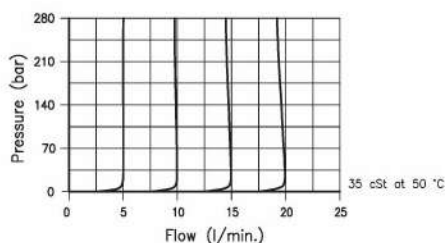
Dimensions


TYPICAL VALVES FEATURE AT VARIOUS OF CONTROL CURRENT

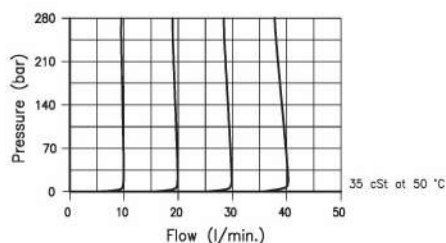


TYPICAL VALVES FEATURE AT VARIOUS OF PRESURE

"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

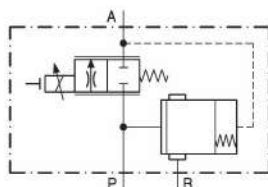
Proportional solenoid valves PPQ 30/3 are flow regulator compensated, three way priority By-pass style, which is controlled by a remote electronic card.

While the valve is not energized all the inlet flow is sent to the B port.

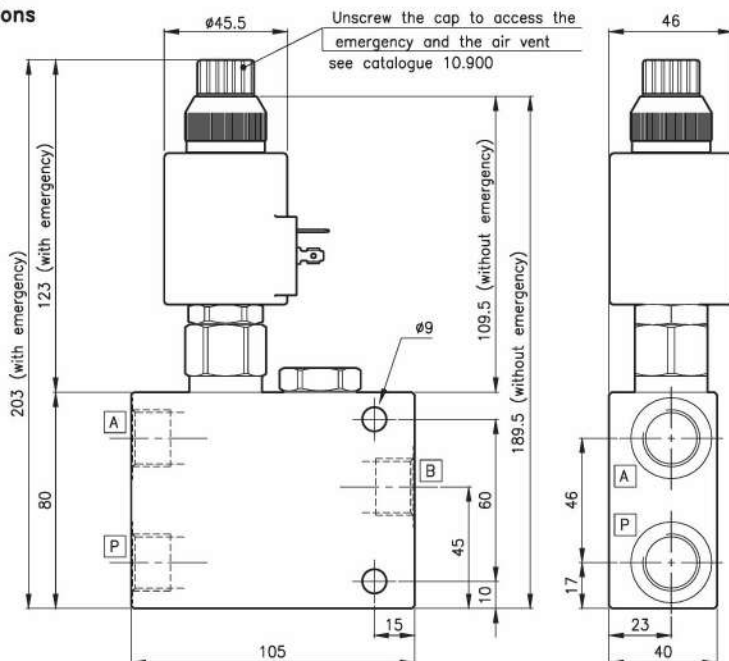
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability on port A.

The logic element ELP 30/Q1 allows to maintain the flow constant even if the pressure changes.

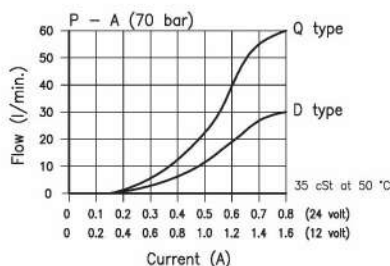
For technical features of electronic control cards see from General Catalogue page n. 10.250.



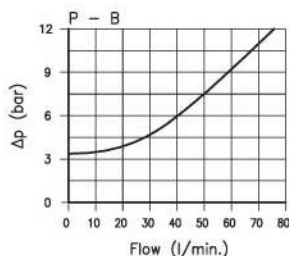
Valves	(For features see catalogue 16.160)		PSS 30/2202
	(For features see catalogue 11.010)		ELP 30/Q1
Max. inlet flow	(l/min.)		60
Max. flow range D type	(l/min.)		0 - 30
Max. flow range Q type	(l/min.)		0 - 60
Max. pressure	(bar)		315
Fluid viscosity range	(cSt)		2.8 - 380
Fluid temperature range	(°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

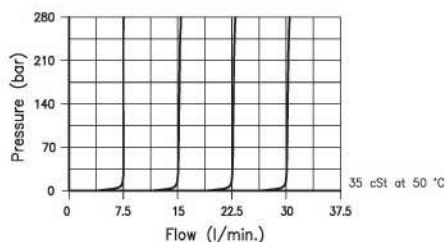


PRESSURE DROP FEATURE BY-PASS P - B

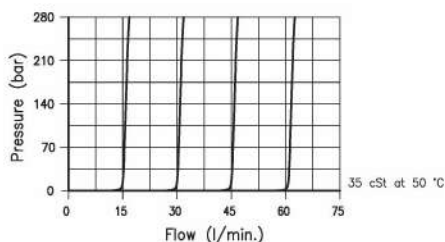


TYPICAL VALVES FEATURE AT VARIOUS OF PRESURE

"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

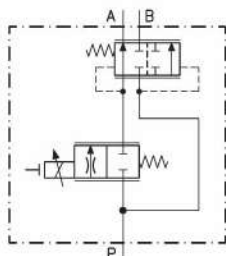
Proportional solenoid valves PPQ 30/3-Q4 are flow regulator compensated, three way priority By-pass style, which is controlled by a remote electronic card.

While the valve is not energized all the inlet flow is sent to the B port.

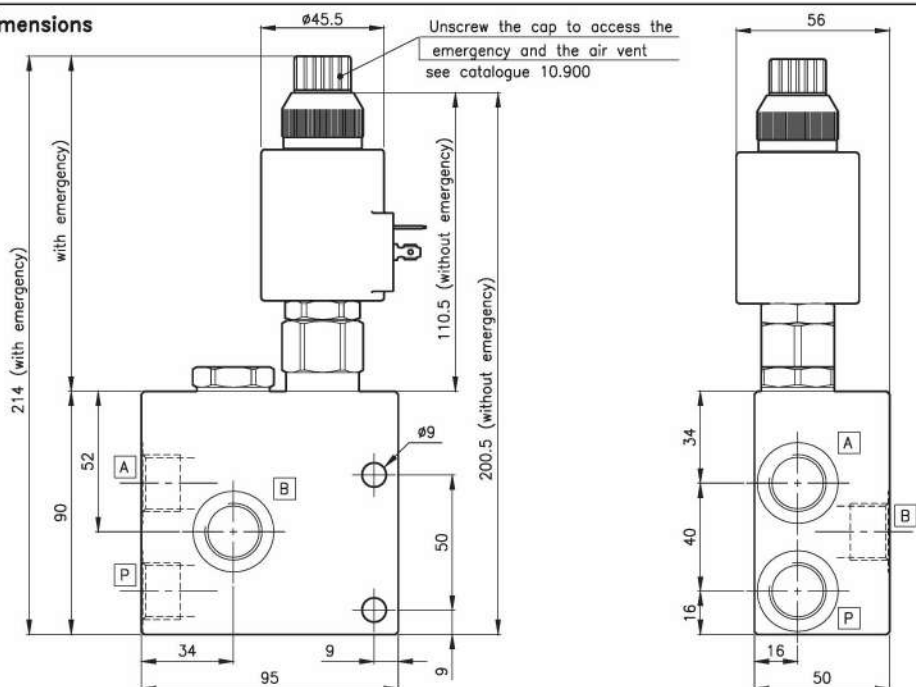
Operating on potentiometer through electronic card allows to act on proportional solenoid and it's possible to obtain an infinitude of different regulations with great precision and repeatability on port A.

The logic element ELP 30/Q4 allows to maintain the flow constant even if the pressure changes.

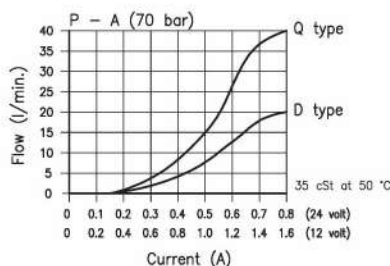
For technical features of electronic control cards see from General Catalogue page n. 10.250.



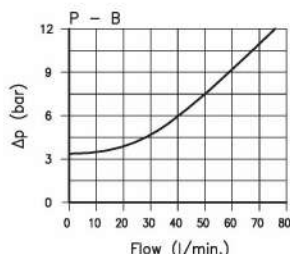
Valves	(For features see catalogue 16.160)	PSS 30/2202
	(For features see catalogue 11.130)	ELP 30/Q4
Max. inlet flow	(l/min.)	60
Max. flow range D type	(l/min.)	0 - 20
Max. flow range Q type	(l/min.)	0 - 40
Max. pressure	(bar)	315
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +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

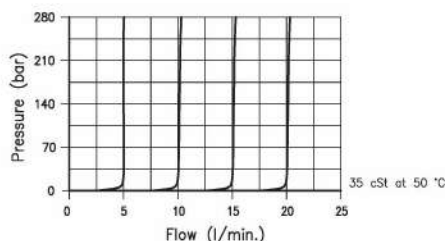


PRESSURE DROP FEATURE BY-PASS P - B

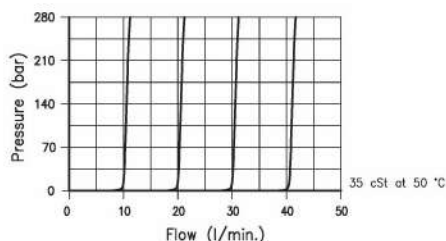


TYPICAL VALVES FEATURE AT VARIOUS OF PRESURE

"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

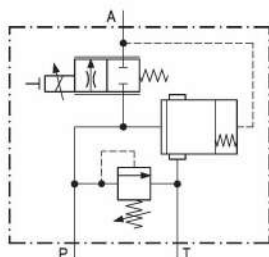
Proportional solenoid valves PPB 30/3 are flow regulator compensated, three way priority By-pass style, which is controlled by a remote electronic card.

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.

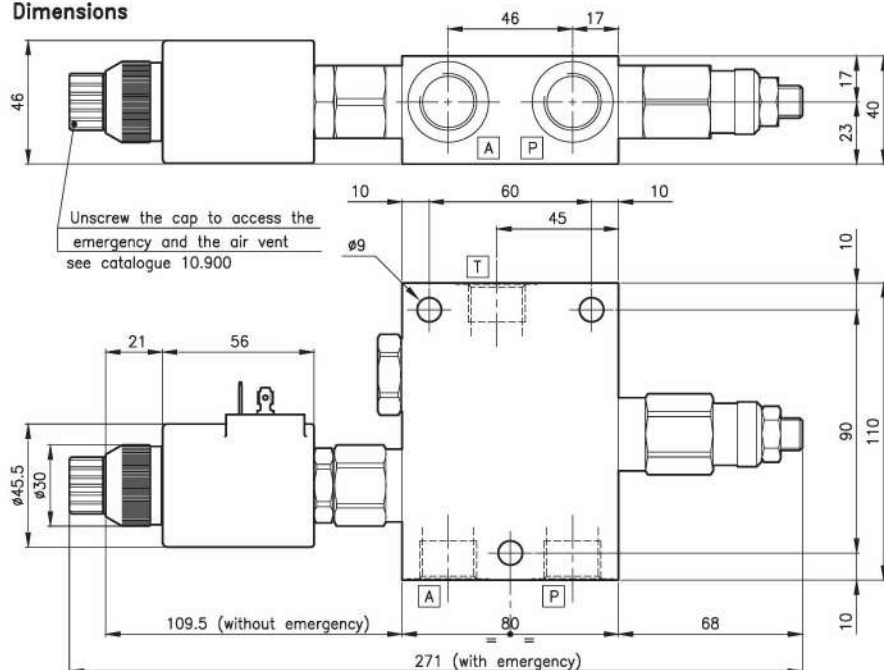
PPB 30/3 valves assemble one pressure relief valve LPB 30. For technical features of electronic control cards see from General Catalogue page n. 10.250.



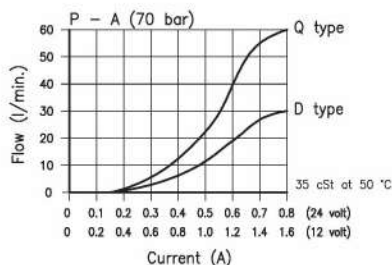
Frequency PWM optimal (dither)

 180 (± 5 Hz)

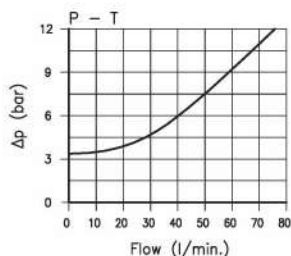
Valves	(For features see catalogue 16.160)	PSS 30/2202	
	(For features see catalogue 11.010)	ELP 30/Q1	
	(For features see catalogue 02.090)	LPB 30	
Max. inlet flow	(l/min.)	60	
Max. flow range D type	(l/min.)	0 – 30	
Max. flow range Q type	(l/min.)	0 – 60	
Max. pressure	(bar)	315	
Fluid viscosity range	(cSt)	2.8 – 380	
Fluid temperature range	(°C)	-20 +80	
Max. leakage	(cm ³ /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	
Protection class	(DIN 40050)	IP 65	

Dimensions


TYPICAL VALVES FEATURE AT VARIOUS OF CURRENT

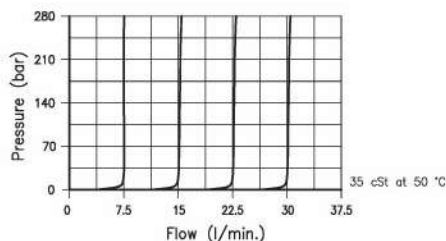


PRESSURE DROP FEATURE BY-PASS P - T

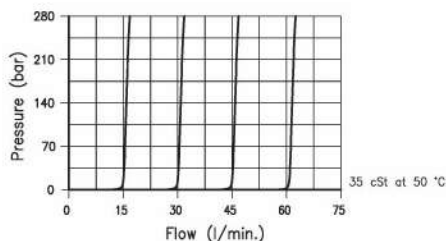


TYPICAL VALVES FEATURE AT VARIOUS OF PRESURE

"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.

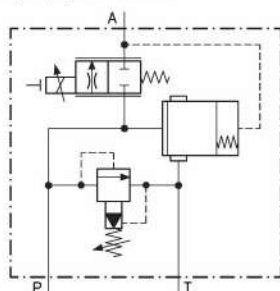
While the valve is not energized all the inlet flow is sent to the T port.

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.

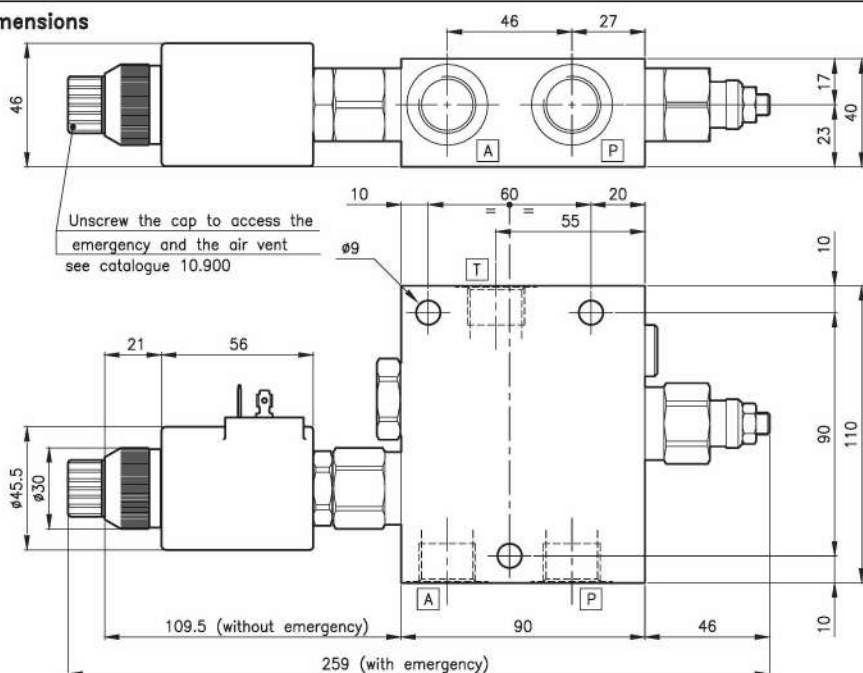
For technical features of electronic control cards see from General Catalogue page n. 10.250.



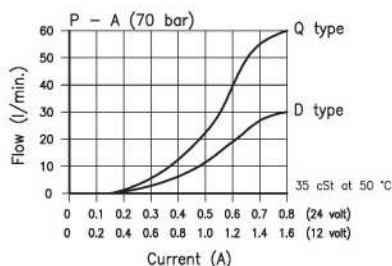
Frequency PWM optimal (dither)

 180 (± 5 Hz)

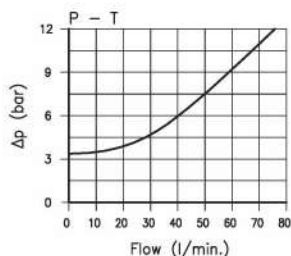
Valves	(For features see catalogue 16.160)	PSS 30/2202	
	(For features see catalogue 11.010)	ELP 30/Q1	
	(For features see catalogue 02.120)	LPI 30	
Max. inlet flow	(l/min.)	60	
Max. flow range D type	(l/min.)	0 – 30	
Max. flow range Q type	(l/min.)	0 – 60	
Max. pressure	(bar)	315	
Fluid viscosity range	(cSt)	2.8 – 380	
Fluid temperature range	(°C)	–20 +80	
Max. leakage	(cm ³ /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	
Protection class	(DIN 40050)	IP 65	

Dimensions


TYPICAL VALVES FEATURE AT VARIOUS OF CURRENT

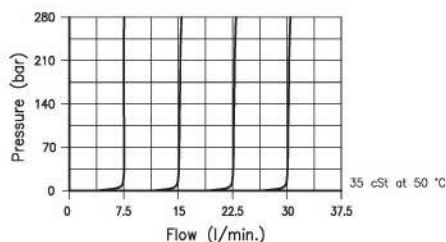


PRESSURE DROP FEATURE BY-PASS P - T

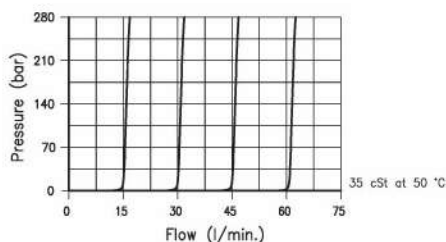


TYPICAL VALVES FEATURE AT VARIOUS OF PRESURE

"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

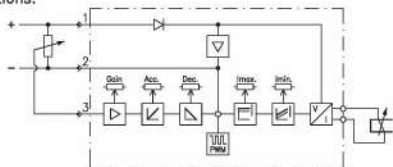
Technical data

The VPC connector series are electronic regulators for proportional solenoids control operating in open lap regulating system.

The electronic circuit is directly incorporated into connector which has to be fixed on solenoid in order to form a compact group easy to be set.

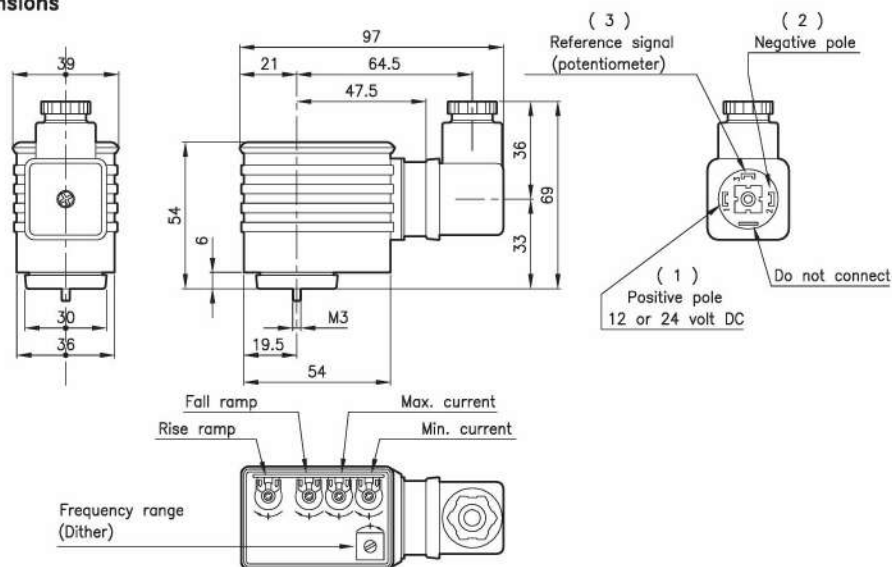
The action is carried out after receiving an electrical reference signal externally set out through 5 Kohm potentiometer or other kind of generator.

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	$^{\circ}\text{C}$	-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

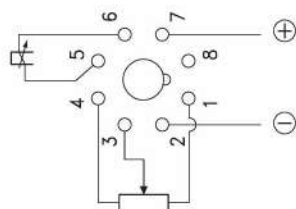
Technical data

The FPO controller series are electronic regulators for proportional solenoids control operating in open lap regulating system.

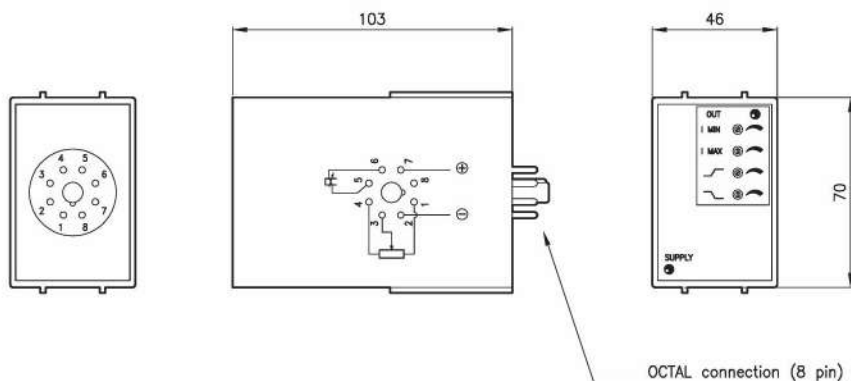
The electronic circuit is directly incorporated into the box which has to be fixed on a OCTAL connector to form a compact group easy to be set.

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)
Rise ramp adjustment	sec.	0 - 10
Fall ramp adjustment	sec.	0 - 10
Frequency range (dither)	Hz	180 (±5Hz)
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

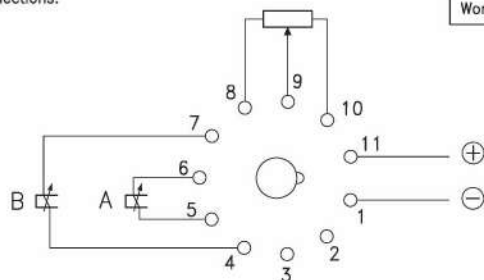
Technical data

The FPO controller series are electronic regulators for proportional solenoids control operating in open lap regulating system.

