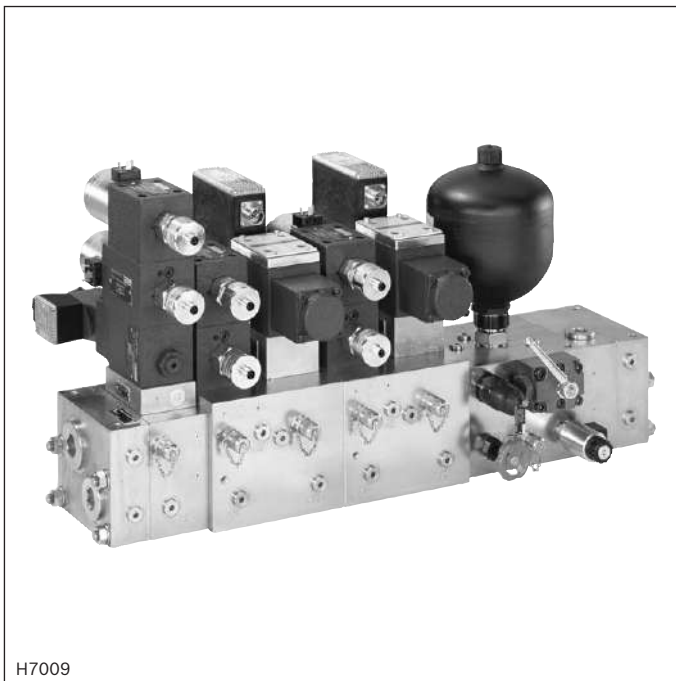


Modular plate systems

Type IH20

RE 51159

Edition: 2016-01



H7009

- ▶ Frame size A and B
- ▶ Component series 1X
- ▶ Maximum operating pressure 315 bar
- ▶ Rated flow 50 l/min and 200 l/min

Features

- ▶ Modular block system for set-up of controls in a compact construction, ready for connection
- ▶ Different sizes of one frame size can be combined in any order
- ▶ Pressure and tank ports for all control circuits on both front sides of the mounted IH20 stacking assemblies
- ▶ Separate actuator ports A and B per control circuit
- ▶ The material number includes the respective segment with all plug screws and seals
- ▶ Functional elements such as valves or nozzles are not included
- ▶ For detailed circuit diagrams and device lists of a complete IH20 stacking assembly see the respective order documentation

Contents

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Logic function	68 ... 70
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General

Function

The type IH20 control system (complete assembly) can be realized individually from different modules and additional vertical stackings. Functionality will differ according to the selected modules, valves etc.

This data sheet describes the properties of the individual modules with frame sizes A and B of the premium and standard programs which are primarily designed for direct operated or for internally pilot-operated directional valves.

