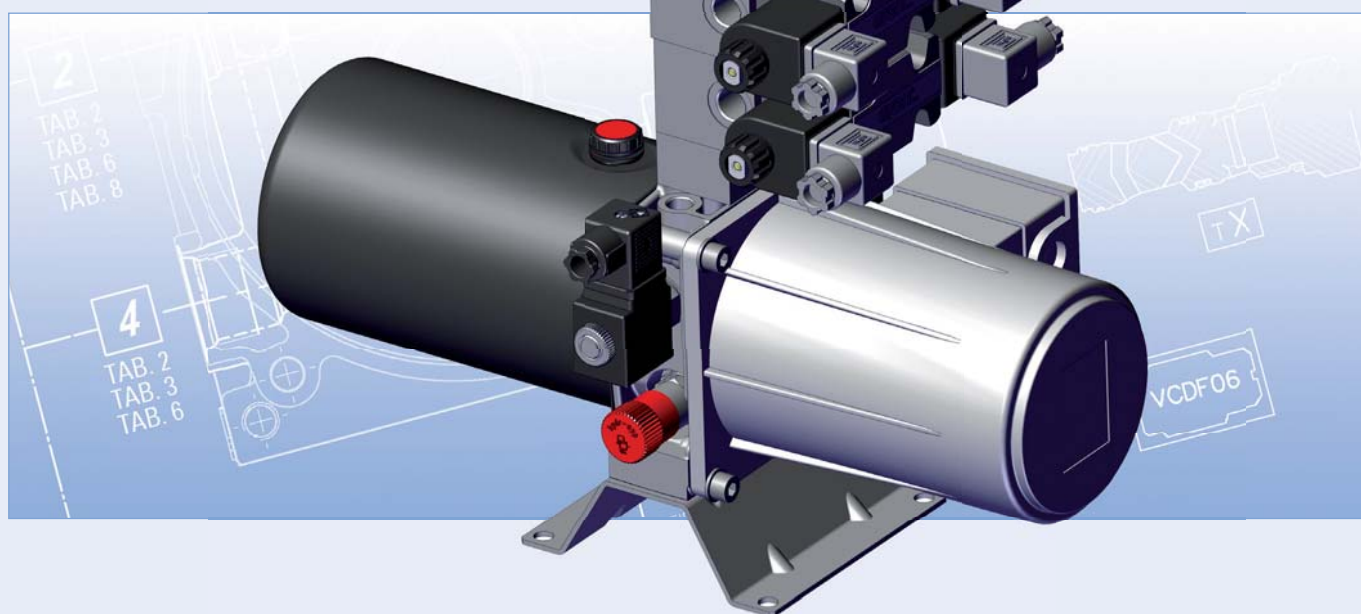


FP HYDRAULIC POWER PACK

Technical Catalogue

October
2015

web edition





The company

Brevini Fluid Power was established in 2003 in Reggio Emilia where it has its head office.

Brevini Fluid Power manufactures hydraulic components and application packages: a very large range suited to several operational requirements and applications thanks to a strict interaction between mechanical, hydraulic and electronic components.

Brevini Fluid Power is among the top manufacturers in Italy and a major player in Europe and in the world.

International presence

Brevini Fluid Power operates internationally with 15 branches all over the world placed in major industrialized countries: Italy, France, Germany, English, Romania, Holland, Finland, China, India, Singapore and the United States. The network is constantly expanding by opening new branches in just a few years.

The branches are guided by managers that have an excellent knowledge of their own country.

The advantages this brings are evident:

- Reduced delivery times thanks to the branches warehouses;
- Easy customization of products and systems basing on the customer's needs, thanks to the competence and professional skills of the branches' own technical and servicing departments;
- Quick servicing;
- A ready sales staff at hand and closer to the customers, which ensures high flexibility plus experience.

The production facilities are located throughout Reggio Emilia, Ozzano Emilia (BO), Noceto (PR), Novellara (RE), Yancheng (province of Jiangsu, China) which was inaugurated in 2009 and became operative since 2010.

Competitive Strategy

Innovation combined with the focus on customers is the strength of the Brevini Fluid Power "brand", born from the forty-year-long experiences of Aron, Hydr-App, SAM Hydraulik, Oleodinamica Reggiana, VPS Brevini and Brevini Hydraulics.

Brevini Fluid Power proposes itself as a "local hub", as it happened to BPE Electronics in 2008 and OT Oiltechnology in 2009, in order to create a new Made in Italy global player in the world of hydraulics, increasingly more integrated with electronics.

The purpose is still the development of a very large range of products forming together integrated packages able to meet various application needs. Our ten-year-long partnership relations with hundreds of customers all over the world are the best synthesis of Brevini Fluid Power's operational philosophy.

Sharing of know-how and several experiences have made Brevini Fluid Power a more global company, more incisive in international markets and closer to its customers.

Product lines

The product lines are numerous and well-structured aimed to cover every needs: a strong basis on which to develop the engineering of application packages and complete systems. The offer is improving in the direction of a solution supplier often developed in co-design with the customer, both for the mobile and industrial sector.

Hydr-App Product Line: Hydraulic power packs and mini hydraulic packs (whether standard or customised), cartridge valves and solenoid valves, gear boxes and transmission components.

S.A.M. Hydraulik Product Line: Axial piston pumps and motors for medium and high pressure, orbital motors.

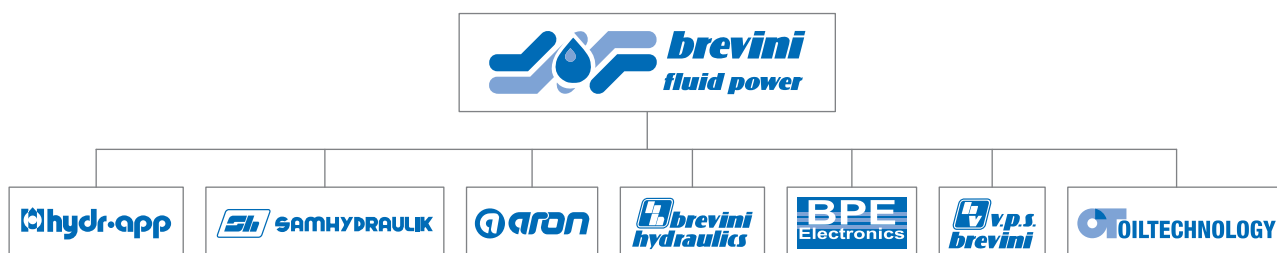
Aron Product Line: Directional, flow, on-off and proportional pressure control valves. Modular and cartridge valves, subplates and blocks.

Brevini Hydraulics Product Line: Proportional directional valves, joysticks and electronic modules.

BPE Electronics Product Line: Sensors, load cells, boards and electronic controls via CAN, display units, planarity indicators.

VPS Brevini Product Line: Mono-block and modular mobile valves.

OT Oiltechnology Product Line: Gear pumps and motors, flow dividers.



Introduction	2
Endhead choice	3
Power pack sections	10
Selection code	11
Endhead overall dimensions	14
Cavities dimensions	15

SELECTIONS FOR "FPA" POWER PACK ENDHEAD

Sect. I - FPA Cavity 1	16
Sect. II - FPA Cavity 2	17
Sect. II - FPA Cavity 5	20
Sect. II - FPA Cavities 6-7	21
Sect. II - FPA Ports A-B	22

SELECTIONS FOR "FPC" POWER PACK ENDHEAD

Sect. I - FPC Cavity 1	23
Sect. II - FPC Cavity 2	24
Sect. II - FPC Cavity 3	27
Sect. II - FPC Cavity 4	30
Sect. II - FPA Cavity 5	20
Sect. II - FPC Cavity 6-7-8-9	34
Sect. II - FPC Ports A-B-C	35

SELECTIONS FOR "FPE" POWER PACK ENDHEAD

Sect. I - FPE Cavity 1	36
Sect. II - FPE Cavity 2	37
Sect. II - FPE Cavity 3	39
Sect. II - FPE Cavity 9	41
Sect. II - FPE Ports A-B-C-D	42

SELECTIONS FOR ALL POWER PACK ENDHEADS

Sect. III - Pumps	43
Sect. IV - Tanks / Sect. V - Tubes kit	46
Sect. VI - DC Motors	61
Sect. VI - AC Motors	67
Sect. VII - Transmission kit	71
Sect. VIII - Blocks and Solenoid valves	73
Sect. IX - Accessories	76

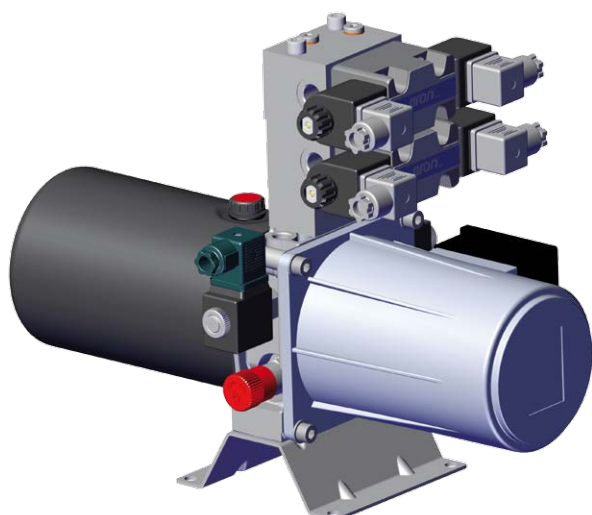
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Use of the products in this catalogue must comply with the operating limits given in the technical specifications. The type of application and operating conditions must be assessed as normal or in malfunction in order to avoid endangering the safety of people and/or items.

General terms and conditions of sale: see website www.brevinifluidpower.com.

The products shown on this catalog are parts of  line.



The FP series power pack is an easy-to-assemble, compact, electro-hydraulic unit. With its versatility and modularity, it offers many combinations of hydraulic circuits to suit various requirements of plant design. This catalogue has been written to help the user choose the components for the power pack required for the specific application. However, the catalogue cannot foresee all the combinations that may be executed, so in some cases it may be necessary to consult our commercial engineering department.

For applications with very complex circuits, standard modular blocks for Cetop valves and other special blocks can be installed on the power pack, or blocks built to order can be included.

A few applications:

- Fork lifts
- Lifting platforms and beds
- Automotive lifts
- Cranes for small trucks
- Snowplows
- Industrial automation (machine tools, food industry, textile industry)

You can choose from a wide variety of components with the following specifications:

- Gear pumps - Group 05 / 1 - from 0.25 to 9.8 cc.
- DC motors, 12/24 V, light-duty service, from 0.35 to 3 Kw
- Single and triple-phase motors with power ratings of up to 4 Kw - in a standard version or built to the customer's specifications (with minimum overall dimensions)
- Tanks in sheet steel with capacities of up to 25 litres
- Tanks in plastic with capacities of up to 10 litres

A fundamental part of the power pack is the endhead, which is made of die-cast aluminum alloy. The parts and dimensions of this component are shown below.

Operating limits

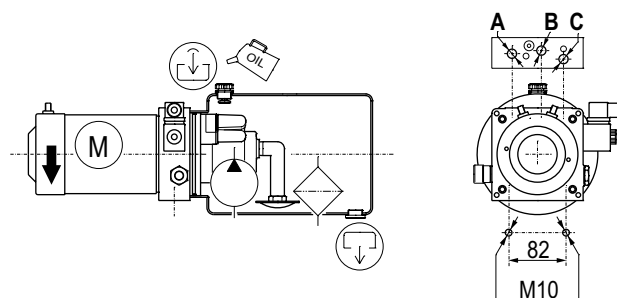
- Intermittent operating pressure: 290 bar (depending on pump type)
- Maximum flow rate: 20 l/min
- Maximum operating temperature:
 - 80°C (with sheet steel tank)
 - 70°C (with polyethylene tank)
 - 60°C (with polypropylene tank)
- Mineral-based hydraulic fluid: ISO 6743-4 (DIN 51524)
 - Minimum viscosity: 12 mm²/s
 - Maximum viscosity: 80 mm²/s
 - Maximum viscosity at start-up: 500 mm²/s
- Minimum ambient temperature – 15°C
- Maximum ambient temperature 40°C (with peaks of 50°C)



Operating pressure is controlled by the maximum pressure valve and the type of pump used (in terms of performance) may be determined by the maximum pressure valve. Therefore, it is essential not to change the maximum pressure valve. If necessary, contact our technical service department.

Installation

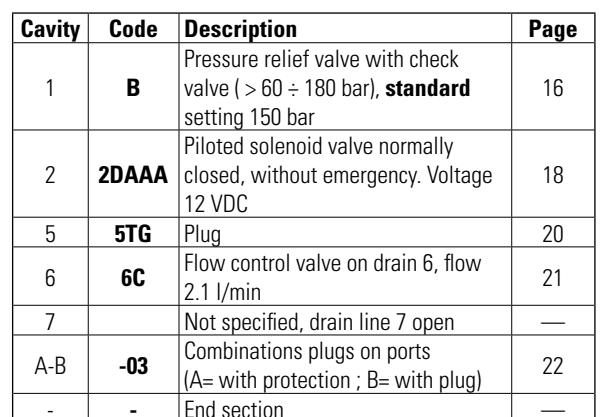
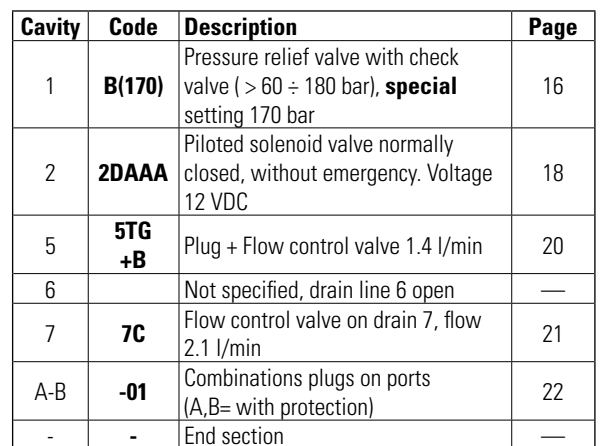
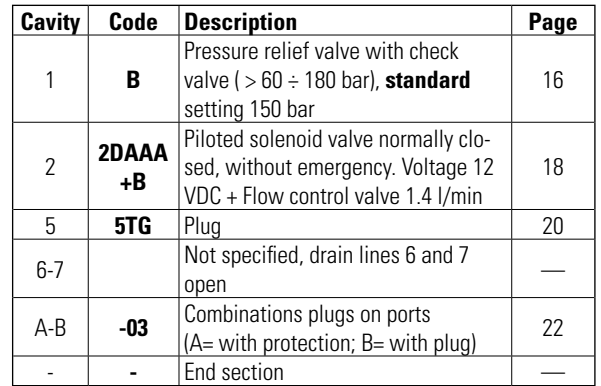
- 1) The power pack must be mounted using the M10 holes on the endhead.
- 2) The power pack must not come into contact with sheet metal, protective guards or any parts that may vibrate and transmit noise.
- 3) The ports on the endhead have been identified by the letters A-B-C. The hydraulic connection must be made with fittings with cylindrical thread and with copper or rubber sealing gaskets (O-rings).
- 4) After the electrical connections have been made, check the direction of motor rotation by executing short pulses of 1 second each (max.): the motor must turn anti-clockwise, as shown in the figure.



The tank must be filled with new mineral-based, ISO 6743/4 fluid: it is important to filter the fluid while filling the tank.

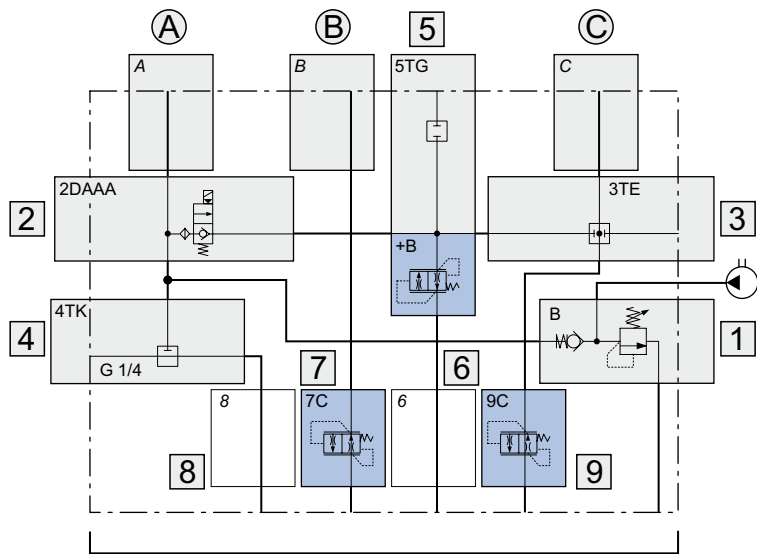
Symbols used in this catalog:

	Important data/information
	Mounting endhead side
	Ground floor
	Electrical connection boxes on AC motors
	Poles and/or starting relays on DC motors
	Fill plug with breather and level stick
	Fill plug with breather
	Standard plug (closed)
	Standard oil fill plug
	Fill plug with breather
	Fill plug
	Fill plug with check valve
	Fill plug with back check
	Drain plug with magnet
	Plug (or level stick) with visual indicator
	Drain plug

i

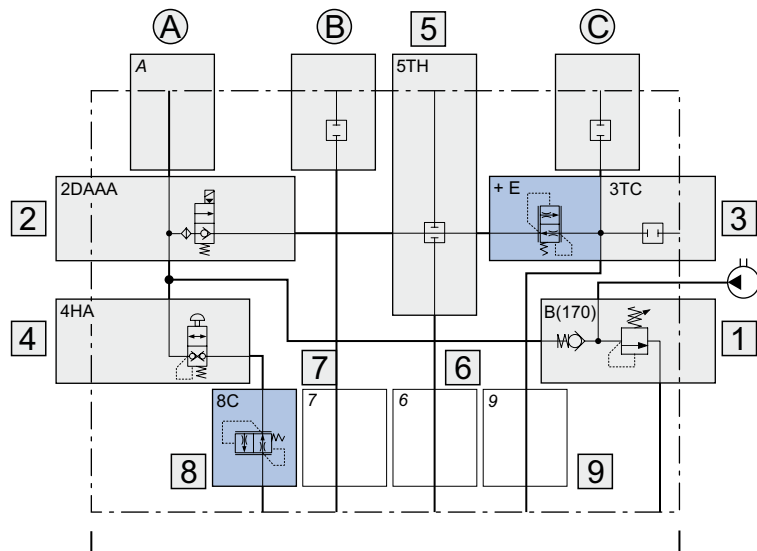
Examples with FPC endhead

i



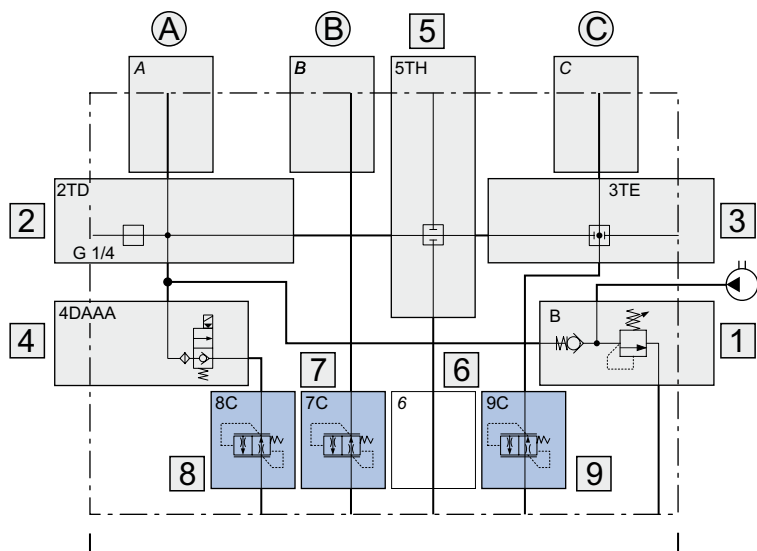
FPC B 2DAAA 3TE 4TK 5TG+B 7C 9C -01 - ..

Cavity	Code	Description	Page
1	B	Pressure relief valve with check valve ($> 60 \div 180$ bar), standard setting 150 bar	23
2	2DAAA	Piloted solenoid valve normally closed, without emergency. Voltage 12 VDC	25
3	3TE	Plug	29
4	4TK	Plug (union G1/4)	32
5	5TG +B	Plug + Flow control valve 1.4 l/min	33
6		Not specified, drain line 6 open	—
7	7C	Flow control valve 2.1 l/min	34
8		Not specified, drain line 8 open	—
9	9C	Flow control valve 2.1 l/min	34
A-B-C	-01	Combinations plugs on ports (A-B-C= with protection)	35
-	-	End section	—



FPC B(170) 2DAAA 3TC+B 4HA 5TH 8C -05 - ..

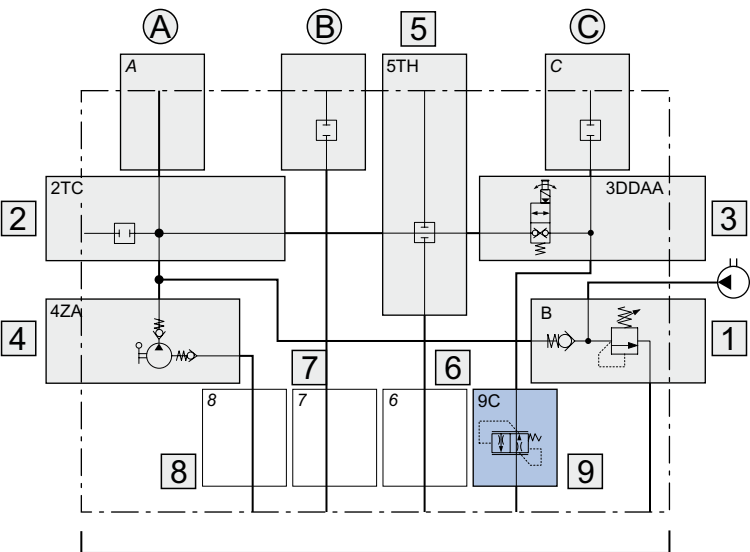
Cavity	Code	Description	Page
1	B(170)	Pressure relief valve with check valve ($> 60 \div 180$ bar), special setting 170 bar	23
2	2DAAA	Piloted solenoid valve normally closed, without emergency. Voltage 12 VDC	25
3	3TG +B	Plug + Flow control valve 1.4 l/min	29
4	4HA	Push-button control	32
5	5TH	Plug	33
6-7		Not specified, drain lines 6 and 7 open	—
8	8C	Flow control valve 2.1 l/min	34
9		Not specified, drain 9 open	—
A-B-C	-05	Combinations plugs on ports (A = with protection; B-C= with plug)	35
-	-	End section	—



FPC B 2TD 3TE 4DAAA 5TH 7C 8C 9C -01 - ..

Cavity	Code	Description	Page
1	B	Pressure relief valve with check valve ($> 60 \div 180$ bar), standard setting 150 bar	23
2	2TD	Plug (union G1/4)	26
3	3TE	Plug	28
4	4DAAA	Piloted solenoid valve normally closed, without emergency. Voltage 12 VDC	31
5	5TH	Plug	33
6		Not specified, drain line 6 open	—
7	7C	Flow control valve 2.1 l/min	34
8	8C	Flow control valve 2.1 l/min	34
9	9C	Flow control valve 2.1 l/min	34
A-B-C	-01	Combinations plugs on ports (A-B-C= with protection)	35
-	-	End section	—

Endhead choice



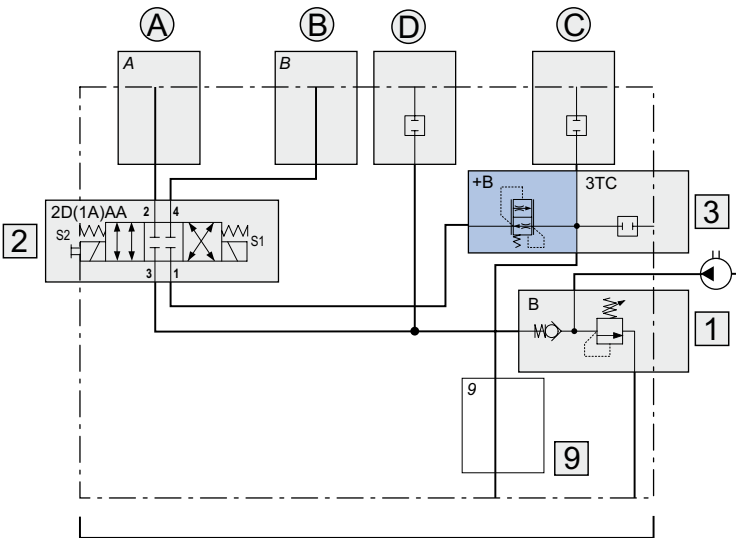
FPC	B	2TC	3DDAA	4ZA	5TH	9C	-06	-	..
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Cavity	Code	Description	Page
1	B	Pressure relief valve with check valve (> 60 ÷ 180 bar), standard setting 150 bar	23
2	2TC	Plug	26
3	3DDAA	Piloted solenoid valve normally closed, with emergency. Voltage 12 VDC	28
4	4ZA	Hand pump displacement 1cc	32
5	5TH	Plug	33
6-7-8		Not specified, drain lines 6 - 7 - 8 open	
9	9C	Flow control valve 2.1 l/min	34
A-B-C	-05	Combinations plugs on ports (A = with protection; B-C= with plug)	35
-	-	End section	—

Endhead choice

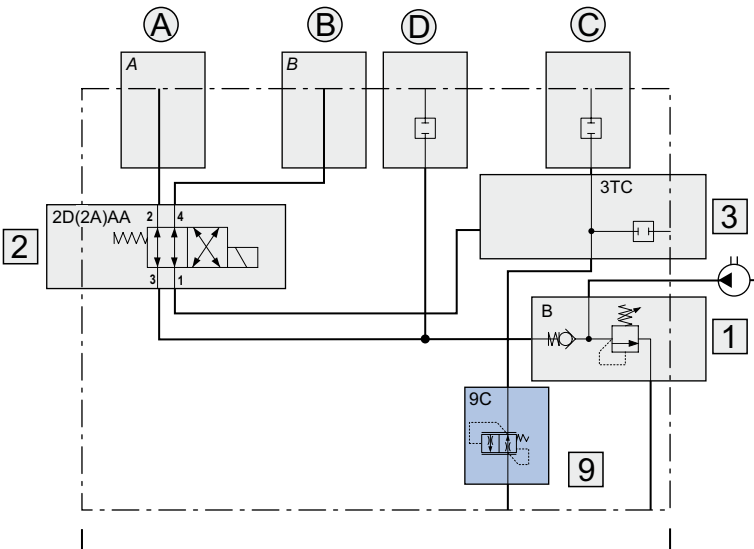
Examples with FPE endhead

i



FPE B 2D(1A)AA 3TC+B -04 - ..

Cavity	Code	Description	Page
1	B	Pressure relief valve with check valve (> 60 ÷ 180 bar), standard setting 150 bar	36
2	2D(1A)AA	Directional control valve 4 way 3 positions with emergency. Voltage 12 Vdc (closed centre "C" spool)	38
3	3TC+B	Plug + Flow control valve 1.4 l/min	40
9	—	Not specified, drain 9 open	—
A-B C-D	-04	Combinations plugs on ports (A-B= with protection; C-D= with plug)	42
-	-	End section	—



FPE B 2D(2A)AA 3TC 9C -04 - ..