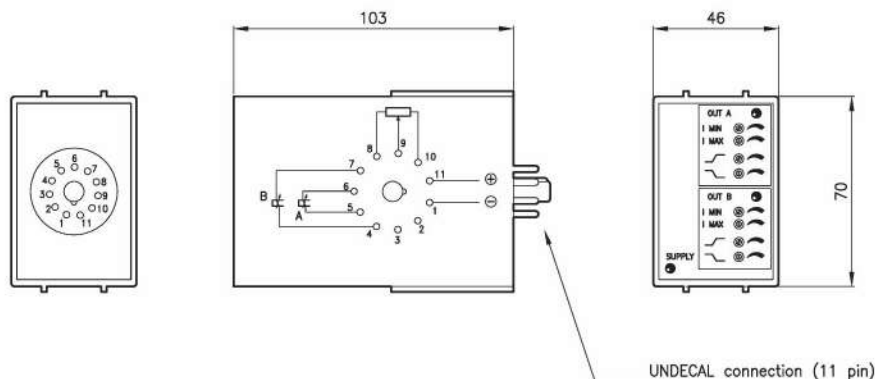
The electronic circuit is directly incorporated into the box which has to be fixed on a UNDECAL connector to form a compact group easy to be set.

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

Ordering informations
FPO-UNDECAL

Type _____ UNDECAL connection (11 pin)

Codes:

FPO-UNDECAL 90 538 117

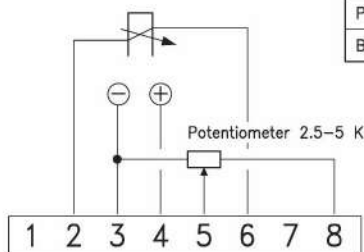
UNDECAL connector 90 538 119

Technical data

The FRP module series are electrical regulators for proportional solenoid control operating in open lap regulating system. The whole electrical 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.

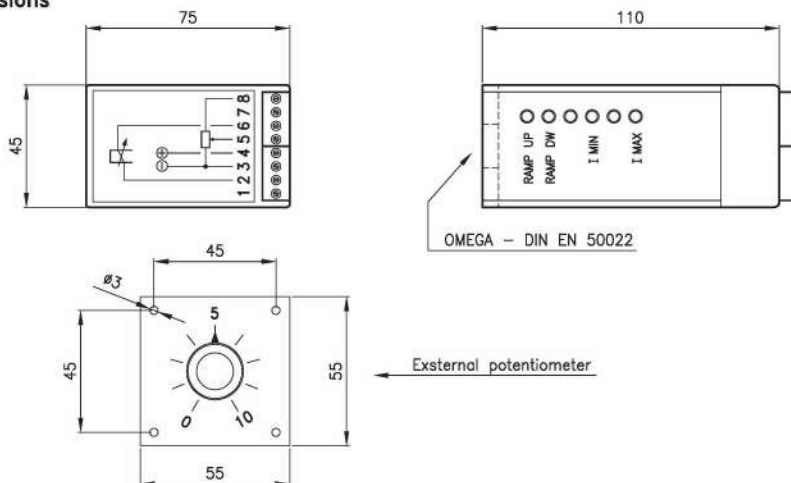
Connections:



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 (I _{max} 10mA)
Rise ramp adjustment	sec.	0 - 5
Fall ramp adjustment	sec.	0 - 5
Frequency PWM (dither)	Hz	180 (±5Hz)
Working room temperature	°C	-10 +60

Protections: supply reversal

Box in ABS for guide DIN EN 50022

Dimensions


OMEGA - DIN EN 50022

Ordering informations
FRP/01-N

Type _____
N = without potentiometer
P = with potentiometer

Codes:

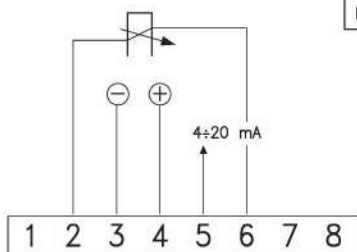
FRP/01-N	90 538 114
FRP/01-P	90 538 115
Potentiometer x FRP	90 538 122

Technical data

The FRP module series are electrical regulators for proportional solenoid control operating in open lap regulating system. The whole electrical 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.

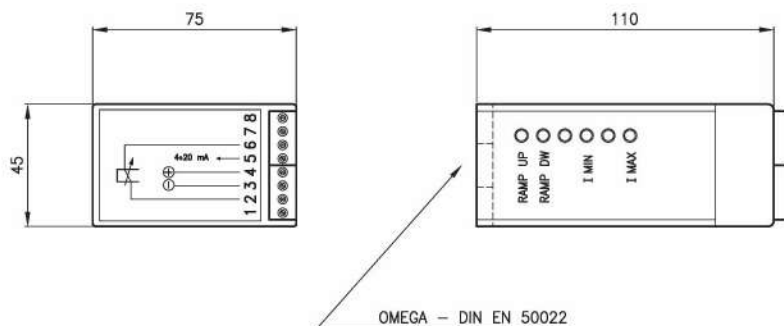
Connections:



Supply voltage	Volt	11 - 33
Reference signal	mA	4 ± 20
Input 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 (±5Hz)
Working room temperature	°C	-10 +60

Protections: supply reversal

Box in ABS for guide DIN EN 50022

Dimensions


OMEGA - DIN EN 50022

Ordering informations
FRP/02

Type

Codes:

FRP/02

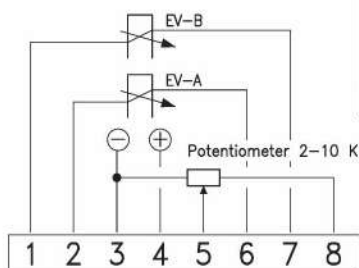
90 538 116

Technical data

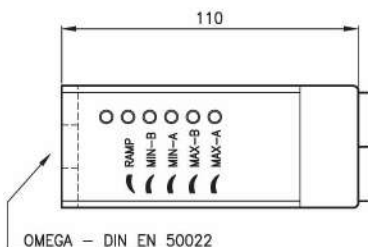
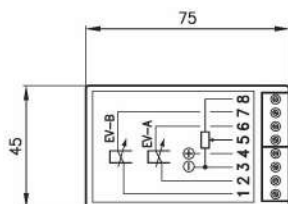
The FRP module series are electronic regulators for proportional solenoid control operating in open lap regulating system. The whole electronic circuit is placed inside the compact box arranged to be easily fitted up in a guide DIN EN 50022. The action is carried out after receiving an electrical reference 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 (±5Hz)
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 _____

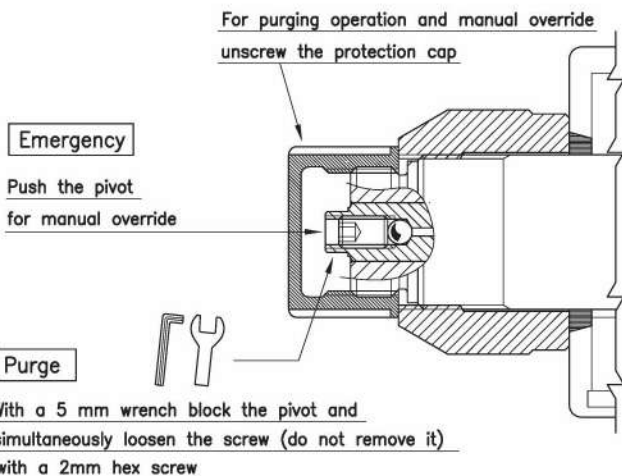
12 Volts _____

24 Volts _____

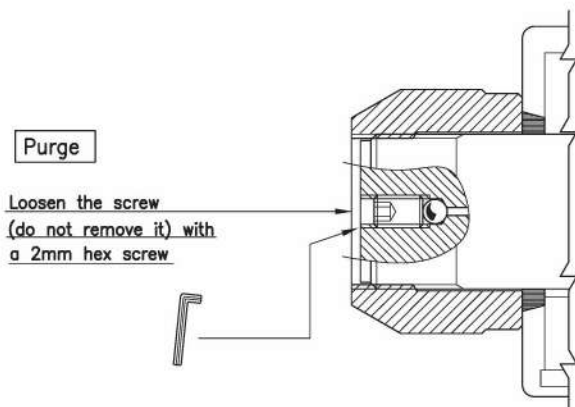
Codes:

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

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05

FLOW CONTROL VALVES

06

MOTION CONTROL VALVES

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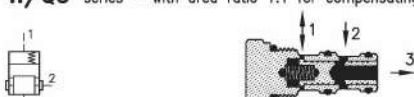
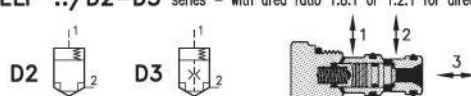
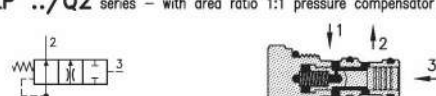

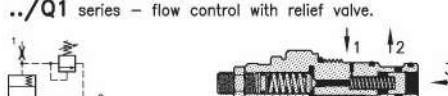
19

SCHEDULES

20

Pressure, flow and directional control logic valves.

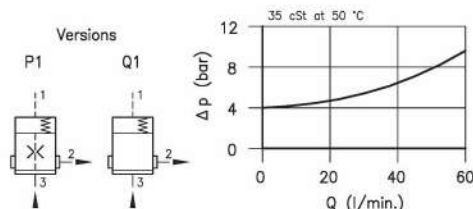
These are logic elements used to pressure, flow and oiltight directional control. They are divided into two categories: as pressure and flow control they have a ratio between areas of 1:1; as directional control they have a ratio of 1.8:1 or 1.2:1. They always need piloting valves which acting on chamber 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

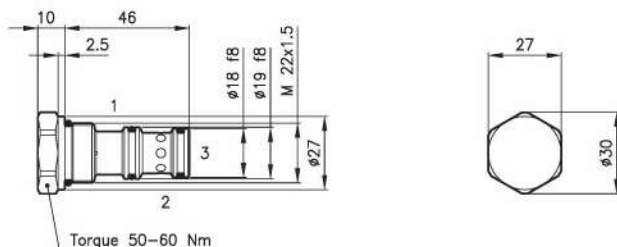
Technical features

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

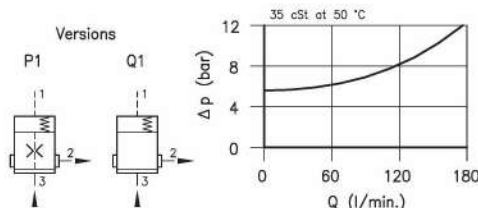
External seals kit 90 620 104

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

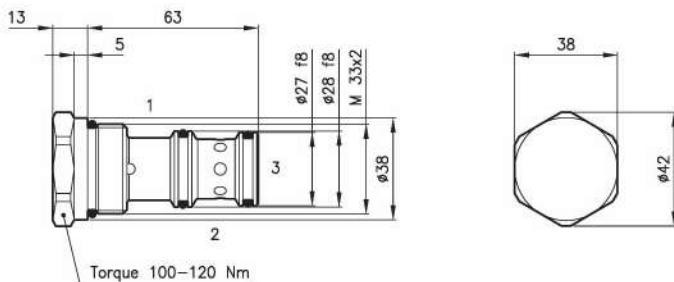
Technical features

Logic valves ELP 50/P1 series, with internal orifice, are used for pressure control, as sequence or by-pass valves.

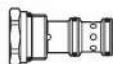
The Q1 version without internal orifice, if combined with a needle valve, is a flow compensator which unload the excess flow in tank.



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

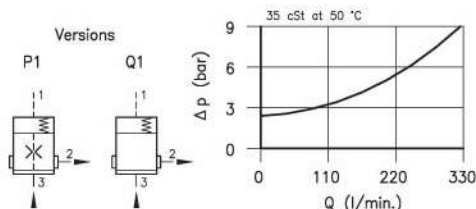
Codes:

ELP 50/P1	56 011 102
ELP 50/Q1	56 011 101
External seals kit	90 620 107

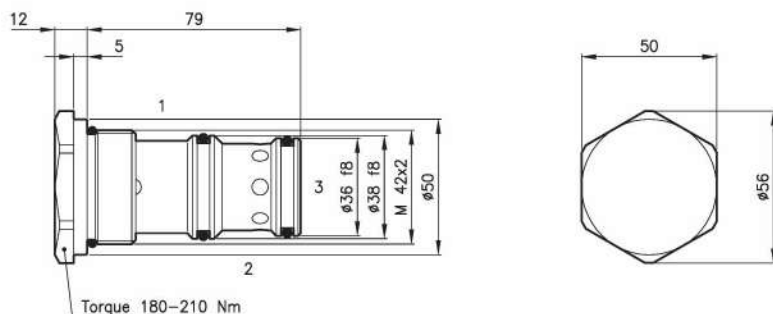
ELP 50 valves can be assembled on standard bodies 50-C3 valves; for dimensions see catalogue 16.010

Technical features

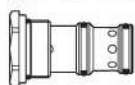
Logic valves ELP 70/P1 series, with internal orifice, are used for pressure control, as sequence or by-pass valves. The Q1 version without internal orifice, if combined with a needle valve, is a flow compensator which unload the excess flow in tank.



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

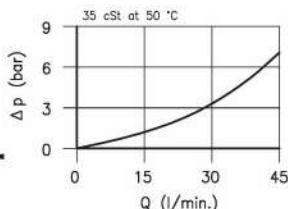
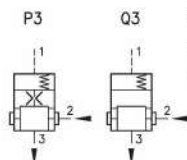
ELP 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 16.010

Technical features

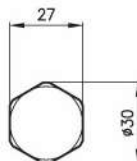
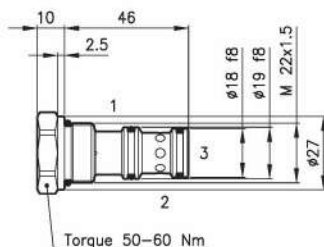
Logic valves ELP 30/P3 series, with internal orifice, are used as pressure reducing with remote pilot.

The Q3 version, without orifice, if combined with a needle valve is a pressure compensated flow regulator at two way.

Versions



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

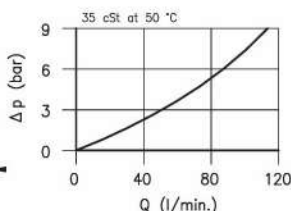
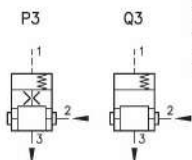
ELP 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

Technical features

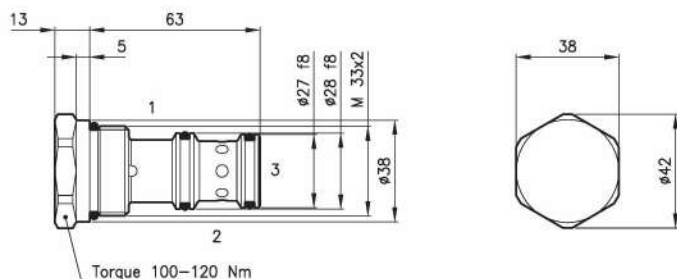
Logic valves ELP 50/P3 series, with internal orifice, are used as pressure reducing with remote pilot.

The Q3 version, without orifice, if combined with a needle valve is a pressure compensated flow regulator at two way.

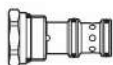
Versions



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

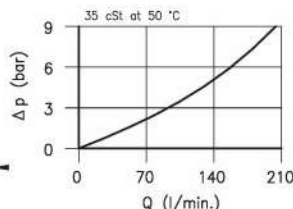
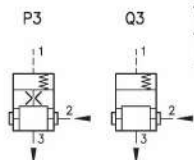
ELP 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features

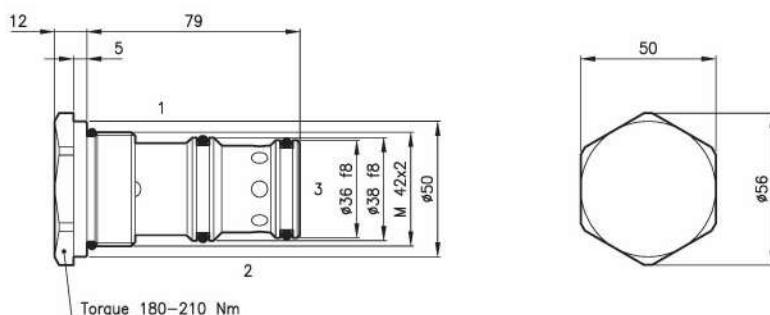
Logic valves ELP 70/P3 series, with internal orifice, are used as pressure reducing with remote pilot.

The Q3 version, without orifice, if combined with a needle valve is a pressure compensated flow regulator at two way.

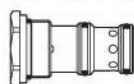
Versions



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:

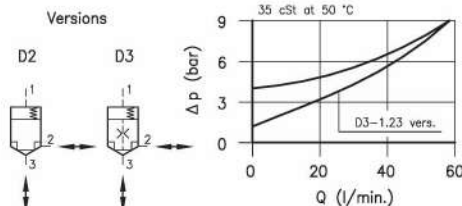
ELP 70/P3	76 011 102
ELP 70/Q3	76 011 103
External seals kit	90 620 120

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

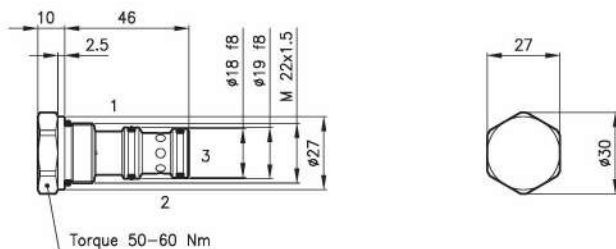
Technical features

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
Ratio between areas A1/A3		1.8:1
		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.)

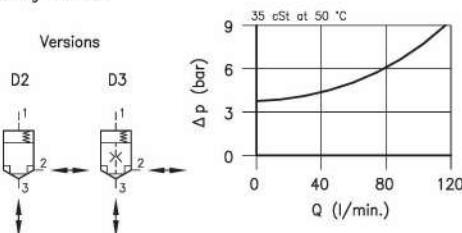
Codes:

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

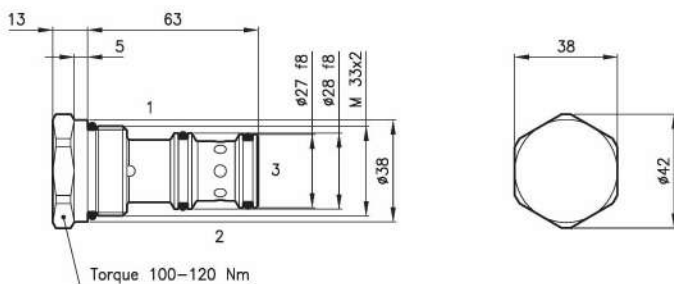
ELP 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

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

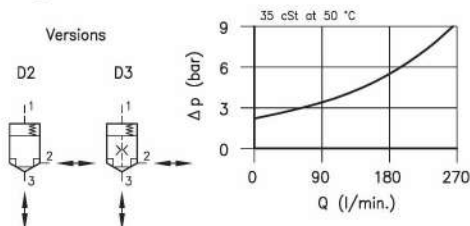
Codes:

ELP 50/D2	56 011 103
ELP 50/D3	56 011 107
External seals kit	90 620 107

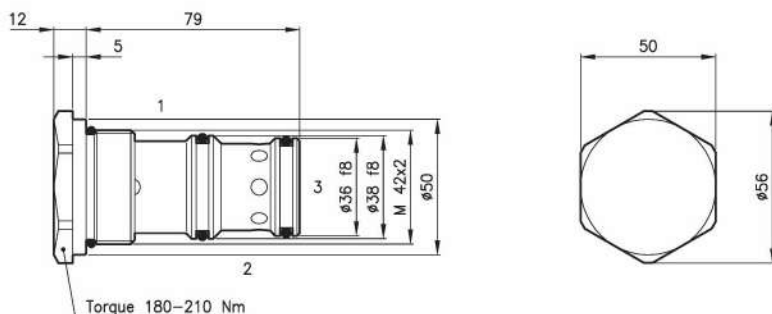
ELP 50 valves can be assembled on standard bodies 50-C3 series; for dimensions see catalogue 16.010

Technical features

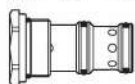
Logic valves ELP 70/D2 series, without internal orifice, allows the free flow from 2 to 3 and from 3 to 2, they stop it in both directions when in chamber 1 enough pressure is used. The D3 version are used as unloading shut-off with flow coming from 3.



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

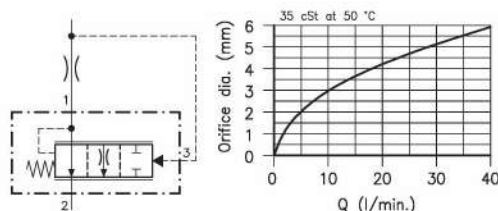
Codes:

ELP 70/D2	76 011 104
ELP 70/D3	76 011 105
External seals kit	90 620 120

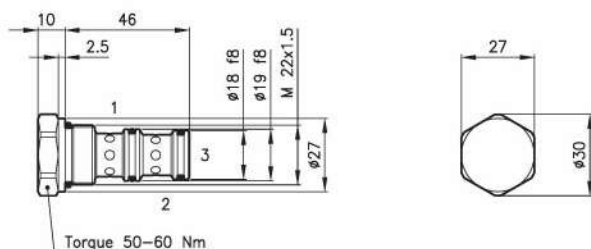
ELP 70 valves can be assembled on standard bodies 70-C3 series; for dimensions see catalogue 16.010

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:

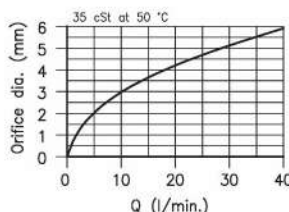
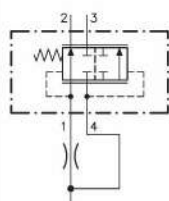
ELP 30/Q2 36 011 102

External seals kit 90 620 104

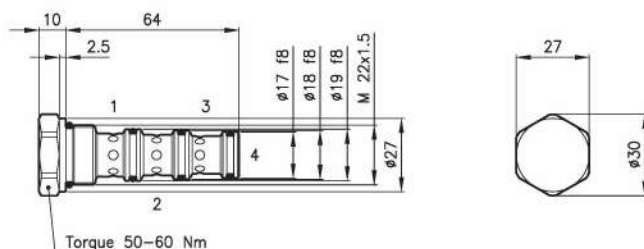
ELP 30 valves can be assembled on standard bodies 30-C3 series; for dimensions see catalogue 16.010

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

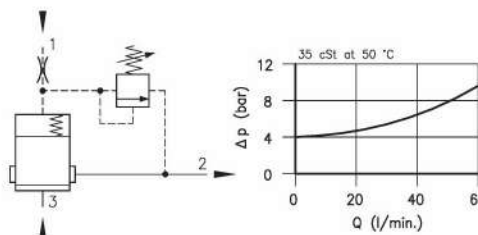
External seals kit 90 620 105

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

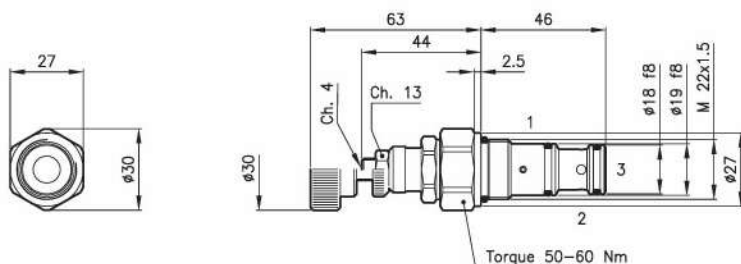
Technical features

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

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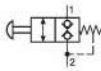
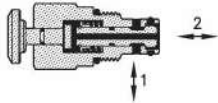
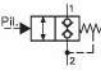
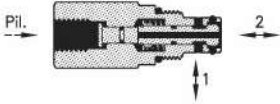
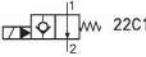
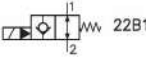
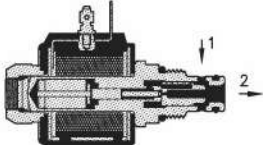
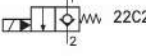
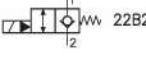
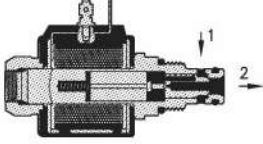
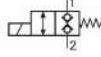
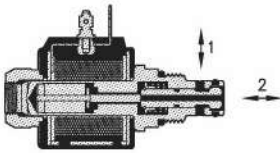
18

19


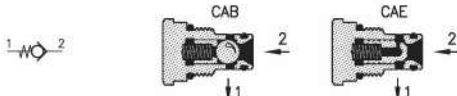
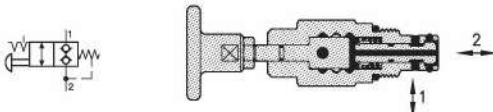
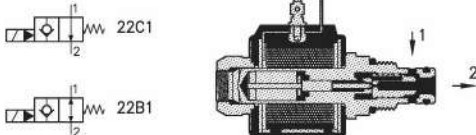
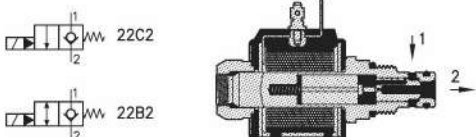
SCHEDULES

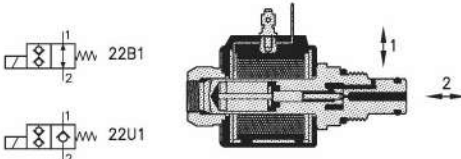
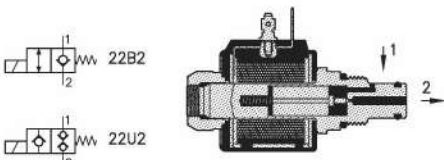
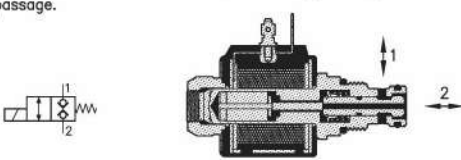
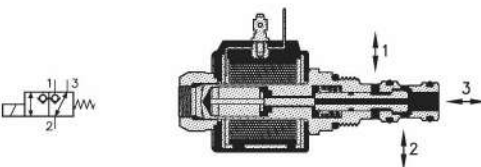
20

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.