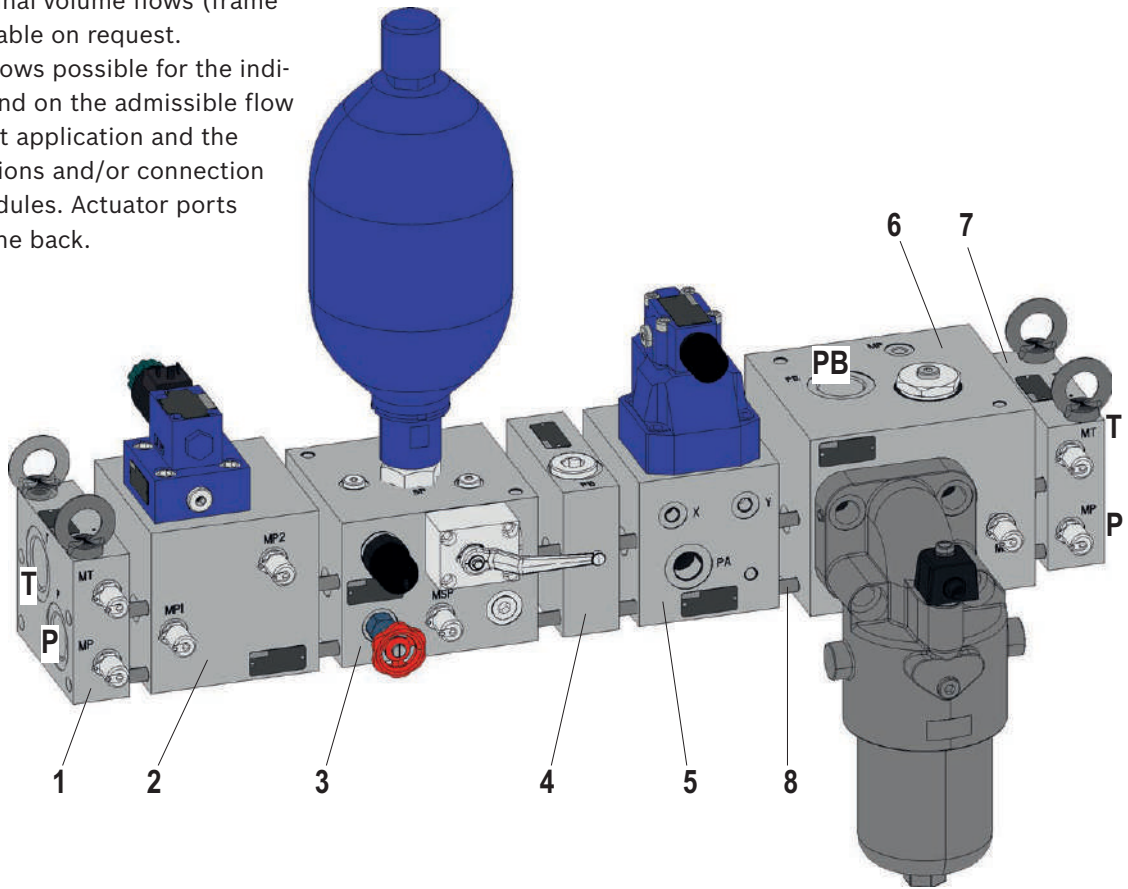
Other functions (modules) in these frame sizes and modules for larger nominal volume flows (frame sizes C and D) are available on request.

The maximum volume flows possible for the individual frame sizes depend on the admissible flow velocities of the relevant application and the existing thread connections and/or connection flanges at the IH 20 modules. Actuator ports are usually located on the back.