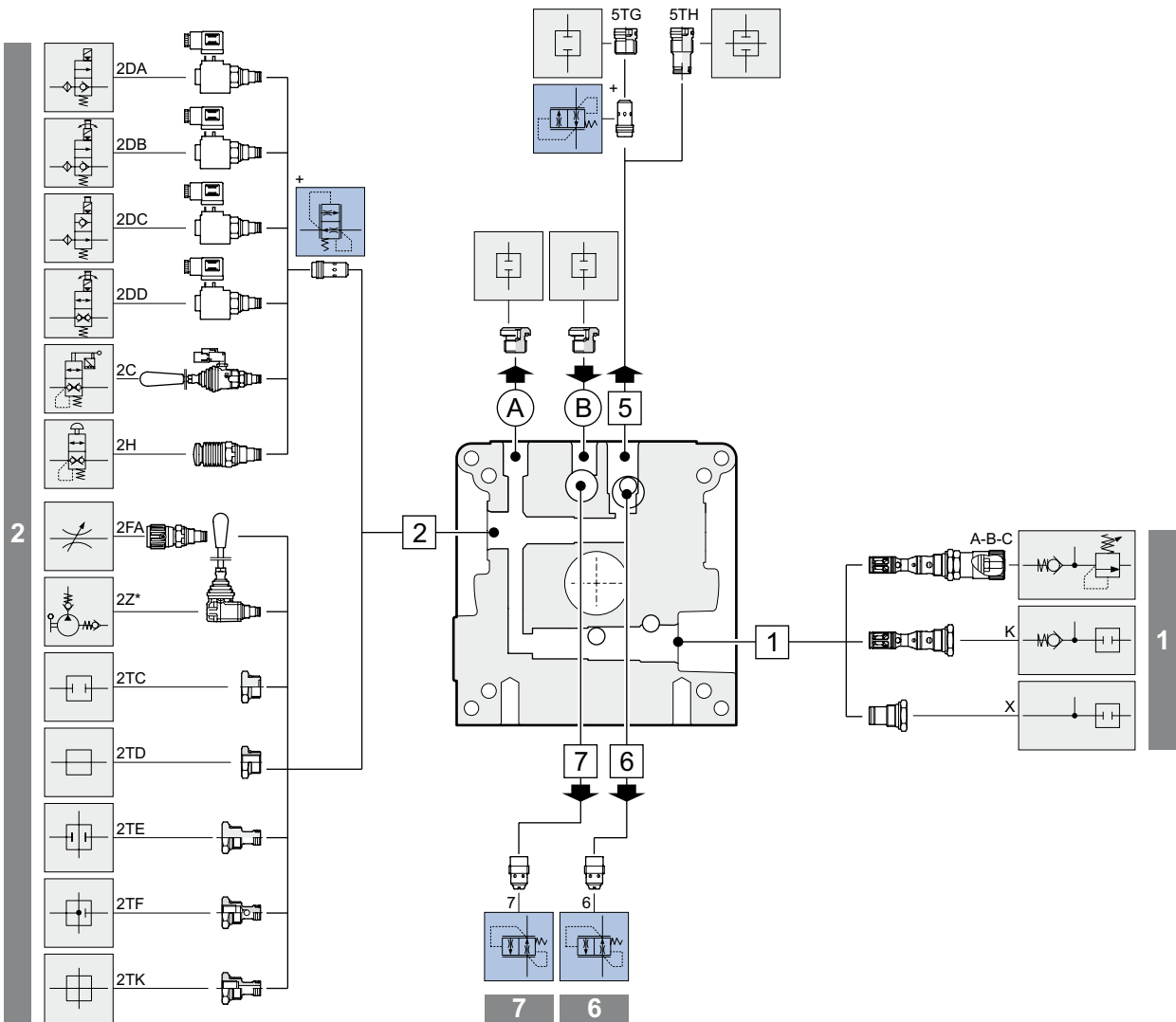
Cavity	Code	Description	Page
1	B	Pressure relief valve with check valve (> 60 ÷ 180 bar), standard setting 150 bar	36
2	2D(2A)AA	Directional control valve 4 way 2 positions without emergency. Voltage 12 Vdc (closed centre "C" spool)	38
3	3TC	Plug	40
9	9C	Flow control valve 2.1 l/min	41
A-B C-D	-04	Combinations plugs on ports (A-B= with protection; C-D= with plug)	42
-	-	End section	—

Endhead choice

Power pack configuration

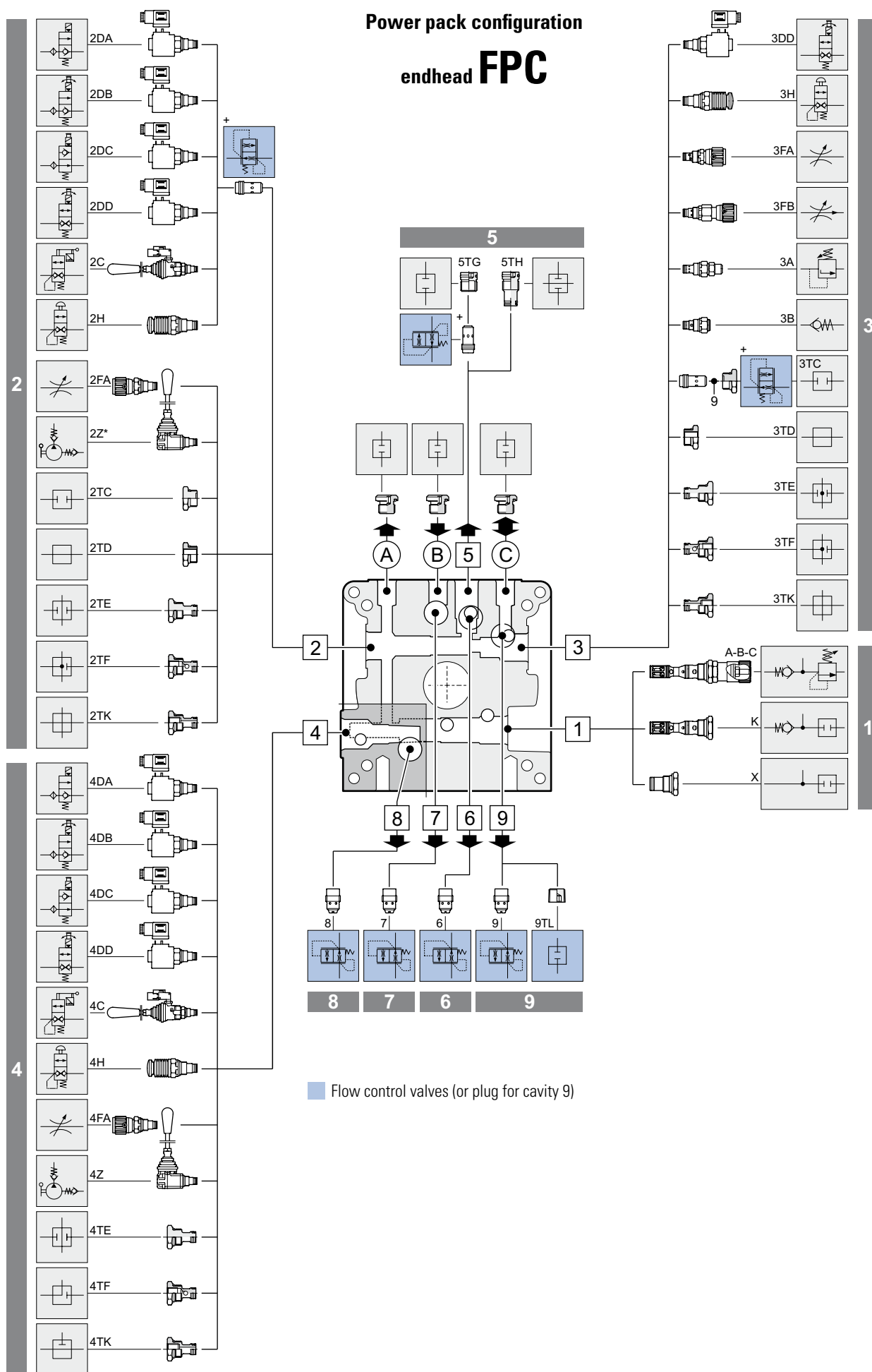
endhead **FPA**

i

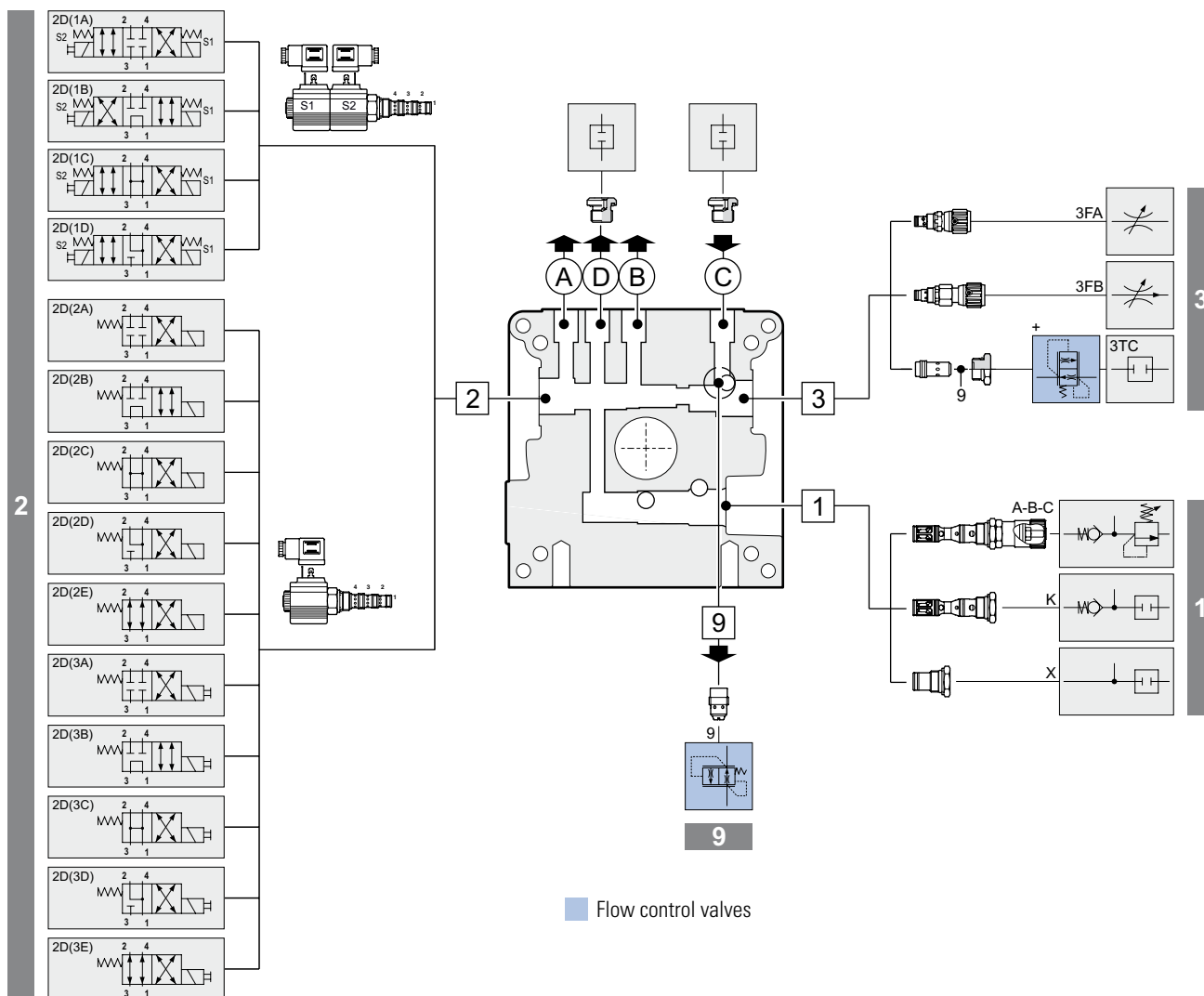


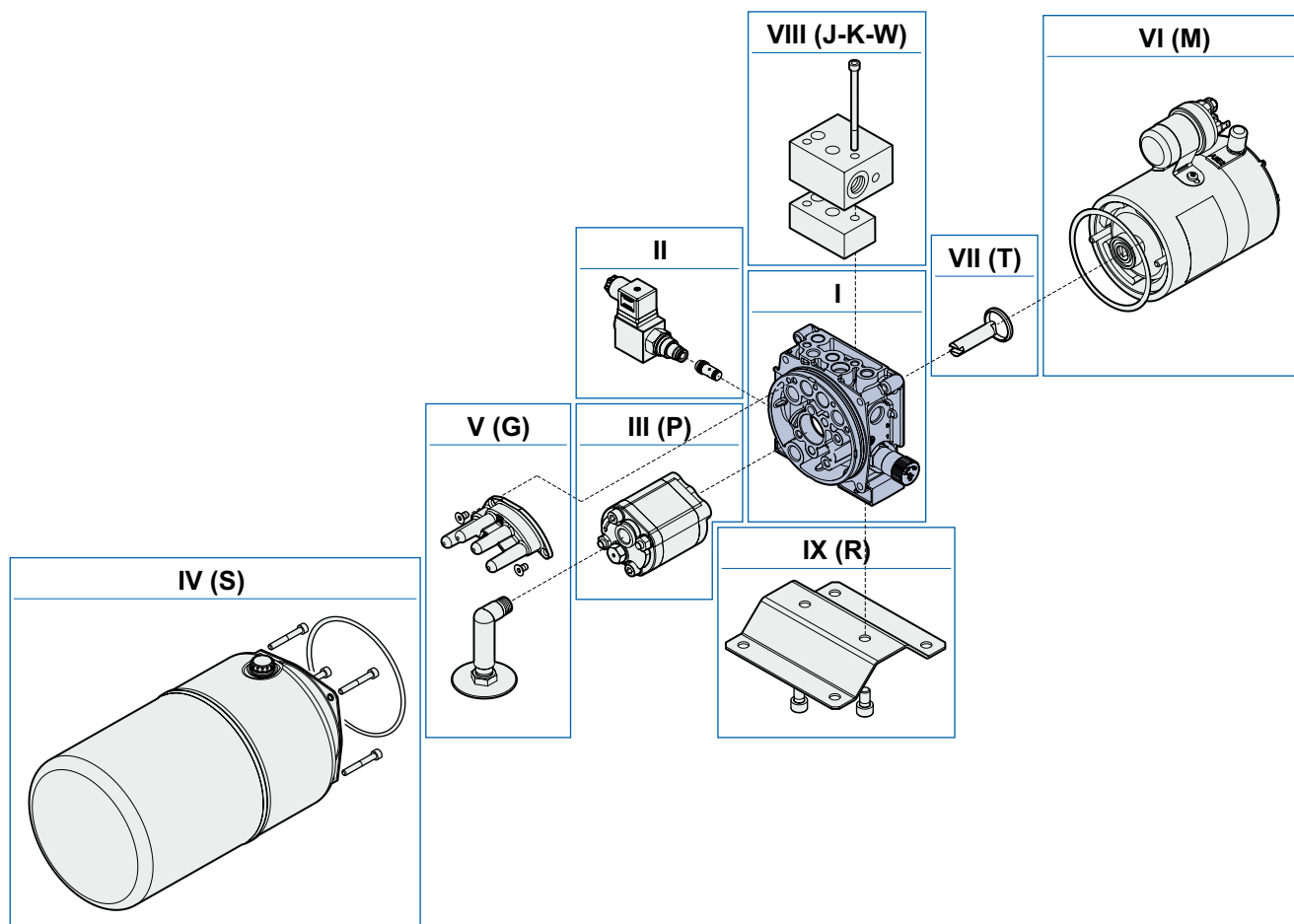
Flow control valves

i



Power pack configuration endhead **FPE** (for directional control valves)

i




With its great modularity, the FP series of power packs can create multiple configurations which satisfy requirements in a wide range of applications. To make it easier to choose components, the power pack is subdivided into sections.

SECTION I - SERIE, FLANGE TYPE, VALVES ON CAVITY 1

FP Series Powerpacks are based on the Flange features.

The Flange is the core of the unit, on the flange are mounted all the valves, the pump, the motor and the reservoir.

The FP Flange is available in several Versions (with different tooling options). The Flange Version must be chosen depending on the type of Hydraulic Circuit Layout required.

Together with the Flange Version, it is required to select the Valves to be mounted in the Various Cavities.

1 (Main Pressure Relief Valve).

SECTION II - VALVES

Depending on the Type of Hydraulic Circuit Layout to be realized, it is required to Select the Valves for each of the available Cavities.

In order to correctly build up the Ordering Code, it is required to use the following procedure.

Peripheral Cavities (it is mandatory to mention all the Cavities in Numeral Order): starting from Cavity 2, mention all the Cavities and the Valves, Plugs or Fittings to be mounted in said Cavity.

Internal Cavities: normally connected to Tank (It is not mandatory to mention, but if required it should be done in Numeral Order): starting from Cavity 6, mention all the Internal Cavities where a Valve (usually a Return Line Valve) is mounted, Selecting the Valve Type to be mounted in said Cavity.

Outputs, see description in the Table.

SECTION III - PUMPS

It is mandatory to mention this section, defined by the letter P.

Depending on the required features, select the pump from the table provided.

SECTION IV - TANKS

This section is defined by the letter S.

Depending on the required features, select the reservoir from the list provided. If no Reservoir is required, and also no Suction / Drain Kit is required, please omit this section.

If no Reservoir is required, but a Suction / Drain Kit is required, please jump to Section V (defined by letter G).

SECTION V - TUBES KIT (suction and drain, only for tanks on the catalog)

This section is defined by the letter G.

In order to define this Section, please select the Reservoir Type anyways.

SECTION VI - MOTORS

This section is defined by the letter M.

Depending on the Type of Hydraulic Circuit Layout to be realized, it is required to Select the Motor Type.

If no Motor is required, and no Transmission Kit is required, please omit this section.

If no Motor is required, but a Transmission Kit is required, please jump to Section VII (defined by letter T).

SECTION VII - TRANSMISSION KIT (only for motors on the catalog)

This section is defined by the letter T.

Select the kit as per Table provided.

SECTION VIII - BLOCKS

This section it is not mandatory, depending on the Type of auxiliary Block required, definition Letter changes:

J, Blocks with CETOP type of interface for Solenoid Valves;

K, Bankable Valves Interface – Horizontal (Parallel to Unit Axis);

W, Bankable Valves Interface – Vertical (Perpendicular to Unit Axis);

SECTION IX - ACCESSORIES

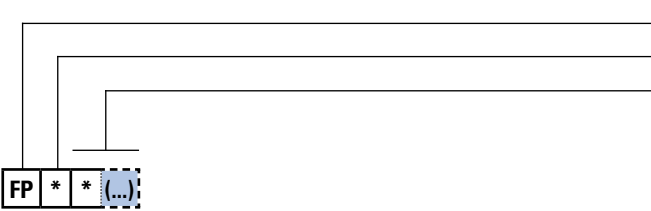
This section it is not mandatory, is defined by the letter R

Check the available options in the list provided.

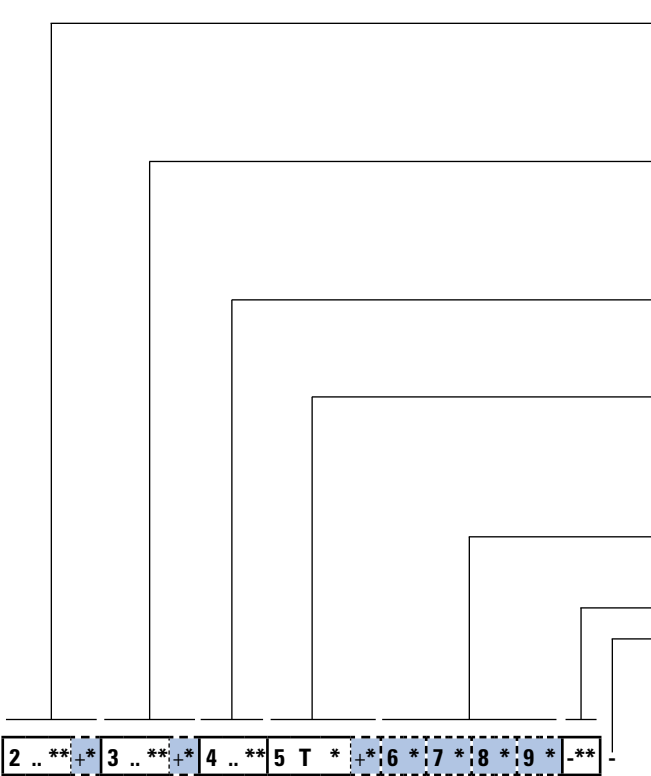
Accessories must be listed in Alphabetical Order.

Selection code

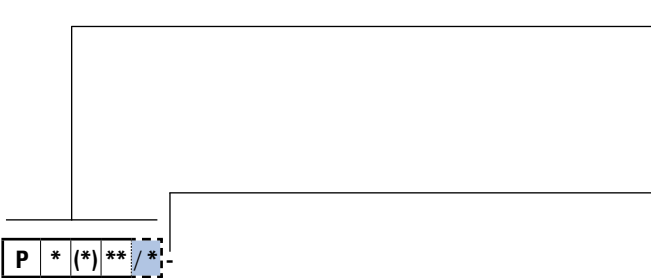
SECTION I - SERIE, ENDHEAD, VALVES ON CAVITY 1

	Power pack type
	Endhead power pack
	Pressure relief valve - Check valve - Plug
	Special setting pressure relief valve (omit if not required)

SECTION II - VALVES

	Cavity 2
	Type
	Features
	Optional flow control valve (omit if not required)
	Cavity 3
	Type
	Features
	Flow control valve can be combined with plug TC
	Cavity 4
	Type
	Features
	Cavity 5
	Plug
	Features
	Flow control valve can be combined with plug TG
	Drain cavities 6-7-8-9
	Optional flow control valve (or plug for cavity 9)
	Combination plugs for ports (ABC)
	End section II

SECTION III - PUMPS

	Pump
	Pump group
	Performance level
	Nominal displacement
	Accessories (omit if not required)
	End section III

Selection code

SECTION IV - TANKS / SECTION V - TUBES KIT

i

* ** * (*) ** /* -	Section: S = tank (with tubes kit) ; G = only with tubes kit, without tank; OMIT if without tank and without tubes kit
	Capacity liters
	Features (material and construction)
	Mounting position: H = horizontal; V = vertical
	Variants 00 = standard, no variant; OMIT if with tubes kit (section "G")
	Orientation OMIT if with tubes kit in vertical mounting position (section "G")
	End section IV and V

SECTION VI - MOTORS

M * ** (*) * /* -	DC motor
	Voltage
	Power / Size
	Version
	Accessories 0 = whitout accessories;
	Orientation
	End section VI

OR ..

M * * * * (*) /* -	AC motor
	Phases
	Poles
	Size
	Power range
	Version
	Orientation
	End section VI

Selection code

SECTION VII - TRANSMISSION KIT (only for motors on the catalog)

T

**

Transmission kit

Type

End section VII

Specify the transmission kit whether you requested the joint and accessories assembly (without motor).

SECTION VIII - BLOCKS

J

*

**

**

**

**

Blocks

Mounting position

Block No.1

Block No.2

Block No.3

Block No.4

End section VIII

SECTION IX - ACCESSORIES

R

*

*

*

Accessories

Accessory type

Others accessories (in alphabetic order)

Endhead overall dimensions

Cavities on endhead:

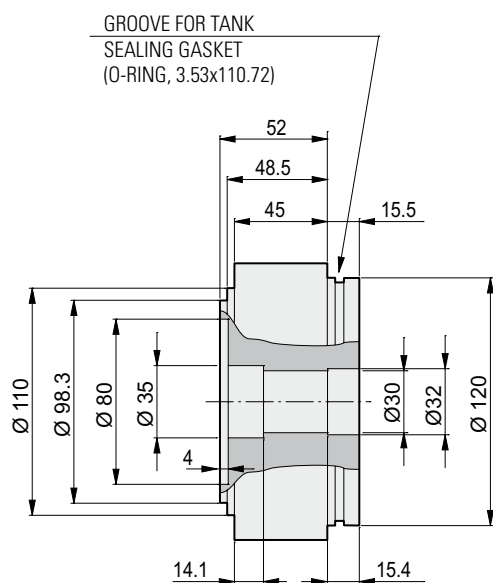
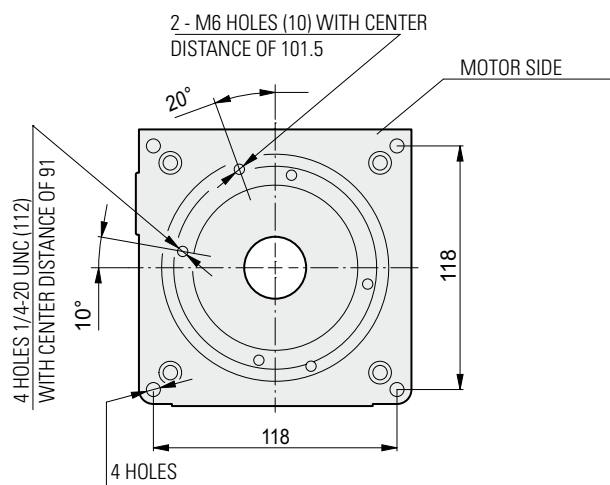
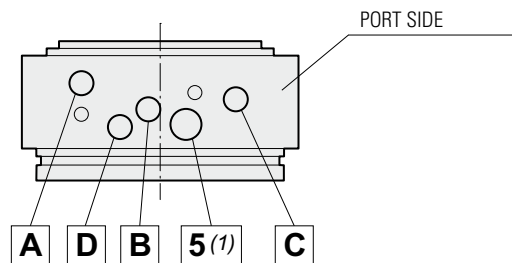
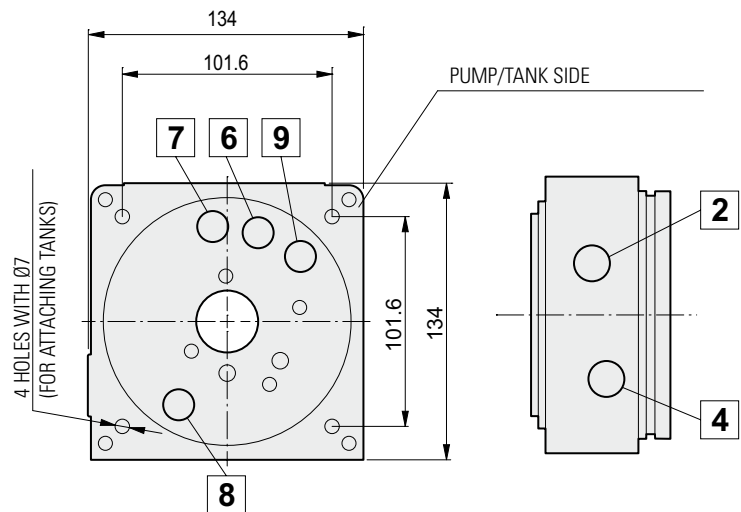
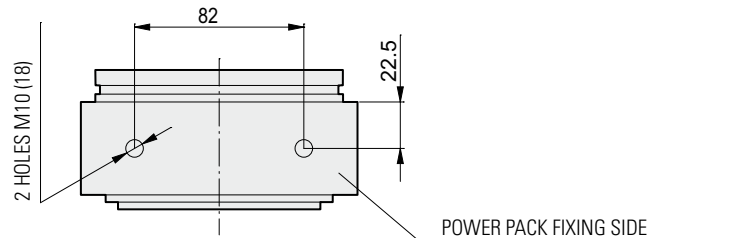
Cavity	Thread	Endhead type		
		FPA	FPC	FPE
A Ports	G1/4	•	•	•
B Ports	G1/4	•	•	•
C Ports	G1/4	—	•	•
D Ports	G1/4	—	—	•
1 Peripheral	3/4 16 UNF	•	•	•
2 Peripheral	3/4 16 UNF	•	•	•
3 Peripheral	3/4 16 UNF	—	•	•
4 Peripheral	3/4 16 UNF	—	•	—
5 Peripheral (1)	M16x1.5	•	•	—
6 Drain	G3/8	•	•	—
7 Drain	G3/8	•	•	—
8 Drain	G3/8	—	•	—
9 Drain	G3/8	—	•	•

(1) The cavity 5 is not accessible with blocks mounted (section IX).