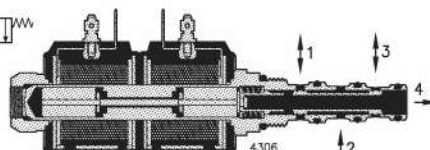
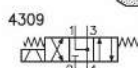
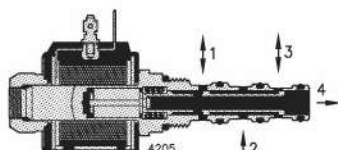
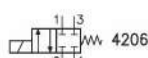
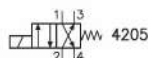
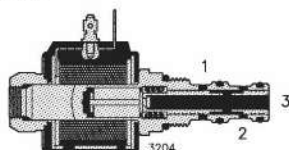
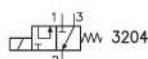
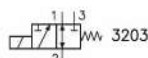
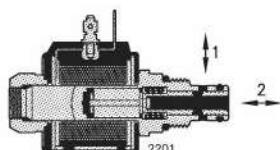
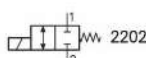
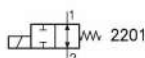
Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
MCD 32/2202 manual driving – spring return. Directional valves poppet-type for circuit unloading.	MCD 32/2202	25	315	12.080
 				
OCD 32/2202 hydraulic or pneumatic pilot – spring return. Directional valves poppet-type for circuit unloading.	OCD 32/2202	25	315	12.083
 	OCD 32/2202 -PN	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
  	ECP 32/22C2 ECP 32/22B2	30	210	12.100
ECD 32/2202 Normally closed in both directions, they allow the free passage flow when energized.	ECD 32/2202	25	315	12.110
 				

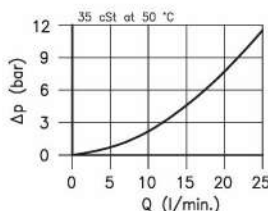
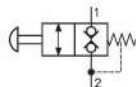
These are valves in several sizes and functions, which do not belong to Flucom normalized range and stand out from the others owing to their different setting cavity dimensions. The 28 and 29 series are in accordance with SAE standardization.

Main features	Type	Q max. (l/min.)	P max. (bar)	Technical schedule
LPE 28 series – guided conical poppet-type. They have't a pressure peack, 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
	CAE 28	40	420	12.151
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 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 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 28/2202	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 opposit to symbols it's necessary to limit flow and max. pressure.	ETD 28/3203	15	210	12.220
	ETD 28/3204	15	210	12.220
ETD 28/42.. series - four-way type centre closed.	ETD 28/4205	15	315	12.230
	ETD 28/4206	15	315	12.230
ETD 28/43.. series - four-way type centre closed.	ETD 28/4306	15	315	12.250
	ETD 28/4309	15	315	12.250

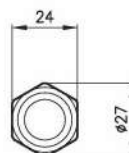
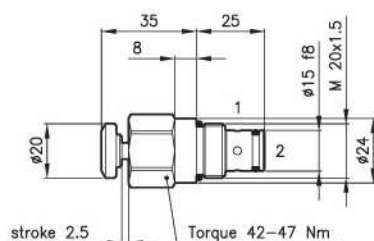


Technical features


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

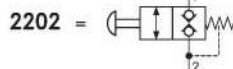
Pressure of chamber 2 influences the necessary force for valve's drive
 (35 N + 28 N every 10 bar in chamber 2)


Ordering informations
MCD 32/2202-PS

MCD 32 = Valve type



Circuit



Driving type

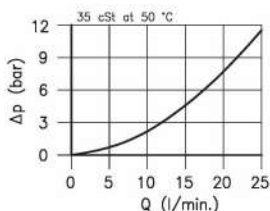
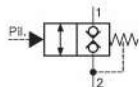
PS = Push type spring return



Codes:

MCD 32/2202-PS 32 011 115

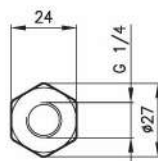
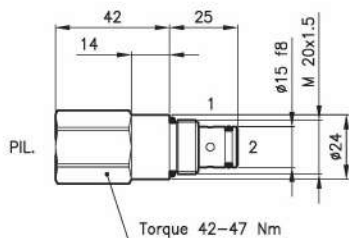
External seals kit (P) 90 620 115

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



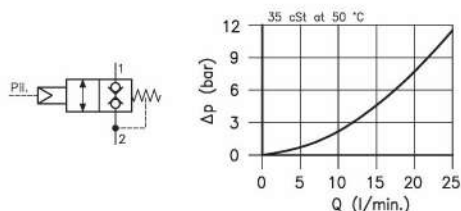
Circuit



Codes:

OCD 32/2202 32 011 116

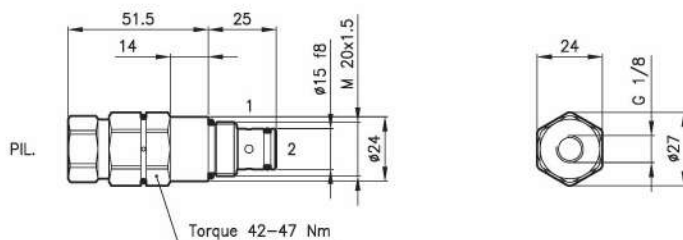
External seals kit (P) 90 620 115

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

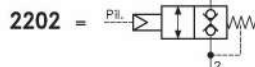
Pressure of chamber 2 influences the necessary pilot pressure for valve's drive (pilot ratio 4:1).


Ordering informations
OCD 32/2202-PN

OCD 32 = Valve type



Circuit

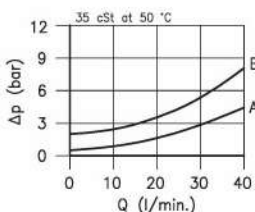
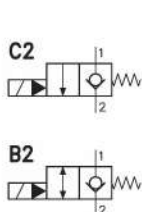


PNEUMATIC Pilot = 2.5 - 4.5 bar

Codes:

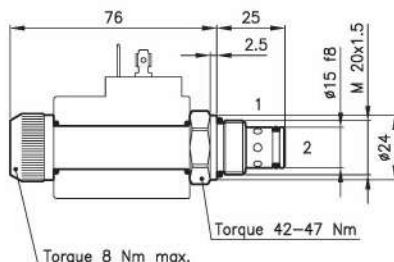
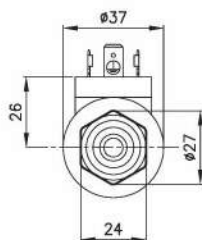
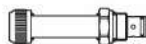
OCD 32/2202-PN 32 011 173

External seals kit (P) 90 620 115

Technical features


	22C2	22B2
1 → 2 De-en.	not allowed	not allowed
2 → 1 De-en.	curve B	curve B
1 → 2 Energ.	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 (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)	0.190
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

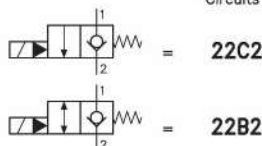
P = for cavity S 32/2P

(see catalogue 17.001)

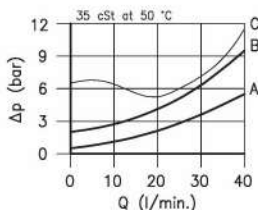
Codes:

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

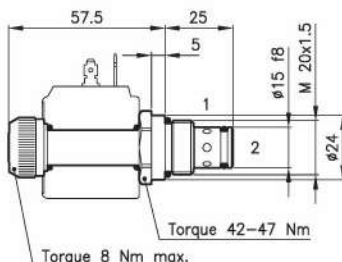
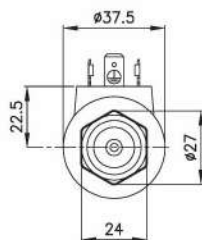


On the EPP 32 valves must be assembled the Coils B30 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

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 (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

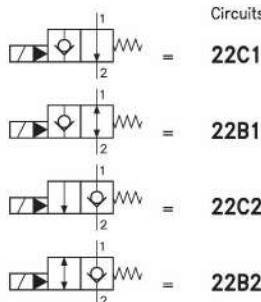
P = for cavity S 32/2P

(see catalogue 17.001)

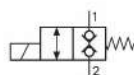
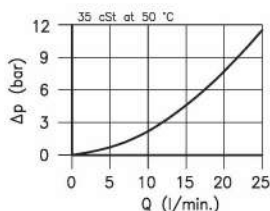
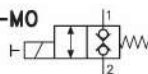
Codes:

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

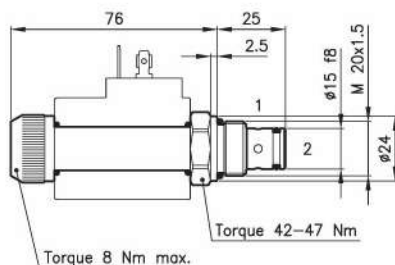
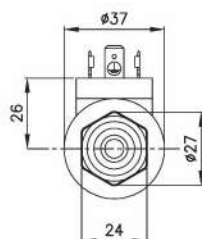
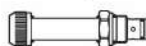
Circuits



On the ECP 32 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 17.001)	S 32/2
Max. flow	(l/min.)	25
Max. pressure	(bar)	315
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)	0.200
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

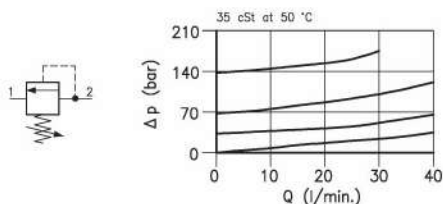
2202 =

MO = Manual override
 (Omit if not request)

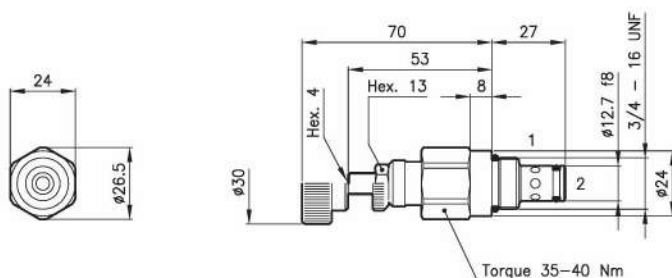
Codes:

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

Adjustment type

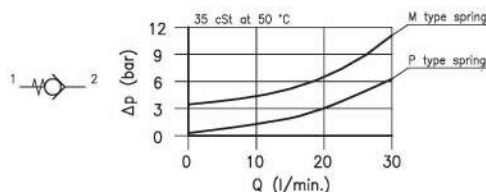
N = Standard adjustment

V = Handknob adjustment

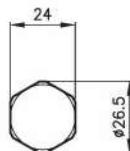
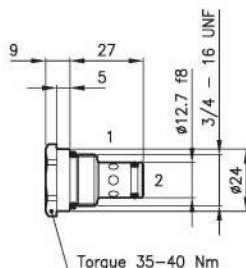

Codes:

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

LPE 28 valves can be assembled on standard bodies 28-L0 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


Standard springs

P = 0.35 bar

M = 3.5 bar

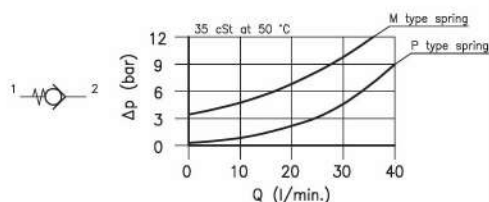
Codes:

CAB 28/P 22 011 114

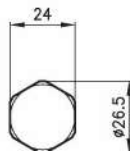
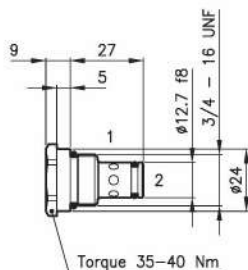
CAB 28/M 22 011 115

External seals kit 90 620 112

 CAB 28 valves can be assembled
 on standard bodies 28–L0 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



Standard springs

P = 0.35 bar

M = 3.5 bar

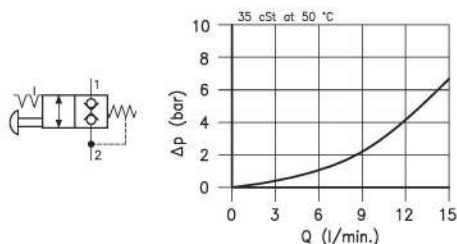
Codes:

CAE 28/P 22 011 141

CAE 28/M 22 011 142

External seals kit 90 620 112

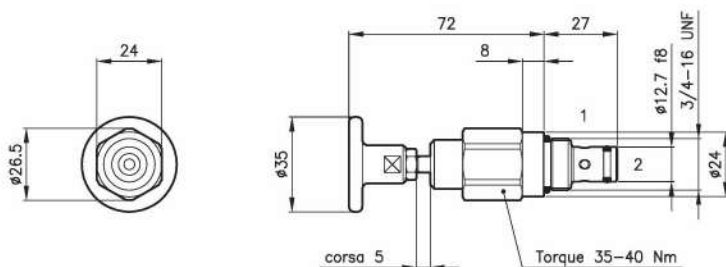
CAE 28 valves can be assembled on standard bodies 28–LO series; for dimensions see catalogue 16.010

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



Circuit

2202 =

Driving type

PB = Push type detented

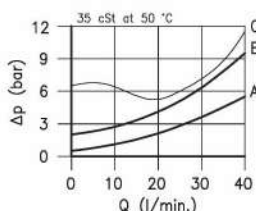
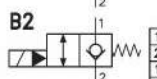
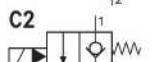


Codes:

MCD 28/2202-PB 22 011 165

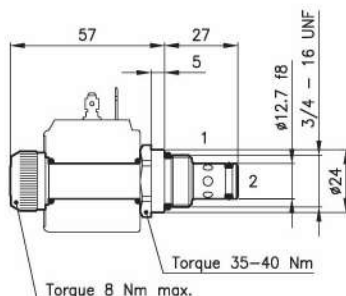
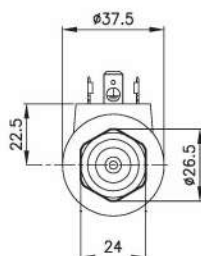
External seals kit 90 620 112

ECD 28/2202 valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

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 28/2
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Response time	(ms)	80 - 120 (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)	0.120
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



Circuits

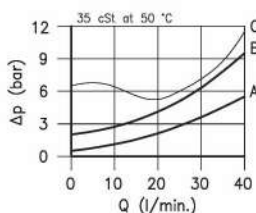
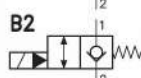
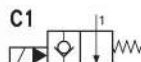

MO = Manual override (Only C1 and B1 version)
 (Omit if not request)

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

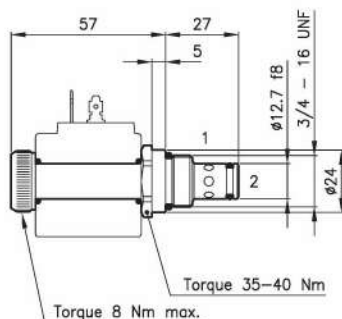
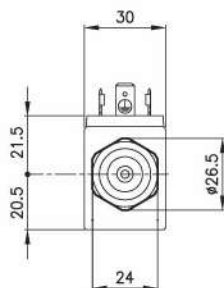
ECP 28/22.. valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

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


	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

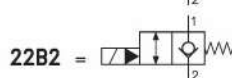
Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	30
Max. pressure	(bar)	210
Response time	(ms)	80 - 120 (Mean value)
It change in function of circuit, pressure, flow and fluid viscosity.		
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
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



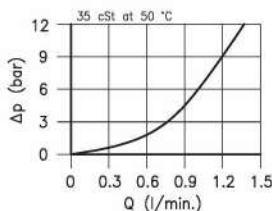
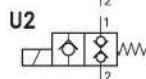
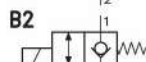
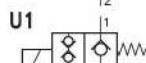
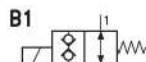
Version for the Coils B28 series

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

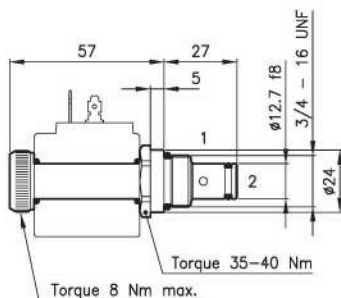
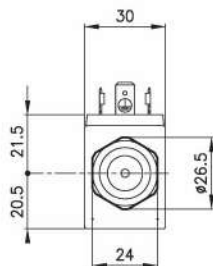
ECP 28/22.. valves can be assembled on standard bodies 28-L0 series; for dimensions see catalogue 16.010

On the ECP 28/. -R valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

Technical features


In B2 version the flow from 2 to 1 needs a pressure about 180 bar.

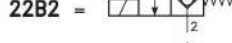
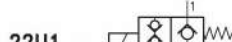
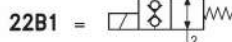
Cavity	(For dimensions see catalogue 17.001)	S 28/2
Max. flow	(l/min.)	1.2
Max. pressure	(bar)	210
Response time	(ms)	20 - 40 (Mean value)
Fluid viscosity range	(cSt)	2.8 - 380
Fluid temperature range	(°C)	-20 +80
Mass	(kg)	0.120
Hydraulic fluid; mineral oil HM and HV ISO 6074		
Recommended filtration; 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

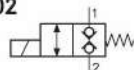
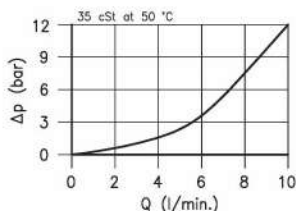
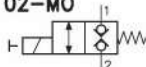


Codes:

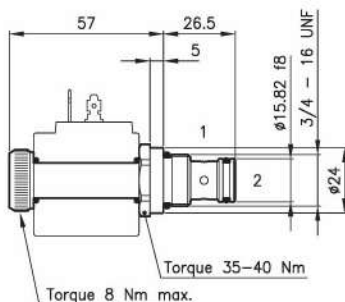
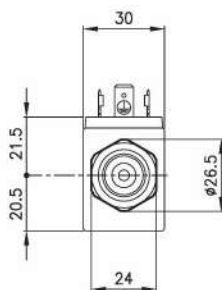
ECD 28/22B1	25 011 134
ECD 28/22U1	25 011 135
ECD 28/22B2	25 011 116
ECD 28/22U2	25 011 136
External seals kit	90 620 112

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


Circuits

2202 =

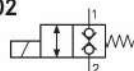
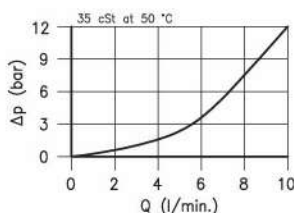
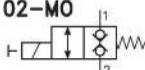
MO = Manual override
 (Omit if not request)

Codes:

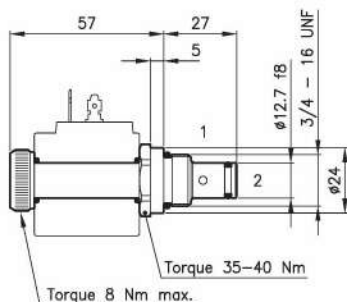
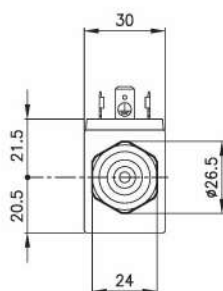
ECD 29/2202	25 011 132
ECD 29/2202-MO	25 011 166
External seals kit	90 620 113

ECD 29/22.. valves can be assembled on standard bodies 29-L0 series; for dimensions see catalogue 16.010

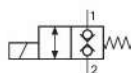
On the ECD 29 valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

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

2202 =


Version for the Coils B28 series

MO = Manual override

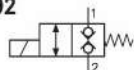
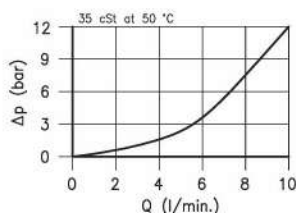
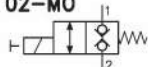
(Omit if not request)

Codes:

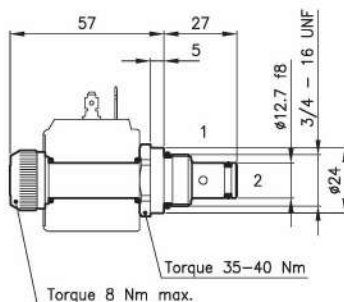
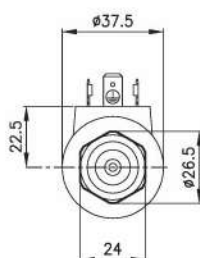
ECD 28/2202-R	25 011 172
ECD 28/2202-R-MO	25 011 171
External seals kit	90 620 112

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)
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)	0.120
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

2202 =

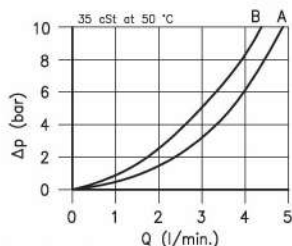
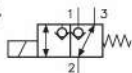
MO = Manual override
 (Omit if not request)

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

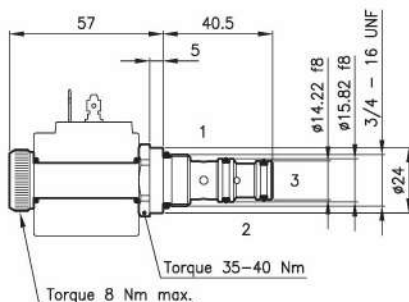
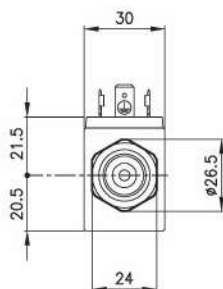
On the ECD 28 valves must be assembled the Coils B20 series; for dimensions, features and codes see catalogues 09.900 and 09.901.