The number of cavities tooled identify the endhead type:

There are three types of cavities:

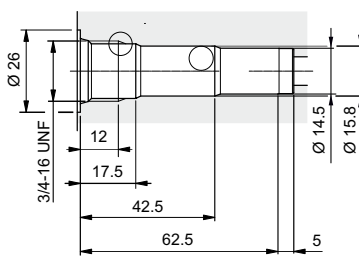
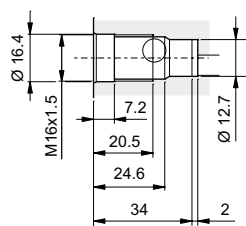
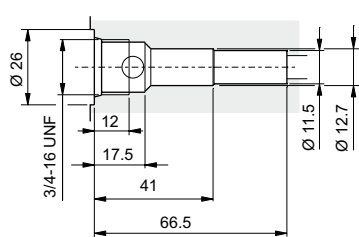
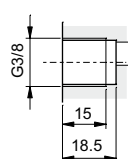
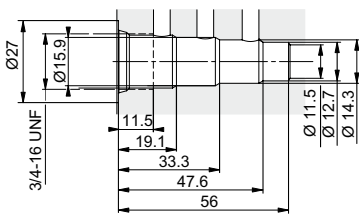
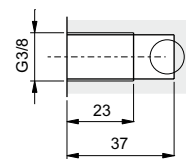
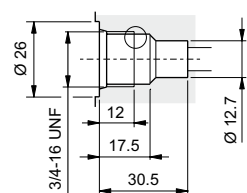
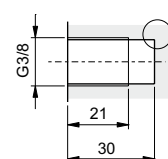
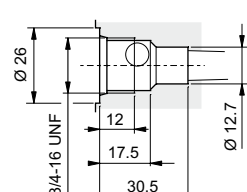
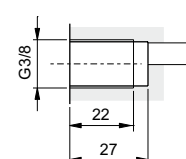
- **Peripheral cavities**, which can be accessed externally
- **Drain cavities**, inside of the tank.
- **Ports**



The validation of the endhead follows a life-test with 250 bar pulsed pressure repeated for 100.000 cycles

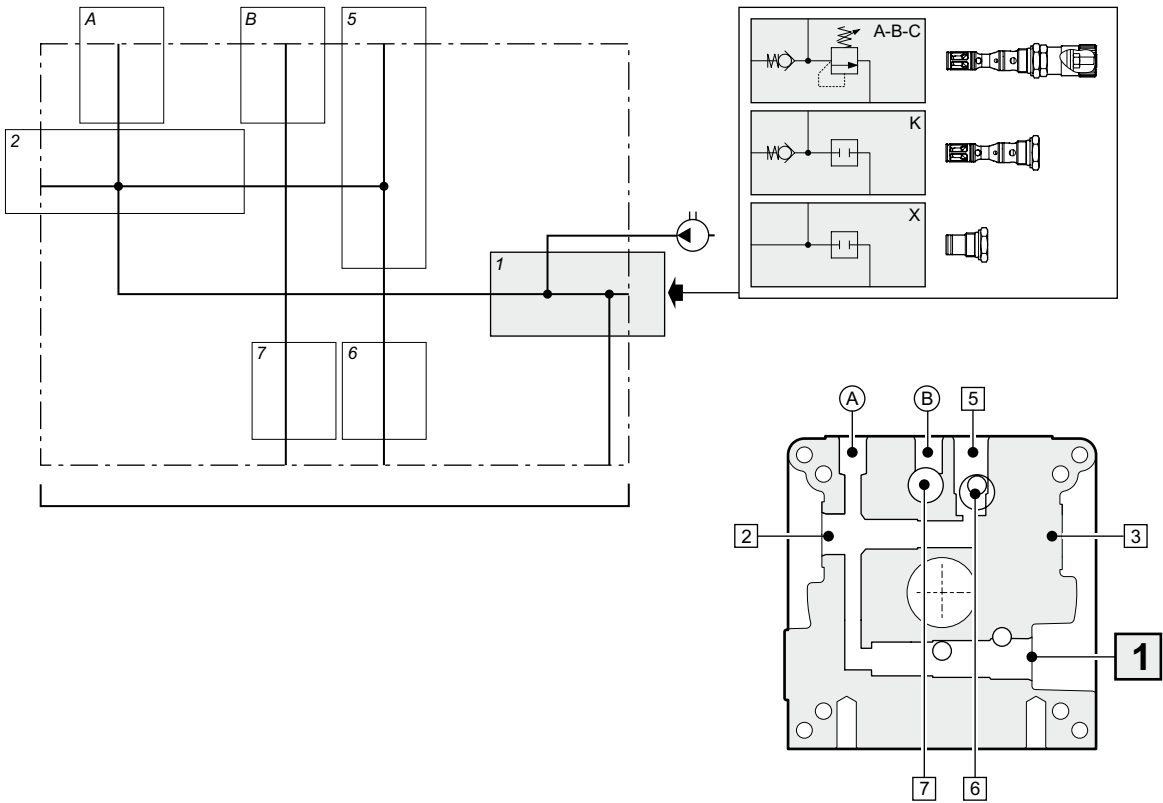
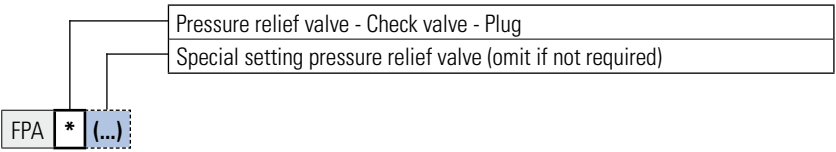
The cavities (1-2-3-4-5) and the ports (A-B-C) are marked on the die-cast endhead. The dimensions on the drawing are the same for all endhead.

Cavities dimensions

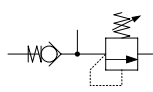
Cavity		Thread	Drawing	Cavity	Thread	Drawing	
1	Peripheral	3/4 16 UNF	CD018013 	5	Peripheral	M16x1.5	
2	Peripheral (FPA-FPC)	3/4 16 UNF	CD018009 	6	Drain	G3/8	
2	Peripheral (FPE)	3/4 16 UNF	CD018001 	7	Drain	G3/8	
3	Peripheral	3/4 16 UNF	CD018014 	8	Drain	G3/8	
4	Peripheral	3/4 16 UNF	CD018014 	9	Drain	G3/8	

Sect. I - FPA Cavity 1

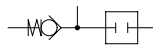
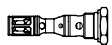
FPA
I



* (...) Pressure relief valve with check valve

*	Pressure (bar)	STD setting (bar)	(...) Special setting (bar)	Code	Symbol	Drawing
A	10 ÷ 60	50	10 ÷ 60 (5 in 5)	CMPR04C01001		
B	> 60 ÷ 180	150	65 ÷ 180 (5 in 5)	CMPR04C02001		
C	> 180 ÷ 320	210	190 ÷ 320 (10 in 10)	CMPR04C03001		

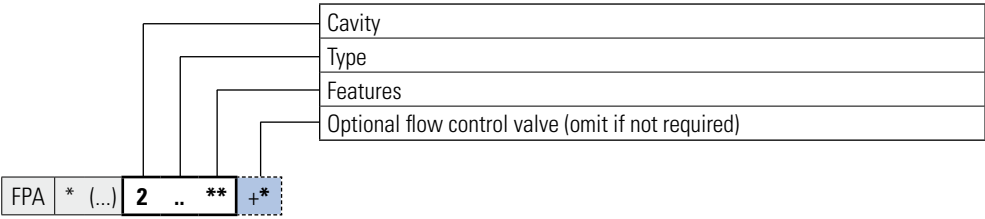
* Check valve

*	Description	Code	Symbol	Drawing
K	Opening pressure 0.5 bar	CRI0400001		

* Plug

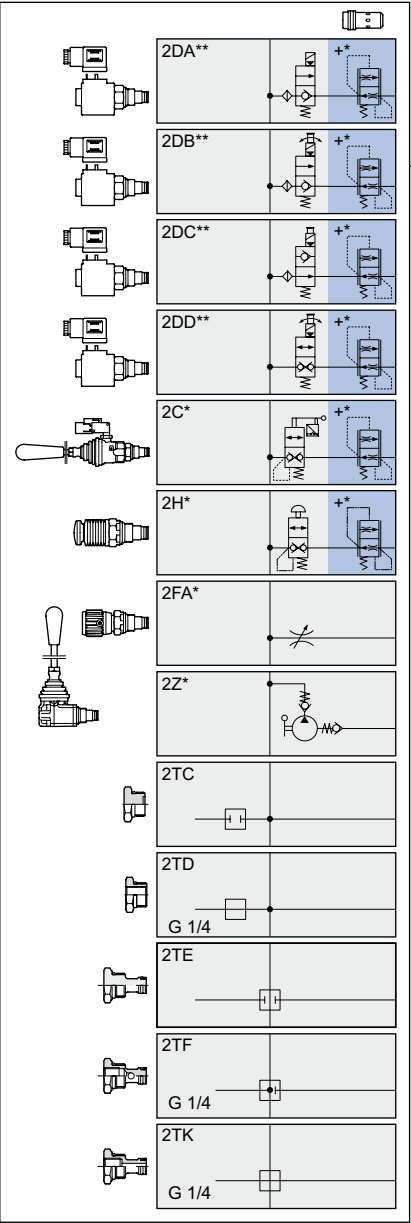
*	Description	Code	Symbol	Drawing
X	Plug	R78150100		

Sect. II - FPA Cavity 2

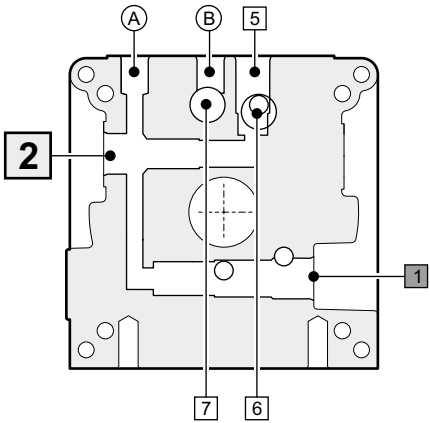
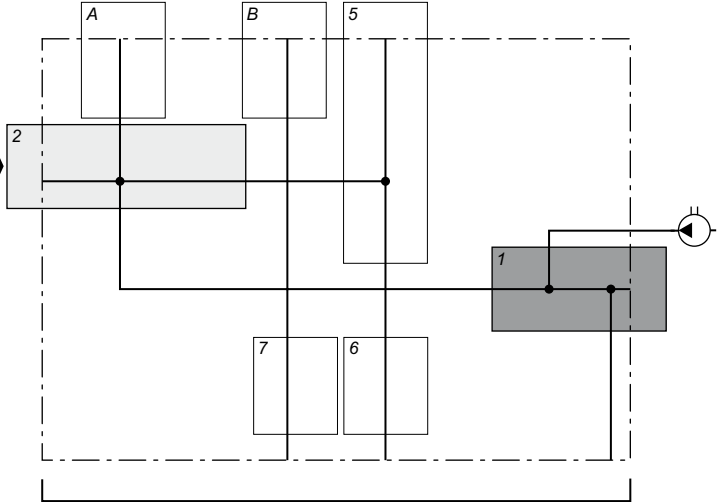


FPA

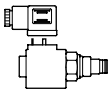
II



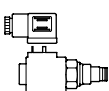
Optional flow control valves



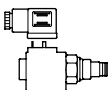
2 DA ** *Piloted solenoid valves normally closed, without emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NCASL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NCASM002 + V86050002		
AC	Voltage 24 Vac 50 Hz	CRP0418NCASA002 + V86050002		
AD	Voltage 115 Vac 50 Hz	CRP0418NCASJ002 + V86050002		
AE	Voltage 230 Vac 50 Hz	CRP0418NCASI002 + V86050002		

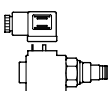
2 DB ** *Piloted solenoid valves normally closed, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NCAEL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NCAEL002 + V86050002		
AC	Voltage 24 Vac 50 Hz	CRP0418NCAEA002 + V86050002		
AD	Voltage 115 Vac 50 Hz	CRP0418NCAEJ002 + V86050002		
AE	Voltage 230 Vac 50 Hz	CRP0418NCAEI002 + V86050002		

2 DC ** *Piloted solenoid valves normally open, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NAAEL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NAAEM002 + V86050002		
AC	Voltage 24 Vac 50/60 Hz (RAC with rectifier)	CRP0418NAAE2002 + V86200002		
AD	Voltage 115 Vac 50 - 120 Vac 60 Hz (RAC with rectifier)	CRP0418NAAEZ002 + V86200002		
AE	Voltage 230 Vac 50 - 240 Vac 60 Hz (RAC with rectifier)	CRP0418NAAEX002 + V86200002		
AF	Voltage 48 Vdc	CRP0418NAAEN002 + V86050002		

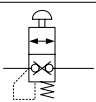
2 DD ** *Direct operated solenoid valves normally closed, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRD0418NCAEL002 + V86050002		
AB	Voltage 24 Vdc	CRD0418NCAEM002 + V86050002		

2 C * *Lever operated valve*

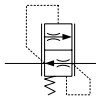
**	Description	Code	Symbol	Drawing
A	Without microswitch	CMF04L001		
B	With microswitch	CMF04M001		

2 H * **Button operated valves**

**	Description	Code	Symbol	Drawing
A	Push-button control	CPE04P0001		

FPA

2 .. ** **Flow control valves (1)**

*	Flow	Code	Symbol	Drawing
+B	1.4 l/min	VSC040101		
+C	2.3 l/min	VSC040201		
+E	2.8 l/min	VSC040301		
+G	4.3 l/min	VSC040401		
+J	5.2 l/min	VSC040601		
+L	6.5 l/min	VSC040801		
+N	8.0 l/min	VSC041101		
+Q	11.1 l/min	VSC041601		

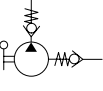
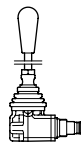
(1) The flow control valves can be installed with solenoid valves, with manual controls and with push-button valves.

II

2 FA * **Bidirectional flow control valves not compensated**

*	Description	Code	Symbol	Drawing
A	Screw adjustment	CSB04C0000		
B	Plastic knob adjustment	CSB04V0000		

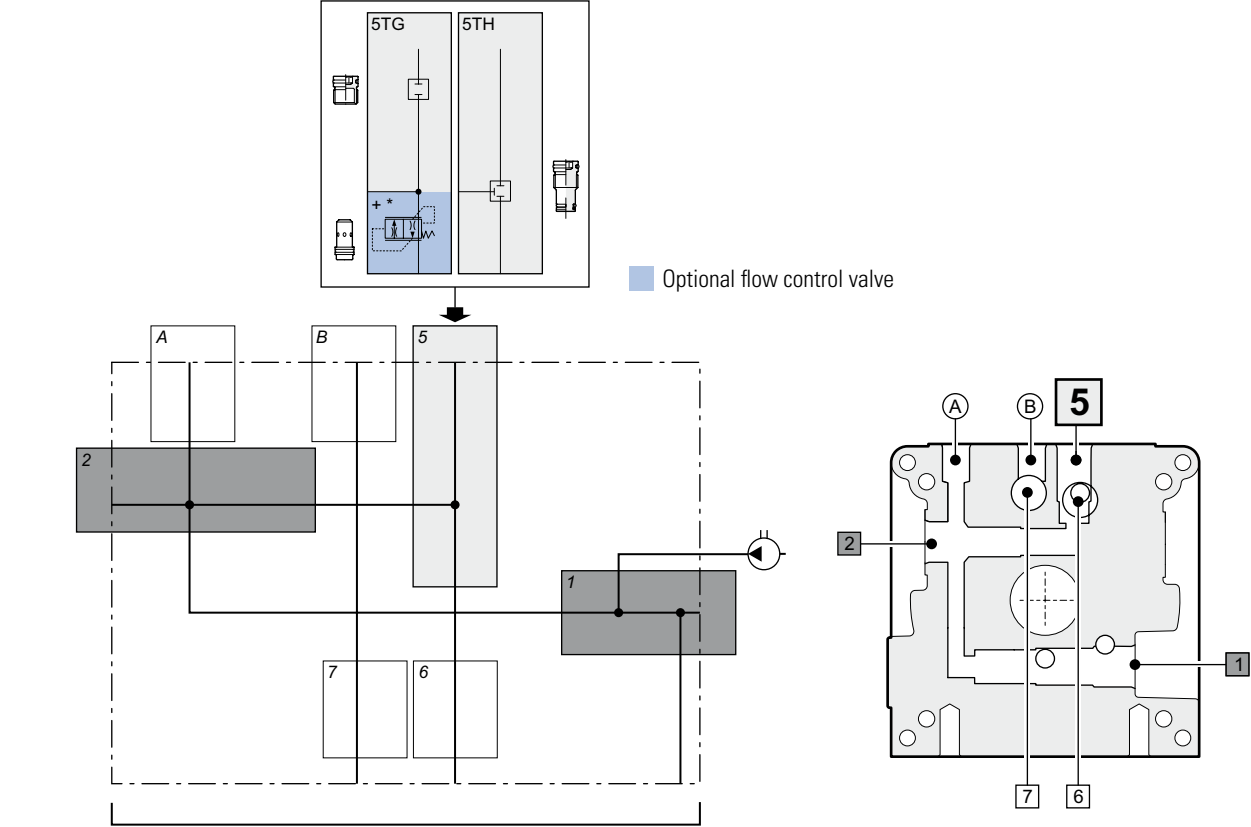
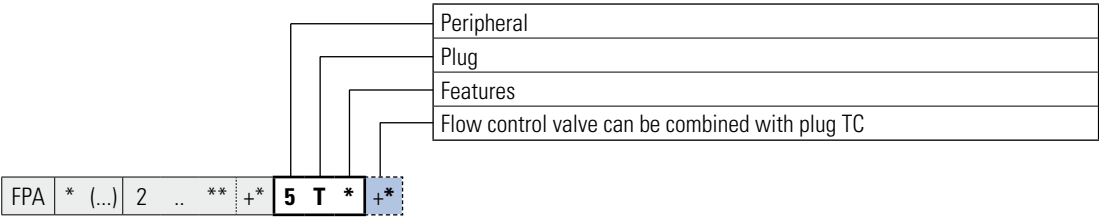
2 Z * **Hand pumps**

*	Description	Code	Symbol	Drawing
A	Displacement 1 cc	CPM0410001		
B	Displacement 2 cc	CPM0420001		

2 T * **Plugs and fittings**

*	Description	Code	Symbol	Drawing
C	Plug 3/4 16 UNF	R78150099		
D	Fitting 3/4 16 UNF - G1/4	20001700		
E	Long plug 3/4 16 UNF	20003800		
F	Fitting 3/4 16 UNF - G1/4	20009400		
K	Fitting 3/4 16 UNF DIN - G1/4	20018000		

Sect. II - FPA Cavity 5



5 T * Plugs

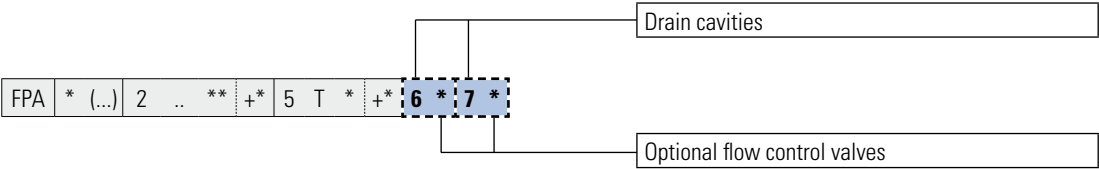
*	Description	Code	Symbol	Drawing
G	Plug M16x1,5 (1)	R78150104		
H	Long plug M16x1,5	R78150101		

5 T G +* Flow control valves (1)

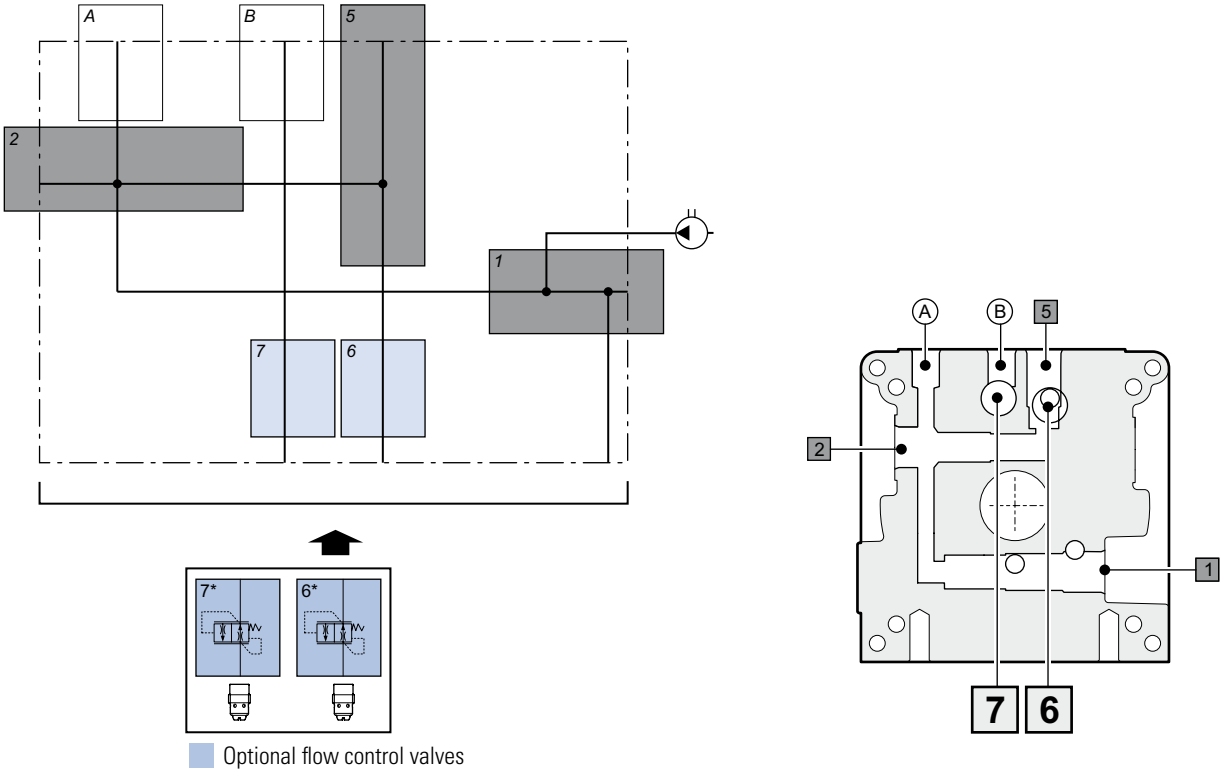
*	Flow	Code	Symbol	Drawing
+B	1.4 l/min	VSC040101		
+C	2.3 l/min	VSC040201		
+E	2.8 l/min	VSC040301		
+G	4.3 l/min	VSC040401		
+J	5.2 l/min	VSC040601		
+L	6.5 l/min	VSC040801		
+N	8.0 l/min	VSC041101		
+Q	11.1 l/min	VSC041601		

(1) Flow control valves can be combined with plug TG.

Sect. II - FPA Cavities 6-7



Drain cavity, omit if not required flow control valves



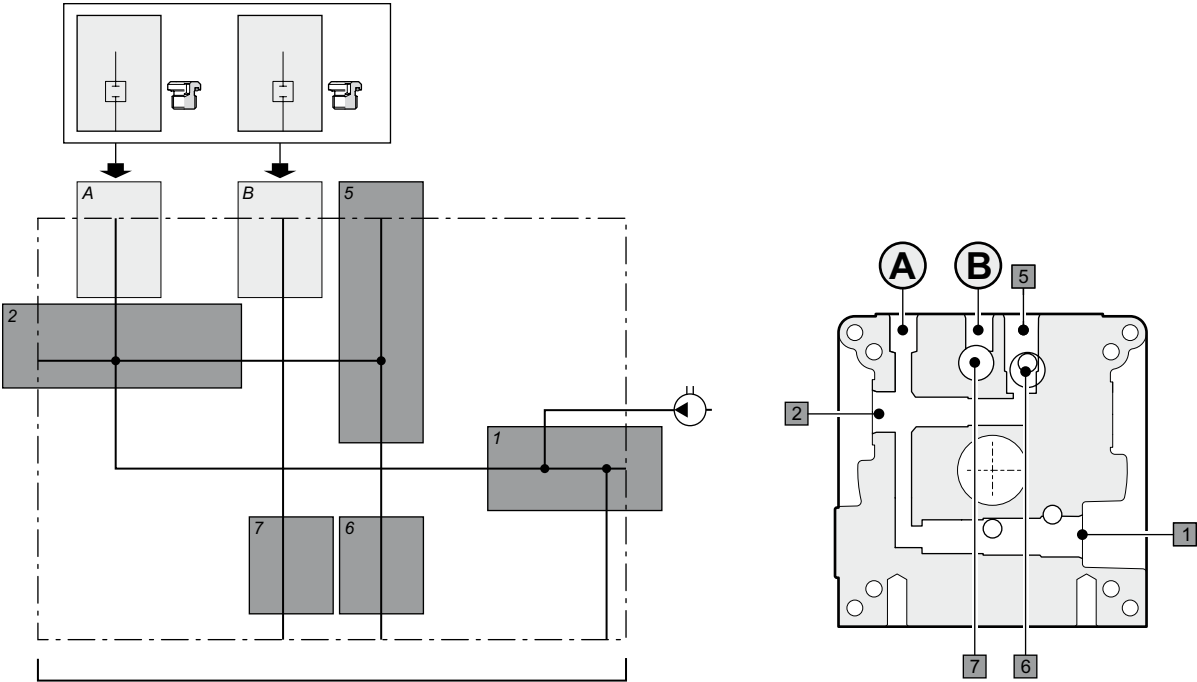
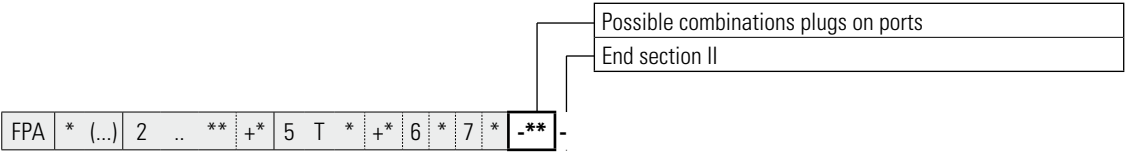
6 *
7 *Flow control valves for drain cavities "6-7"*

*	Nominal flow at 120 bar	Code	Symbol	Drawing
C	2.1 l/min	VSC06130002		
E	3.2 l/min	VSC06150002		
G	4.7 l/min	VSC06190002		
K	6.3 l/min	VSC06220002		
N	7.5 l/min	VSC06240002		
Q	10.0 l/min	VSC06280002		
U	13.2 l/min	VSC06330002		
V	15.7 l/min	VSC06350002		

Sect. II - FPA Ports A-B

FPA

II



-** Possible combinations plugs on ports A-B

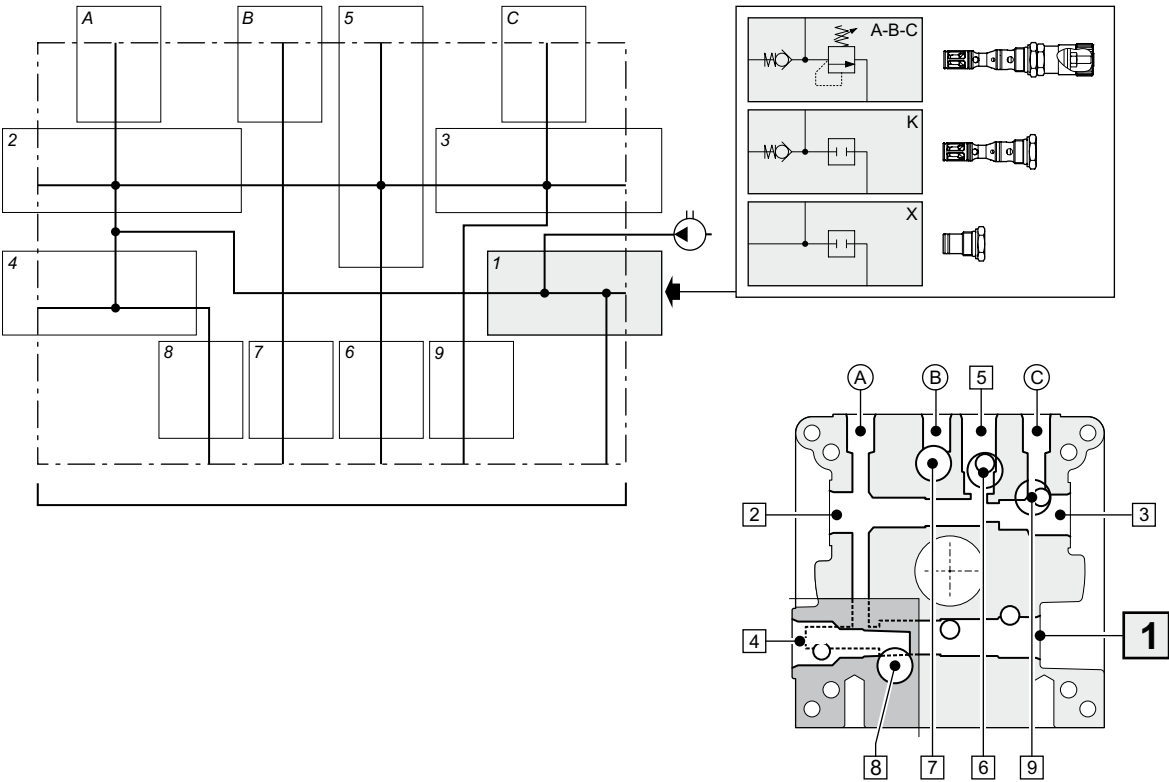
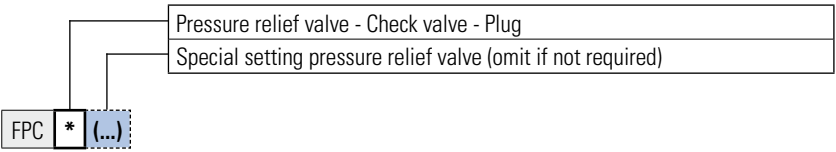
-**	A	B
-00	—	—
-01	△	△
-02	□	△
-03	△	□
-06	□	□

Combination -00 to use for blocks predisposition

Symbols description

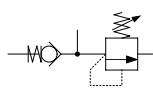
Type	Description	Code	Symbol	Drawing
□	Port closed with plug	20024000		
△	Port with protection	—	—	—
—	Open port	—	—	—

Sect. I - FPC Cavity 1

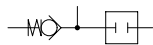
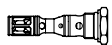


FPC
I

*** (...)** *Pressure relief valve with check valve*

*	Pressure (bar)	STD setting (bar)	(...) Special setting (bar)	Code	Symbol	Drawing
A	10 ÷ 60	50	10 ÷ 60 (5 in 5)	CMPR04C01001		
B	> 60 ÷ 180	150	65 ÷ 180 (5 in 5)	CMPR04C02001		
C	> 180 ÷ 320	210	190 ÷ 320 (10 in 10)	CMPR04C03001		

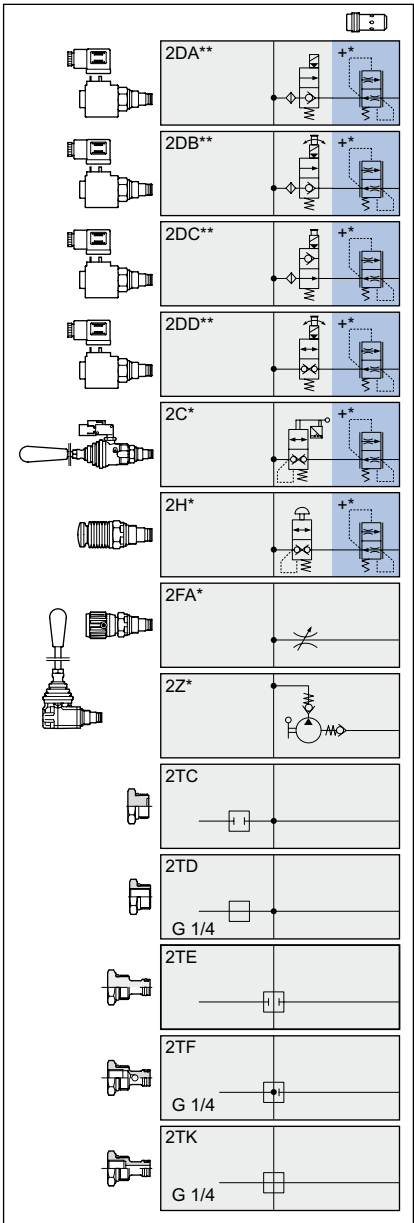
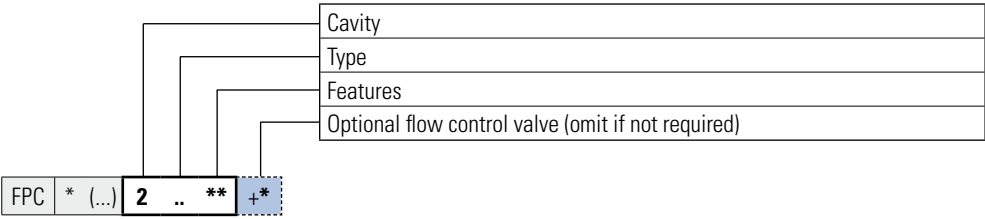
*** Check valve**

*	Description	Code	Symbol	Drawing
K	Opening pressure 0.5 bar	CRI0400001		

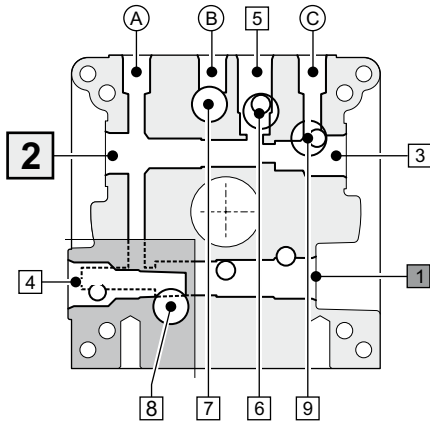
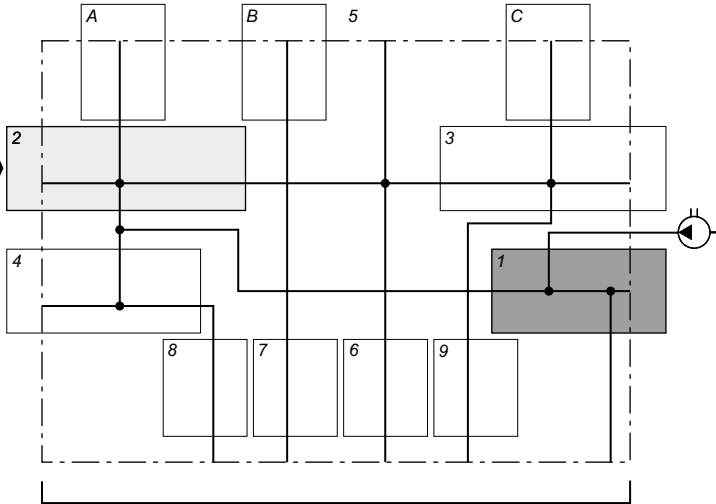
*** Plug**

*	Description	Code	Symbol	Drawing
X	Plug	R78150100		

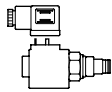
Sect. II - FPC Cavity 2



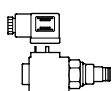
Optional flow control valves



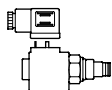
2 DA ** *Piloted solenoid valves normally closed, without emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NCASL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NCASM002 + V86050002		
AC	Voltage 24 Vac 50 Hz	CRP0418NCASA002 + V86050002		
AD	Voltage 115 Vac 50 Hz	CRP0418NCASJ002 + V86050002		
AE	Voltage 230 Vac 50 Hz	CRP0418NCASI002 + V86050002		

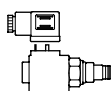
2 DB ** *Piloted solenoid valves normally closed, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NCAEL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NCAEL002 + V86050002		
AC	Voltage 24 Vac 50 Hz	CRP0418NCAEA002 + V86050002		
AD	Voltage 115 Vac 50 Hz	CRP0418NCAEJ002 + V86050002		
AE	Voltage 230 Vac 50 Hz	CRP0418NCAEI002 + V86050002		

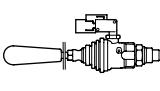
2 DC ** *Piloted solenoid valves normally open, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NAAEL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NAAEM002 + V86050002		
AC	Voltage 24 Vac 50/60 Hz (RAC with rectifier)	CRP0418NAAE2002 + V86200002		
AD	Voltage 115 Vac 50 - 120 Vac 60 Hz (RAC with rectifier)	CRP0418NAAEZ002 + V86200002		
AE	Voltage 230 Vac 50 - 240 Vac 60 Hz (RAC with rectifier)	CRP0418NAAEX002 + V86200002		
AF	Voltage 48 Vdc	CRP0418NAAEN002 + V86050002		

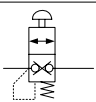
2 DD ** *Direct operated solenoid valve normally closed, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRD0418NCAEL002 + V86050002		
AB	Voltage 24 Vdc	CRD0418NCAEM002 + V86050002		

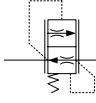
2 C * *Lever operated valve*

**	Description	Code	Symbol	Drawing
A	Without microswitch	CMF04L001		
B	With microswitch	CMF04M001		

2 H * **Button operated valves**

**	Description	Code	Symbol	Drawing
A	Push-button control	CPE04P000.1		

2 .. ** **Flow control valves ⁽¹⁾**

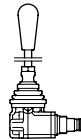
*	Flow	Code	Symbol	Drawing
+B	1.4 l/min	VSC040101		
+C	2.3 l/min	VSC040201		
+E	2.8 l/min	VSC040301		
+G	4.3 l/min	VSC040401		
+J	5.2 l/min	VSC040601		
+L	6.5 l/min	VSC040801		
+N	8.0 l/min	VSC041101		
+Q	11.1 l/min	VSC041601		

(1) The flow control valves can be installed with solenoid valves, with manual controls and with push-button valves.

2 FA * **Bidirectional flow control valves not compensated**

*	Description	Code	Symbol	Drawing
A	Screw adjustment	CSB04C0000		
B	Plastic knob adjustment	CSB04V0000		

2 Z * **Hand pumps**

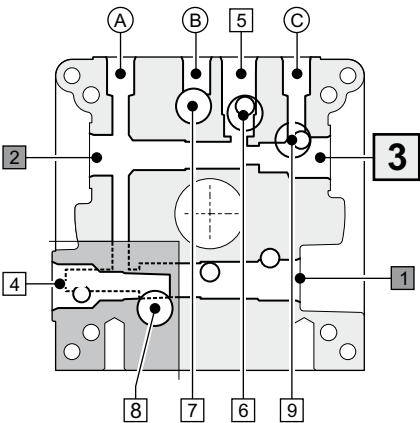
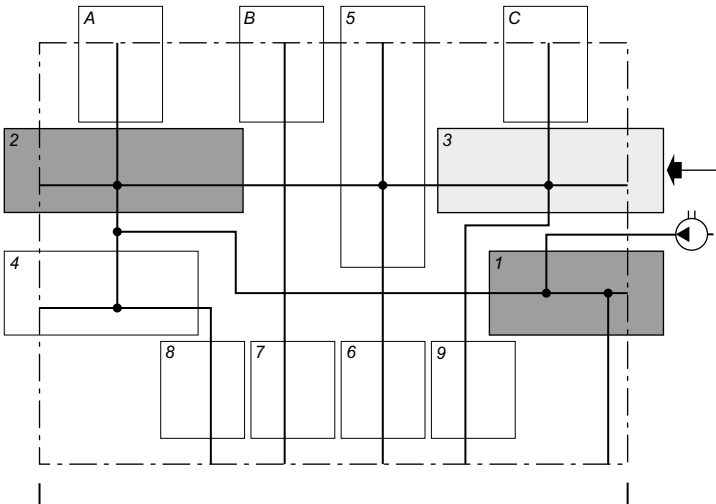
*	Description	Code	Symbol	Drawing
A	Displacement 1 cc	CPM0410001		
B	Displacement 2 cc	CPM0420001		

2 T * **Plugs and fittings**

*	Description	Code	Symbol	Drawing
C	Plug 3/4 16 UNF	R78150099		
D	Fitting 3/4 16 UNF - G1/4	20001700		
E	Long plug 3/4 16 UNF	20003800		
F	Fitting 3/4 16 UNF - G1/4	20009400		
K	Fitting 3/4 16 UNF DIN - G1/4	20018000		

Sect. II - FPC Cavity 3

FPC	*	(...)	2	..	**	+	*	3	..	**	+	*
												Cavity
												Type
												Features
												Flow control valve can be combined with plug TC

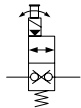
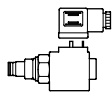


3DD*		
3H*		
3FA*		
3FB*		
3A**		
3B*		
+ *		
3TC		
3TD		
3TE		
3TF		
3TK		

Optional flow control valves

FPC
II

3 DD ** *Piloted solenoid valves normally closed, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRD0418NCAEL002 + V86050002		
AB	Voltage 24 Vdc	CRD0418NCAEM002 + V86050002		

3 H * *Button operated valves*

**	Description	Code	Symbol	Drawing
A	Push-button control	CPE04P000.1		

3 FA * *Bidirectional flow control valves not compensated*

*	Description	Code	Symbol	Drawing
A	Screw adjustment	CSB04C0000		
B	Plastic knob adjustment	CSB04V0000		

3 FB * *Bidirectional flow control valves compensated*

*	Description	Code	Symbol	Drawing
A	Screw adjustment	CSC04C0000		
B	Plastic knob adjustment	CSC04V0000		

3 A ** *Pressure relief valves*

**	Description	Regolazione (bar)	Code	Symbol	Drawing
AA	Short screw adjustment	Min 10 - Max 70	CMP04E1001		
AB		Min 80 - Max 140	CMP04E2001		
AC		Min 100 - Max 330	CMP04E3001		
BA	Screw adjustment	Min 10 - Max 70	CMP04C1001		
BB		Min 80 - Max 140	CMP04C2001		
BC		Min 100 - Max 330	CMP04C3001		
CA	Plastic knob adjustment	Min 10 - Max 70	CMP04V1001		
CB		Min 80 - Max 140	CMP04V2001		
CC		Min 100 - Max 330	CMP04V3001		
DA	Short screw + sealed cap	Min 10 - Max 70	CMP04P1001		
DB		Min 80 - Max 140	CMP04P2001		
DC		Min 100 - Max 330	CMP04P3001		

3 B * One-way check valves

*	Opening pressure	Code	Symbol	Drawing
A	0,7 bar (Standard)	CRU0400002		
B	4,5 bar	CRU0404002		
C	10 bar	CRU0410002		

3 T * Plugs and fittings

*	Description	Code	Symbol	Drawing
C	Plug 3/4 16 UNF (1)	R78150099		
D	Fitting 3/4 16 UNF - G1/4	20001700		
E	Long plug 3/4 16 UNF	20003800		
F	Fitting 3/4 16 UNF - G1/4	20009400		
K	Fitting 3/4 16 UNF - DIN G1/4	20018000		

3 T C +* Flow control valves (1)

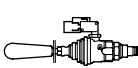
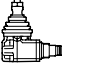
*	Flow	Code	Symbol	Drawing
+B	1.4 l/min	VSC040101		
+C	2.3 l/min	VSC040201		
+E	2.8 l/min	VSC040301		
+G	4.3 l/min	VSC040401		
+J	5.2 l/min	VSC040601		
+L	6.5 l/min	VSC040801		
+N	8.0 l/min	VSC041101		
+Q	11.1 l/min	VSC041601		

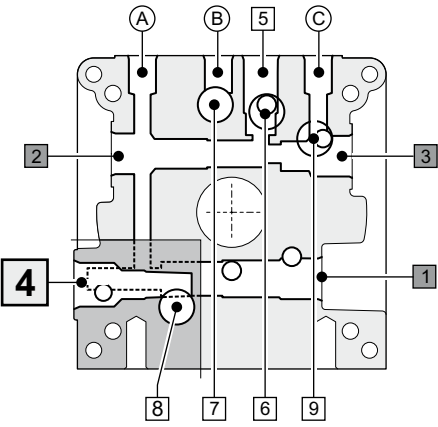
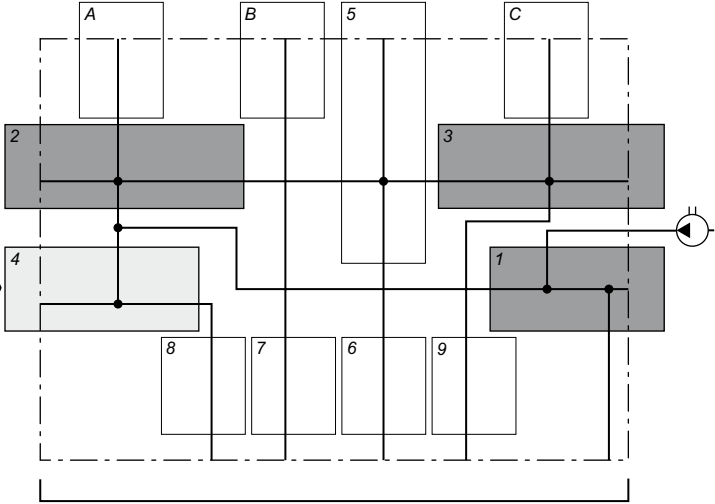
(1) I The flow control valves can be installed with the plug TC

Sect. II - FPC Cavity 4

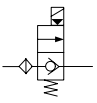
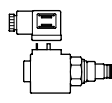
												Cavity			
												Type			
												Features			
FPC	*	(...)	2	..	**	+	*	3	..	**	+	*	4	..	**

FPC
II

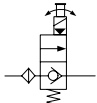
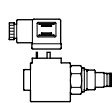
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	4DB**	
	4DC**	
	4DD**	
	4C*	
	4H*	
	4FA*	
	4Z*	
	4TE	
	4TF	
	G 1/4	
	4TK	



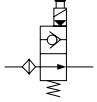
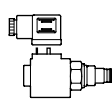
4 DA ** *Piloted solenoid valves normally closed, without emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NCASL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NCASM002 + V86050002		
AC	Voltage 24 Vac 50 Hz	CRP0418NCASA002 + V86050002		
AD	Voltage 115 Vac 50 Hz	CRP0418NCASJ002 + V86050002		
AE	Voltage 230 Vac 50 Hz	CRP0418NCASI002 + V86050002		

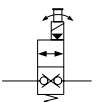
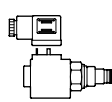
4 DB ** *Piloted solenoid valves normally closed, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NCAEL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NCAEL002 + V86050002		
AC	Voltage 24 Vac 50 Hz	CRP0418NCAEA002 + V86050002		
AD	Voltage 115 Vac 50 Hz	CRP0418NCAEJ002 + V86050002		
AE	Voltage 230 Vac 50 Hz	CRP0418NCAEI002 + V86050002		

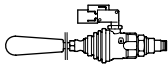
4 DC ** *Piloted solenoid valves normally open, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRP0418NAAEL002 + V86050002		
AB	Voltage 24 Vdc	CRP0418NAAEM002 + V86050002		
AC	Tensione 24 Vac 50/60 Hz (RAC with rectifier)	CRP0418NAAE2002 + V86200002		
AD	Voltage 115 Vac 50 - 120 Vac 60 Hz (RAC with rectifier)	CRP0418NAAEZ002 + V86200002		
AE	Voltage 230 Vac 50 - 240 Vac 60 Hz (RAC with rectifier)	CRP0418NAAEX002 + V86200002		
AF	Tensione 48 Vdc	CRP0418NAAEN002 + V86050002		

4 DD ** *Direct operated solenoid valve normally closed, with emergency*

**	Description	Code (valve + connector)	Symbol	Drawing
AA	Voltage 12 Vdc	CRD0418NCAEL002 + V86050002		
AB	Voltage 24 Vdc	CRD0418NCAEM002 + V86050002		

4 C * *Lever operated valve*

**	Description	Code	Symbol	Drawing
A	Without microswitch	CMF04L0001		
B	With microswitch	CMF04M0001		

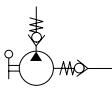
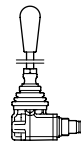
4 H * *Button operated valves*

**	Description	Code	Symbol	Drawing
A	Push-button control	CPE04P000.1		

4 FA * *Bidirectional flow control valves not compensated*

*	Description	Code	Symbol	Drawing
A	Screw adjustment	CSB04C0000		
B	Plastic knob adjustment	CSB04V0000		

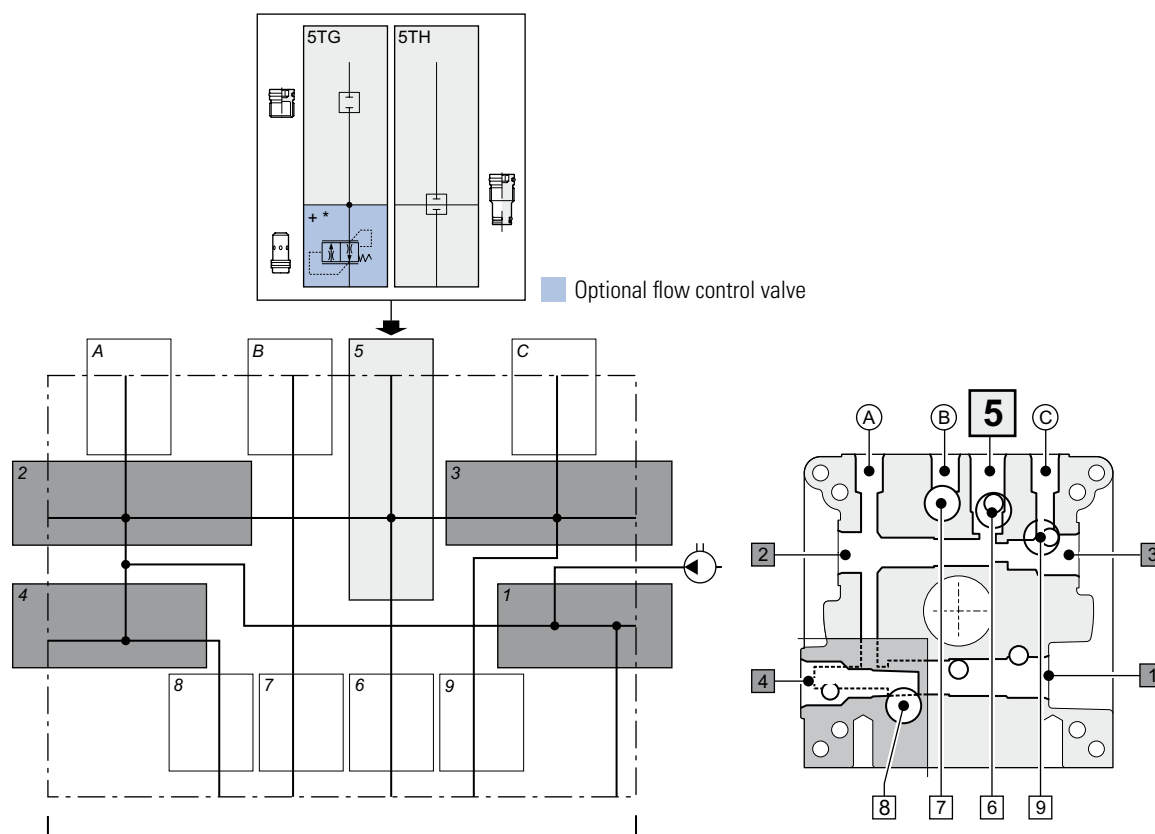
4 Z * *Hand pumps*

*	Description	Code	Symbol	Drawing
A	Displacement 1 cc	CPM0410001		
B	Displacement 2 cc	CPM0420001		

4 T * *Plugs and fittings*

*	Description	Code	Symbol	Drawing
E	Long plug 3/4 16 UNF	20003800		
F	Fitting 3/4 16 UNF - G1/4	20009400		
K	Fitting 3/4 16 UNF DIN - G1/4	20018000		

Peripheral
Plug
Features
Flow control valve can be combined with plug TG

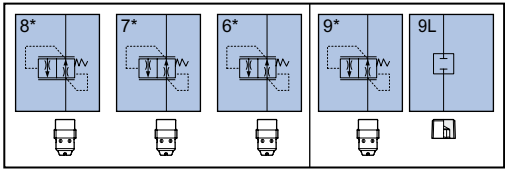
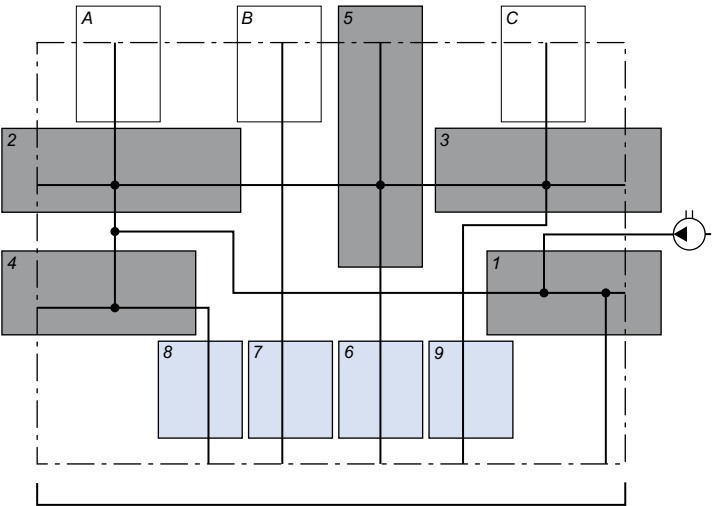
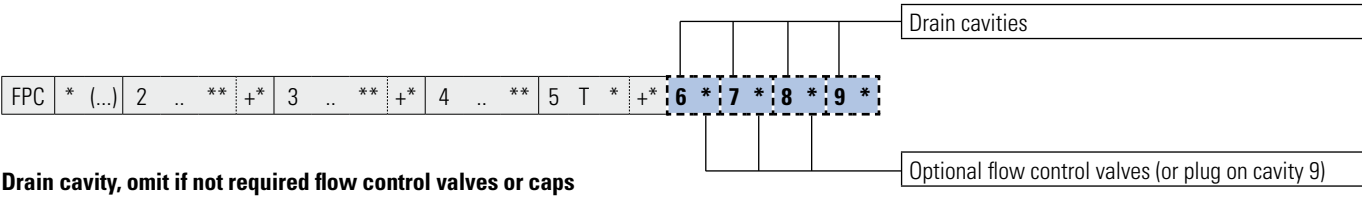


*	Description	Code	Symbol	Drawing
G	Plug M16x1,5 (1)	R78150104		
H	Long plug M16x1,5	R78150101		

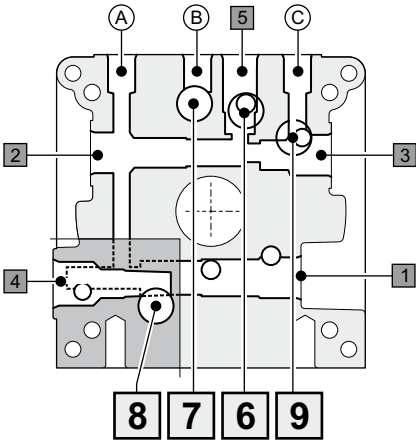
*	Flow	Code	Symbol	Drawing
+B	1.4 l/min	VSC040101		
+C	2.3 l/min	VSC040201		
+E	2.8 l/min	VSC040301		
+G	4.3 l/min	VSC040401		
+J	5.2 l/min	VSC040601		
+L	6.5 l/min	VSC040801		
+N	8.0 l/min	VSC041101		
+Q	11.1 l/min	VSC041601		

(1) | The flow control valves can be installed with the plug TG

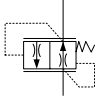
Sect. II - FPC Cavity 6-7-8-9



Optional flow control valves or plug on cavity 9



6 * Flow control valves for drain cavities "6-7-8-9"

	*	Nominal flow at 120 bar	Code	Symbol	Drawing
7	C	2.1 l/min	VSC06130002		
8	E	3.2 l/min	VSC06150002		
9	G	4.7 l/min	VSC06190002		
	K	6.3 l/min	VSC06220002		
	N	7.5 l/min	VSC06240002		
	Q	10.0 l/min	VSC06280002		
	U	13.2 l/min	VSC06330002		
	V	15.7 l/min	VSC06350002		

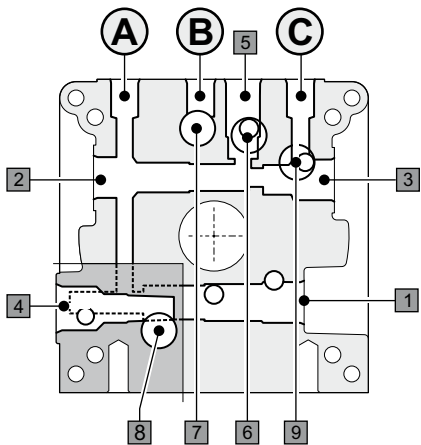
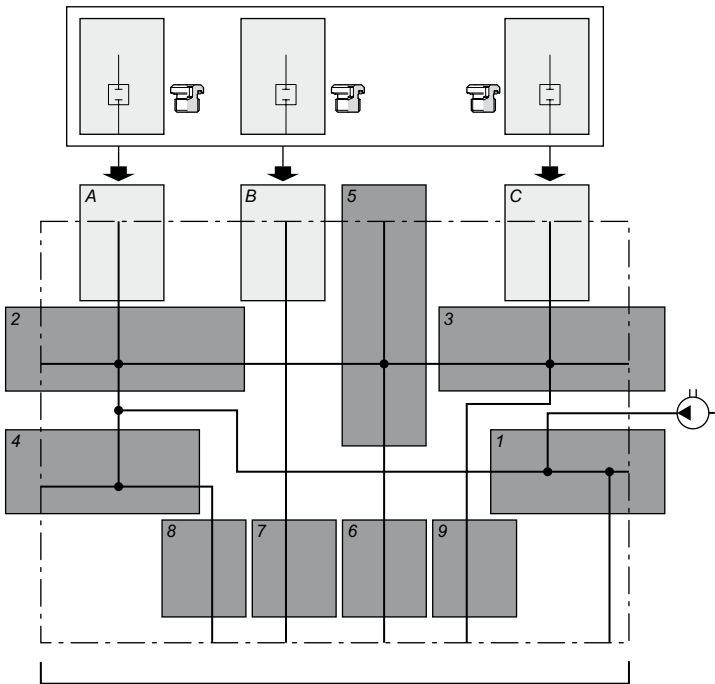
9T * Plugs for drain cavity "9"