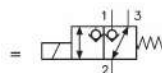
Technical features
04


A = 2 ↔ 1

B = 2 ↔ 3

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

Circuits
3204


Version for the Coils B28 series

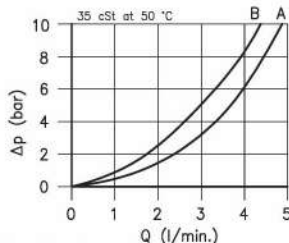
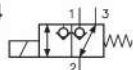
Codes:

ECD 28/3204-R 25 011 203

External seals kit 90 620 118

ECD 28/32.. valves can be assembled on standard bodies 28-C3 series; for dimensions see catalogue 16.010

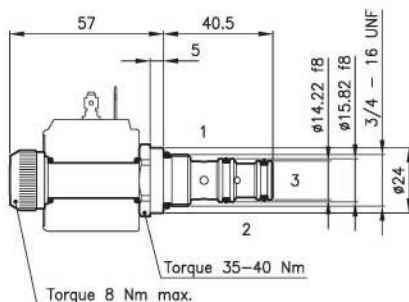
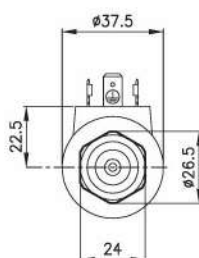
On the ECD 28/. -R valves must be assembled the Coils B28 series; for dimensions, features and codes see catalogue 09.902.

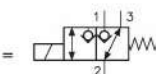
Technical features
04


A = 2 ↔ 1

B = 2 ↔ 3

Cavity	(For dimensions see catalogue 17.002)	S 28/3
Max. flow	(l/min.)	5
Max. pressure	(bar)	210
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)	0.140
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

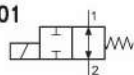
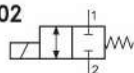
Circuits
3204

Codes:

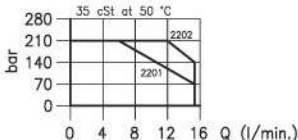
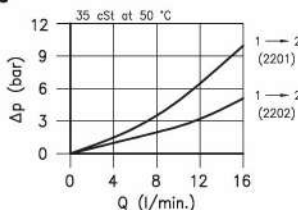
ECD 28/3204 25 011 130

External seals kit 90 620 118

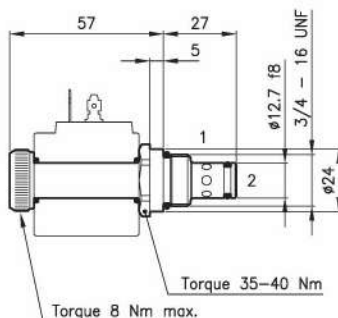
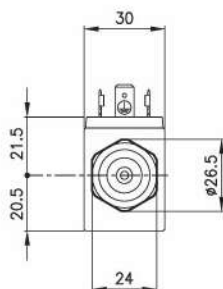
ECD 28/32.. valves can be assembled on standard bodies 28-C3 series; for dimensions see catalogue 16.010

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
01

02

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	(cm ³ /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)	0.120
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 =

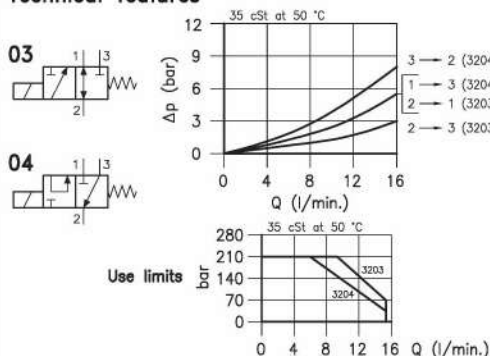
2202 =

Codes:

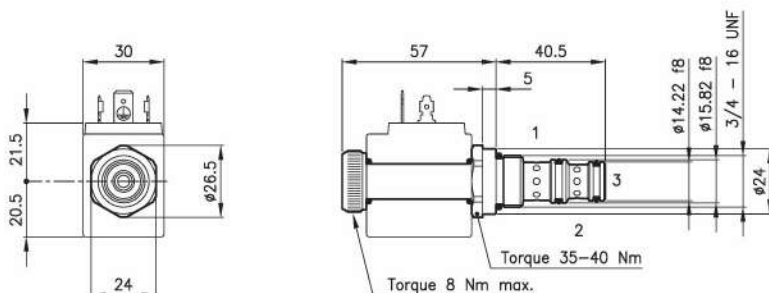
ETD 28/2201	25 011 161
ETD 28/2202	25 011 162
External seals kit	90 620 112

 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


Cavity	(For dimensions see catalogue 17.000)	S 28/3
Max. flow	(l/min.)	15
Max. pressure	(bar)	210
Max. leakage	(cm ³ /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 28/3203

ETD 28/32.. = Valve type



Circuits

3203 =

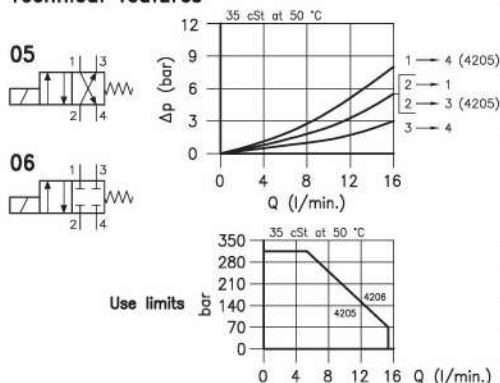
3204 =

Codes:

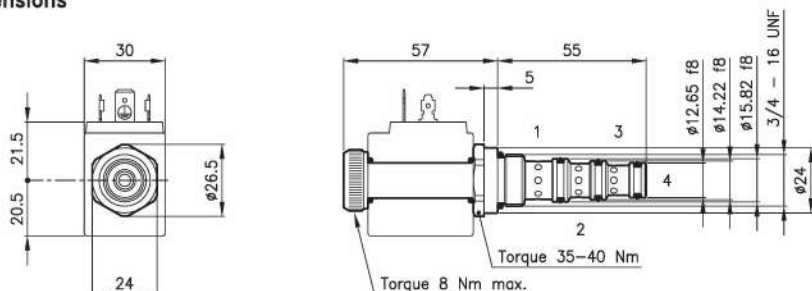
ETD 28/3203	25 011 159
ETD 28/3204	25 011 160
External seals kit	90 620 118

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


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	(cm ³ /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)	0.160
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



Circuits

4205 =

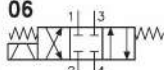
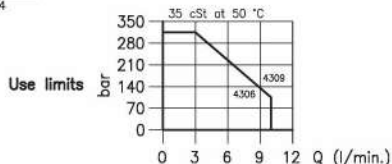
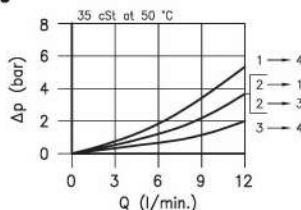
4206 =

Codes:

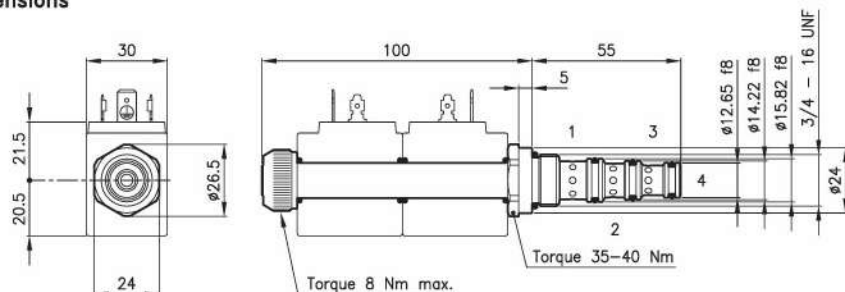
ETD 28/4205	25 011 138
ETD 28/4206	25 011 139
External seals kit	90 620 119

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 B28 series; for dimensions, features and codes see catalogue 09.902.

Technical features
06

09


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	(cm ³ /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)	0.180
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

4306 =

4309 =

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.

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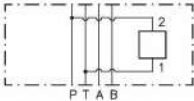
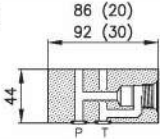
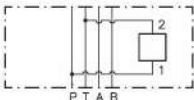
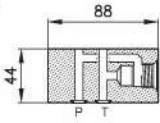
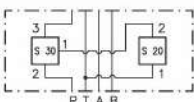
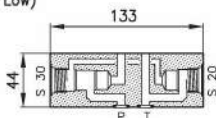

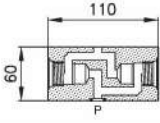
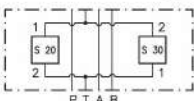
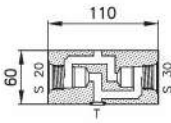

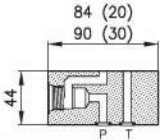

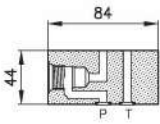

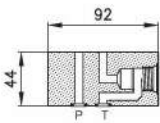
19

SCHEDULES

20

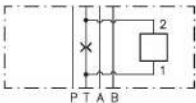
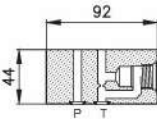
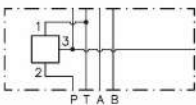
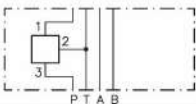
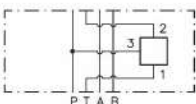
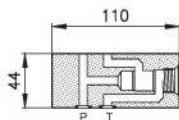
It is a series of blocks for sandwich assembling on connection surface CETOP R35 H-4.2-4-03, available in several executions for two or three way valve size 20 and 30, they offer a wide range uses. Here are represented the standard versions without the respective valves which may be supplied on request.

P and T line regulation and interception.

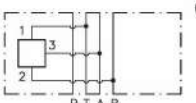
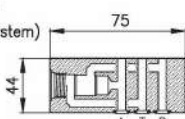
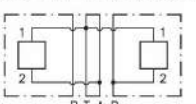

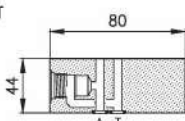
Connecting scheme	Type	Valve cavity	Ordering code
Circuit 01 valve between P and T (2-1)  	20 CFT 01	S 20/2	28 147 240
	30 CFT 01	S 30/2	38 147 240
Circuit 61 valve between P and T (1-2)  	30 CFT 61	S 30/2	38 147 262
Circuit 17 valves in pipe P (High/Low)  	30 CFT 17 (Page 13.355)	S 20/2 S 30/3	38 147 268
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	38 147 259
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.

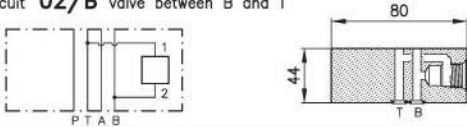
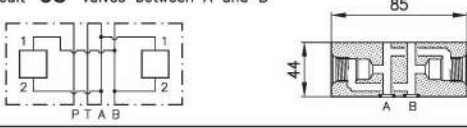
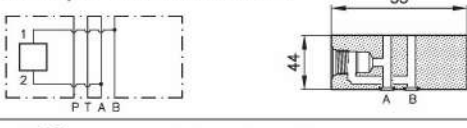
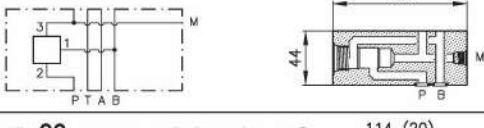
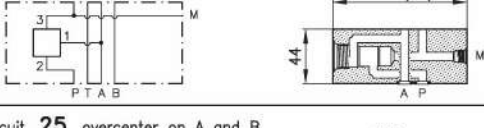
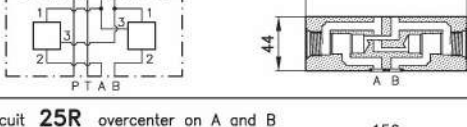
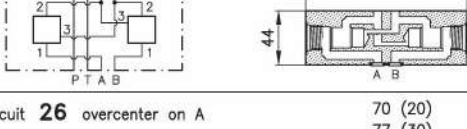

Connecting scheme	Type	Valve cavity	Ordering code
Circuit 47 valve and orifice in pipe T  	30 CFT 47	S 30/2	38 147 257
Circuit 07 for pressure reducing valve on P 	20 CFT 07	S 20/3	28 147 247
	30 CFT 07	S 30/3	38 147 244
Circuit 20 with priority on P and exceeding in T 	20 CFT 20	S 20/3	28 147 265
	30 CFT 20	S 30/3	38 147 254
Circuit 24 overcenter on T  	30 CFT 24	S 30/3	38 147 255

13
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

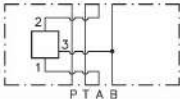
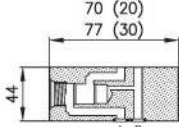

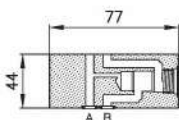

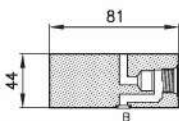

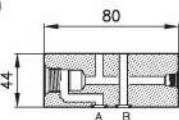
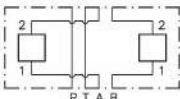
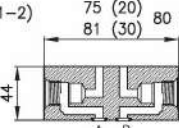

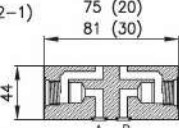
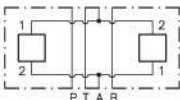
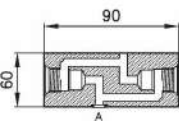
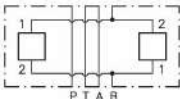
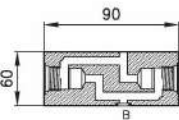
It is a series of blocks for sandwich assembling on connection surface CETOP R35 H-4.2-4-03, available in several executions for two or three way valves in size 20 and 30, they offer a wide range of uses. Here are represented the standard version without the respective valves, which may be supplied separately.

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

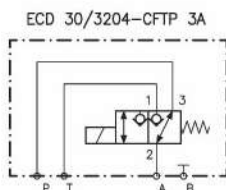
It is a series of blocks for sandwich assembling on connection surface CETOP R35 H-4.2-4-03, available in several executions for two or three way valves in size 20 and 30, they offer a wide range of uses. Here are represented the standard version without the respective valves, which may be supplied separately.

A and B line regulation and interception.

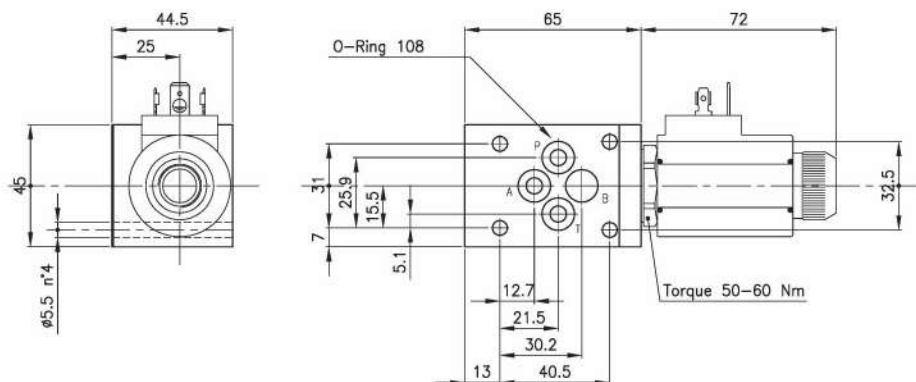
Connecting scheme	Type	Valve cavity	Ordering code
Circuit 57 pilot operated check valves 	30 CFT 57/P	S 30/3	38 147 266
Circuit 57 pilot operated check valves 	20 CFT 57 (Page 13.400)	S 20/2	28 147 255
Circuit 57 pilot operated check valve on A or on B 	20 CFT 57/A	S 20/2	
	20 CFT 57/B	S 20/2	
Circuit 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


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

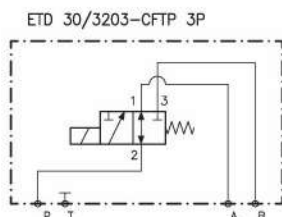
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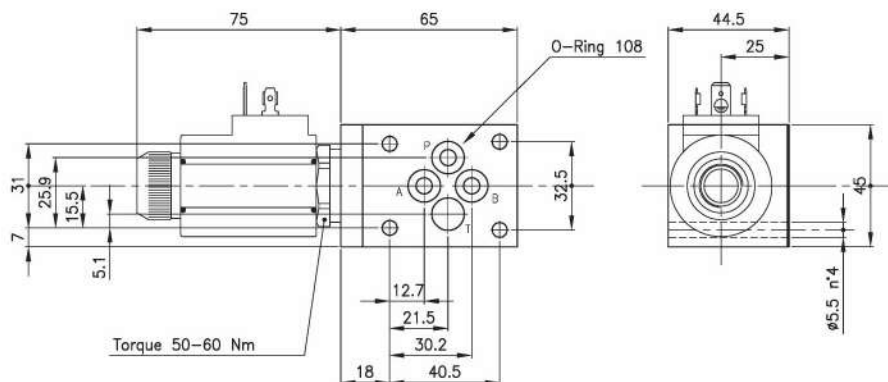
30-CFTP 3A

38 147 250

Version

Schema


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

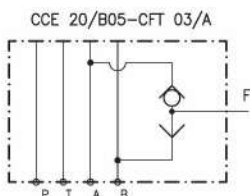
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Body:

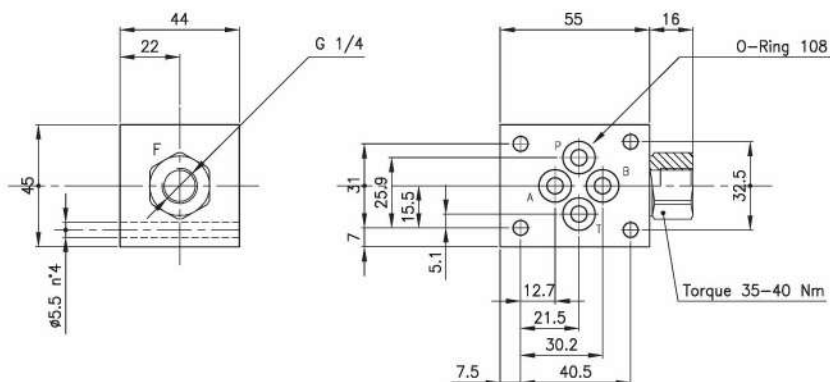
30-CFTP 3P

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

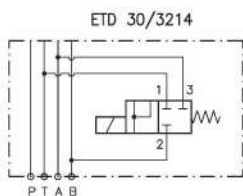
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Body:

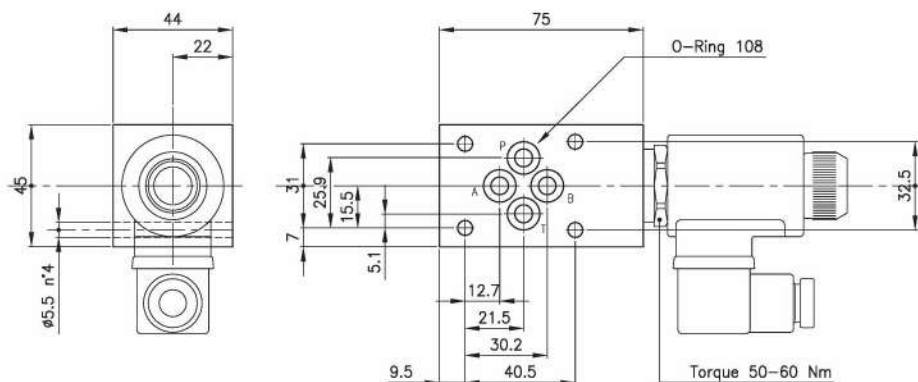
20-CFT 03/A

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:

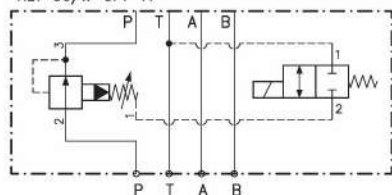
30-CFT 65

38 147 267

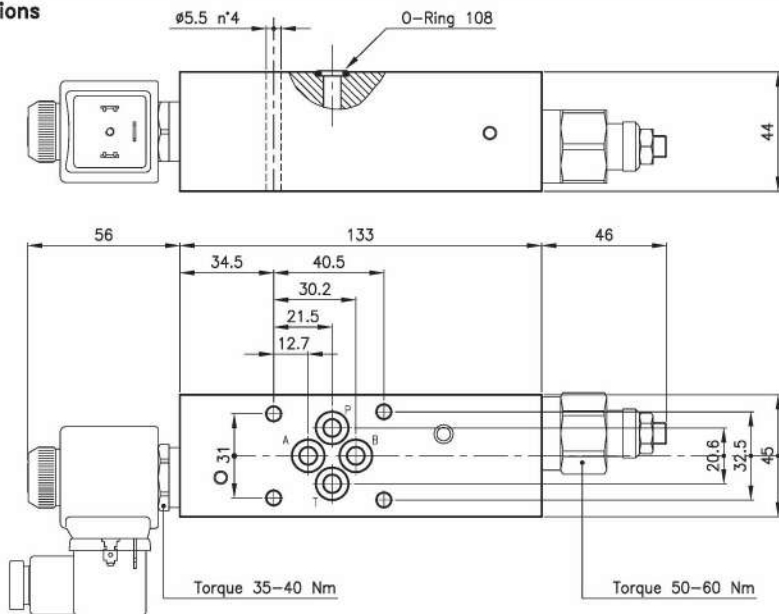
Version

Schema

RLY 30/-CFT 17



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:

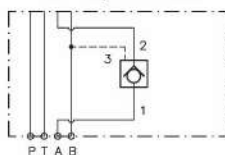
30-CFT 17

38 147 268

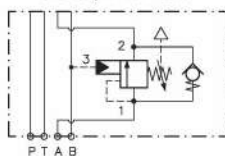
Version

Schema

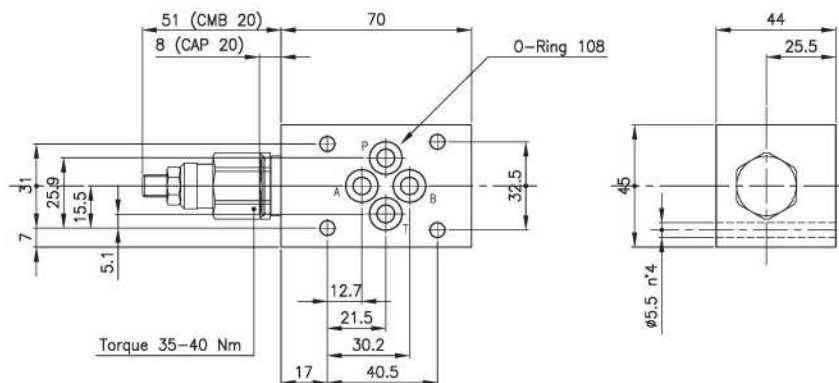
CAP 20/...-CFT 26R



CMB 20/...-CFT 26R



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

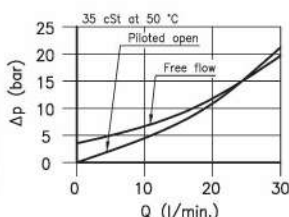
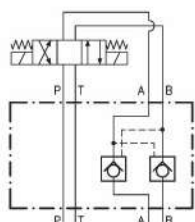
Size

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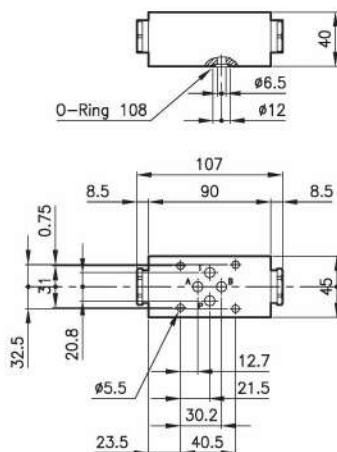
20-CFT 26R

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

Standard spring

M = 3.5 bar

Version

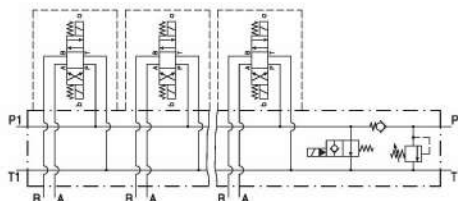
Codes:

CAE 20/M-CFT 57 22 011 117

Body:

20-CFT 57

28 147 255

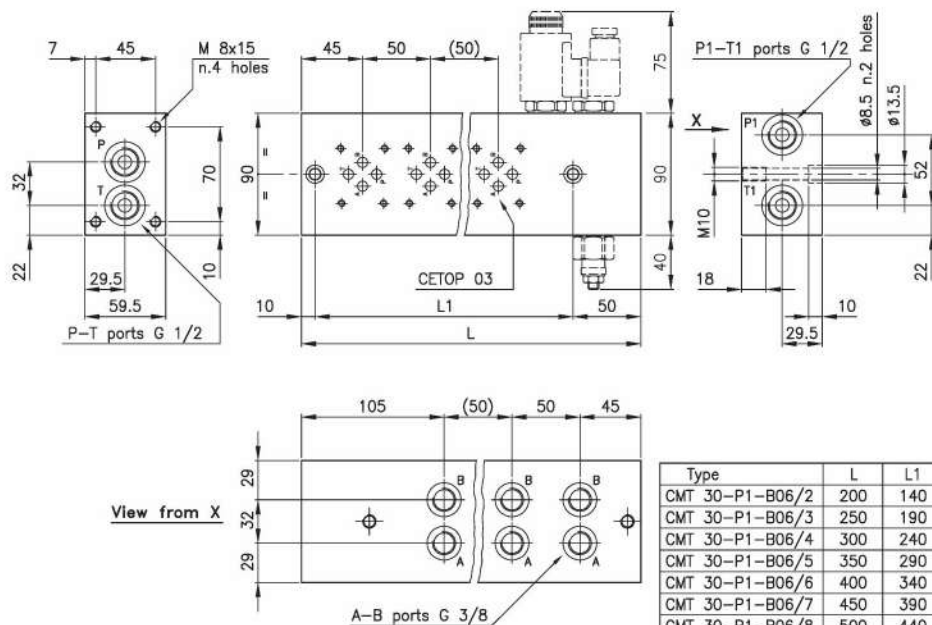
Technical features


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 alluminium (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

Parallel connection

(Pre-arrangement for pressure relief valve, unloading solenoid valve and check valve)

A e B ports

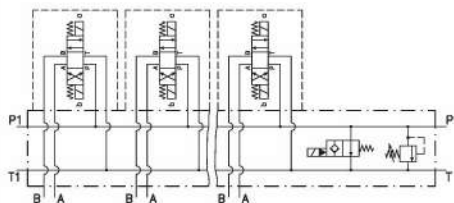
B06 = G 3/8

Sections number

Codes:

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

Technical features



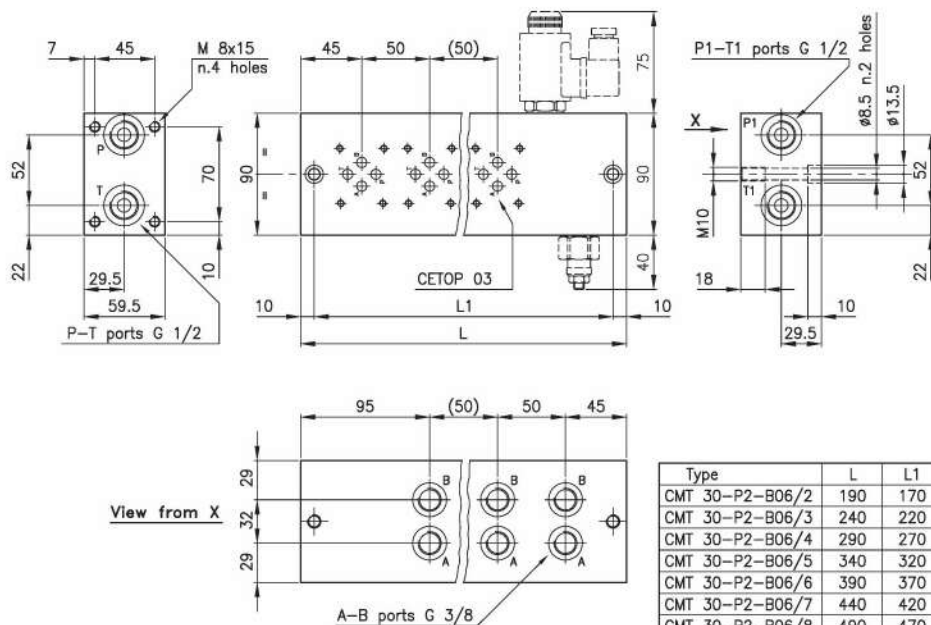
These are basic modular plates paralleling connected for solenoid valve provided with a connection surface CETOP R35 H-4.2-4-03.

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

Parallel connection

(Pre-arrangement for pressure relief valve and unloading solenoid valve)

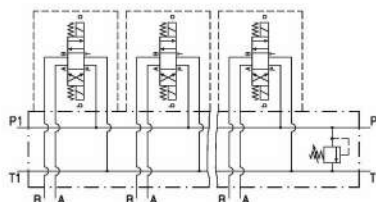
A e B ports

B06 = G 3/8

Sections number

Codes:

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

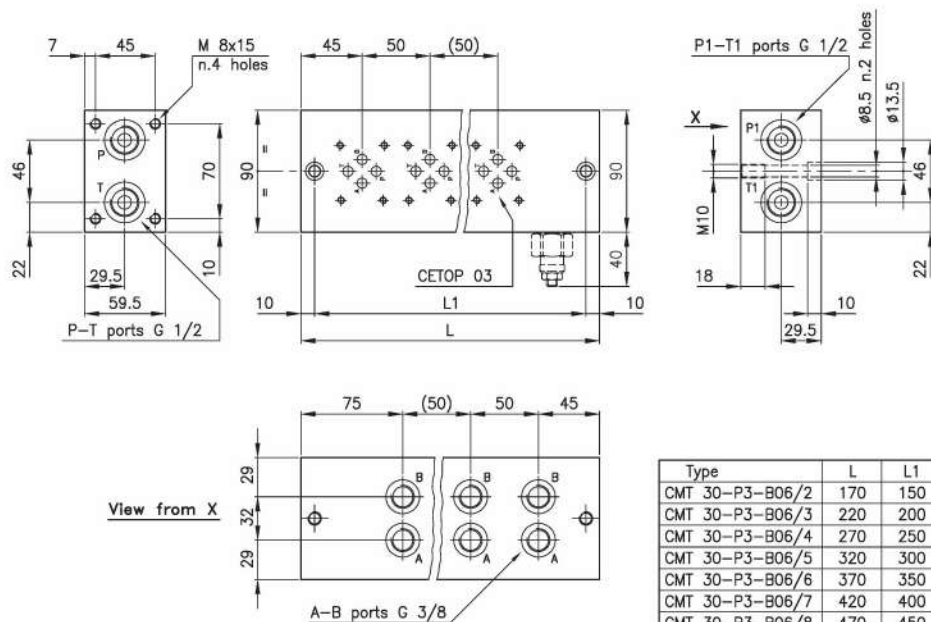
Technical features


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 a 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)

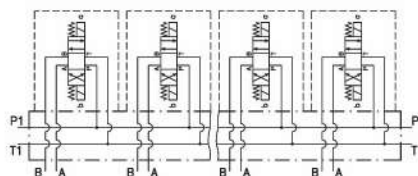
A e B ports

B06 = G 3/8

Sections number

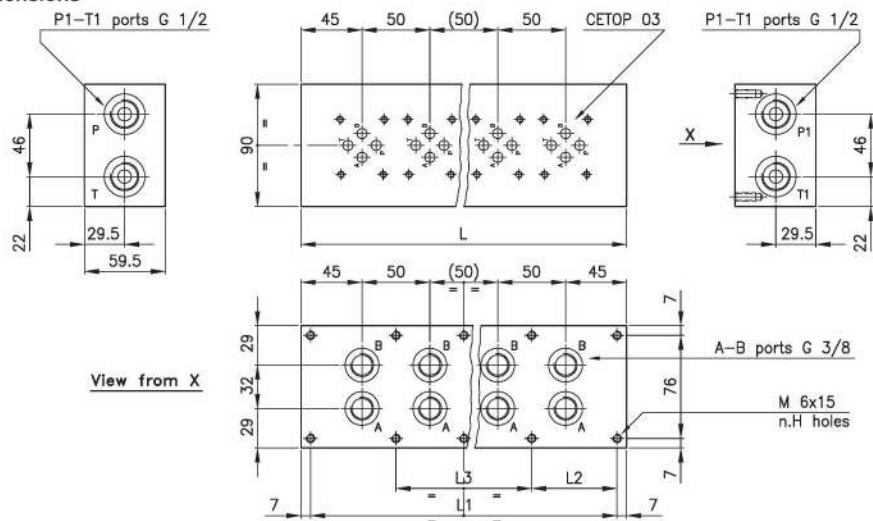
Codes:

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 alluminium (max. pressure 315 bar).
 On request available also in steel.

Dimensions


Type	L	H	L1
CMT 30-P0-B06/2	140	4	126
CMT 30-P0-B06/3	190	4	176
CMT 30-P0-B06/4	240	4	226
CMT 30-P0-B06/5	290	4	276

Type	L	H	L1	L2	L3
CMT 30-P0-B06/6	340	6	326	/	/
CMT 30-P0-B06/7	390	8	376	113	150
CMT 30-P0-B06/8	440	8	426	113	200
CMT 30-P0-B06/10	540	8	526	163	200

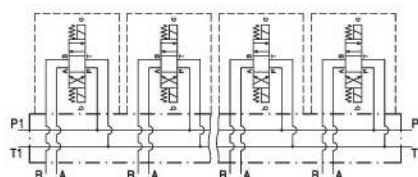
Ordering informations
CMT 30-P0-B06/5

Valves type _____
 Parallel connection _____
 A e B ports
B06 = G 3/8 _____
 Sections number _____

Codes:

CMT 30-P0-B06/2	38	144	183
CMT 30-P0-B06/3	38	144	184
CMT 30-P0-B06/4	38	144	185
CMT 30-P0-B06/5	38	144	186
CMT 30-P0-B06/6	38	144	187
CMT 30-P0-B06/7	38	144	188
CMT 30-P0-B06/8	38	144	189
CMT 30-P0-B06/10	38	144	190

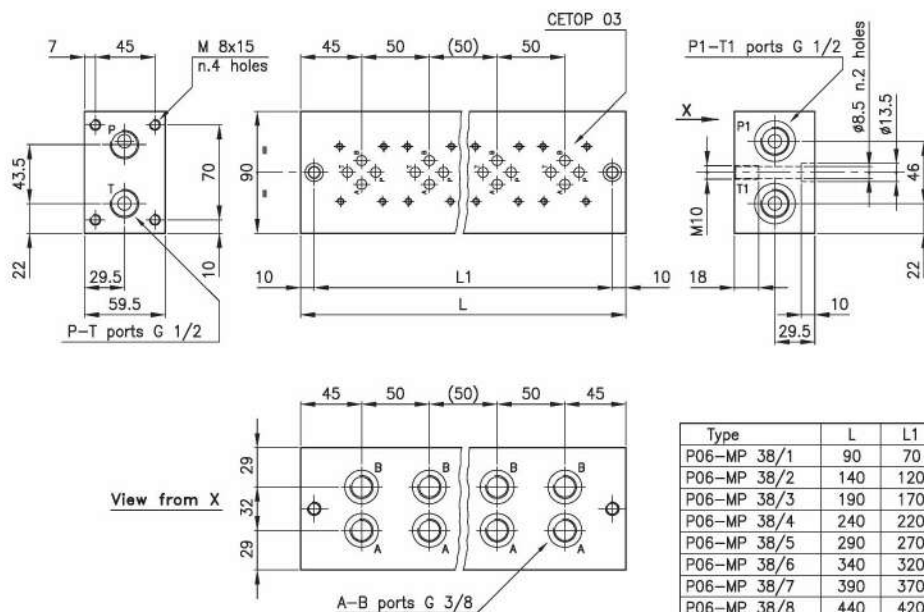
Technical features



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 alluminium (max. pressure 315 bar).
 On request available also in steel.

Dimensions



Ordering informations

P06-MP 38/4

Valves type _____

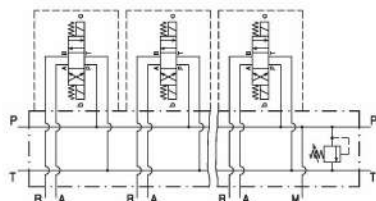
Parallel connection _____

A e B ports
38 = G 3/8 _____

Sections number _____

Codes:

P06-MP 38/1	38 144 205
P06-MP 38/2	38 144 150
P06-MP 38/3	38 144 151
P06-MP 38/4	38 144 152
P06-MP 38/5	38 144 153
P06-MP 38/6	38 144 154
P06-MP 38/7	38 144 155
P06-MP 38/8	38 144 156
P06-MP 38/9	38 144 237

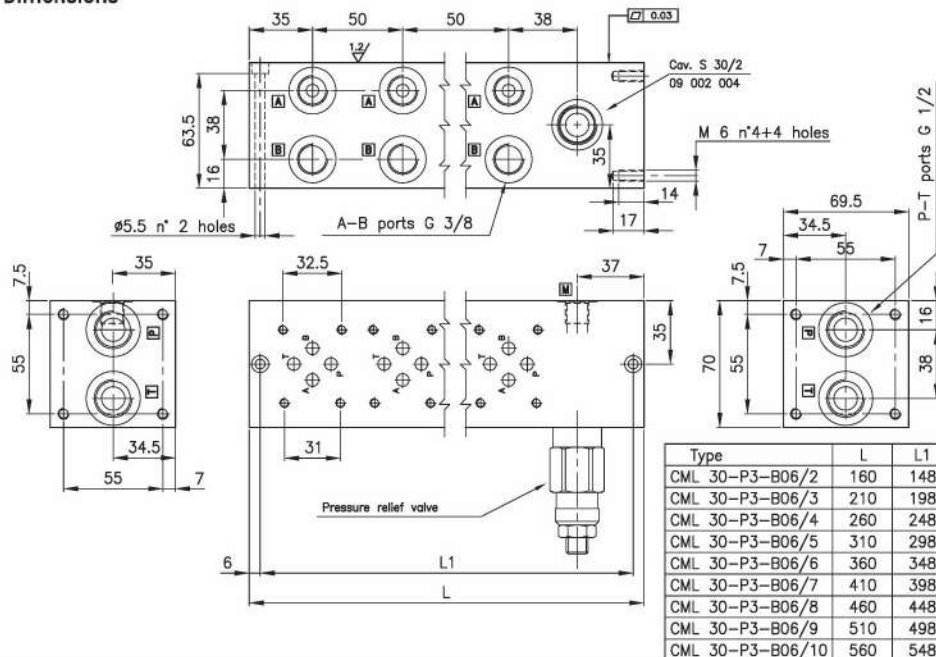
Technical features


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.

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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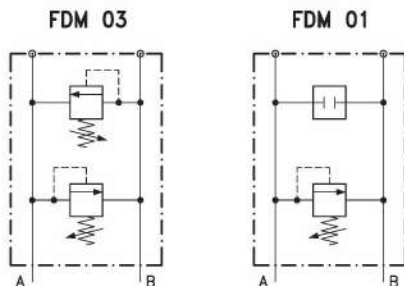
ACCESSORIES

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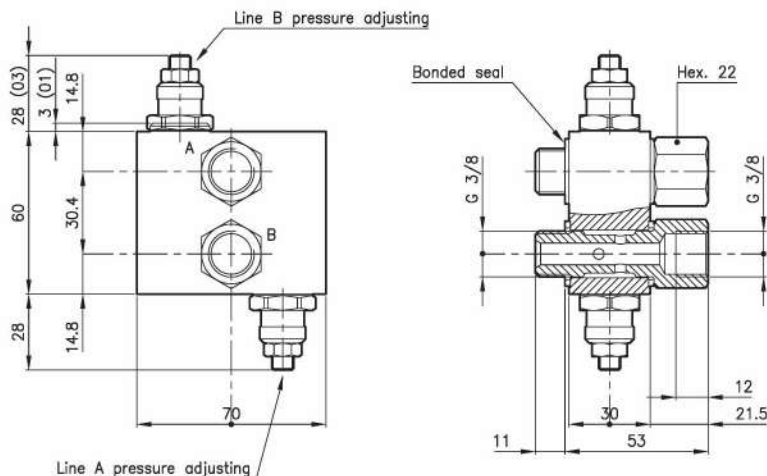
19

SCHEDULES

20

Technical features


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

Valve type

Standard springs

Type Setting range

D = 7 - 210 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

B06 = G 3/8 ISO 228

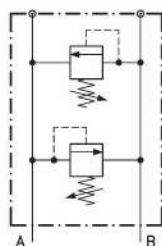
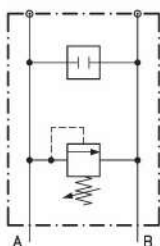
Codes:

LPS 20/20-D-N-FDM 01-B06 21 011 197

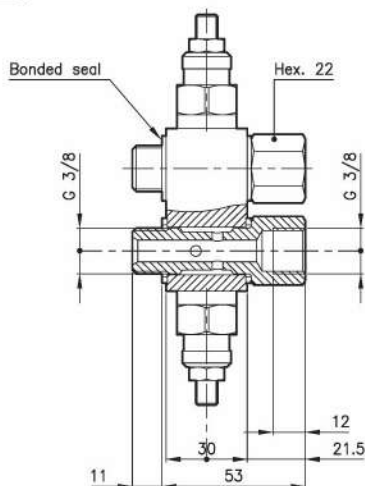
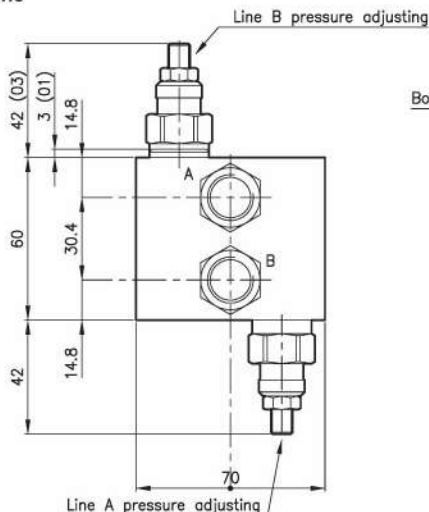
LPS 20/20-D-N-FDM 03-B06 21 011 198

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

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

B06 = G 3/8 ISO 228

Codes:

LPA 20/U-N-FDM 01-B06 21 011 193

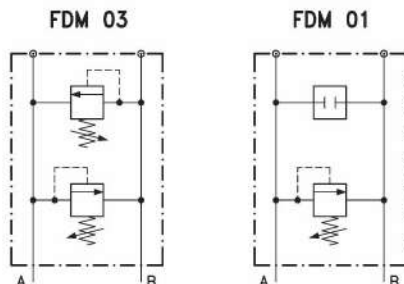
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LPA 20/U-N-FDM 03-B06 21 011 195

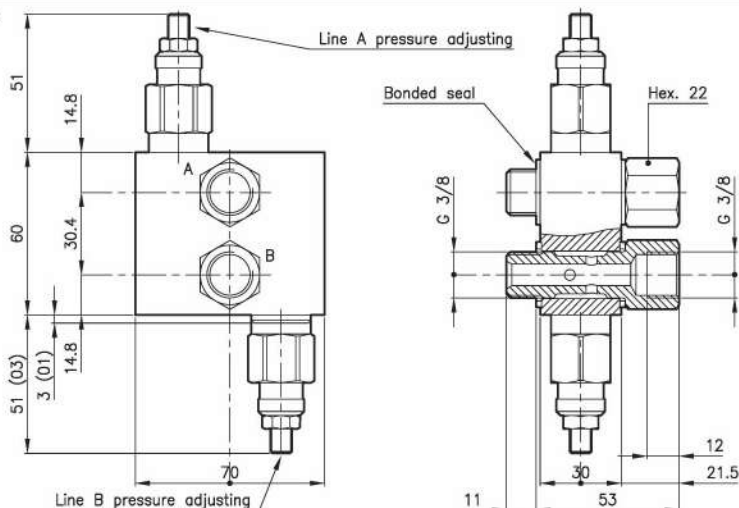
LPA 20/D-N-FDM 03-B06 21 011 196

Only body code:

Body type 20-FDM 03-B06 28 147 100

Technical features


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

Valve type

Standard ports

B06 = G 3/8 ISO 228

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-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

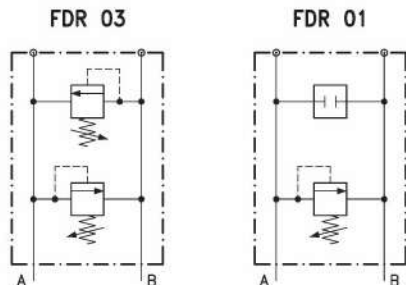
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LPB 20/D-N-FDM 03-B06 21 011 191