*	Description	Code	Symbol	Drawing
M	Conical plug G3/8	Q26620350		

Sect. II - FPC Ports A-B-C

Possible combinations plugs on ports
End section II

FPC * (...) 2 .. ** +* 3 .. ** +* 4 .. ** 5 T * +* 6 * 7 * 8 * 9 * -** -



FPC

II

-** Possible combinations plugs on ports A-B-C

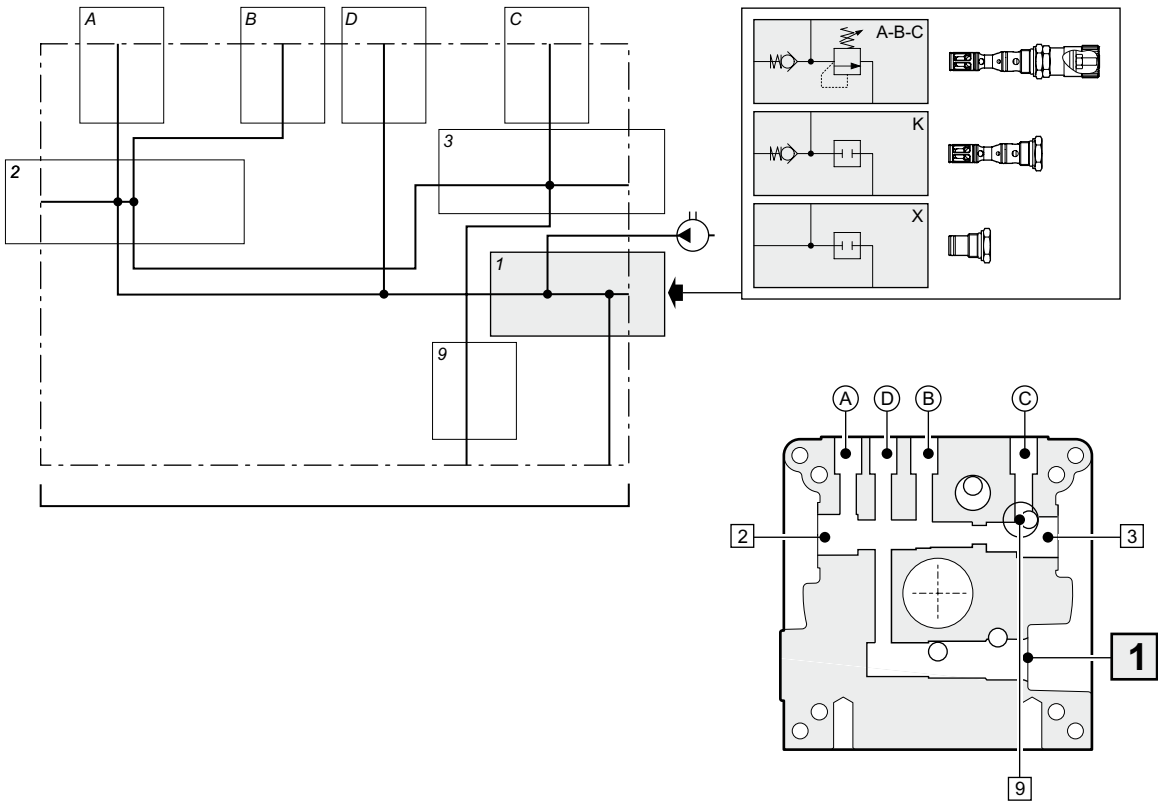
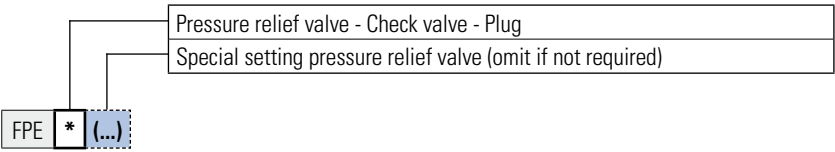
-**	A	B	C
-00	—	—	□
-01	△	△	△
-02	□	△	△
-03	△	□	△
-04	△	△	□
-05	△	□	□
-06	□	□	△
-07	□	△	□
-08	—	—	—

Symbols description

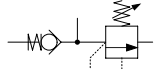
Type	Description	Code	Symbol	Drawing
□	Port closed with plug	20024000		
△	Port with protection	—	—	—
—	Open port	—	—	—

Combinations -00 and -08 to use for blocks predisposition.

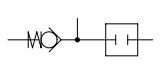
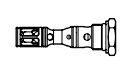
Sect. I - FPE Cavity 1



*** (...)** *Pressure relief valve with check valve*

*	Pressure (bar)	STD setting (bar)	(...) Special setting (bar)	Code	Symbol	Drawing
A	10 ÷ 60	50	10 ÷ 60 (5 in 5)	CMPR04C01001		
B	> 60 ÷ 180	150	65 ÷ 180 (5 in 5)	CMPR04C02001		
C	> 180 ÷ 320	210	190 ÷ 320 (10 in 10)	CMPR04C03001		

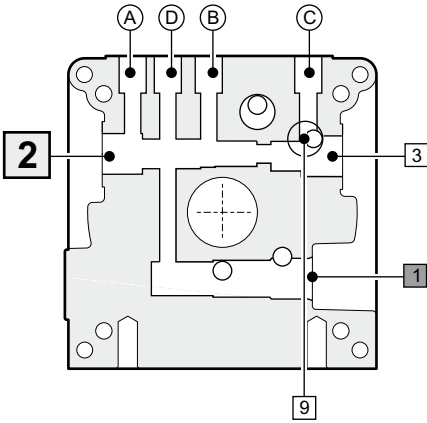
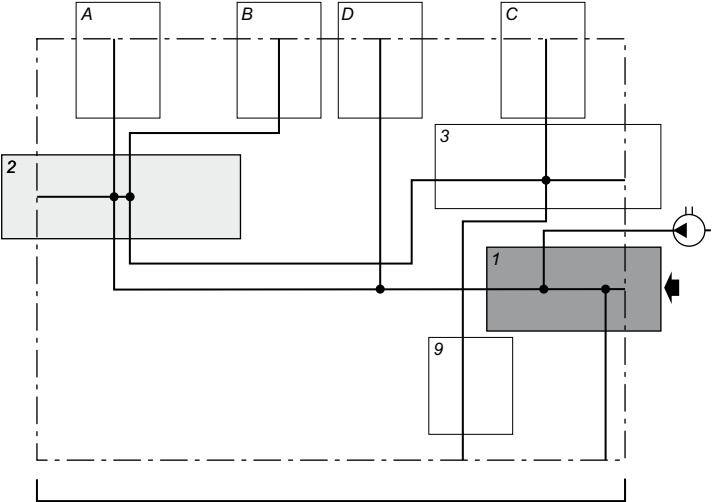
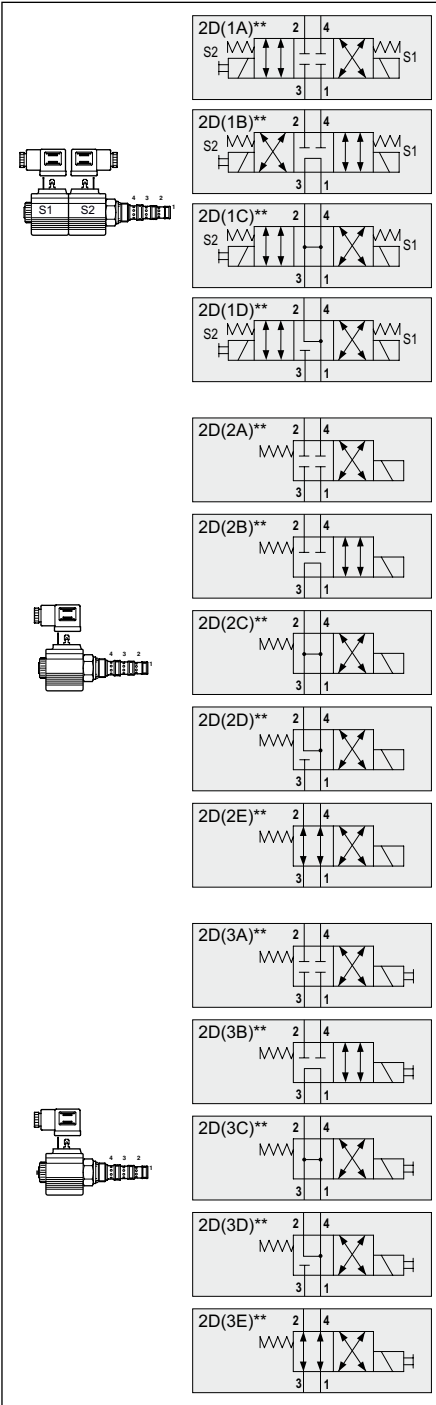
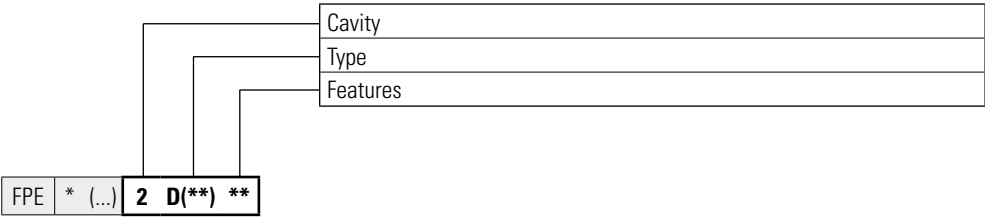
*** Check valve**

*	Description	Code	Symbol	Drawing
K	Opening pressure 0.5 bar	CRI0400001		

*** Plug**

*	Description	Code	Symbol	Drawing
X	Plug	R78150100		

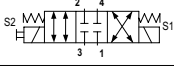
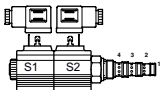
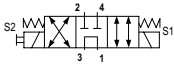
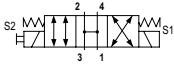
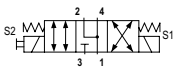
Sect. II - FPE Cavity 2



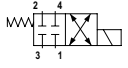
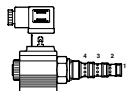
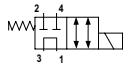
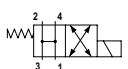
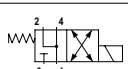
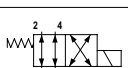
FPE

II

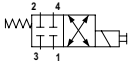
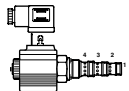
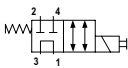
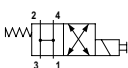
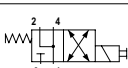
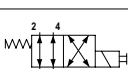
2 D(**) ** Solenoid valves 4 way 3 positions with emergency

(**) **	Description	Code (valve + connectors)	Symbol	Drawing
(1A)AA	Voltage 12 Vdc (closed centre “C” spool)	C4V0422C3FEL001 + V86050002 (x2)		
(1A)AB	Voltage 24 Vdc (closed centre “C” spool)	C4V0422C3FEM001 + V86050002 (x2)		
(1B)AA	Voltage 12 Vdc (open centre “A” spool)	C4V0422A3FEL001 + V86050002 (x2)		
(1B)AB	Voltage 24 Vdc (open centre “A” spool)	C4V0422A3FEM001 + V86050002 (x2)		
(1C)AA	Voltage 12 Vdc (centre “H” spool)	C4V0422H3FEL001 + V86050002 (x2)		
(1C)AB	Voltage 24 Vdc (centre “H” spool)	C4V0422H3FEM001 + V86050002 (x2)		
(1D)AA	Voltage 12 Vdc (centre “Y” spool)	C4V0422Y3FEL001 + V86050002 (x2)		
(1D)AB	Voltage 24 Vdc (centre “Y” spool)	C4V0422Y3FEM001 + V86050002 (x2)		

2 D(**) ** Solenoid valves 4 way 2 positions without emergency

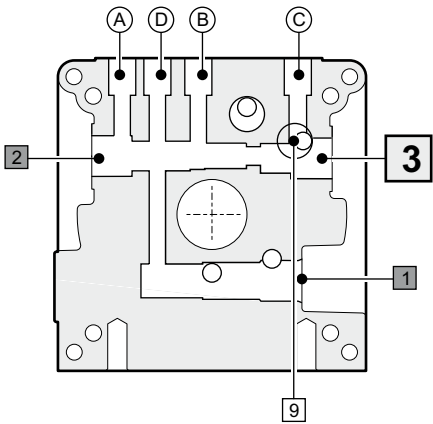
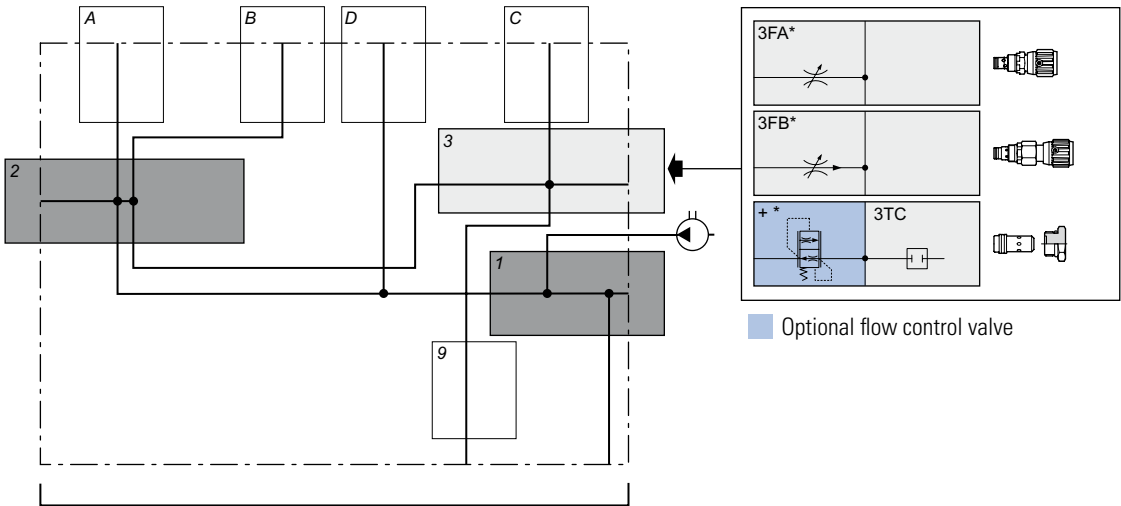
(**) **	Description	Code (valve + connectors)	Symbol	Drawing
(2A)AA	Voltage 12 Vdc (closed centre "C" spool)	C4V0422C2FSL001 + V86050002		
(2A)AB	Voltage 24 Vdc (closed centre "C" spool)	C4V0422C2FSM001 + V86050002		
(2B)AA	Voltage 12 Vdc (open centre "A" spool)	C4V0422A2FSL001 + V86050002		
(2B)AB	Voltage 24 Vdc (open centre "A" spool)	C4V0422A2FSM001 + V86050002		
(2C)AA	Voltage 12 Vdc (centre "H" spool)	C4V0422H2FSL001 + V86050002		
(2C)AB	Voltage 24 Vdc (centre "H" spool)	C4V0422H2FSM001 + V86050002		
(2D)AA	Voltage 12 Vdc (centre "Y" spool)	C4V0422Y2FSL001 + V86050002		
(2D)AB	Voltage 24 Vdc (centre "Y" spool)	C4V0422Y2FSM001 + V86050002		
(2E)AA	Voltage 12 Vdc (direct "D" spool)	C4V0422D2FSL001 + V86050002		
(2E)AB	Voltage 24 Vdc (direct "D" spool)	C4V0422D2FSM001 + V86050002		

2 D(**) ** Solenoid valves 4 way 2 positions with emergency

(**) **	Description	Code (valve + connectors)	Symbol	Drawing
(3A)AA	Voltage 12 Vdc (closed centre “C” spool)	C4V0422C2FEL001 + V86050002		
(3A)AB	Voltage 24 Vdc (closed centre “C” spool)	C4V0422C2FEM001 + V86050002		
(3B)AA	Voltage 12 Vdc (open centre “A” spool)	C4V0422A2FEL001 + V86050002		
(3B)AB	Voltage 24 Vdc (open centre “A” spool)	C4V0422A2FEM001 + V86050002		
(3C)AA	Voltage 12 Vdc (centre “H” spool)	C4V0422H2FEL001 + V86050002		
(3C)AB	Voltage 24 Vdc (centre “H” spool)	C4V0422H2FEM001 + V86050002		
(3D)AA	Voltage 12 Vdc (centre “Y” spool)	C4V0422Y2FEL001 + V86050002		
(3D)AB	Voltage 24 Vdc (centre “Y” spool)	C4V0422Y2FEM001 + V86050002		
(3E)AA	Voltage 12 Vdc (direct “D” spool)	C4V0422D2FEL001 + V86050002		
(3E)AB	Voltage 24 Vdc (direct “D” spool)	C4V0422D2FEM001 + V86050002		

Sect. II - FPE Cavity 3

FPE	*	(...)	2	D(**)	**	3	..	**	+	*
										Cavity
										Type
										Features
										Flow control valve can be combined with plug TC



FPE

II

3 FA * *Bidirectional flow control valves not compensated*

*	Description	Code	Symbol	Drawing
A	Screw adjustment	CSB04C0000		
B	Plastic knob adjustment	CSB04V0000		

3 FB * *Bidirectional flow control valves compensated*

*	Description	Code	Symbol	Drawing
A	Screw adjustment	CSC04C000		
B	Plastic knob adjustment	CSC04V000		

FPE

3 T * *Plugs and fittings*

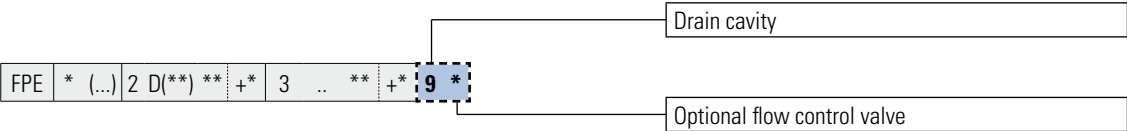
*	Description	Code	Symbol	Drawing
C	Plug 3/4 16 UNF (1)	R78150099		

3 T C *Flow control valves (1)*

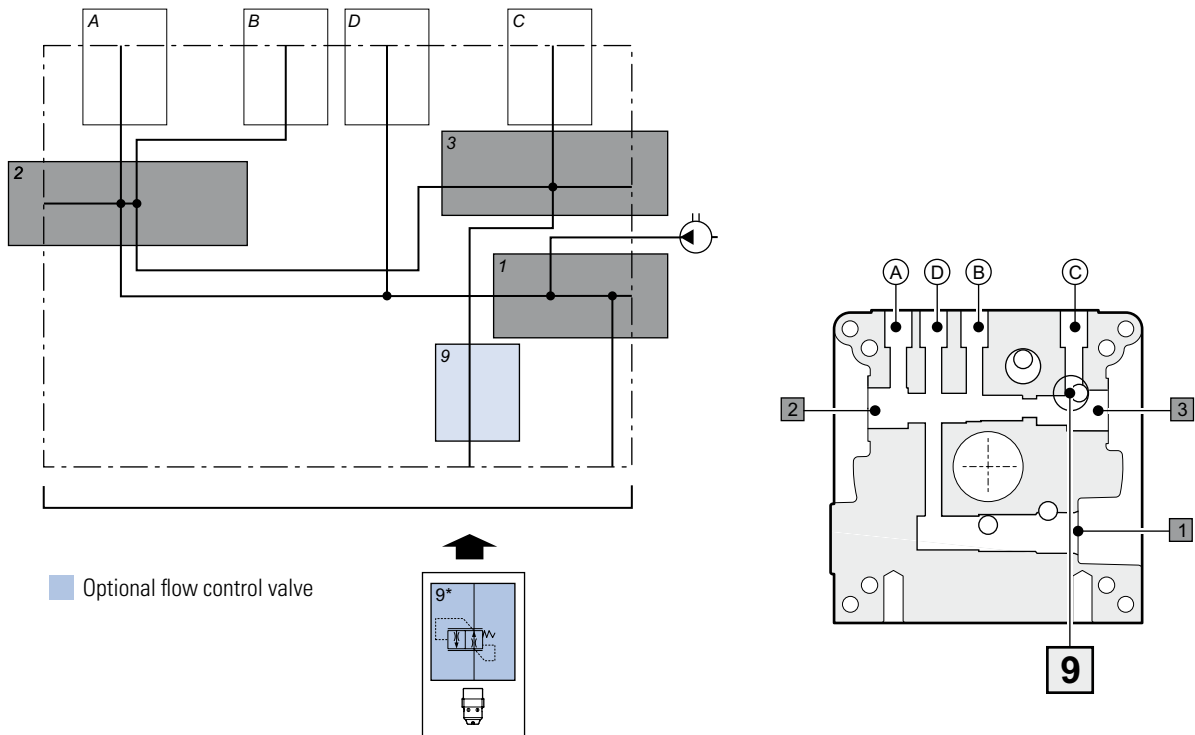
*	Flow	Code	Symbol	Drawing
+B	1.4 l/min	VSC040101		
+C	2.3 l/min	VSC040201		
+E	2.8 l/min	VSC040301		
+G	4.3 l/min	VSC040401		
+J	5.2 l/min	VSC040601		
+L	6.5 l/min	VSC040801		
+N	8.0 l/min	VSC041101		
+Q	11.1 l/min	VSC041601		

(1) I The flow control valve can be installed with the plug TC

Sect. II - FPE Cavity 9



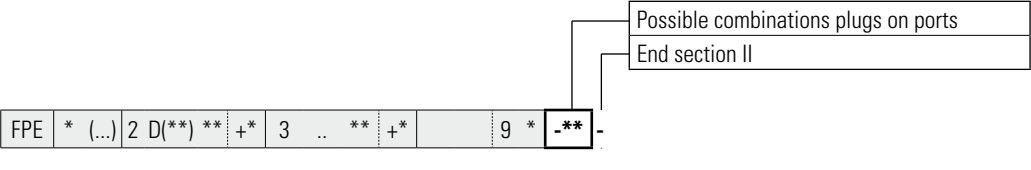
Drain cavity, omit if not required flow control valve



9 * *Flow control valves*

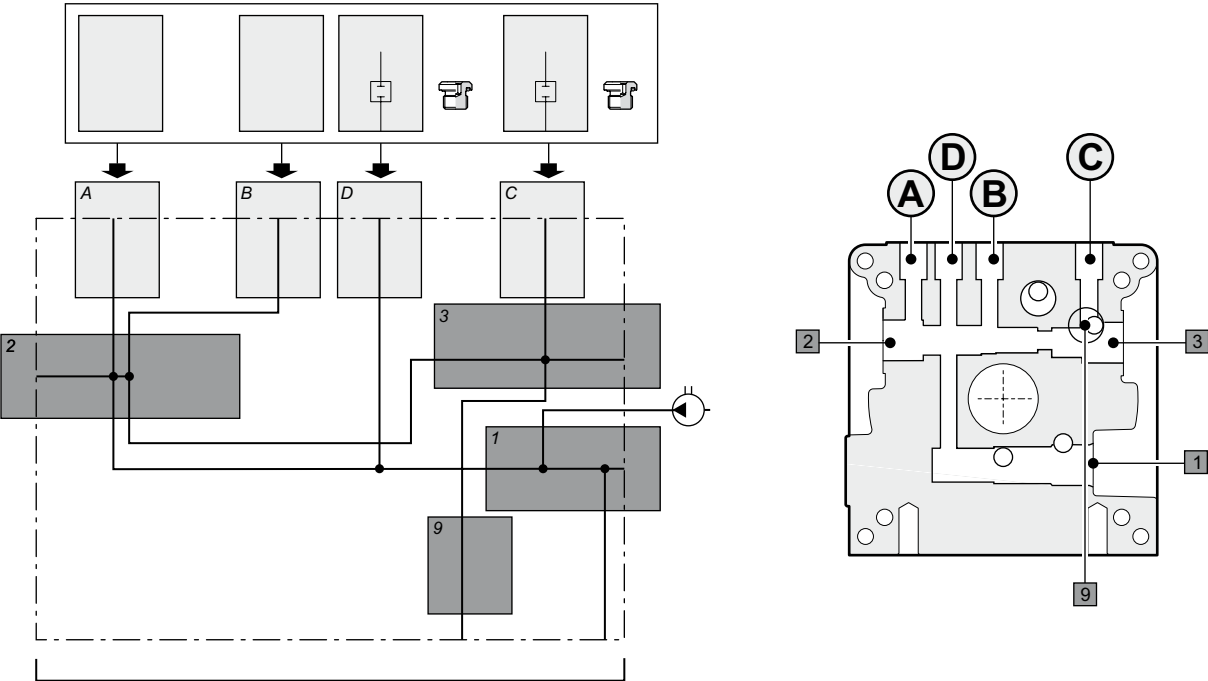
*	Nominal flow at 120 bar	Code	Symbol	Drawing
C	2.1 l/min	VSC06130002		
E	3.2 l/min	VSC06150002		
G	4.7 l/min	VSC06190002		
K	6.3 l/min	VSC06220002		
N	7.5 l/min	VSC06240002		
Q	10.0 l/min	VSC06280002		
U	13.2 l/min	VSC06330002		
V	15.7 l/min	VSC06350002		

Sect. II - FPE Ports A-B-C-D



FPE

II



_-**

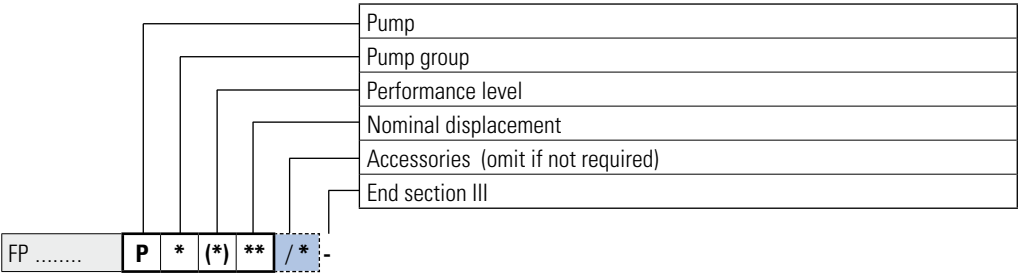
Possible combinations plugs on ports A-B-C-D

Symbols description				
_**	A	B	C	D
-01	△	△	△	□
-04	△	△	□	□

Type	Description	Code	Symbol	Drawing
□	Port closed with plug	20024000		
△	Port with protection	—	—	—
—	Open port	—	—	—

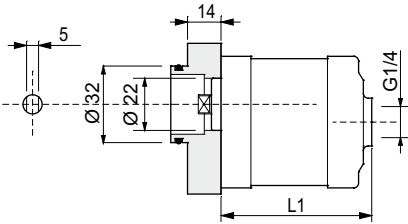
With the FPE hydraulic power pack, cannot be mounted the standard blocks.

Sect. III - Pumps



P 0 (1) **

Pumps group 05 - Performance level 1



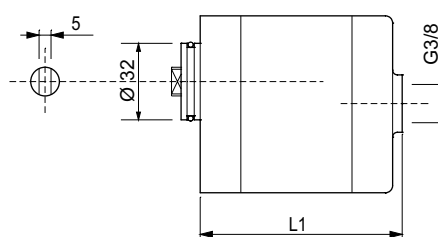
**	Nominal displacement	Tolerance on geometric displacement	P2 bar	P3 bar	Code complete kit	L1 mm	Tanks not compatible (•)								Motors not compatible
							S01A		S09E		S02G		All		
							(H)	(V)	(H)	(V)	(H)	(V)	(H)	(V)	
02	0.25 cc	0.25 ÷ 0.33	230	250	17050037.002	56									M4FB(1) - M4GJ(1)
04	0.45 cc	0.45 ÷ 0.55	230	250	17050036.002	63									MM*PA(1) - MM*P*(1)
05	0.56 cc	0.56 ÷ 0.68	230	250	17050039.002	64			•		•				M*AA(1)D - M*AA(1)G M*AA(1)H
07	0.75 cc	0.69÷ 0.82	230	250	17050038.002	66			•		•				M*AB(1)D - M*AB(1)G M*AB(1)H
09	0.92 cc	0.83 ÷ 0.95	230	250	17050053.002	67			•		•				

P2 = Intermittent operating pressure
P3 = Intermittent peak pressure (20 sec. max)

Tanks not compatible (as dimensions, see page 46)
Motors not compatible (interface and transmission not supplied, see pages 61 - 67)



P 1 (1) ** Pumps group 1 - Performance level 1



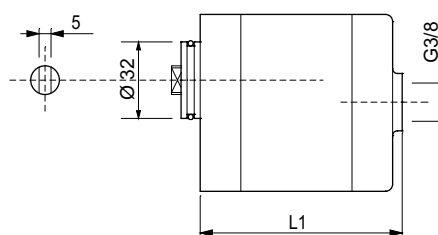
**	Nominal displacement	Tolerance on geometric displacement	P2 bar	P3 bar	Code complete kit	L1 mm	Tanks not compatible (•)							
							S01A		S09E		S02G		All	
							(H)	(V)	(H)	(V)	(H)	(V)	(H)	(V)
07	0.80 cc	0.69 ÷ 0.82	170	210	17050107.018	72.4			•					
10	1.00 cc	0.96 ÷ 1.09	170	210	17050088.018	73.5			•					
12	1.20 cc	1.10 ÷ 1.30	250	290	17050005.018	74.8			•					
17	1.70 cc	1.50 ÷ 1.70	250	290	17050006.018	76.2			•					
22	2.20 cc	2.10 ÷ 2.30	250	290	17050007.018	78.2			•					
26	2.60 cc	2.50 ÷ 2.70	250	290	17050008.018	79.7			•		•			
32	3.20 cc	3.10 ÷ 3.32	250	290	17050009.018	82.0			•		•			
38	3.80 cc	3.60 ÷ 3.99	250	290	17050010.018	84.0			•		•			
43	4.30 cc	4.00 ÷ 4.35	250	290	17050011.018	86.6			•		•			
48	4.80 cc	4.85 ÷ 4.95	225	260	17050033.018	88.1			•		•			
60	6.00 cc	5.62 ÷ 6.02	185	215	17050012.018	92.2	•		•	•	•	•		
78	7.80 cc	7.48 ÷ 7.90	140	160	17050013.018	98.9	•	•	•	•	•	•		
98	9.80 cc	9.60 ÷ 10.00	110	125	17050054.018	107.2	•	•	•	•	•	•		

P2 = Intermittent operating pressure

P3 = Intermittent peak pressure (20 sec. max)

Tanks not compatible (as dimensions, see page 46).

P 1 (2) ** / * Pumps group 1 - Performance level 2



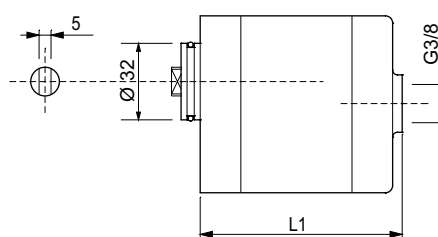
**	Nominal displacement	Tolerance on geometric displacement	P2 bar	P3 bar	Code complete kit	L1 mm	Tanks not compatible (•)							
							S01A		S09E		S02G		All	
							(H)	(V)	(H)	(V)	(H)	(V)	(H)	(V)
09	0.90 cc	0.83 ÷ 0.95	210	250	17050088.014	42.2								
12	1.20 cc	1.10 ÷ 1.30	210	250	17050005.014	43.5								
17	1.70 cc	1.50 ÷ 1.70	210	250	17050006.014	45.3								
22	2.20 cc	2.10 ÷ 2.30	210	250	17050007.014	49.2								
26	2.60 cc	2.50 ÷ 2.70	210	250	17050008.014	50.7								
32	3.20 cc	3.10 ÷ 3.32	210	250	17050009.014	60.9								
38	3.80 cc	3.60 ÷ 3.99	210	250	17050010.014	63.1			•					
43	4.30 cc	4.00 ÷ 4.35	210	250	17050011.014	63.4			•					

P2 = Intermittent operating pressure

P3 = Intermittent peak pressure (20 sec. max)

Tanks not compatible (as dimensions, see page 46).

P 1 (3) ** Pumps group 1 - Performance level 3



**	Nominal displacement	Tolerance on geometric displacement	P2 bar	P3 bar	Code complete kit	L1 mm	Tanks not compatible (•)							
							S01A		S09E		S02G		All	
							(H)	(V)	(H)	(V)	(H)	(V)	(H)	(V)
12	1.20 cc	1.10 ÷ 1.30	170	210	17050005.019	75			•					
17	1.70 cc	1.50 ÷ 1.70	170	210	17050006.019	76			•					
22	2.20 cc	2.10 ÷ 2.30	170	210	17050007.019	78			•					
26	2.60 cc	2.50 ÷ 2.70	170	210	17050008.019	80			•		•			
32	3.20 cc	3.10 ÷ 3.32	170	210	17050009.019	82			•		•			
38	3.80 cc	3.60 ÷ 3.99	170	210	17050010.019	84			•		•			
43	4.30 cc	4.00 ÷ 4.35	170	210	17050011.019	86			•		•			

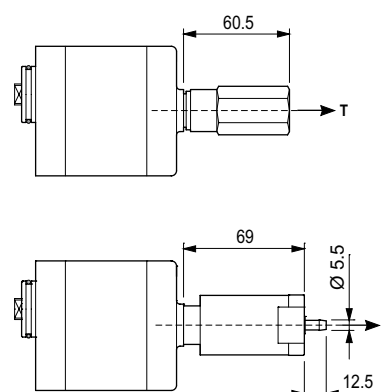
P2 = Intermittent operating pressure

P3 = Intermittent peak pressure (20 sec. max)

Tanks not compatible (as dimensions, see page 46).

P 1 (2) ** / * Accessories for pumps group 1 (only for performance level 2)

*	Description	Type	Code	Symbol
/A	Single-phase motor start valve - on auxiliary outlet	0.8 ÷ 2.5 l/min	VAM0400L	
/B		> 2.5 ÷ 8.0 l/min	VAM0400M	
/C		> 8.0 ÷ 14 l/min	VAM0400H	
/D	Soft start valve - on auxiliary outlet	hole Ø 0.4 mm	VAMS0404001	



**	With accessory	Tanks not compatible (•)			
		S01A	S09E	S02G	All
09	/A /B /C				
	/D	•	•	•	
12	/A /B /C				
	/D	•	•	•	
17	/A /B /C				
	/D	•	•	•	
22	/A /B /C				
	/D	•	•	•	
26	/A /B /C				
	/D	•	•	•	
32	/A /B /C				
	/D	•	•	•	
38	/A /B /C				
	/D	•	•	•	
43	/A /B /C				
	/D	•	•	•	

Tanks not compatible (as dimensions, see page 46).

Tank (S = with tank and tubes kit; G = only tubes kit, without tank; OMIT if without tank and without tubes kit)
Capacity liters
Features (material and construction)
Mounting position: (H = horizontal; V = vertical)
Variants (00 = standard, no variant) - OMIT if with tubes kit
Orientation - OMIT if with tubes kit in vertical mounting position
End section IV and V

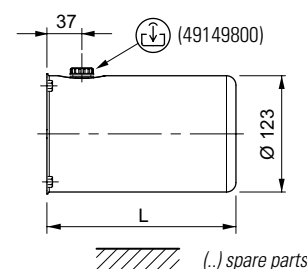
FP * ** * (*) ** /* -

**	Liters	* Dimensions (mm)	Material	(*) Mounting	** Variants	Page	* Orientation	Page	
01	1	A Ø 123 - L 141	Sheet steel	(H)	00	47	/1(std) /2 /3 /4	59	
02	1,5	G Ø 130x140 - L 135	Polyethylene	(V)	00				
				(H)	00				
	2	A Ø 123 - L 200	Sheet steel	(V)	00	56			
				(H)	00				
03	2,5	G Ø 130x140 - L 235	Polyethylene	(V)	00	47			
				(H)	00				
	3	A Ø 123 - L 330	Sheet steel	(V)	00	56			
				(H)	00				
04	4	G Ø 130x140 - L 295	Polyethylene	(V)	00	57			
				(H)	00				
	4	L Ø 180 - L 210	Polyethylene	(V)	00	48			
				(H)	00				
05	5	B Ø 175 - L 246	Sheet steel	(V)	00-01-02-03-04	49			
				(H)	00				
	5	C Ø 200 - L 210	Sheet steel	(V)	00	55			
				(H)	00				
06	5	F Ø 180 - L 240	Polypropylene	(V)	00	48			
				(H)	00				
	6	B Ø 175 - L 308	Sheet steel	(V)	00-04	51			
				(H)	00				
07	7	E Ø 154x188 - L 299	Sheet steel	(V)	00-01	58			
				(H)	00				
	7	F Ø 180 - L 306	Polypropylene	(V)	00	49			
				(H)	00				
08	7	L Ø 180 - L 310	Polyethylene	(V)	00	52			
				(H)	00				
	8	B Ø 175 - L 370	Sheet steel	(V)	00-04	50			
				(H)	00				
09	8	C Ø 200 - L 306	Sheet steel	(V)	00	58			
				(H)	00				
	9	E Ø 230x130 - L 350	Sheet steel	(V)	00	50			
				(H)	00				
10	10	C Ø 200 - L 373	Sheet steel	(V)	00	53			
				(H)	00				
	10	D Ø 217 - L 273	Sheet steel	(V)	00	54			
				(H)	00				
11	10	L Ø 180 - L 410	Polyethylene	(V)	00	50			
				(H)	00				
	12	12	D Ø 217 - L 370	Sheet steel	(V)	00			53
					(H)	00			
12	14	E Ø 255x193 - L 366	Sheet steel	(V)	00-01	54			
				(H)	00-01				
	25	25	E Ø 250x255 - L 436	Sheet steel	(V)	00-01			
					(H)	00-01			

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (H) ** * - Tanks Ø 123 - Sheet steel, capacity 1-2-3 liters - Horizontal mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plug)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
01				141	1	1.0	0.7	90310000	17010080
02	A	(H)	00	200	2	1.6	1.5	90310001	
03				330	3	3	2.8	90310002	



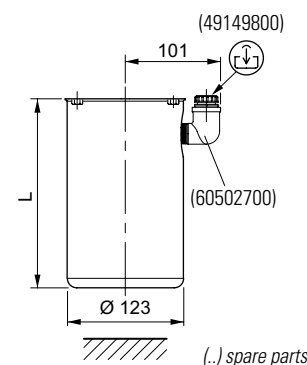
(1) Variant - OMIT if without tank but with tubes kit

Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

* ** * (V) ** * - Tanks Ø 123 - Sheet steel, capacity 1-2-3 liters - Vertical mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plug)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
01				141	1	0.9	0.7	90310009	17010080
02	A	(V)	00	200	2	1.6	1.5	90310010	
03				330	3	2.9	2.9	90310011	



(1) Variant - OMIT if without tank but with tubes kit

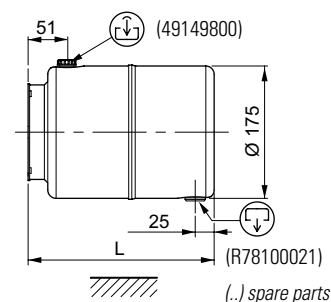
Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (H) ** * - Tanks Ø 175 - Sheet steel, capacity 5-6-8 liters - Horizontal mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
05				246	5	4.7	4.5	90310003	17010080
06	B	(H)	00	308	6	6	5.9	90310004	
08				370	8	8	7.3	90310005	



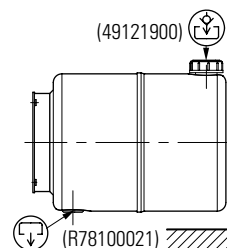
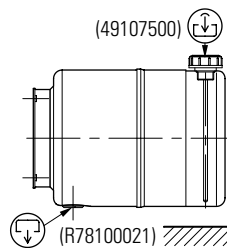
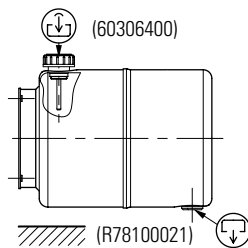
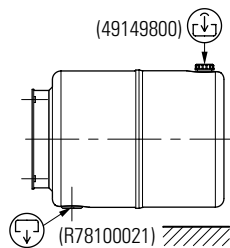
(1) Variant - OMIT if without tank but with tubes kit

Other variants

Variant				Tank			
05				05			90310149
06	B	(H)	01	06	B	(H)	02
08				08			

Variant				Tank			
05				05			90310134
06	B	(H)	03	06	B	(H)	04
08				08			90310069

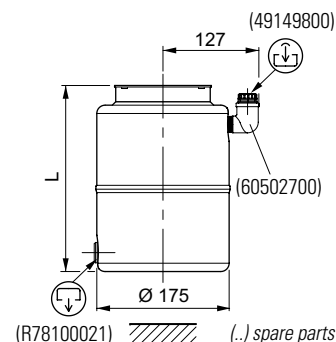
Variant				Tank			
05				05			90310176
06	B	(H)	05	06	B	(H)	06
08				08			



IV
V

* ** * (V) ** * - Tanks Ø 175 - Sheet steel, capacity 5-6-8 liters - Vertical mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
05				246	5	4.3	4.1	90310012	17010080
06	B	(V)	00	308	6	5.8	5.5	90310013	
08				370	8	7.5	7.2	90310015	



(1) Variant - OMIT if without tank but with tubes kit

Other variants

Variant				Tank			

Variant				Tank			

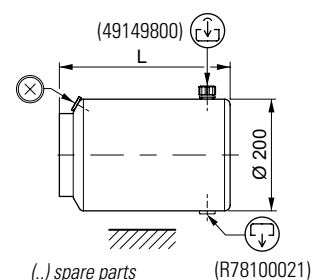
Variant				Tank			

Variant				Tank			

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (H) ** * - Tanks Ø 200 - Sheet steel, capacity 5-8-10 liters - Horizontal mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
05				210	5	5.3	5.0	90310425	17010080
08	C	(H)	00	306	8	8.0	7.7	90310428	
10				373	10	10	9.3	90310431	



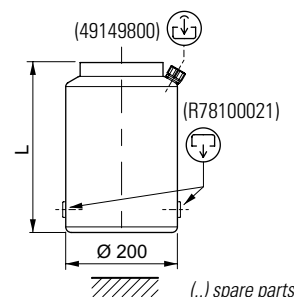
(1) Variant - OMIT if without tank but with tubes kit

Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

* ** * (V) ** * - Tanks Ø 200 - Sheet steel, capacity 5-8-10 liters - Vertical mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
05				210	5	4.6	4.3	90310444	17010080
08	C	(V)	00	306	8	7.5	7.1	90310437	
10				373	10	9.5	9.1	90310439	



(1) Variant - OMIT if without tank but with tubes kit

Other variants

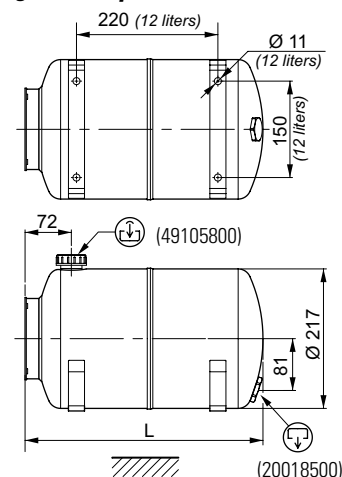
Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (H) ** * - Tanks Ø 217 - Sheet steel, capacity 10-12 liters - Horizontal mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
10	D	(H)	00	273	10	8	7.6	90310006	17010080
12				370	12	12	11	90310058	

(1) Variant - OMIT if without tank but with tubes kit



Other variants

(...) spare parts

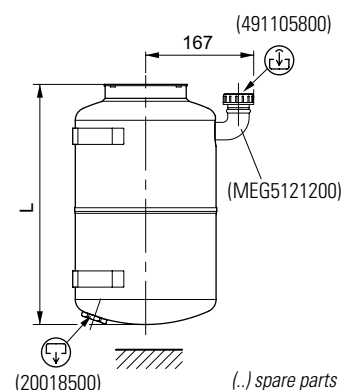
Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

IV
V

* ** * (V) ** * - Tanks Ø 217 - Sheet steel, capacity 10-12 liters - Vertical mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
10	D	(V)	00	273	10	7	6.8	90310029	17010080
12				370	12	10.3	10.1	90310100	

(1) Variant - OMIT if without tank but with tubes kit



Other variants

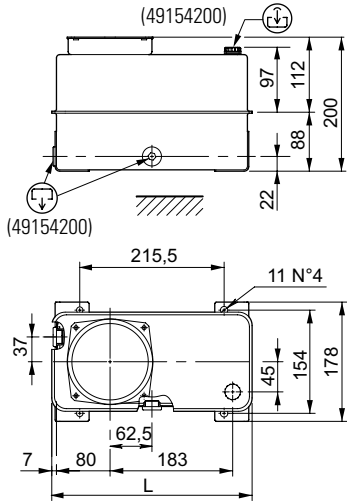
Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (V) ** * - Rectangular tanks - Sheet steel, capacity 7 liters - Vertical mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
07	E	(V)	00	299	7	5.5	5.1	90310014	17010080

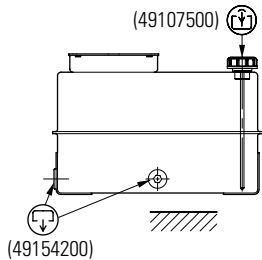
(1) Variant - OMIT if without tank but with tubes kit



(..) spare parts

Other variants

Variant	Tank			Variant	Tank			Variant	Tank			Variant	Tank		
07	E	(V)	01												



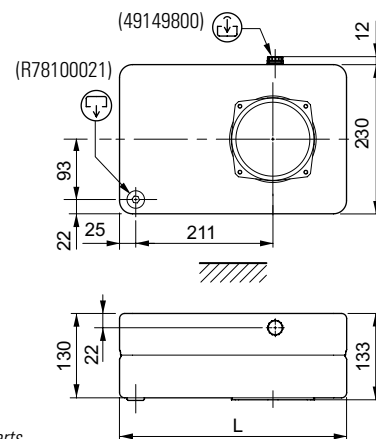
IV
V

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (H) ** * - Rectangular tanks - Sheet steel, capacity 9 liters - Horizontal mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
09	E	(H)	00	350	9	9	8	90310142	17010080

(1) Variant - OMIT if without tank but with tubes kit



Other variants

(...) spare parts

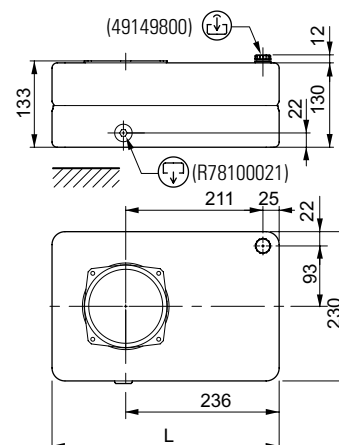
Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

IV
V

* ** * (V) ** * - Rectangular tanks - Sheet steel, capacity 9 liters - Vertical mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
09	E	(V)	00	350	9	8.6	7.5	90310142	17010080

(1) Variant - OMIT if without tank but with tubes kit



Other variants

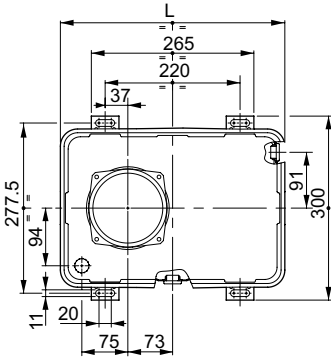
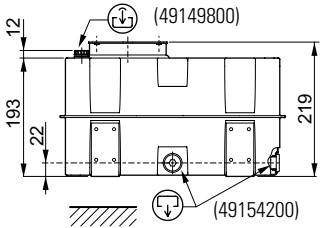
(...) spare parts

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (*) ** * - Rectangular tanks - Sheet steel, capacity 14 liters - Vertical mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
14	E	(V)	00	366	14	14	13	90310045	17010080

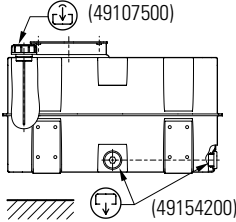


(1) Variant - OMIT if without tank but with tubes kit

(...) spare parts

Other variants

Variant				Tank				Variant				Tank				Variant				Tank			
14	E	(V)	01																				



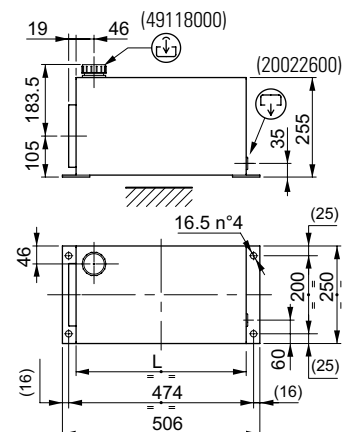
IV
V

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (*) ** * - Rectangular tanks - Sheet steel, capacity 25 liters - Horizontal mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
25	E	(H)	00	436	25	22	21	90310060	17010080

(1) Variant - OMIT if without tank but with tubes kit



(...) spare parts

Other variants

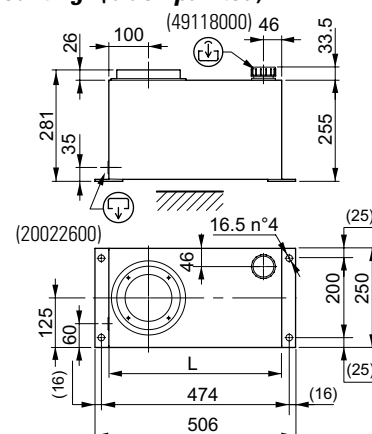
Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank
25 E (H) 01	90310083						

IV V

* ** * (*) ** * - Rectangular tanks - Sheet steel, capacity 25 liters - Vertical mounting (black painted)

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
25	E	(V)	00	436	25	25	22	90310071	17010080

(1) Variant - OMIT if without tank but with tubes kit



(...) spare parts

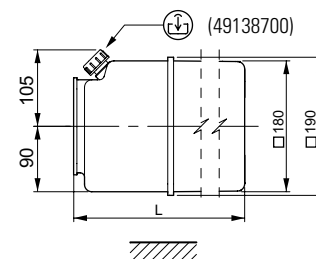
Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank
25 E (V) 01	90310124						

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (H) ** * - Square polypropylene tanks capacity 5-7 liters - Horizontal mounting

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plug, brackets, nuts)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
05	F	(H)	00	242	5	5.4	4.5	90310313	17010083
07				306	7	7.4	6.5	90310289	



Operating temperature -10°C ÷ +60°C - (1) Variant - OMIT if without tank but with tubes kit

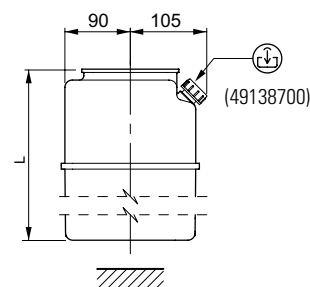
(...) spare parts

Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

* ** * (V) ** * - Square polypropylene tanks capacity 5-7 liters - Vertical mounting

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plug, brackets, nuts)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
05	F	(V)	00	242	5	5.4	4.5	90310313	17010083
07				306	7	7.4	6.5	90310289	



Operating temperature -10°C ÷ +60°C - (1) Variant - OMIT if without tank but with tubes kit

(...) spare parts

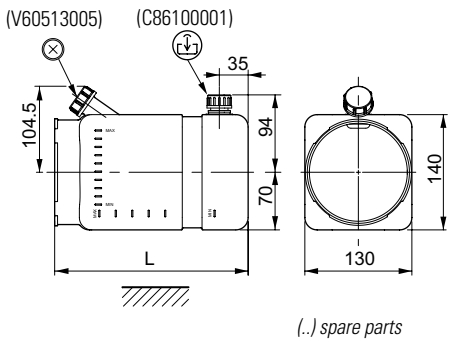
Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (H) ** * - Square polyethylene tanks capacity 1.5-2.5-4 liters - Horizontal mounting

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs, clamp, nuts)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
02				135	1.5	1.3	1	90310396	17010081
03	G	(H)	00	235	2.5	2.5	2	90310405	
04				295	4	3.4	2.5	90310422	



Operating temperature -10°C ÷ +70°C - (1) Variant - OMIT if without tank but with tubes kit

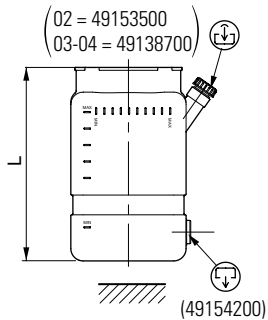
Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

IV
V

* ** * (V) ** * - Square polyethylene tanks capacity 1.5-2.5-4 liters - Vertical mounting

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs, clamp, nuts)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
02				135	1.5	1.1	0.7	90310397	17010081
03	G	(V)	00	235	2.5	2.7	2.3	90310404	
04				296	4	3.5	3.1	90310402	



Operating temperature -10°C ÷ +70°C - (1) Variant - OMIT if without tank but with tubes kit

Other variants

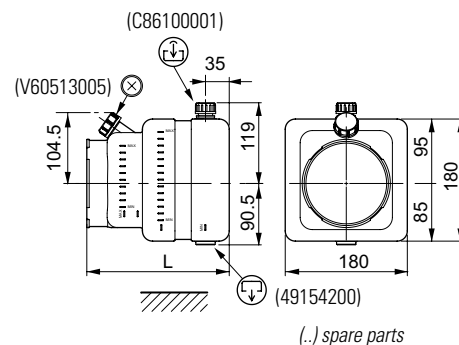
Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

Sect. IV - Tanks / Sect. V - Tubes kit

*** ** * (H) ** *** - **Square polyethylene tanks capacity 4 liters - Horizontal mounting**

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs, clamp, nuts)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
04	L	(H)	00	210	4	3.6	3	90310331	17010081

Operating temperature -10°C ÷ +70°C - (1) Variant - OMIT if without tank but with tubes kit



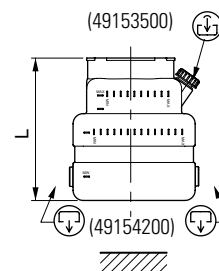
Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

*** ** * (V) ** *** - **Square polyethylene tanks capacity 4 liters - Vertical mounting**

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs, clamp, nuts)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
04	L	(V)	00	210	4	3.7	3	90310332	17010081

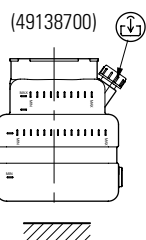
Operating temperature -10°C ÷ +70°C - (1) Variant - OMIT if without tank but with tubes kit



(...) spare parts

Other variants

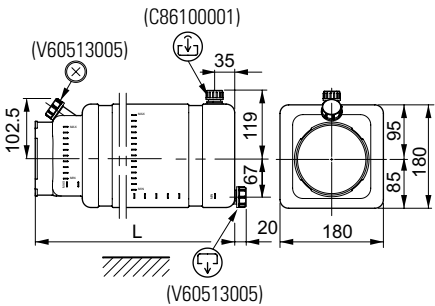
Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank
04	L (V) 01						
	90310433						



Sect. IV - Tanks / Sect. V - Tubes kit

Square polyethylene tanks capacity 7-10 liters - Horizontal mounting

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs, clamp, nuts)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
07	L (H)	00		310	7	6.7	5.5	90310330	17010081
10				410	10	8.7	7.5	90310339	



Operating temperature -10°C ÷ +70°C - (1) Variant - OMIT if without tank but with tubes kit

(...) spare parts

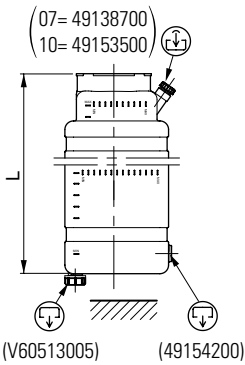
Other variants

Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

IV V

Square polyethylene tanks capacity 7-10 liters - Vertical mounting

Capacity	Features	Mounting	Variant (1)	L (mm)	Capacity (liters)			Tank (with plugs, clamp, nuts)	Tank fixing kit (screws and O-Ring)
					Nominal	Full	Usable		
07	L (V)	00		310	7	6.7	6	90310403	17010081
10				410	10	9.8	9	90310338	



Operating temperature -10°C ÷ +70°C - (1) Variant - OMIT if without tank but with tubes kit

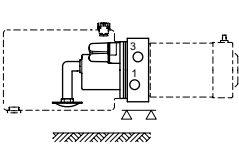
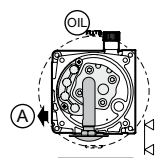
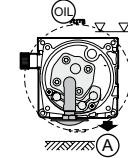
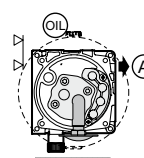
(...) spare parts

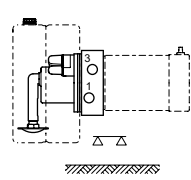
Other variants

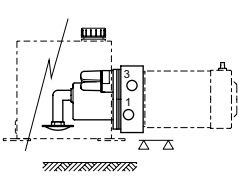
Variant	Tank	Variant	Tank	Variant	Tank	Variant	Tank