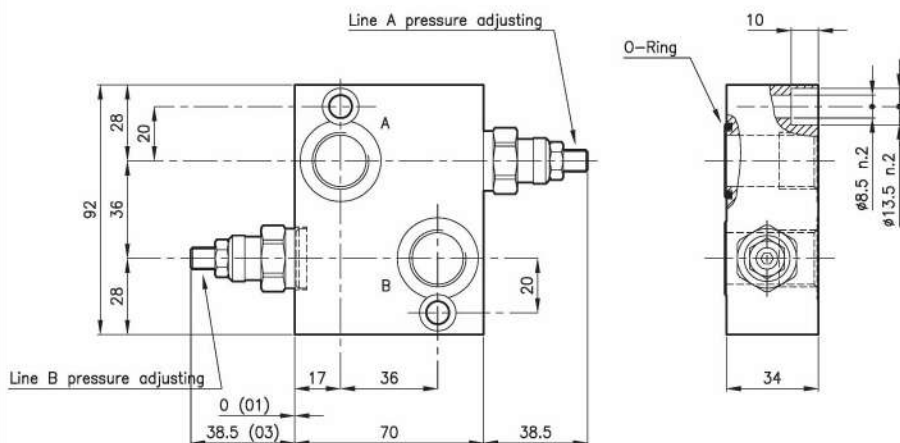
LPB 20/T-N-FDM 03-B06 21 011 192

Only body code:

Body type 20-FDM 03-B06 28 147 100

Technical features


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 absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
LPA 20/D-N-FDR 03-B08

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

B08 = G 1/2 ISO 228

Codes:

LPA 20/U-N-FDR 01-B08 21 011 199

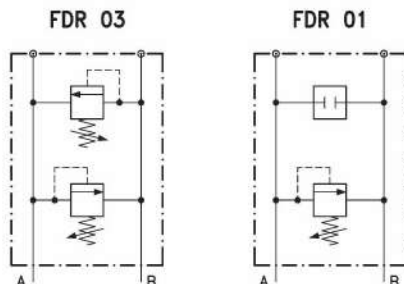
LPA 20/D-N-FDR 01-B08 21 011 200

LPA 20/U-N-FDR 03-B08 21 011 201

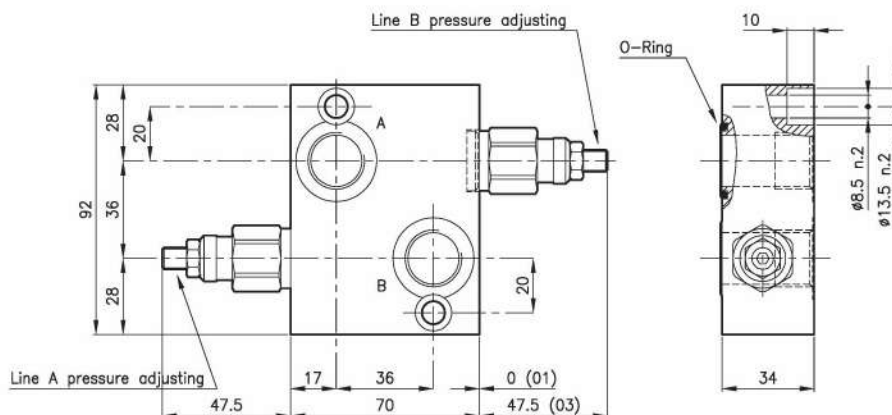
LPA 20/D-N-FDR 03-B08 21 011 202

Only body code:

Body type 20-FDR 03-B08 28 147 120

Technical features


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

Valve type

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

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

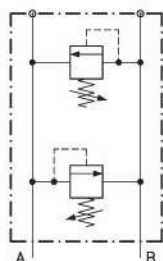
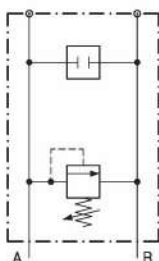
LPB 20/U-N-FDR 03-B08 21 011 184

LPB 20/D-N-FDR 03-B08 21 011 185

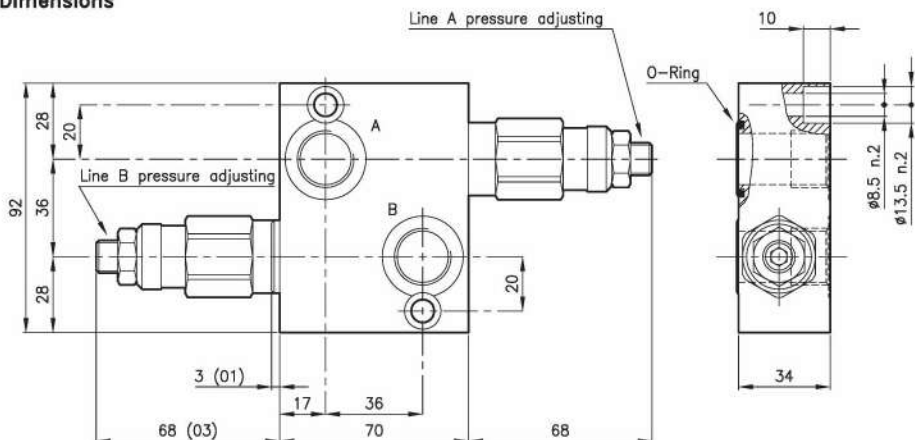
LPB 20/T-N-FDR 03-B08 21 011 186

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 absolute)		
Standard seals in Polyurethane and Buna N		

Dimensions

Ordering informations
LPA 30/D-N-FDR 03-B08

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

B08 = G 1/2 ISO 228

Codes:

LPA 30/U-N-FDR 01-B08 31 011 207

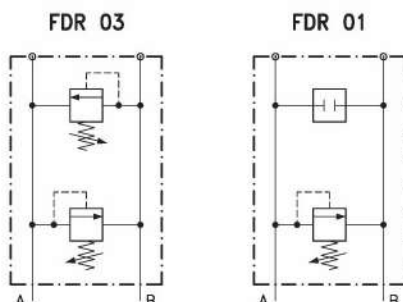
LPA 30/D-N-FDR 01-B08 31 011 208

LPA 30/U-N-FDR 03-B08 31 011 209

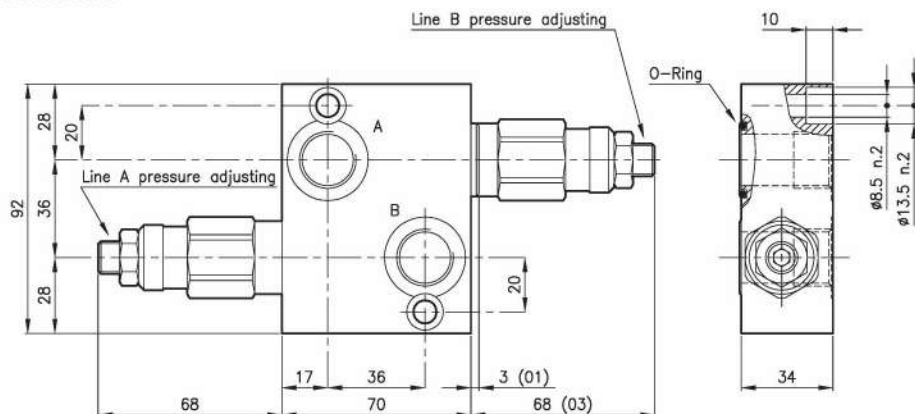
LPA 30/D-N-FDR 03-B08 31 011 210

Only body code:

Body type 30-FDR 03-B08 38 147 120

Technical features


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 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-FDR 01-B08 31 011 217

LPB 30/D-N-FDR 01-B08 31 011 218

LPB 30/T-N-FDR 01-B08 31 011 219

LPB 30/U-N-FDR 03-B08 31 011 220

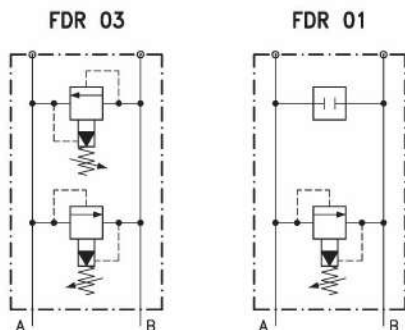
LPB 30/D-N-FDR 03-B08 31 011 221

LPB 30/T-N-FDR 03-B08 31 011 222

Only body code:

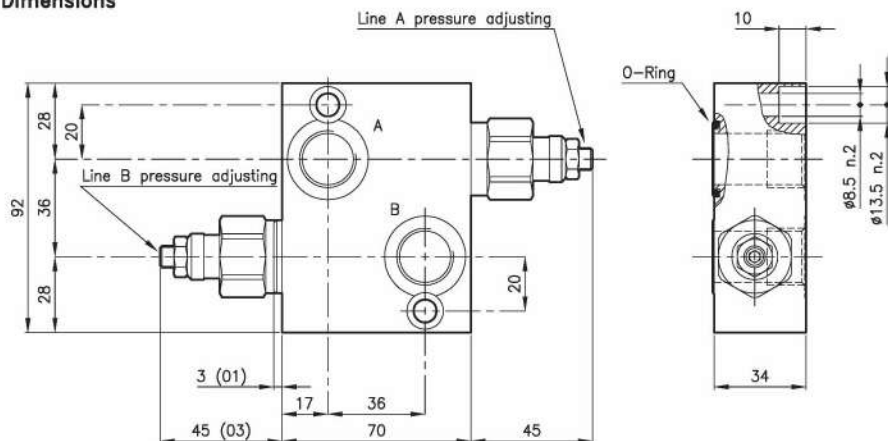
Body type 30-FDR 03-B08 38 147 120

Technical features



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 springs

Type	Setting range
------	---------------

D = 14 – 210 bar

$$Q = 105 - 420 \text{ bar}$$

Adjustment type

N = Standard adjustment



Version

Standard ports

B08 = G 1/2 ISO 228

Codes:

LPI 30/D-N-FDR 01-B08 31 011 188

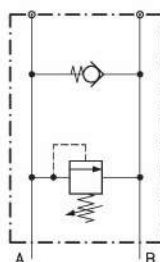
LPI 30/Q-N-FDR 01-B08 31 011 189

LPI 30/D-N-FDR 03-B08 31 011 190

LPI 30/Q-N-FDR 03-B08 31 011 191

Only body code:

Body type	30-FDR	03-B08	38	147	120
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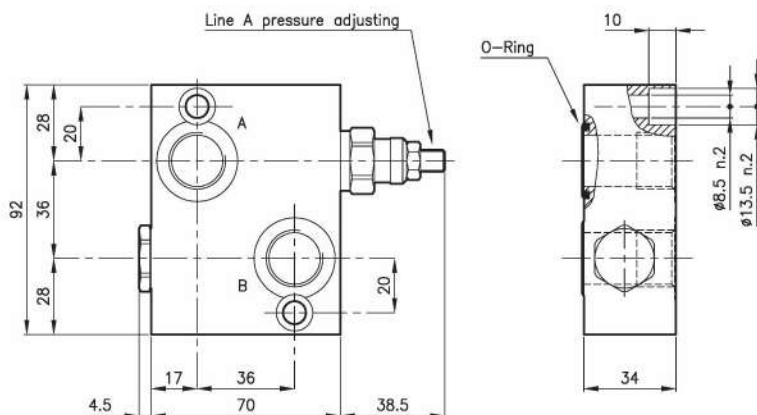
Technical features
FDR 02

Valves

(For features see catalogue 02.060)

(For features see catalogue 05.010)

LPA 20
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

Ordering informations
LPA 20/D-N-FDR 02-B08

Valve type

Standard springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

B08 = G 1/2 ISO 228

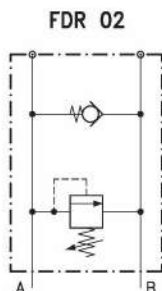
Codes:

LPA 20/U-N-FDR 02-B08 21 011 209

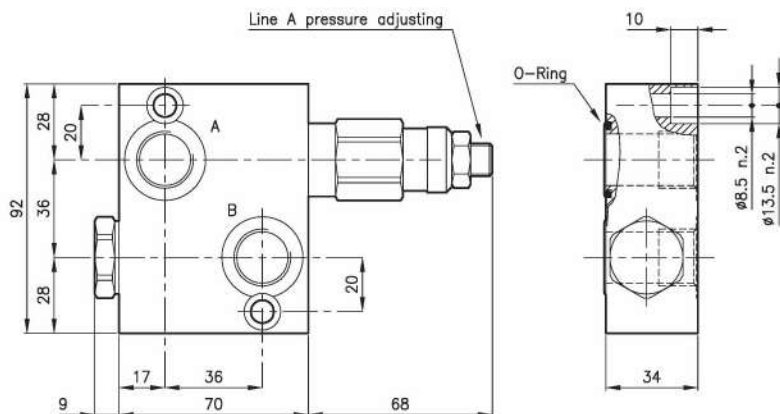
LPA 20/D-N-FDR 02-B08 21 011 210

Only body code:

Body type 20-FDR 03-B08 28 147 120

Technical features


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 springs

Type Setting range

U = 10 - 105 bar

D = 70 - 210 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

B08 = G 1/2 ISO 228

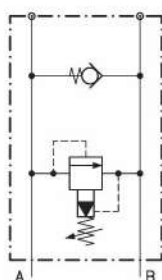
Codes:

LPA 30/U-N-FDR 02-B08 31 011 198

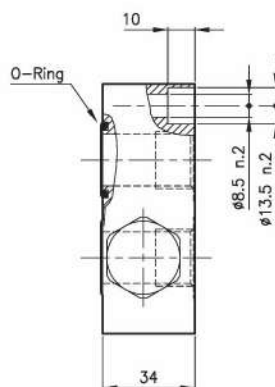
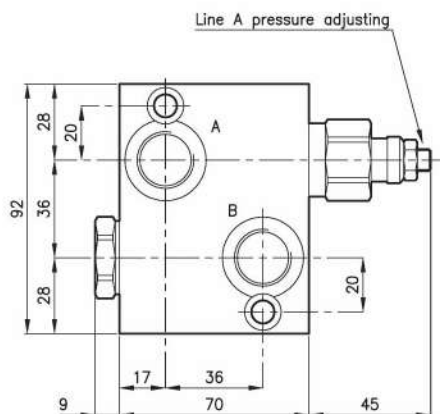
LPA 30/D-N-FDR 02-B08 31 011 199

Only body code:

Body type 30-FDR 03-B08 38 147 120

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 springs

Type Setting range

D = 14 - 210 bar

Adjustment type

N = Standard adjustment

Version

Standard ports

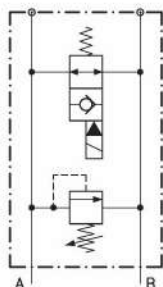
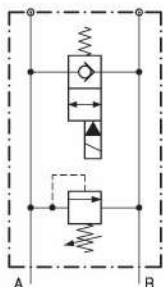
B08 = G 1/2 ISO 228

Codes:

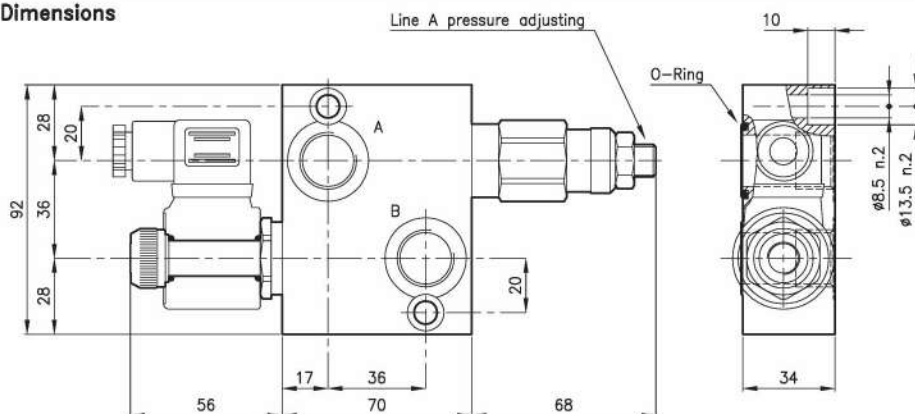
LPI 30/D-N-FDR 02-B08 31 011 206

Only body code:

Body type 30-FDR 03-B08 38 147 120

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

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

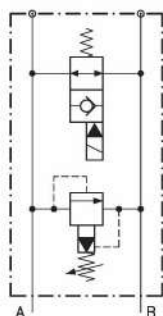
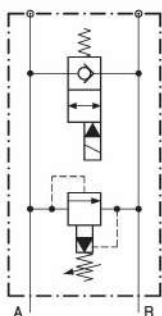
LPA 30/D-N-FDR B1-B08 31 011 201

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

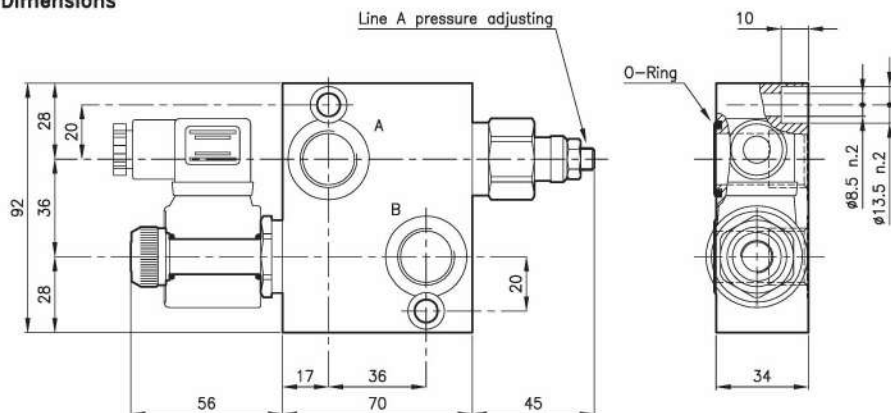
(For features see catalogue 02.120)

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

Version

22B1 =

22B2 =

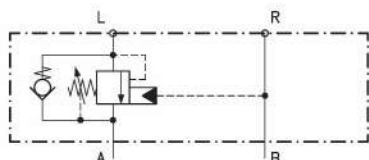
Codes:

LPI 30/D-N-FDR B1-B08 31 011 204

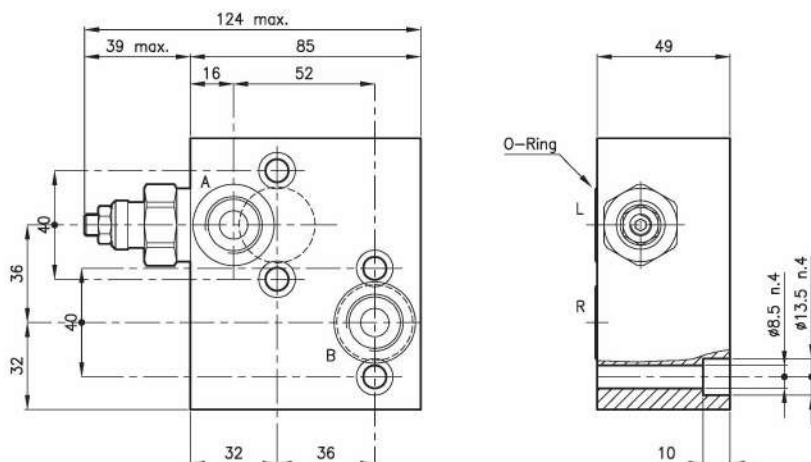
LPI 30/D-N-FDR B2-B08 31 011 205

Only body code:

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

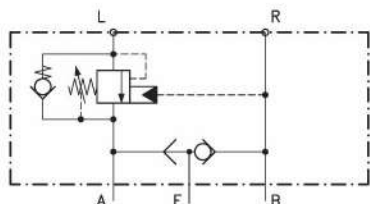
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CMQ 30/D-L-FDR 22-B08	34 011 110
CMQ 30/T-L-FDR 22-B08	34 011 111

Only body code:

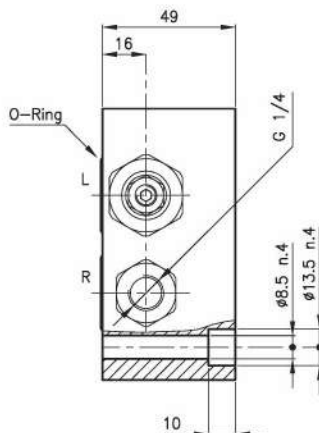
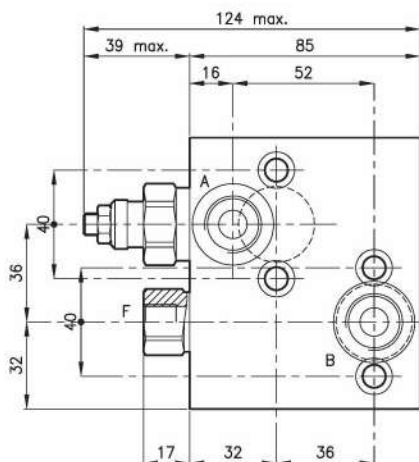
Body type 30-FDR 22-B08	38 147 131
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Technical features



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
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$$D = 25 - 125 \text{ bar} \quad 105 \text{ bar}$$
$$T = 105 - 420 \text{ bar} \quad 280 \text{ bar}$$

Adjustment type

L = Adjustment with overset protection 

Version

Standard ports

B08 = G 1/2 ISO 228

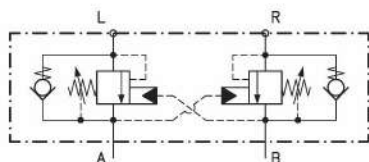
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CMQ 30/D-L-FDR 23-B08 34 011 112

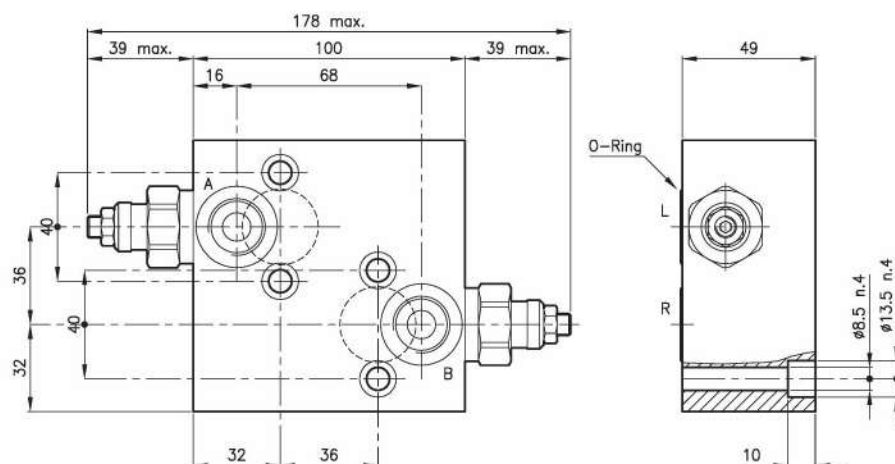
CMQ 30/T-L-FDR 23-B08	34	011	113
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Only body code:

Body type	30-FDR	23-B08	38	147	132
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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 oversight protection