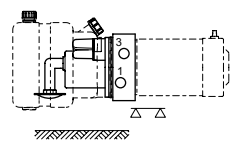
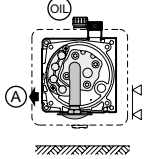
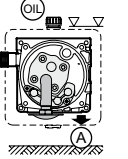
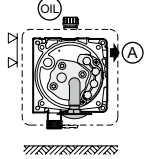
Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (*) ** /* - Tanks orientation according to the mounting position

For tanks			(*)	Mounting position	/* Orientation			
					/1 (standard)	/2	/3	/4
S	**	A B C D	(H)	Horizontal	 (1)			

For tanks			(*)	Mounting position	/1 (standard)	/* Orientation		
S	09	E	(H)	Horizontal				

For tanks			(*)	Mounting position	/1 (standard)	/* Orientation		
S	25	E	(H)	Horizontal				

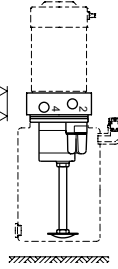
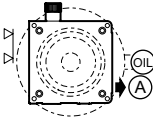
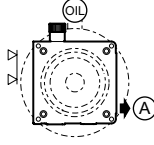
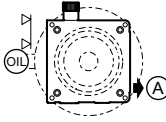
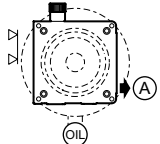
For tanks			(*)	Mounting position	/1 (standard)	/* Orientation		
					/1 (standard)	/2	/3	/4
S	**	F G L	(H)	Horizontal	 (1)			

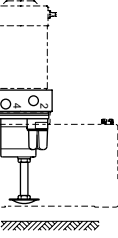
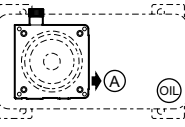
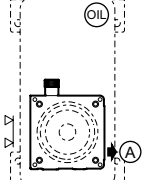
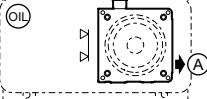
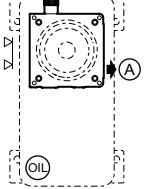
(1) Orientation TO BE USED with blocks

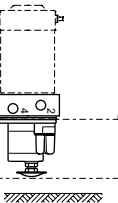
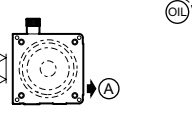
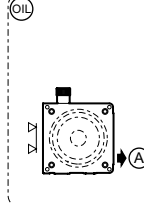
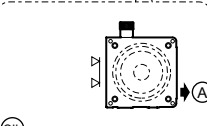
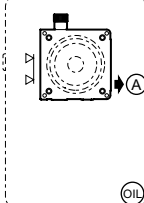
IV
V

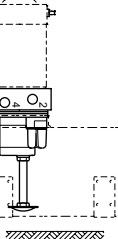
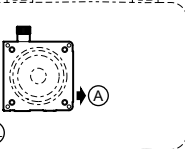
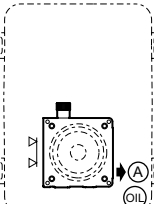
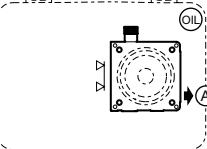
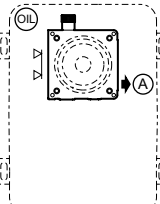
Sect. IV - Tanks / Sect. V - Tubes kit

* ** * (*) ** /* - Tanks orientation according to the mounting position

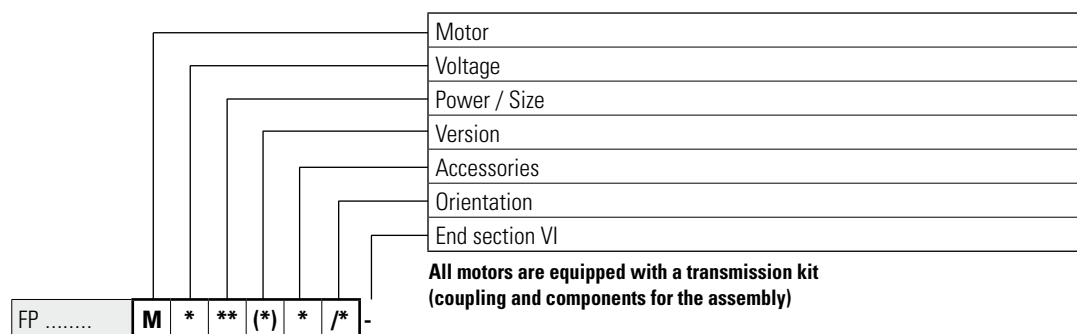
For tanks			(*)	Mounting position	/* Orientation			
					/1 (standard)	/2	/3	/4
S	**	A B C D F G L	(V)	Vertical 	 (2)			

For tanks			(*)	Mounting position	/* Orientation			
					/1 (standard)	/2	/3	/4
S	07	E	(V)	Vertical 	 (1)			

For tanks			(*)	Mounting position	/* Orientation			
					/1 (standard)			
S	09 25	E	(V)	Vertical 	 (1)			

For tanks			(*)	Mounting position	/* Orientation			
					/1 (standard)	/2	/3	/4
S	14	E	(V)	Vertical 	 (1)			

(1) Orientation TO BE USED with blocks
(2) DO NOT USE with blocks



*	Voltage	**	Power	Size	(*)	Version	Page	* Accessories	/* Orientation	Page
2	12 VDC	GA	350 W	Ø 80	(1)	Std	62	0 - B	/1 /2 Std /3 /4	66
		HF	500 W	Ø 80	(1)	Std	62	0 - B		
		GC	700 W	Ø 80	(1)	Std	62	0 - B		
		GU	800 W	Ø 80	(1)	Std	62	0 - B		
		AA	1500 W	Ø 115	(1)	Std	63	0 - B - C - D - F - G - H		
		EN	1600 W	Ø 115	(1)	Std	63	0 - B - C - E		
4	24 VDC	GN	1600 W	Ø 115	(1)	Std	64	0 - B - C - E		
		GB	400 W	Ø 80	(1)	Std	62	0 - B		
		HE	500 W	Ø 80	(1)	Std	62	0 - B		
		GZ	800 W	Ø 80	(1)	Std	62	0 - B		
		GD	800 W	Ø 80	(1)	Std	62	0 - B		
		AB	2000 W	Ø 115	(1)	Std	63	0 - B - C - D - F - G - H		
		ES	2200 W	Ø 115	(1)	Std	63	0 - B - C - E		
		GP	2200 W	Ø 115	(1)	Std	64	0 - B - C - E		
		GJ	3000 W	Ø 125	(1)	Std	64	0 - B - C - E		
		FB	3000 W	Ø 125	(1)	Std	64	0 - B - C - E		

*	Accessories description	Page
0	Without accessories	—
B	Starting switch	65
C	Thermal protection	—
D (•)	Ventilation	65
E	Starting switch + thermal protection	—
F (•)	Starting switch + ventilation	—
G	Thermal protection + ventilation	—
H (•)	Starting switch + thermal protection + ventilation	—

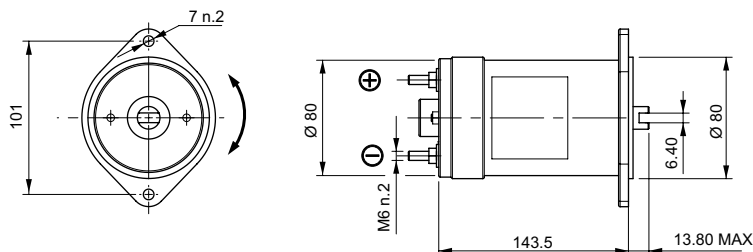
(•) = IP protection level becomes effective after installation on power pack.
Acquires IP 10 level with "ventilation" accessory.

Motors: 12 VDC 350 W / 24 VDC 400 W (permanent magnets)

	Voltage	W	A	rpm	Nm	S2 min	S3%	IP	IC	Ø mm	Code (⊗)
M 2 GA (1) * / *	12 VDC	350	40	3300	1.0	10	35	54	F	80	25021400
M 4 GB (1) * / *	24 VDC	400	30	3100	1.2	5	20	54	F	80	25021500

IP protection level becomes effective after installation on power pack.

(⊗) Motor without accessories



M * ** (*) * / * - Accessories (page 65)

*	Description
0	Without accessories
B	Starting switch 120A fixing with clamp

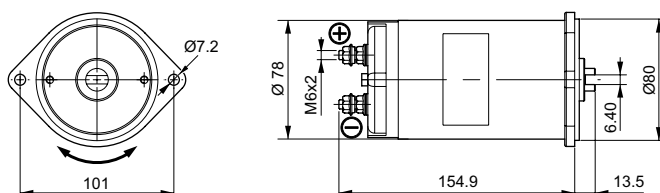
Code trasmission kit: page 71

Motors: 12 VDC 500-800 W / 24 VDC 800-800 W (permanent magnets)

	Voltage	W	A	rpm	Nm	S2 min	S3%	IP	IC	Ø mm	Code (⊗)
M 2 HF (1) * / *	12 VDC	500	64	2300	1.9	2.5	10	54	F	80	25024200
M 2 GU (1) * / *	12 VDC	800	66	3400	1.5	2.5	10	54	F	80	25021800
M 4 HE (1) * / *	24 VDC	500	31	2500	1.9	2.5	10	54	F	80	25024300
M 4 GZ (1) * / *	24 VDC	800	34	3400	1.5	2.5	10	54	F	80	25021900

IP protection level becomes effective after installation on power pack.

(⊗) Motor without accessories



M * ** (*) * / * - Accessories (page 65)

*	Description
0	Without accessories
B	Starting switch 120A

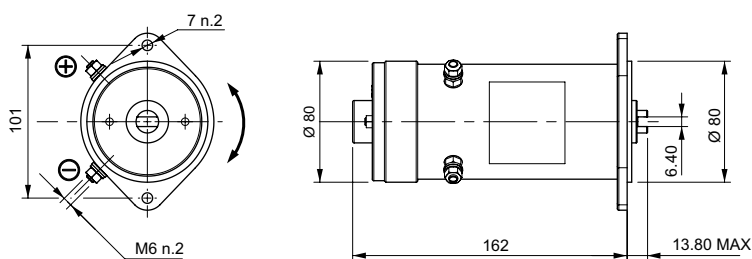
Code trasmission kit: page 71

Motors: 12 VDC 700 W / 24 VDC 800 W (permanent magnets)

	Voltage	W	A	rpm	Nm	S2 min	S3%	IP	IC	Ø mm	Code (⊗)
M 2 GC (1) * / *	12 VDC	700	90	3300	2.0	2.5	10	54	F	80	25021600
M 4 GD (1) * / *	24 VDC	800	70	3000	2.5	2	5	54	F	80	25021700

IP protection level becomes effective after installation on power pack.

(⊗) Motor without accessories



M * ** (*) * / * - Accessories (page 65)

*	Description
0	Without accessories
B	Starting switch 120A

Code trasmission kit: page 71

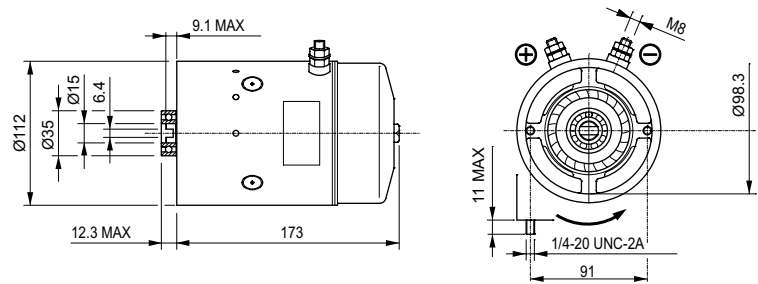
For more details, features and performances DC motors, see catalog Brevini Fluid Power code DOC00053.

Sect. VI - DC Motors

Motors: 12 VDC 1500 W / 24 VDC 2000 W (wound field compound)

	Voltage	W	A	rpm	Nm	S2 min	S3%	IP	IC	Ø mm	Code (⊗)
M 2 AA (1) * /*	12 VDC	1500	225	2500	5.5	1	5	54	F	115	25022200
M 4 AB (1) * /*	24 VDC	2000	150	2250	8	2	5	54	F	115	25022300

IP protection level becomes effective after installation on power pack.
(⊗) Motor without accessories



Code trasmission kit: page 71

M * ** (*) * /* - Accessories (page 65)

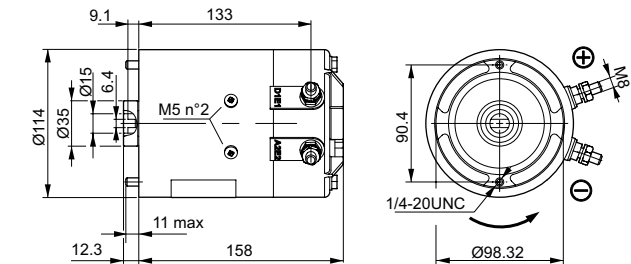
*	Description
0	Without accessories
B	Starting switch 120A
D	Ventilation
F	Ventilation + Starting switch
G	Ventilation + Thermal protection
H	Ventilation + Thermal protection + Starting switch

Acquires IP 10 protection level with "ventilation" accessory.

Motors: 12 VDC 1600 W / 24 VDC 2200 W (wound field compound)

	Voltage	W	A	rpm	Nm	S2 min	S3%	IP	IC	Ø mm	Code (⊗)
M 2 EN (1) * /*	12 VDC	1600	230	2600	5	2	10	54	F	115	25021100
M 4 ES (1) * /*	24 VDC	2200	140	2700	8	1.2	5	54	F	115	25021200

IP protection level becomes effective after installation on power pack.
(⊗) Motor without accessories



Code trasmission kit: page 71

M * ** (*) * /* - Accessories (page 65)

*	Description
0	Without accessories
B	Starting switch 120A
C	Thermal protection
E	Starting switch + thermal protection

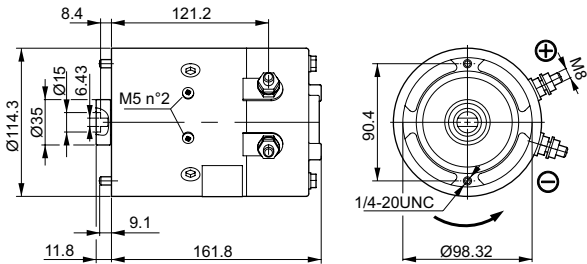
For more details, features and performances DC motors, see catalog Brevini Fluid Power code DOC00053.

Sect. VI - DC Motors

Motors: 12 VDC 1600 W / 24 VDC 2200 W (wound field serie)

	Voltage	W	A	rpm	Nm	S2 min	S3%	IP	IC	Ø mm	Code (⊗)
M 2 GN (1) * / *	12 VDC	1600	220	2600	6	4	8	54	F	115	25022600
M 4 GP (1) * / *	24 VDC	2200	140	2600	6	2	7.5	54	F	115	25022700

IP protection level becomes effective after installation on power pack.
 (⊗) Motor without accessories



M * ** (*) * / * - Accessories (page 65)

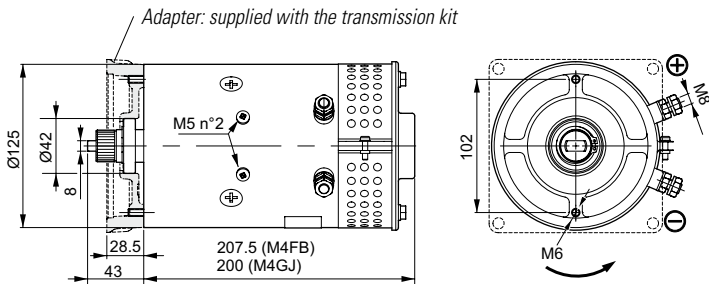
*	Description
0	Without accessories
B	Starting switch 120A

Code trasmission kit: page 71

Motors: 24 VDC 3000 W (wound field compound)

	Voltage	W	A	rpm	Nm	S2 min	S3%	IP	IC	Ø mm	Code (⊗)
M 4 FB (1) * / *	24 VDC	3000	200	3300	8.5	4	15	20	F	125	25021300
M 4 GJ (1) * / *	24 VDC	3000	180	3500	8.5	3.5	15	20	F	125	25022400

IP protection level becomes effective after installation on power pack.
 (⊗) Motor without accessories



M * ** (*) * / * - Accessories (page 65)

**	*	Description
FB GJ	0	Without accessories
	B	Starting switch 150A
	D	Ventilation
	F	Ventilation + Starting switch
FB	G	Ventilation + Thermal protection
	H	Ventilation + Thermal protection + Starting switch

Code trasmission kit: page 71

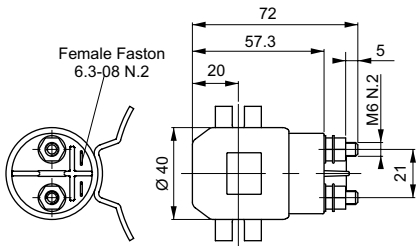
For more details, features and performances DC motors, see catalog Brevini Fluid Power code DOC00053.

Sect. VI - DC Motors

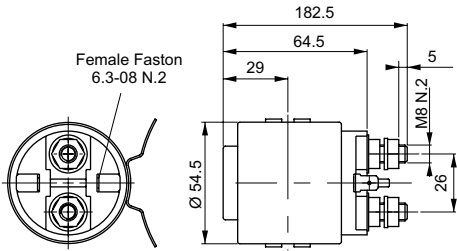
M * ** (*) **C** /* - **Accessory: Thermal protection**

Thermal protection	
Code	For motors
90340008	M2EN - M4ES

M * ** (*) **B** /* - **Accessory: Starting switch**



120A starting switch		
Code (•)	VDC	For motors
KIT07012.027	12	M2GA - M2HF - M2GU - M2GC
KIT07012.032	24	M4GB - M4HE - M4GZ - M4GD
KIT07012.033	12	M2AA
KIT07012.034	24	M4AB
KIT07012.025	12	M2EN - M2GN
KIT07012.026	24	M4ES - M2GP

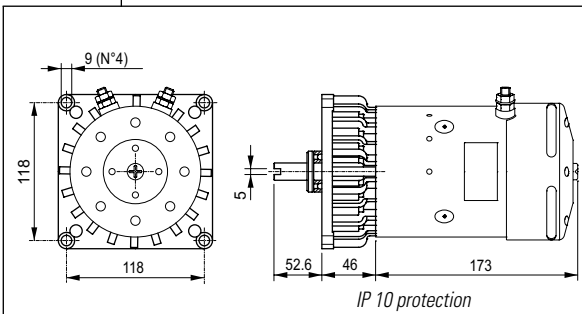


150A starting switch		
Code (•)	VDC	For motors
KIT07012.019	24	M4FB - M4GJ

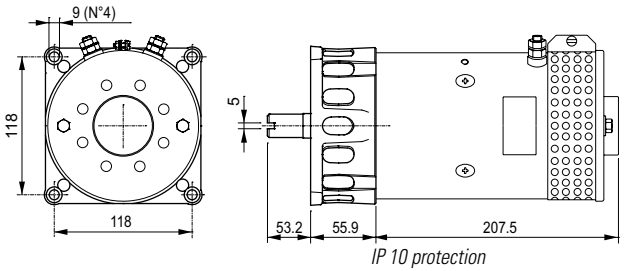
(•) Complete kit with all assembly components.

For more details, features and performances DC motors, see catalog Brevini Fluid Power code DOC00053.

M * ** (*) ***** /* - **Accessory: Ventilation (motor included)**



*	Code (•)	VDC	For motors
D	KIT09008.061	12	M2AA
G	KIT09008.062	12	M2AA + thermal protection
D	KIT09008.031	24	M2AB
G	KIT09008.063	24	M2AB + thermal protection



*	Code (•)	VDC	For motors
D	KIT09008.029	24	M2FB

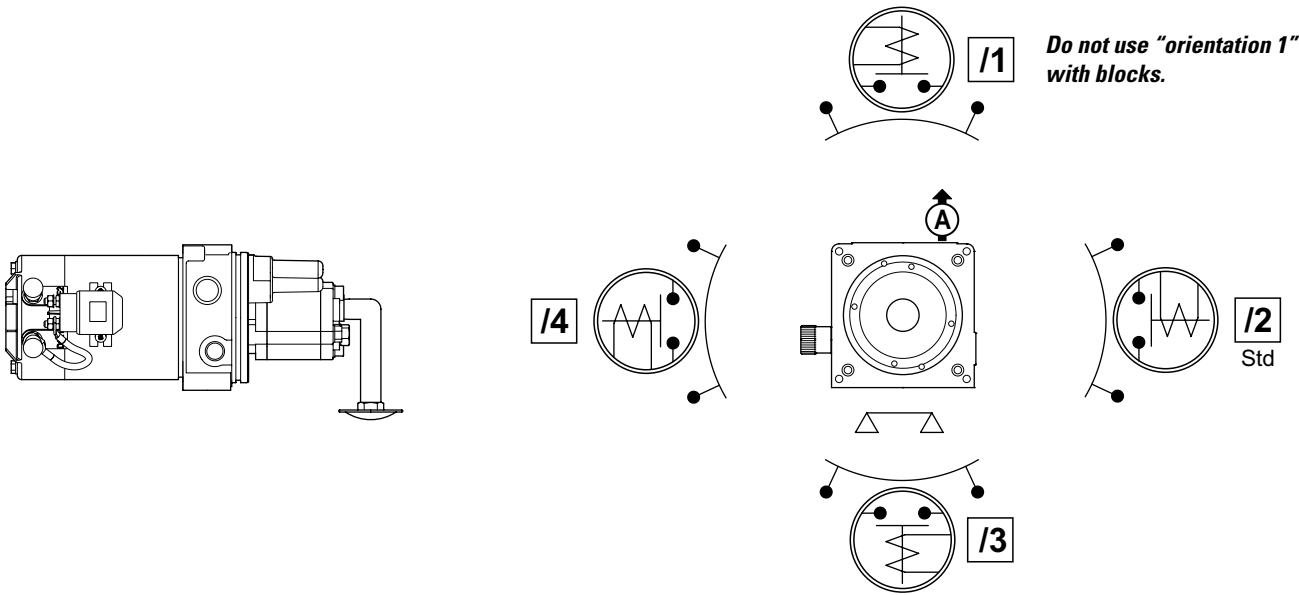
(•) Complete kit with all assembly components (motor, transmission kit, etc).

For more details, features and performances DC motors, see catalog Brevini Fluid Power code DOC00053.

Sect. VI - DC Motors

M * ** (*) * /* - Motor orientation

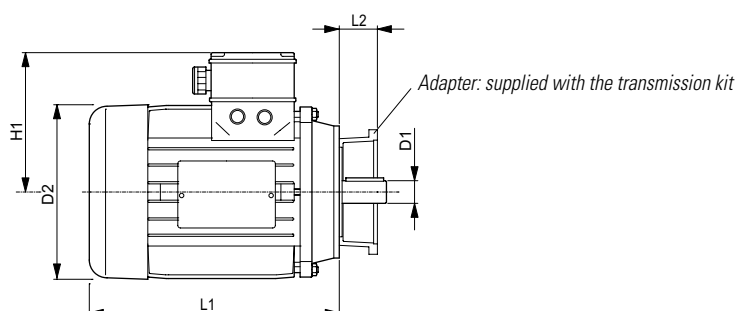
Starting switch and poles position.



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VI
AC

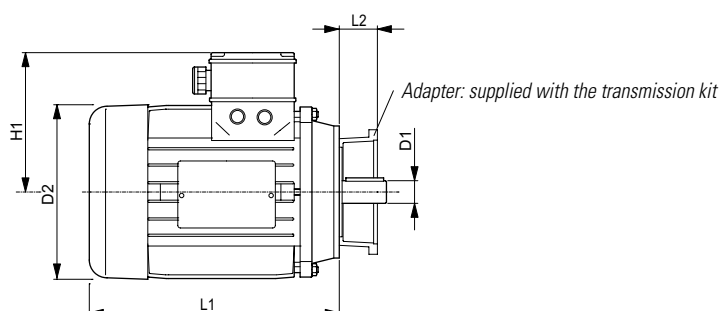
IE/FP-6AC/03-2015



Single-phase motors 2-4 Poles - 230 Vac 50Hz - Version B14

						Phases	Poles	Size	D1 (•)	D2 (•)	H1 (•)	L1 (•)	Power range					Cable gland metric thread	Adapter			Single Motor	Transmission kit (for pump)				
													Power kW	Voltage	IP	IC	S1		Code	Screw UNI 5931	L2						
M	M	2	L	A	(1)	2	2	71	14	148	115	208	0.37	230 Vac 50 Hz	54	F	Si	20-25	61000700	M6x20	19.5	M12E2000	KIT08019.011 (Gr.05) KIT08019.012 (Gr.1)				
M	M	2	L	B	(1)	2	2	71	14	148	115	208	0.55	230 Vac 50 Hz	54	F	Si	20-25	61000700	M6x20	19.5	M12F2000					
M	M	2	M	A	(1)	2	2	80	19	170	126	234	0.75	230 Vac 50 Hz	54	F	Si	20-25	61000800	M6x20	30.4	M13G2000	KIT08019.013 (Gr.05) KIT08019.014 (Gr.1)				
M	M	2	M	B	(1)	2	2	80	19	170	126	234	1.10	230 Vac 50 Hz	54	F	Si	20-25	61000800	M6x20	30.4	M13H2000					
M	M	2	N	A	(1)	2	2	90	24	185	142	247	1.50	230 Vac 50 Hz	54	F	Si	20-25	61000900	M8x21	40.4	M14L2000	KIT08019.015 (Gr.05) KIT08019.016 (Gr.1)				
M	M	2	N	B	(1)	2	2	90	24	185	142	272	2.20	230 Vac 50 Hz	54	F	Si	20-25	61000900	M8x21	40.4	M14N2000					
M	M	2	P	A	(1)	2	2	100	28	210	155	310	3.00	230 Vac 50 Hz	54	F	Si	25-32	61001000	M8x28	75	M15P2000	KIT08019.017 (Gr.05) KIT08019.018 (Gr.1)				
M	M	4	L	A	(1)	2	4	71	14	148	115	208	0.25	230 Vac 50 Hz	54	F	Si	20-25	61000700	M6x20	19.5	M12D4000	KIT08019.011 (Gr.05) KIT08019.012 (Gr.1)				
M	M	4	L	B	(1)	2	4	71	14	148	115	208	0.37	230 Vac 50 Hz	54	F	Si	20-25	61000700	M6x20	19.5	M12E4000					
M	M	4	M	A	(1)	2	4	80	19	170	126	234	0.55	230 Vac 50 Hz	54	F	Si	20-25	61000800	M6x20	30.4	M13F4000	KIT08019.013 (Gr.05) KIT08019.014 (Gr.1)				
M	M	4	M	B	(1)	2	4	80	19	170	126	234	0.75	230 Vac 50 Hz	54	F	Si	20-25	61000800	M6x20	30.4	M13G4000					
M	M	4	N	A	(1)	2	4	90	24	185	142	247	1.10	230 Vac 50 Hz	54	F	Si	20-25	61000900	M8x21	40.4	M14H4000	KIT08019.015 (Gr.05) KIT08019.016 (Gr.1)				
M	M	4	N	B	(1)	2	4	90	24	185	142	272	1.50	230 Vac 50 Hz	54	F	Si	20-25	61000900	M8x21	40.4	M14L4000					
M	M	4	P	A	(1)	2	4	100	28	210	155	310	2.20	230 Vac 50 Hz	54	F	Si	25-32	61001000	M8x28	75	M15N4000	KIT08019.017 (Gr.05) KIT08019.018 (Gr.1)				

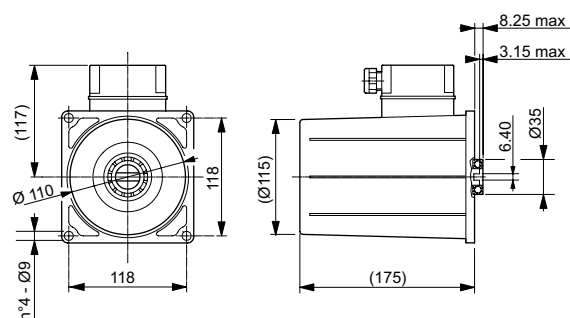
(•) = Approximate dimensions



Three-phase motors 2-4 Poles - 230/400 Vac 50Hz - Version B14

						Phases	Poles	Size	D1 (•)	D2 (•)	H1 (•)	L1 (•)	Power range					Cable gland metric thread	Adapter			Single Motor	Transmission kit (for pump)			
													Power kW	Voltage	IP	IC	S3		Code	Screw UNI 5931	L2					
M	T	2	R	A	(1)	3	2	63	11	125	95	189	0.18	230/400 Vac 50 Hz	54	F	60%	16-20	61004300	M5x16	19.5	M31C2000	KIT08019.009 (Gr.05) KIT08019.010 (Gr.1)			
M	T	2	R	B	(1)	3	2	63	11	125	95	189	0.25	230/400 Vac 50 Hz	54	F	60%	16-20	61004300	M5x16	19.5	M31D2000				
M	T	2	L	A	(1)	3	2	71	14	148	115	208	0.37	230/400 Vac 50 Hz	54	F	60%	20-25	61000700	M6x20	19.5	M32E2000	KIT08019.011 (Gr.05) KIT08019.012 (Gr.1)			
M	T	2	L	B	(1)	3	2	71	14	148	115	208	0.55	230/400 Vac 50 Hz	54	F	60%	20-25	61000700	M6x20	19.5	M32F2000				
M	T	2	M	A	(1)	3	2	80	19	170	126	234	0.75	230/400 Vac 50 Hz	54	F	60%	20-25	61000800	M6x20	30.4	M33G2000	KIT08019.013 (Gr.05) KIT08019.014 (Gr.1)			
M	T	2	M	B	(1)	3	2	80	19	170	126	234	1.10	230/400 Vac 50 Hz	54	F	60%	20-25	61000800	M6x20	30.4	M33H2000				
M	T	2	N	A	(1)	3	2	90	24	185	142	247	1.50	230/400 Vac 50 Hz	54	F	60%	20-25	61000900	M8x21	40.4	M34L2000	KIT08019.015 (Gr.05) KIT08019.016 (Gr.1)			
M	T	2	N	B	(1)	3	2	90	24	185	142	272	2.20	230/400 Vac 50 Hz	54	F	60%	20-25	61000900	M8x21	40.4	M34N2000				
M	T	2	P	A	(1)	3	2	100	28	210	155	310	3.00	230/400 Vac 50 Hz	54	F	60%	25-32	61001000	M8x28	75	M35P2000	KIT08019.017 (Gr.05) KIT08019.018 (Gr.1)			
M	T	2	P	B	(1)	3	2	112	28	225	182	325	4.00	230/400 Vac 50 Hz	54	F	60%	25-32	61001000	M8x28	75	M36Q2000				
M	T	4	R	A	(1)	3	4	63	11	125	95	189	0.12	230/400 Vac 50 Hz	54	F	60%	16-20	61004300	M5x16	19.5	M31B4000	KIT08019.009 (Gr.05) KIT08019.010 (Gr.1)			
M	T	4	R	B	(1)	3	4	63	11	125	95	189	0.18	230/400 Vac 50 Hz	54	F	60%	16-20	61004300	M5x16	19.5	M31C4000				
M	T	4	L	A	(1)	3	4	71	14	148	115	208	0.25	230/400 Vac 50 Hz	54	F	60%	20-25	61000700	M6x20	19.5	M32D4000	KIT08019.011 (Gr.05) KIT08019.012 (Gr.1)			
M	T	4	L	B	(1)	3	4	71	14	148	115	208	0.37	230/400 Vac 50 Hz	54	F	60%	20-25	61000700	M6x20	19.5	M32E4000				
M	T	4	M	A	(1)	3	4	80	19	170	126	234	0.55	230/400 Vac 50 Hz	54	F	60%	20-25	61000800	M6x20	30.4	M33F4000	KIT08019.013 (Gr.05) KIT08019.014 (Gr.1)			
M	T	4	M	B	(1)	3	4	80	19	170	126	234	0.75	230/400 Vac 50 Hz	54	F	60%	20-25	61000800	M6x20	30.4	M33G4000				
M	T	4	N	A	(1)	3	4	90	24	185	142	247	1.10	230/400 Vac 50 Hz	54	F	60%	20-25	61000900	M8x21	40.4	M34H4000	KIT08019.015 (Gr.05) KIT08019.016 (Gr.1)			
M	T	4	N	B	(1)	3	4	90	24	185	142	272	1.50	230/400 Vac 50 Hz	54	F	60%	20-25	61000900	M8x21	40.4	M34L4000				
M	T	4	P	A	(1)	3	4	100	28	210	155	310	2.20	230/400 Vac 50 Hz	54	F	60%	25-32	61001000	M8x28	75	M35N4000	KIT08019.017 (Gr.05) KIT08019.018 (Gr.1)			
M	T	4	P	B	(1)	3	4	100	28	210	155	310	3.00	230/400 Vac 50 Hz	54	F	60%	25-32	61001000	M8x28	75	M35P4000				
M	T	4	P	C	(1)	3	4	112	28	225	182	325	4.00	230/400 Vac 50 Hz	54	F	60%	25-32	61001000	M8x28	75	M36Q4000				

(•) = Approximate dimensions



						Phases	Poles	Size	Power range					Cable gland metric thred	Single Motor	Transmission kit	Note
									Power kW	Voltage	IP	IC	Service				
M	T	2	S	A	(1)	3	2	71	0.75	230/400 Vac 50 Hz	54	F	Light-duty	20	M32GY3FL.003	KIT08019.006 (for Gr.1 pumps) KIT08019.005 (for Gr.0.5 pumps)	Without fan
M	T	2	S	B	(1)	3	2	71	1.10	230/400 Vac 50 Hz	54	F	Light-duty	20	M32HY3FL.001	KIT08019.006 (for Gr.1 pumps) KIT08019.005 (for Gr.0.5 pumps)	Without fan
M	T	4	S	A	(1)	3	4	71	0.75	230/400 Vac 50 Hz	54	F	Light-duty	20	M32GY3FL.002	KIT08019.006 (for Gr.1 pumps) KIT08019.005 (for Gr.0.5 pumps)	Without fan

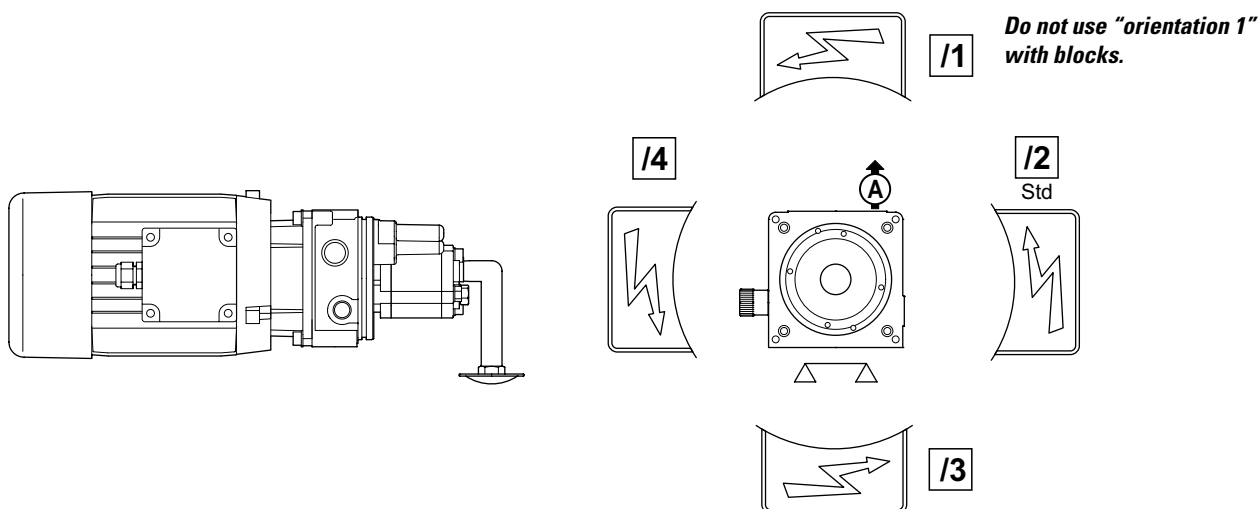
IP protection level becomes effective after installation on power pack.

M	*	*	*	*	(*)	/* - <i>Motor orientation</i>
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VI

AC

Connector box position on power pack.



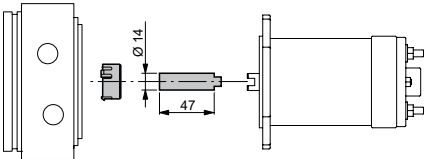
Sect. VII - Transmission kit

Transmission kit (only for motors on the catalog)
Type
End section VII

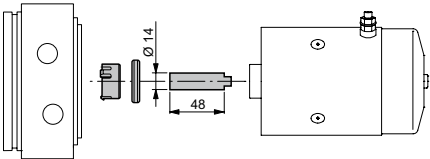
Specify the transmission kit whether you requested the joint and accessories assembly (without motor).

FP **T** ******

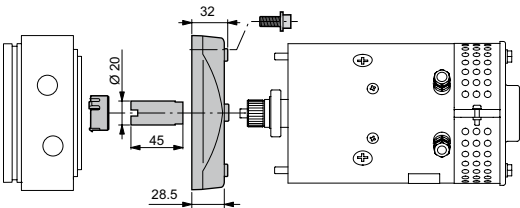
**	Transmission kit		For DC motors			Page
	Code	Note	Ref.	Power	Dimension	
01	KIT08019.000 KIT08019.001	for Gr. 0.5 pumps for Gr. 1 pumps	GA	350 W	Ø 80	62
			HF	500 W	Ø 80	62
			GC	700 W	Ø 80	62
			GU	800 W	Ø 80	62
			GB	400 W	Ø 80	62
			HE	500 W	Ø 80	62
			GZ	800 W	Ø 80	62
			GD	800 W	Ø 80	62



**	Transmission kit		For DC motors			Page
	Code	Note	Ref.	Power	Dimension	
02	KIT08019.002 KIT08019.003	for Gr. 0.5 pumps for Gr. 1 pumps	AA	1500 W	Ø 115	63
			EN	1600 W	Ø 115	63
			AB	2000 W	Ø 115	63
			ES	2200 W	Ø 115	63
			GN	1600 W	Ø 115	64
			GP	2200 W	Ø 115	64



**	Transmission kit		For DC motors			Page
	Code	Note	Ref.	Power	Dimension	
03	KIT08019.004	for Gr. 1 pumps	GJ	3000 W	Ø 125	64
			FB	3000 W	Ø 125	64



Note: in ventilated motors (accessory "D" page 64) the transmission is included in the kit ventilation

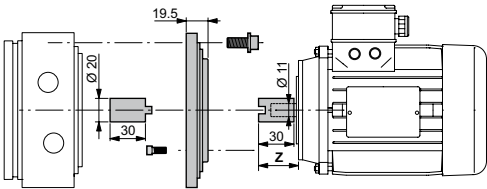
Sect. VII - Transmission kit

Transmission kit (only for motors on the catalog)
Type
End section VII

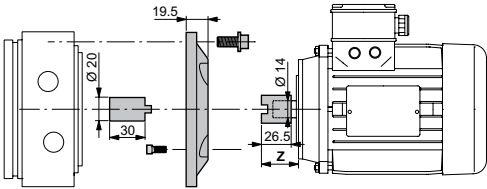
Specify the transmission kit whether you requested the joint and accessories assembly (without motor).

FP **T** ******

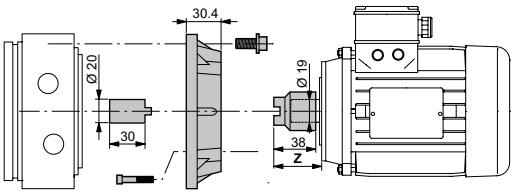
	Transmission kit			For AC motors		Page
	Code	Note	Z	Ref.	Size	
1R	KIT08019.009	for Gr. 0.5 pumps	62.7	R	63	69
	KIT08019.010	for Gr. 1 pumps	42.8			



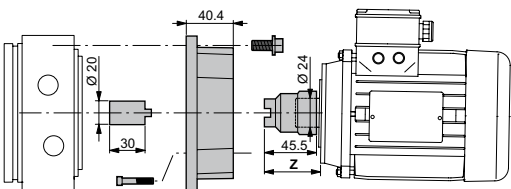
	Transmission kit			For AC motors		Page
	Code	Note	Z	Ref.	Size	
1L	KIT08019.011	for Gr. 0.5 pumps	42	L	71	68
	KIT08019.012	for Gr. 1 pumps	42			69



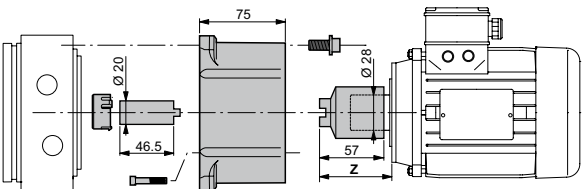
	Transmission kit			For AC motors		Page
	Code	Note	Z	Ref.	Size	
1M	KIT08019.013	for Gr. 0.5 pumps	53	M	80	68
	KIT08019.014	for Gr. 1 pumps	53			69



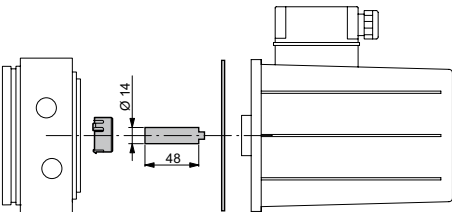
	Transmission kit			For AC motors		Page
	Code	Note	Z	Ref.	Size	
1N	KIT08019.015	for Gr. 0.5 pumps	63	N	90	68
	KIT08019.016	for Gr. 1 pumps	63			69



	Transmission kit			For AC motors		Page
	Code	Note	Z	Ref.	Size	
1P	KIT08019.017	for Gr. 0.5 pumps	81.5	P	100-112	68
	KIT08019.018	for Gr. 1 pumps	81.5			69

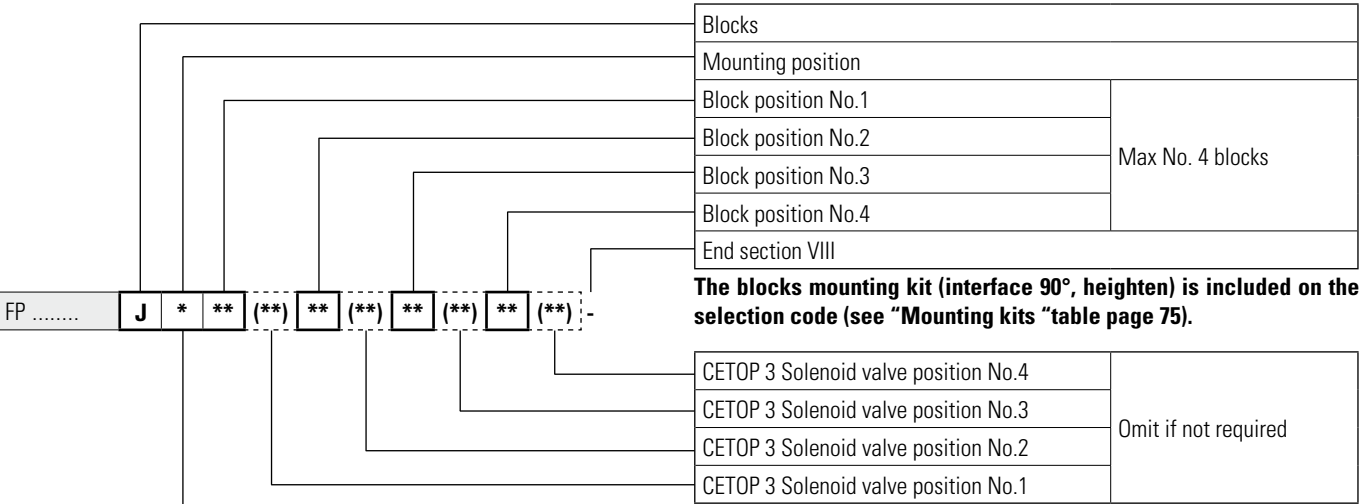


	Transmission kit			For AC motors		Page
	Code	Note	Z	Ref.	Size	
1S	KIT08019.005	for Gr. 0.5 pumps	—	S	direct fixing	70
	KIT08019.006	for Gr. 1 pumps	—			

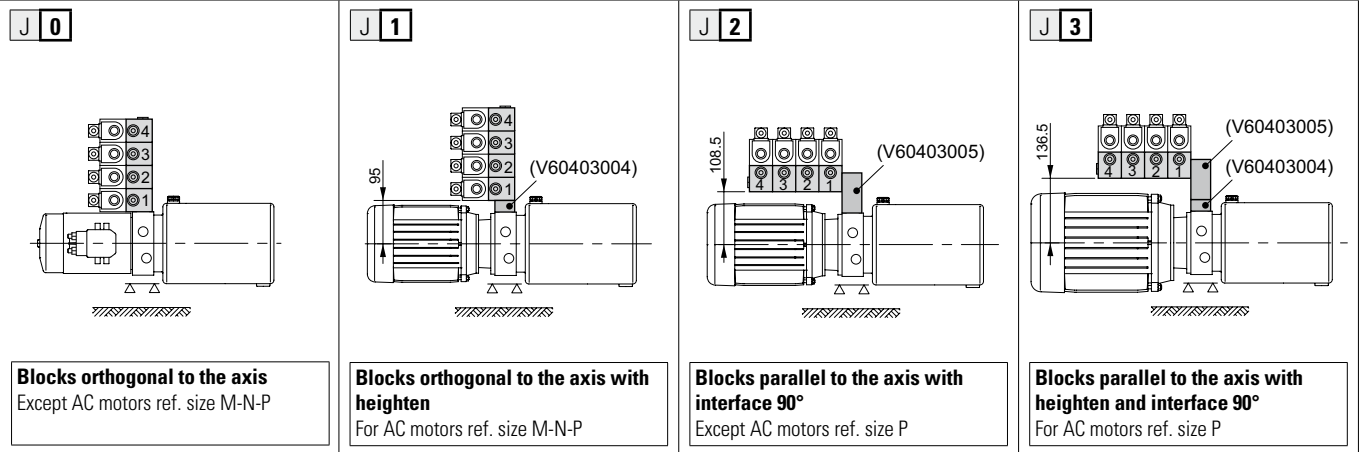


"Z" : dimension of the coupling side motor

Sect. VIII - Blocks and Solenoid valves

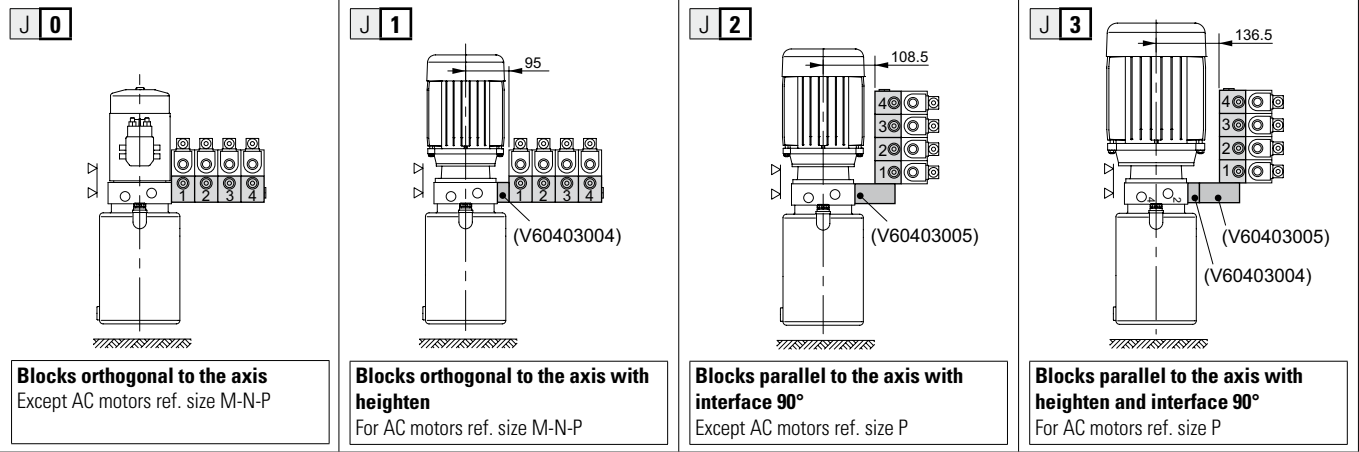


Blocks mounting on horizontal power pack



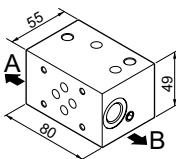
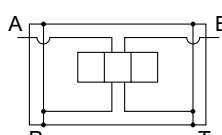
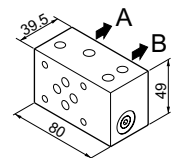
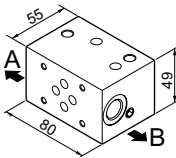
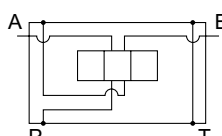
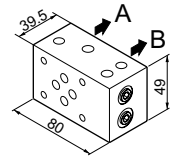
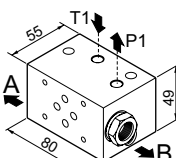
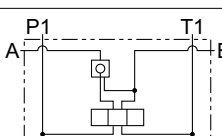
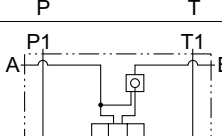
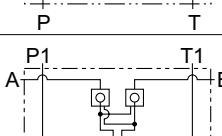
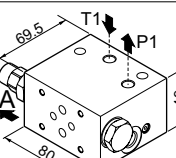
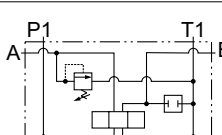
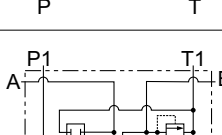
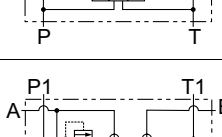
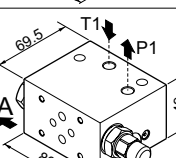
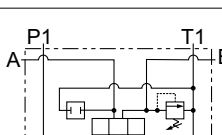
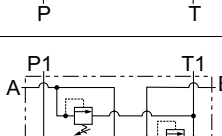
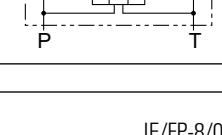
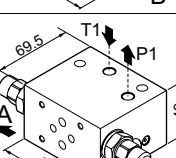
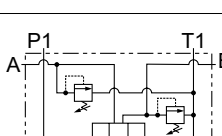
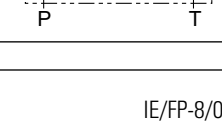
The blocks can not be mounted with motors oriented in position "1" (DC motors, see page 66. AC motors, see page 70).

Blocks mounting on vertical power pack



The blocks can not be mounted with motors oriented in position "1" - DC motors, see page 66. AC motors, see page 70.

J * ** *Block type*

**	Description	Code	Drawing	Scheme
A3	Middle parallel - Lateral ports G3/8"	V60403010		
A4	Middle parallel - Rear ports G3/8"	V60403001		
B3	Middle series - Lateral ports G3/8"	V60403011		
B4	Middle series - Rear ports G3/8"	V60403003		
C1	Cetop 3 manifold with check valve on "A"	V60413002		
C2	Cetop 3 manifold with check valve on "B"	V60413003		
C3	Cetop 3 manifold with check valve on "A" and "B"	V60413001		
D1	Cetop 3 manifold with relief valve on "A" pressure <70 bar	V60413004		
E1	Cetop 3 manifold with relief valve on "A" pressure <160 bar	V60413007		
F1	Cetop 3 manifold with relief valve on "A" pressure <320 bar	V60413010		
D2	Cetop 3 manifold with relief valve on "B" pressure <70 bar	V60413005		
E2	Cetop 3 manifold with relief valve on "B" pressure <160 bar	V60413008		
F2	Cetop 3 manifold with relief valve on "B" pressure <320 bar	V60413011		
D3	Cetop 3 manifold with relief valve on "A" and "B" pressure <70 bar	V60413006		
E3	Cetop 3 manifold with relief valve on "A" and "B" pressure <160 bar	V60413009		
F3	Cetop 3 manifold with relief valve on "A" and "B" pressure <320 bar	V60413012		

Mounting kits

Mounting kit: blocks	For No. blocks	Code
Mounting position 0-2-3	1	V60513007
	2	V60513008
	3	V60513009
	4	V60513010
Mounting position 1 (with heighten)	1	V60513011
	2	V60513012
	3	V60513013
	4	V60513014

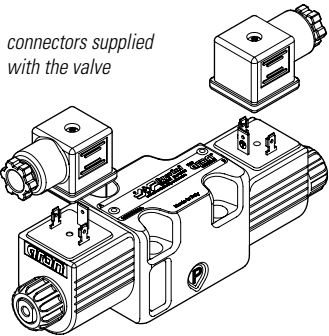
Mounting kit: interface 90°	Code
Mounting position 2	V60513051

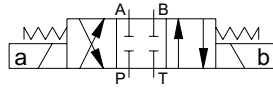
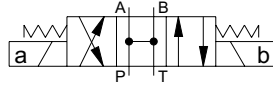
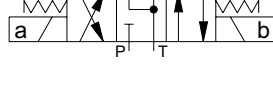
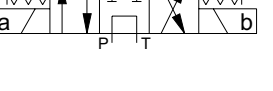
Mounting kit: interface 90° with heighten	Code
Mounting position 3	V60513049

The blocks mounting kit (interface 90°, heighten) is included on the selection code (see mounting position, page 73).

J * ** (**)

CETOP 3 Solenoid valves

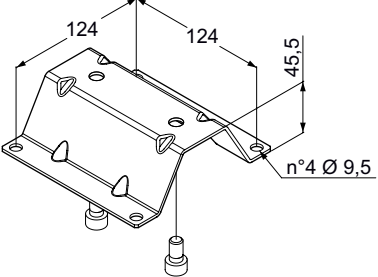
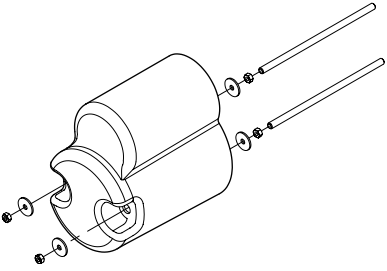
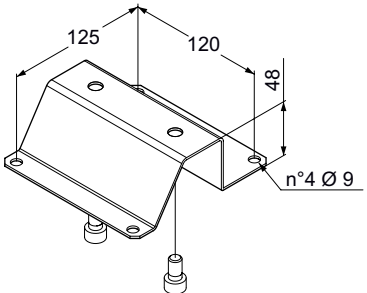
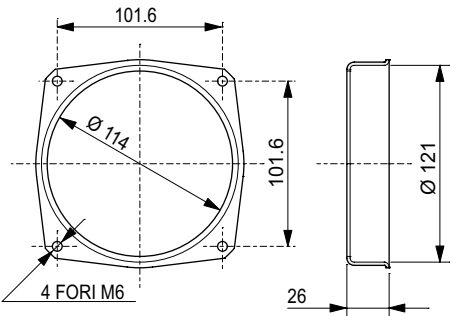


(**)	Voltage	Code	Spool (•)			Screw kit for valve mounting
			Type	Mounting	Scheme	
(01)	24 VDC (M)	ADC3E01CM001	01	C		V60513015
(02)	12 VDC (L)	ADC3E01CL001				
(03)	24 VDC (M)	ADC3E02CM001	02	C		
(04)	12 VDC (L)	ADC3E02CL001				
(05)	24 VDC (M)	ADC3E03CM001	03	C		
(06)	12 VDC (L)	ADC3E03CL001				
(07)	24 VDC (M)	ADC3E04CM001	04	C		
(08)	12 VDC (L)	ADC3E04CL001				

(•) For more details, features and performances, see catalog Brevini Fluid Power "Valves and Electronics" code P35030200.

Accessories	
Accessory type	(*) Assembled on the power pack
Others accessories (in alphabetic order)	* Supplied separately

FP **R** * * *

*	Description	Drawing	Code	Note
A	Standard foot, (galvanized sheet steel) thickness 2.5 mm		Kit (foot and screws): 17010075	All motors are compatible except orientation / 3 Tanks compatible (except for orientation / 3) S**A S**B S**C S**G S**L
B	Non-removable red plastic plug for pressure relief valve CMPR04 (supplied separately)		Plug: 60309200	
(B)	Non-removable red plastic plug for pressure relief valve CMPR04 (assembled on the power pack)			
(C)	Protection device for DC motors		Kit (protectin, nut, tierods, washers): 17010048	For motors: M2EN M4ES
D	High foot, (galvanized sheet steel) thickness 2 mm		Kit (foot and screws): 17010053	All motors are compatible except orientation / 3 Tanks compatible (except for orientation / 3) S**A S**B S**C S**D S**F S**G S**L
E	Collar in welded sheet steel, thickness 2 mm		Collar: 25000300 Tank fixing kit (screws and O-Ring): 17010080	

Code DOC00038 - Rev. 05



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