Version

Standard ports

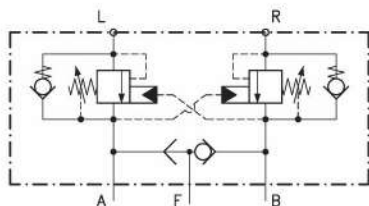
B08 = G 1/2 ISO 228

Codes:

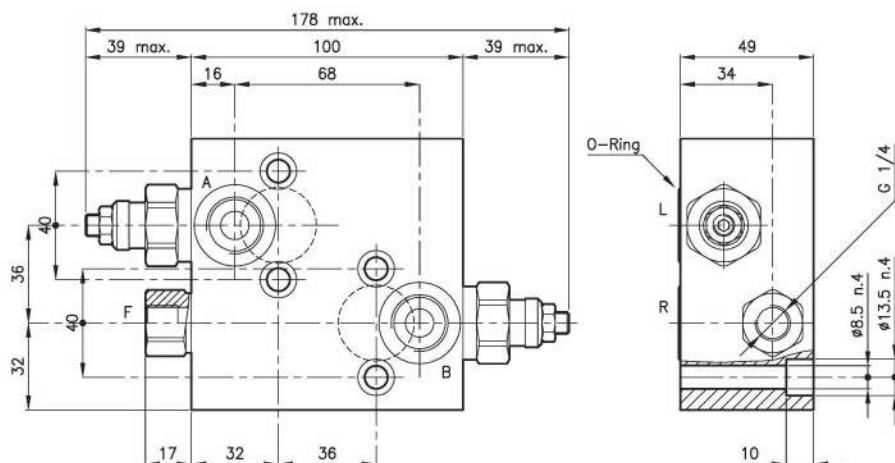
CMQ 30/D-L-FDR 25-B08	34 011 114
CMQ 30/T-L-FDR 25-B08	34 011 115

Only body code:

Body type 30-FDR 25-B08	38 147 134
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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

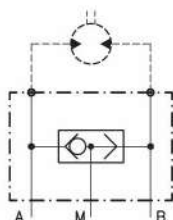
B08 = G 1/2 ISO 228

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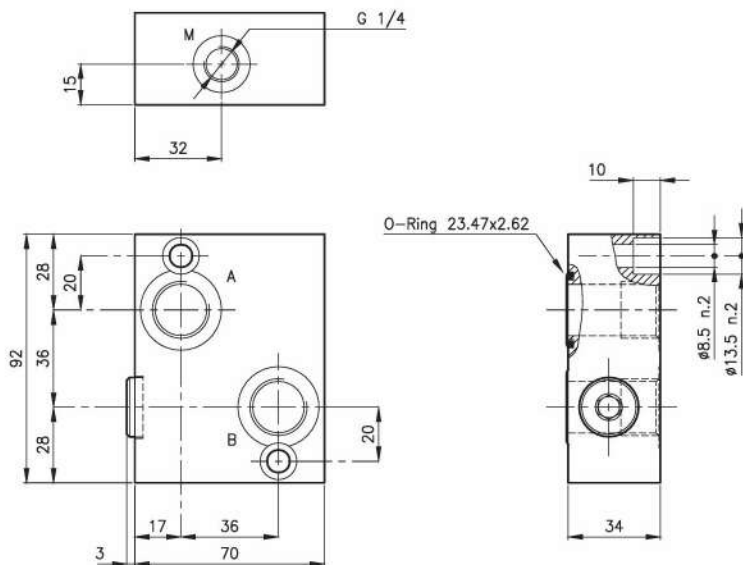
CMQ 30/D-L-FDR 26-B08	34 011 116
CMQ 30/T-L-FDR 26-B08	34 011 117

Only body code:

Body type 30-FDR 26-B08	38 147 135
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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

Version

Standard ports

B08 = G 1/2 ISO 228

Codes:

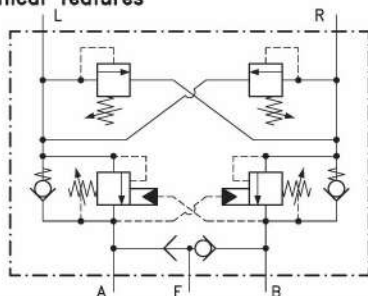
CCI 20/FDR 29-B08

22 011 167

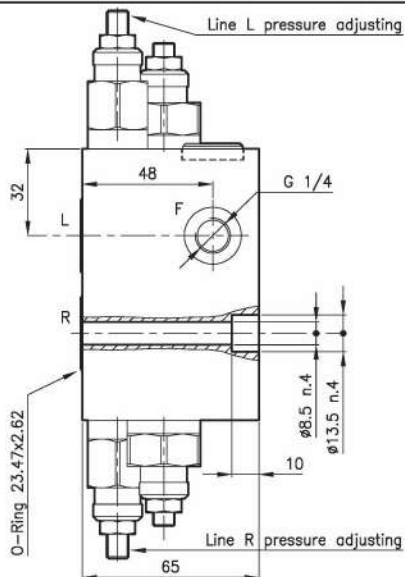
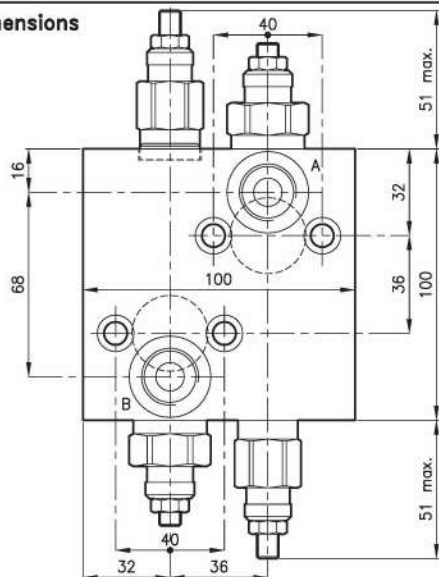
Only body code:

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 bar

T = 105 - 420 bar

Adjustment type (CMQ 30)

L = Adjustment with overset protection

Only body code:

Body type 30-FDR 31-B08 38 147 140

Standard ports

B08 = G 1/2 ISO 228

Version

Adjustment type (LPB 20)

N = Standard adjustment

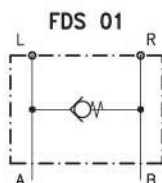
Standard springs (LPB 20)

Type Setting range

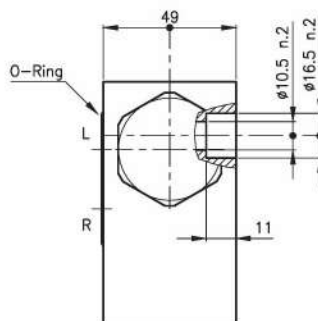
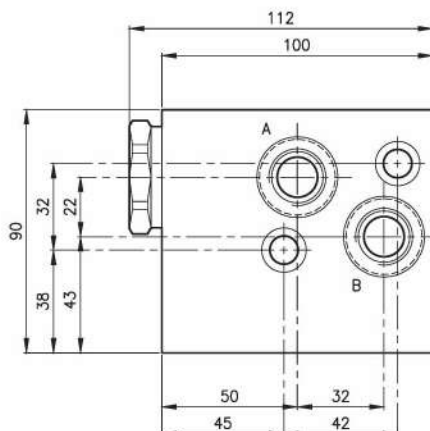
U = 10 - 105 bar

D = 70 - 210 bar

T = 140 - 350 bar

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 springs

P = 0.35 bar

M = 3.5 bar

Z = 8 bar

Version

Standard ports

B08 = G 1/2 ISO 228

Codes:

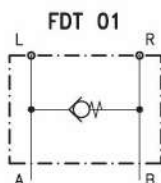
CAE 50/M-FDS 01-B08

52 011 130

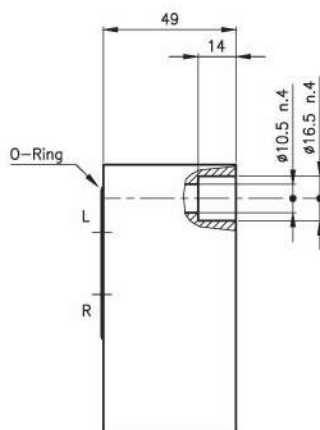
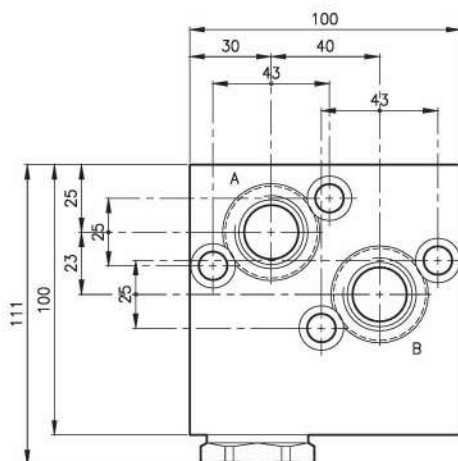
Only body code:

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

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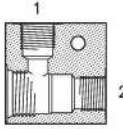
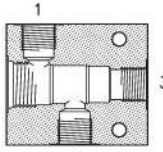
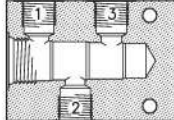
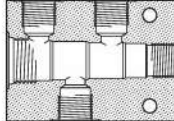
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SCHEDULES

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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).

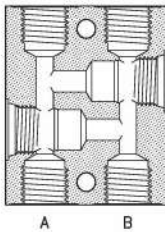

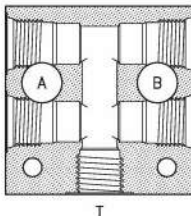

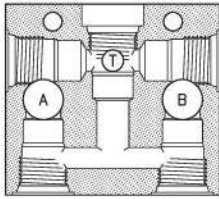

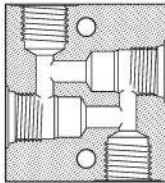

	Ordering Code Aluminium Bodies	Ordering Code Steel Bodies	Valve cavity	Ports	Technical schedule
Body LO type - 2 way 	10-LO-B05 18 144 100	10-LO-B05/FE 18 144 101	S 10/2	G 1/4 (B05)	16.010
	20-LO-B05 28 144 104	20-LO-B05/FE 28 144 118	S 20/2	G 1/4 (B05)	16.010
	20-LO-B06 28 144 101	20-LO-B06/FE 28 144 119	S 20/2	G 3/8 (B06)	16.010
	28-LO-B05 28 144 128	28-LO-B05/FE 28 144 140	S 28/2	G 1/4 (B05)	16.010
	28-LO-B06 28 144 142	28-LO-B06/FE 28 144 141	S 28/2	G 3/8 (B06)	16.010
	30-LO-B06 38 144 101	30-LO-B06/FE 38 144 131	S 30/2	G 3/8 (B06)	16.010
	30-LO-B08 38 144 103	30-LO-B08/FE 38 144 132	S 30/2	G 1/2 (B08)	16.010
	32-LO-B05 38 144 140		S 32/2	G 1/4 (B05)	16.010
	50-LO-B08 58 144 100	50-LO-B08/FE 58 144 124	S 50/2	G 1/2 (B08)	16.010
	50-LO-B12 58 144 101	50-LO-B12/FE 58 144 125	S 50/2	G 3/4 (B12)	16.010
	70-LO-B16 78 144 100	70-LO-B16/FE 78 144 114	S 70/2	G 1 (B16)	16.010
	70-LO-B20 78 144 101	70-LO-B20/FE 78 144 115	S 70/2	G 1.1/4 (B20)	16.010
Body C3 type - 3 way 	20-C3-B05 28 144 102	20-C3-B05/FE 28 144 120	S 20/3	G 1/4 (B05)	16.010
	20-C3-B06 28 144 103	20-C3-B06/FE 28 144 121	S 20/3	G 3/8 (B06)	16.010
	28-C3-B05 28 144 136	28-C3-B05/FE 28 144 143	S 28/3	G 1/4 (B05)	16.010
	28-C3-B06 28 144 129	28-C3-B06/FE 28 144 144	S 28/3	G 3/8 (B06)	16.010
	30-C3-B06 38 144 102	30-C3-B06/FE 38 144 133	S 30/3	G 3/8 (B06)	16.010
	30-C3-B08 38 144 105	30-C3-B08/FE 38 144 134	S 30/3	G 1/2 (B08)	16.010
	50-C3-B08 58 144 102	50-C3-B08/FE 58 144 126	S 50/3	G 1/2 (B08)	16.010
	50-C3-B12 58 144 103	50-C3-B12/FE 58 144 127	S 50/3	G 3/4 (B12)	16.010
	70-C3-B16 78 144 102	70-C3-B16/FE 78 144 116	S 70/3	G 1 (B16)	16.010
	70-C3-B20 78 144 103	70-C3-B20/FE 78 144 117	S 70/3	G 1.1/4 (B20)	16.010
Body CC type - 3 way 	30-CC-B05 38 144 108		S 30/4	G 1/4 (B05)	16.011
	30-CC-B06 38 144 115	30-CC-B06/FE 38 144 135	S 30/4	G 3/8 (B06)	16.011
	30-CC-B08 38 144 116	30-CC-B08/FE 38 144 136	S 30/4	G 1/2 (B08)	16.011
	50-CC-B08 58 144 106	50-CC-B08/FE 58 144 128	S 50/4	G 1/2 (B08)	16.011
	50-CC-B12 58 144 107	50-CC-B12/FE 58 144 129	S 50/4	G 3/4 (B12)	16.011
Body C4 type - 4 way 	20-C4-B05 28 144 105	20-C4-B05/FE 28 144 122	S 20/4	G 1/4 (B05)	16.011
	20-C4-B06 28 144 106	20-C4-B06/FE 28 144 123	S 20/4	G 3/8 (B06)	16.011
	28-C4-B05 28 144 145	28-C4-B05/FE 28 144 146	S 28/4	G 1/4 (B05)	16.011
	28-C4-B06 28 144 147	28-C4-B06/FE 28 144 124	S 28/4	G 3/8 (B06)	16.011
	30-C4-B06 38 144 100	30-C4-B06/FE 38 144 137	S 30/4	G 3/8 (B06)	16.011
	30-C4-B08 38 144 104	30-C4-B08/FE 38 144 138	S 30/4	G 1/2 (B08)	16.011
	50-C4-B08 58 144 104	50-C4-B08/FE 58 144 130	S 50/4	G 1/2 (B08)	16.011
	50-C4-B12 58 144 105	50-C4-B12/FE 58 144 131	S 50/4	G 3/4 (B12)	16.011

This series of bodies, realized in anodized aluminium alloy includes all standard versions normally available.

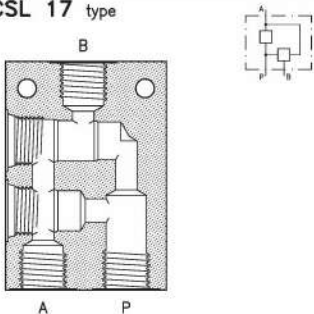
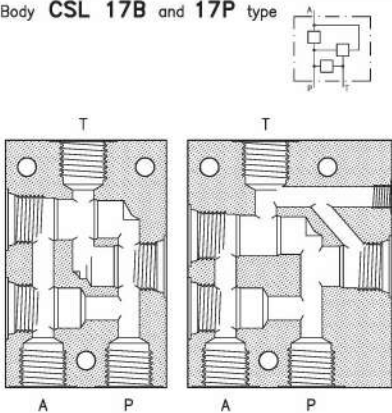
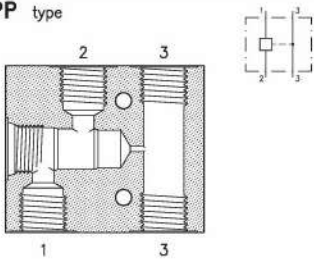
On request they can be supplied in galvanized steel and with different uses.

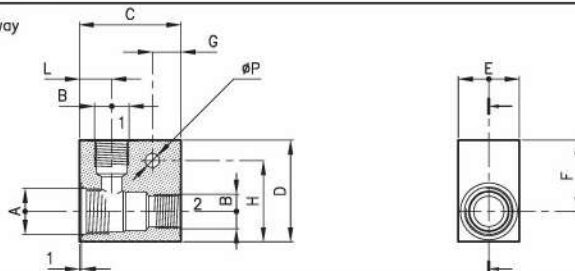
For out standard uses choice please see technical schedule 17.010 (D - I - S type ports).

Technical schedule - Typical cartridges used and external dimensions.

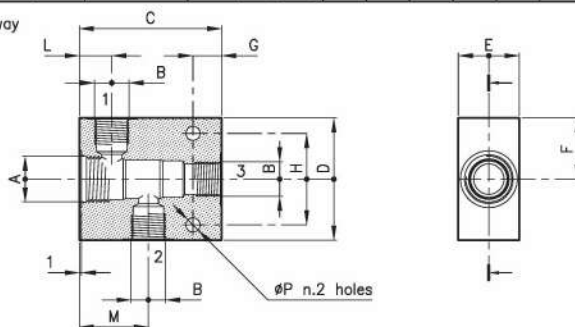
	Ordering Code Aluminium Bodies	Valve cavity	Ports	Technical schedule
Body CSL 03 type  	20-CSL 03-B05 28 144 107	S 20/2	G 1/4 (B05)	02.210
	20-CSL 03-B06 28 144 108	S 20/2	G 3/8 (B06)	02.210
	30-CSL 03-B06 38 144 122	S 30/2	G 3/8 (B06)	02.230
	30-CSL 03-B08 38 144 123	S 30/2	G 1/2 (B08)	02.230
	50-CSL 03-B08 58 144 113	S 50/2	G 1/2 (B08)	02.260
	50-CSL 03-B12 58 144 114	S 50/2	G 3/4 (B12)	02.260
	70-CSL 03-B16 78 144 104	S 70/2	G 1 (B16)	02.270
	70-CSL 03-B20 78 144 105	S 70/2	G 1.1/4 (B20)	02.270
	20-CSL 04-B05 28 144 150	S 20/2	G 1/4 (B05)	02.300
	20-CSL 04-B06 28 144 111	S 20/2	G 3/8 (B06)	02.300
Body CSL 04 type  	30-CSL 04-B06 38 144 207	S 30/2	G 3/8 (B06)	02.310
	30-CSL 04-B08 38 144 109	S 30/2	G 1/2 (B08)	02.310
	50-CSL 04-B08 58 144 147	S 50/2	G 1/2 (B08)	02.320
	50-CSL 04-B12 58 144 115	S 50/2	G 3/4 (B12)	02.320
	70-CSL 04-B16 78 144 106	S 70/2	G 1 (B16)	02.330
	70-CSL 04-B20 78 144 124	S 70/2	G 1.1/4 (B20)	02.330
	20-CSL 06-B05 28 144 151	S 20/2	G 1/4 (B05)	02.340
	20-CSL 06-B06 28 144 117	S 20/2	G 3/8 (B06)	02.340
	30-CSL 06-B06 38 144 208	S 30/2	G 3/8 (B06)	02.350
	30-CSL 06-B08 38 144 124	S 30/2	G 1/2 (B08)	02.350
Body CSL 06 type  	50-CSL 06-B08 58 144 148	S 50/2	G 1/2 (B08)	02.370
	50-CSL 06-B12 58 144 116	S 50/2	G 3/4 (B12)	02.370
	70-CSL 06-B16 78 144 107	S 70/2	G 1 (B16)	02.380
	70-CSL 06-B20 78 144 125	S 70/2	G 1.1/4 (B20)	02.380
	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)	04.080
	30-CSL 10-B08 38 144 128	S 30/2	G 1/2 (B08)	04.080
	50-CSL 10-B08 58 144 119	S 50/2	G 1/2 (B08)	04.090
	50-CSL 10-B12 58 144 120	S 50/2	G 3/4 (B12)	04.090
Body CSL 10 type  	70-CSL 10-B16 78 144 110	S 70/2	G 1 (B16)	04.100
	70-CSL 10-B20 78 144 111	S 70/2	G 1.1/4 (B20)	04.100

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 For out standard uses choiche please see technical schedule 17.010 (D - I - S type ports).
 Technical schedule - Typical cartridges used and external dimensions.

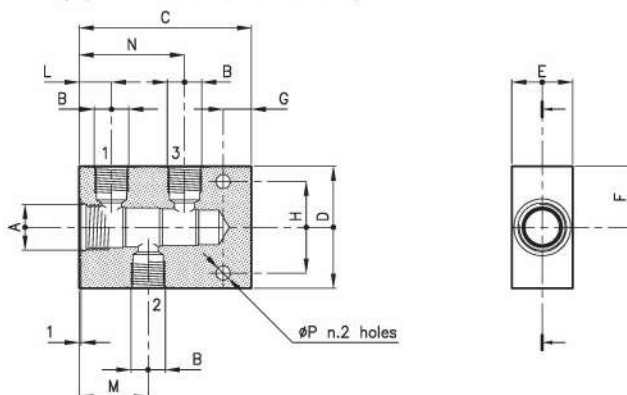
	Ordering Code Aluminium Bodies	Valve cavity	Ports	Technical schedule
Body CSL 17 type 	30-CSL 17-B08 38 144 149	S 30/2 S 30/3	G 1/2 (B08)	10.180
Body CSL 17B and 17P type 	30-CSL 17B-B08 38 144 203 30-CSL 17P-B08 38 144 231	S 30/2 S 30/3 S 30/2 S 30/3	G 1/2 (B08) G 1/2 (B08)	/ 10.195
Body PP type 	20-PP-B05 28 144 152 20-PP-B06 28 144 153 30-PP-B06 38 144 120 30-PP-B08 38 144 236 50-PP-B08 58 144 149 50-PP-B12 58 144 150	S 20/3 S 20/3 S 30/3 S 30/3 S 50/3 S 50/3	G 1/4 (B05) G 3/8 (B06) G 3/8 (B06) G 1/2 (B08) G 1/2 (B08) G 3/4 (B12)	07.190 07.190 07.192 07.192 07.194 07.194

Body type **L0 - 2 way**


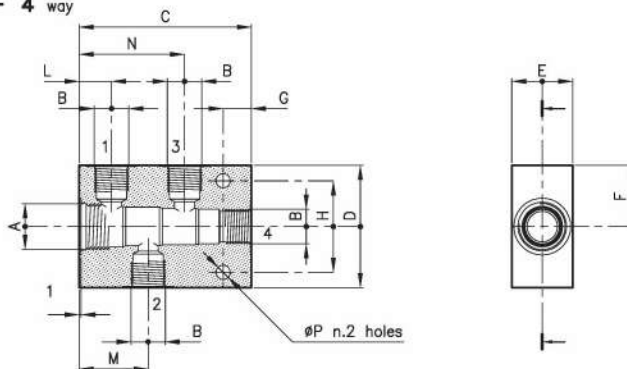
Series	Aluminium	Steel	A	B	C	D	E	F	G	H	L	M	N	P
10	10-L0-B05	..-B05/FE	M 14x1.5	G 1/4 (B05)	40	40	25	27	10	30	12.5			7
20	20-L0-B05	..-B05/FE	S 20/2	G 1/4 (B05)	50	45	30	30	14	35	14			7
	20-L0-B06	..-B06/FE	M 18x1.5	G 3/8 (B06)	50	45	30	30	14	35	14			7
28	28-L0-B05	..-B05/FE	S 28/3	G 1/4 (B05)	50	45	30	30	14	35	15			7
	28-L0-B06	..-B06/FE	3/4-16 UNF	G 3/8 (B06)	50	45	30	30	14	35	15			7
30	30-L0-B06	..-B06/FE	S 30/2	G 3/8 (B06)	50	50	30	35	14	40	16			7
	30-L0-B08	..-B08/FE	M 22x1.5	G 1/2 (B08)	50	50	30	35	14	40	16			7
32	32-L0-B05		M 20x1.5	G 1/4 (B05)	50	50	30	30	20	44	14			7
50	50-L0-B08	..-B08/FE	S 50/2	G 1/2 (B08)	70	70	45	45	14	55	22			9
	50-L0-B12	..-B12/FE	M 33x2	G 3/4 (B12)	70	70	45	45	14	55	22			9
70	70-L0-B16	..-B16/FE	S 70/2	G 1 (B16)	90	90	60	60	30	70	27			10.5
	70-L0-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)


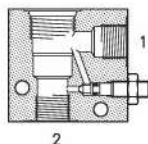
Series	Aluminium	Steel	A	B	C	D	E	F	G	H	L	M	N	P
30	30-CC-B05		S 30/4	G 1/4 (B05)	85	60	30	30	14	45	16	34	52	7
	30-CC-B06	..-B06/FE	M 22x1.5	G 3/8 (B06)	85	60	30	30	14	45	16	34	52	7
	30-CC-B08	..-B08/FE		G 1/2 (B08)	90	70	35	35	14	45	16	34	52	7
50	50-CC-B08	..-B08/FE	S 50/4	G 1/2 (B08)	115	90	45	45	14	60	22	47	72	9
	50-CC-B12	..-B12/FE	M 33x2	G 3/4 (B12)	115	90	45	45	14	60	22	47	72	9

 Body type **C4 - 4** way


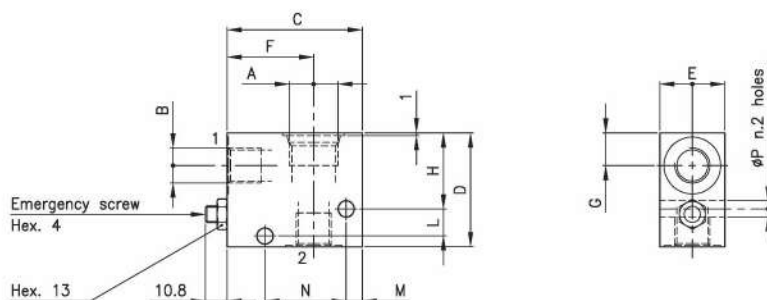
Series	Aluminium	Steel	A	B	C	D	E	F	G	H	L	M	N	P
20	20-C4-B05	..-B05/FE	S 20/4	G 1/4 (B05)	74	60	30	30	14	35	14	29	44	7
	20-C4-B06	..-B06/FE	M 18x1.5	G 3/8 (B06)	74	60	30	30	14	35	14	29	44	7
28	28-C4-B05	..-B05/FE	S 28/4	G 1/4 (B05)	74	60	30	30	14	35	16	29	44	7
	28-C4-B06	..-B06/FE	3/4-16 UNF	G 3/8 (B06)	74	60	30	30	14	35	16	29	44	7
30	30-C4-B06	..-B06/FE	S 30/4	G 3/8 (B06)	85	60	30	30	14	45	16	34	52	7
	30-C4-B08	..-B08/FE	M 22x1.5	G 1/2 (B08)	90	70	35	35	14	45	16	34	52	7
50	50-C4-B08	..-B08/FE	S 50/4	G 1/2 (B08)	115	90	45	45	14	60	22	47	72	9
	50-C4-B12	..-B12/FE	M 33x2	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.
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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

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05

FLOW CONTROL VALVES

06

MOTION CONTROL VALVES

07

SOLENOID VALVES POPPET-TYPE

08

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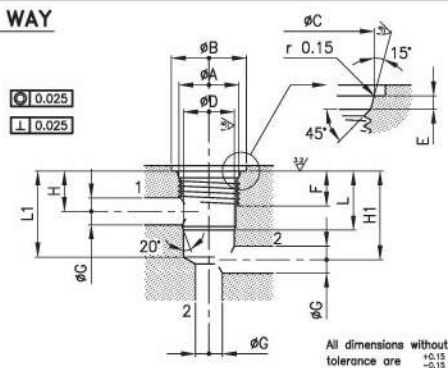
ACCESSORIES

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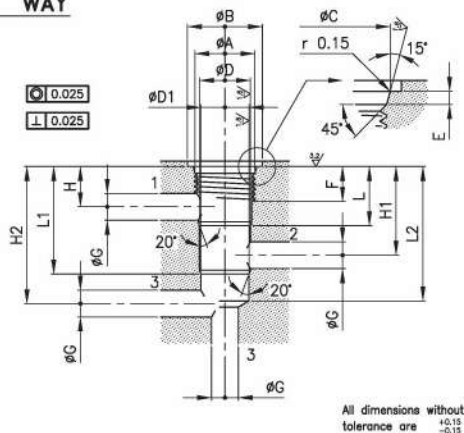
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SCHEDULES

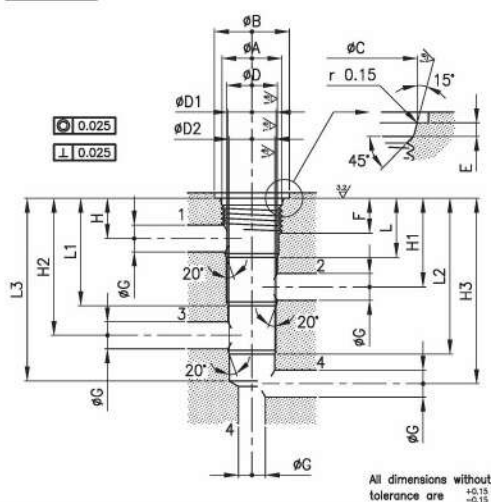
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2 WAY


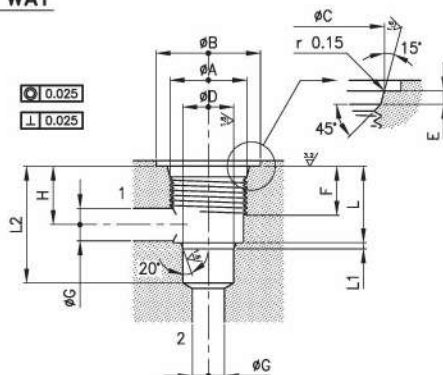
	S 20/2	S 30/2	S 50/2	S 70/2
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	23	28	40	50
C	19.8 $^{+0.10}_{-0}$	23.8 $^{+0.10}_{-0}$	35.4 $^{+0.10}_{-0}$	44.4 $^{+0.10}_{-0}$
D	15 $^{+0.027}_{-0}$	19 $^{+0.033}_{-0}$	28 $^{+0.033}_{-0}$	38 $^{+0.039}_{-0}$
E	2.6 $^{+0.20}_{-0.20}$	2.6 $^{+0.20}_{-0.20}$	3.3 $^{+0.20}_{-0.20}$	3.3 $^{+0.20}_{-0}$
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


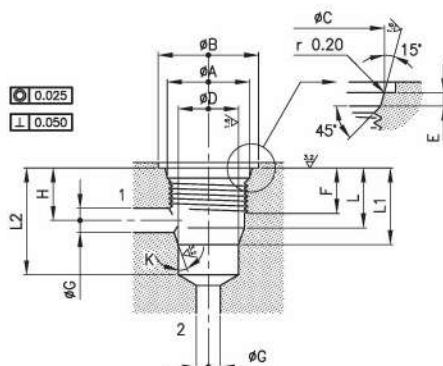
	S 20/3	S 30/3	S 50/3	S 70/3
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	23	28	40	50
C	19.8 $^{+0.10}_{-0}$	23.8 $^{+0.10}_{-0}$	35.4 $^{+0.10}_{-0}$	44.4 $^{+0.10}_{-0}$
D	15 $^{+0.027}_{-0}$	19 $^{+0.033}_{-0}$	28 $^{+0.033}_{-0}$	38 $^{+0.039}_{-0}$
D1	14 $^{+0.027}_{-0}$	18 $^{+0.027}_{-0}$	27 $^{+0.033}_{-0}$	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 $^{+0.20}_{-0}$
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


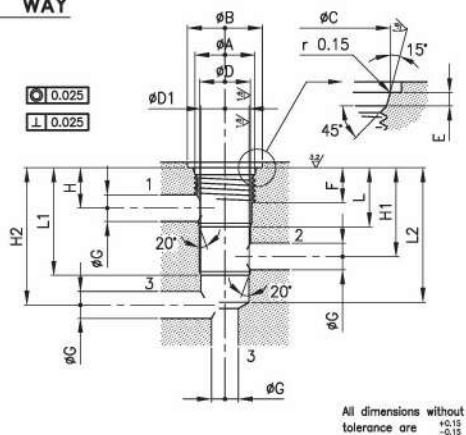
	S 20/4	S 30/4	S 50/4	S 70/4
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	23	28	40	50
C	19.8 $^{+0.10}_{-0}$	23.8 $^{+0.10}_{-0}$	35.4 $^{+0.10}_{-0}$	44.4 $^{+0.10}_{-0}$
D	15 $^{+0.027}_{-0}$	19 $^{+0.033}_{-0}$	28 $^{+0.033}_{-0}$	38 $^{+0.039}_{-0}$
D1	14 $^{+0.027}_{-0}$	18 $^{+0.027}_{-0}$	27 $^{+0.033}_{-0}$	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 $^{+0.20}_{-0}$
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

 All dimensions without
 tolerance are $\begin{matrix} +0.15 \\ -0.15 \end{matrix}$

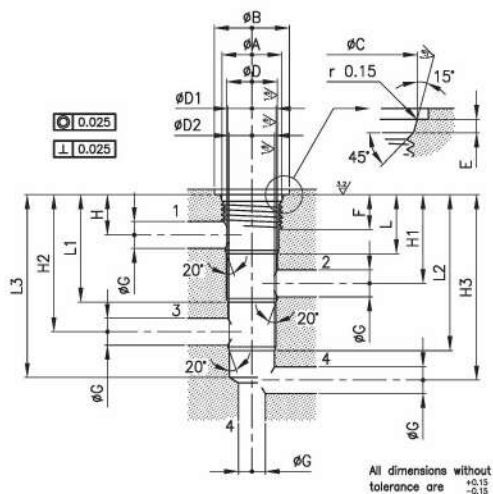
S 28/2		
A	3/4-16 UNF	
B	25	
C	20.6 $\begin{matrix} +0.10 \\ -0 \end{matrix}$	
D	12.7 $\begin{matrix} +0.05 \\ -0 \end{matrix}$	
E	2.6 $\begin{matrix} +0.30 \\ -0 \end{matrix}$	
F	12	
G	8.5	
H	14	
L	18.5 $\begin{matrix} +0.15 \\ -0.15 \end{matrix}$	
L1	1 $\begin{matrix} +0.15 \\ -0.15 \end{matrix}$	
L2	29 $\begin{matrix} +0.50 \\ -0 \end{matrix}$	

2 WAY

 All dimensions without
 tolerance are $\begin{matrix} +0.15 \\ -0.15 \end{matrix}$

	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 $\begin{matrix} +0.10 \\ -0 \end{matrix}$	21.4 $\begin{matrix} +0.20 \\ -0 \end{matrix}$	22.2 $\begin{matrix} +0.10 \\ -0 \end{matrix}$
D	15.87 $\begin{matrix} +0.05 \\ -0 \end{matrix}$	15 $\begin{matrix} +0.027 \\ -0 \end{matrix}$	15 $\begin{matrix} +0.027 \\ -0 \end{matrix}$
E	2.6 $\begin{matrix} +0.30 \\ -0 \end{matrix}$	3.2 $\begin{matrix} +0.20 \\ -0 \end{matrix}$	3.2 $\begin{matrix} +0.20 \\ -0 \end{matrix}$
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°

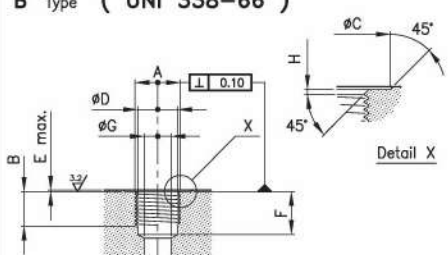
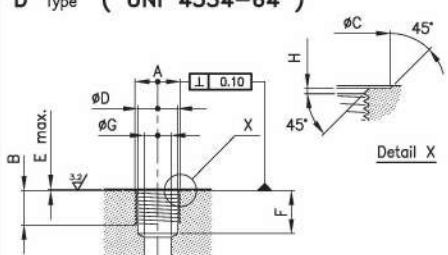
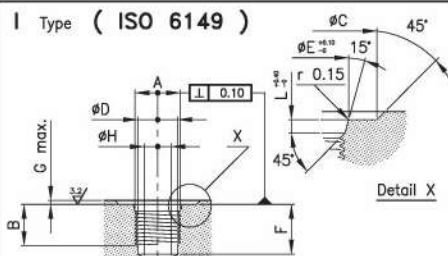
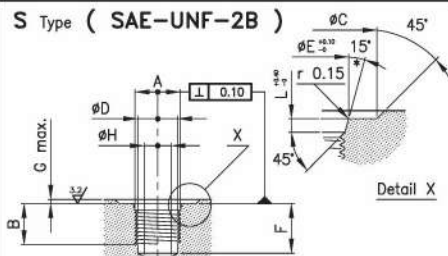
3 WAY

S 28/3

A	3/4-16 UNF
B	25
C	20.6 $^{+0.10}_{-0}$
D	15.87 $^{+0.05}_{-0}$
D1	14.27 $^{+0.05}_{-0}$
E	2.6 $^{+0.30}_{-0}$
F	12.5
G	6
H	15
H1	29
H2	44
L	20.5
L1	34.5
L2	50

4 WAY

S 28/4

A	3/4-16 UNF
B	25
C	20.6 $^{+0.10}_{-0}$
D	15.87 $^{+0.05}_{-0}$
D1	14.27 $^{+0.05}_{-0}$
D2	12.70 $^{+0.05}_{-0}$
E	2.6 $^{+0.30}_{-0}$
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	L
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')

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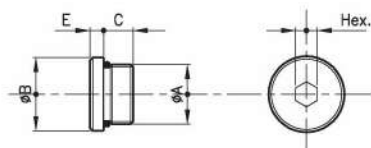
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ACCESSORIES

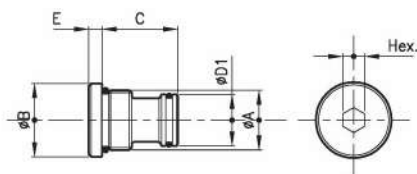
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SCHEDULES

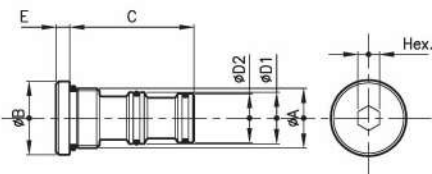
20

External plug


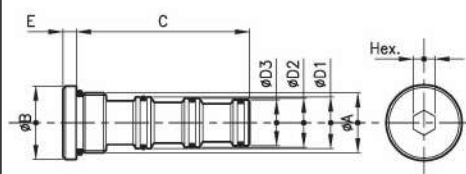
Type	T 20	T 30	T 50	T 70
Code	29011102	39011102	59011102	79011100
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	22	27	38	50
C	10	11	14.5	18
E	4	5	6	8
Hex.	8	8	10	14

2 WAY


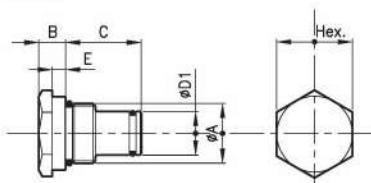
Type	T 20/2	T 30/2	T 50/2	T 70/2
Code	29011103	39011100	59011100	79011101
A	M 18x1.5	M 22x1.5	M 33x2	M 42x2
B	22	27	38	50
C	24.5	28	39	48
D1	15	19	28	38
E	4	5	6	8
Hex.	8	8	10	14

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


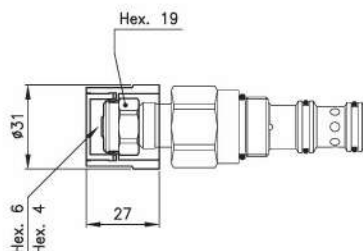
Type	T 28/2	T 29/2	T 32/2	
Code	29011101	29011108	39011104	
A	3/4-16 UNF	3/4-16 UNF	M 20x1.5	
B	9	9	9	
C	27	26.5	25	
D1	12.7	15.82	15	
E	5	5	5	
Hex.	24	24	24	

Functional description

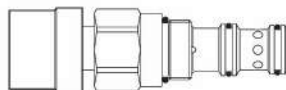
FLUCOM introduces a new sealing system suitable for same type of cartridges. Once that the plug has been plugged in, it is no more possible to change the adjustment without tampering the seal.

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**LOGO**

Adjusted and sealed
from FLUCOM

**NOLOGO**

May be adjusted from
FLUCOM but sealed
from the Customer



+



+

**KIT**

Supplied from FLUCOM

KIT - M 8x1 cod. 90 788 130**KIT - M 12x1.25 cod. 90 788 131****Cartridges supporting the sealing system**

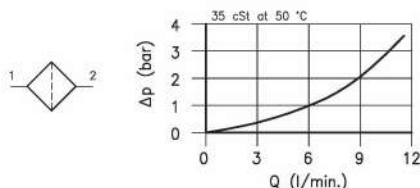
LPS 20	RPA 20	RDA/RDI 20/30
LPE 20	RLY 30/50	RDC 20/30/50
LPA 20/30	RLD 20	DPC 20/30/50
LPI 30/50	RLP 30/50	CMS 20/30/50
LPB 20/30/50	LPQ 30/50	CMQ 30/50
LPT 30	LPY 30/50	CMB 20
VDT 20/30	LCS 20	CMC 30/50

Technical features

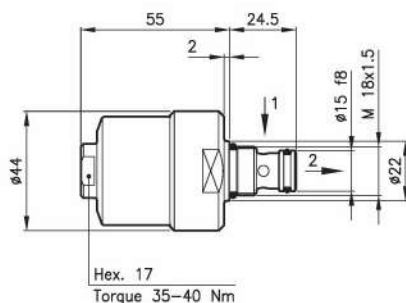
This range of filters may be used on pressure line for piloting circuits or small plants.

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

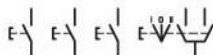
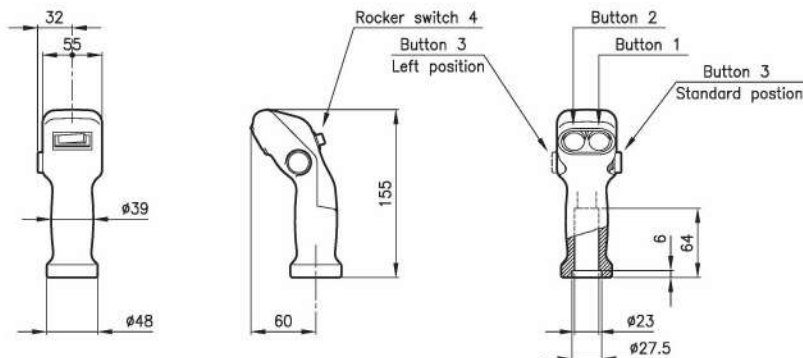
Technical features

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

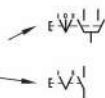
Button No. 3

3T = Plugged

3R = Red button

3Y = Yellow button

3RL = Red button (left position)

3YL = Yellow button (left position)


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

18_540

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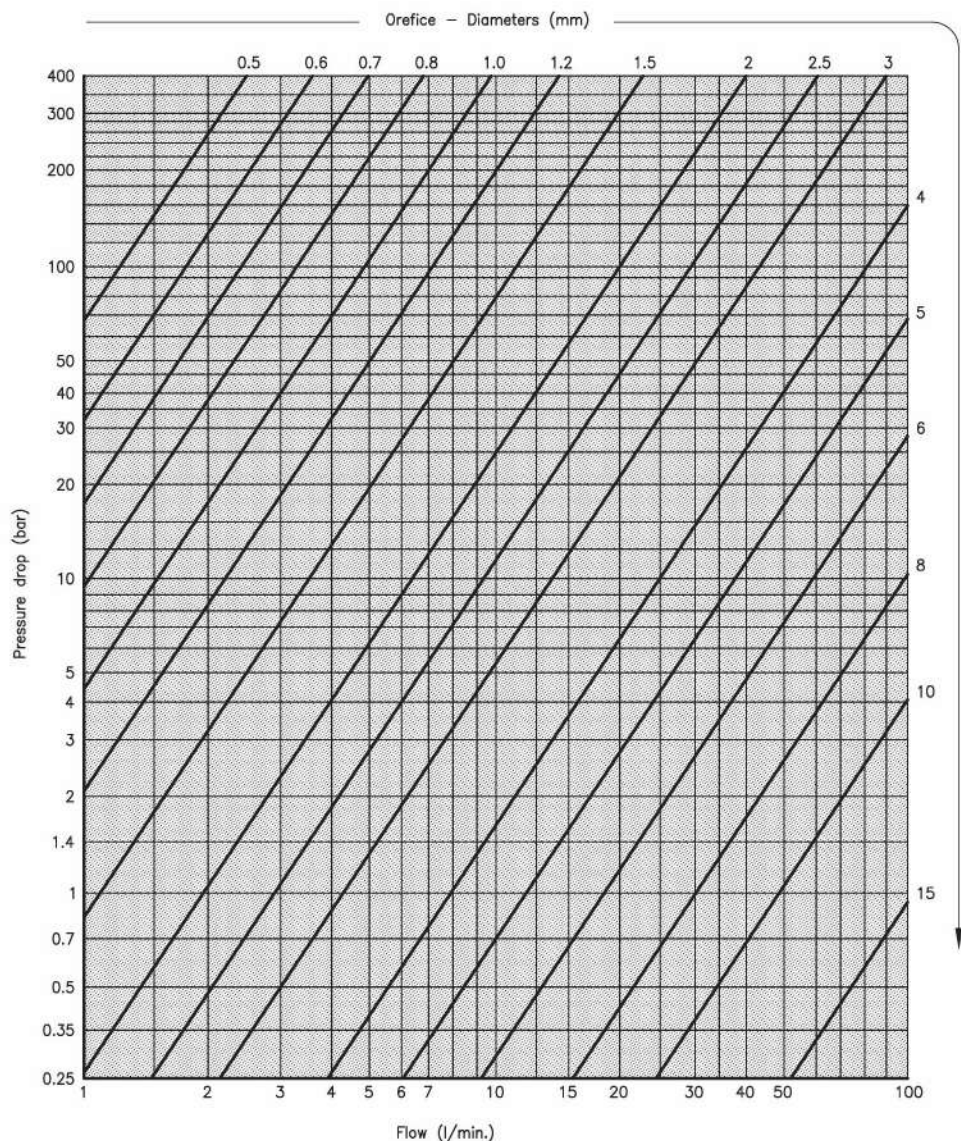
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The functions and the switching velocities of cartridge valves can be influenced by manipulating the metering-in and metering-out for pilot lines; this is possible by the mounting of orifices the serp. places.

The following diagram can be used for selecting the resp. orifice diameter.



Oil viscosity 35 cSt at 50 °C



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