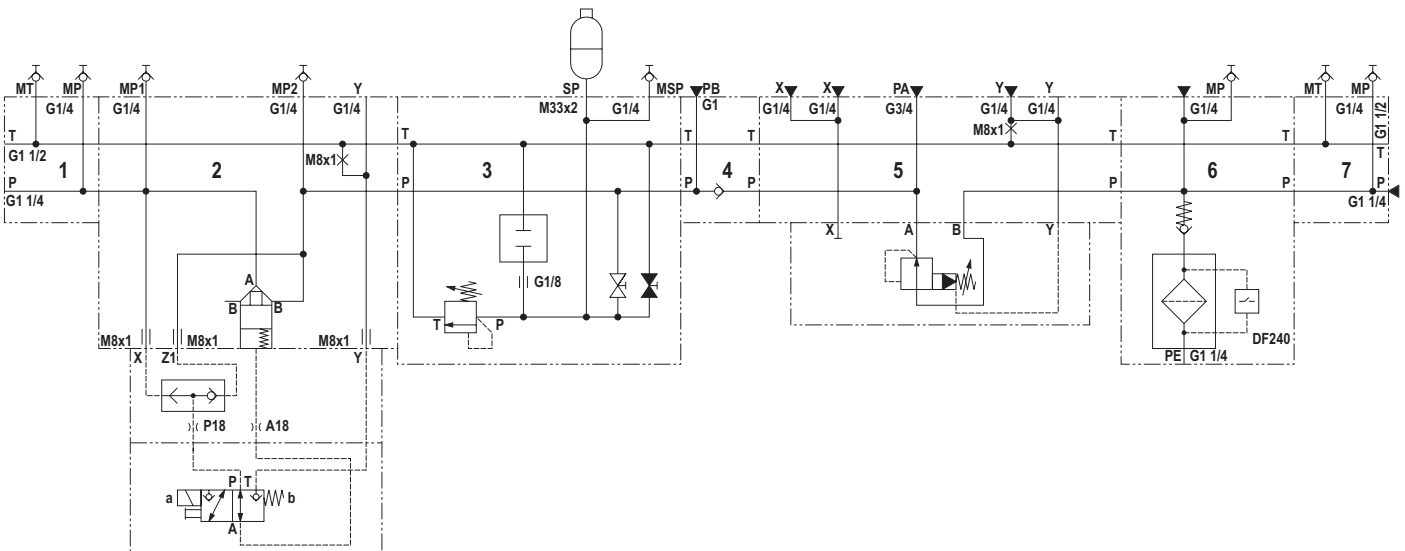
System set-up

The type IH20 control system (complete assembly) usually consists of the following elements:

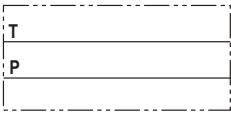
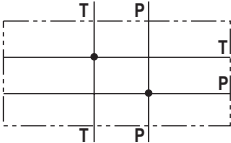
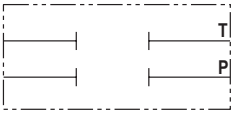

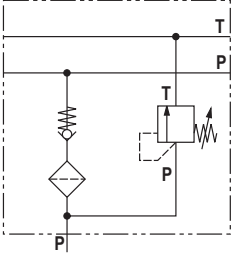
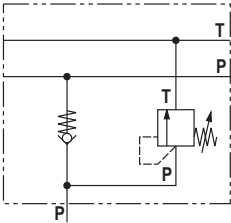
- ▶ Inlet segment
- ▶ Intermediate segment(s)
- ▶ Sandwich plates, valves etc.



- 1 Inlet segment left
- 2 2-way cartridge valve (logic)
- 3 Accumulator segment
- 4 Check function in P
- 5 Valve segment
- 6 Pump inlet segment
- 7 Inlet segment right
- 8 Threaded bolt



Overview

Stacking elements			Page
	Inlet segments Left/right	Ports P and T front side	8 ... 10
	Ports	Ports P and T lateral	11
	Threaded segments	Thread instead of through holes (for threaded bolts)	12 ... 13
	Spacer segments	Increases the distance between two segments (construction- related)	14
	Separator segments	Interruption of manifold pipes (multi-circuit systems)	15
	Reducer segments	Adaptation between the frame sizes	16 ... 17
Pump inlet segments			
	Inlet segment with filter	Pump inlet with control for pump start-up and filtration	18 ... 22
	Inlet segment without filter	Pump inlet with control for pump start-up without filtration	23 ... 25

Overview

Directional function			Page
	Single directional function	Set-up of an individual directional valve (similar to manifold)	26 ... 31
	Directional function internally linked	Set-up of several directional valves with internal function	32 ... 35
	Multi-directional function	Set-up of several directional valves (similar to manifold)	36 ... 38
	Directional function with blocking function	Directional valve set-up combined with blocking function	39 ... 44
	Directional function with blocking and pressure function	Directional valve set-up combined with blocking function and pressure reducing or pressure limiting function	45

Overview

	<p>Directional function with pressure function</p>	<p>Directional valve set-up combined with pressure reducing or pressure limiting function</p>	<p>46 ... 48</p>
	<p>Directional function with flow control function</p>	<p>Directional valve set-up combined with flow control function</p>	<p>49 ... 50</p>
	<p>Switchable differential circuit</p>	<p>Connection between the actuator channels electrically switchable</p>	<p>51</p>
<p>Blocking function</p>			
	<p>Check function</p>	<p>Check function in channels P and T</p>	<p>52 ... 54</p>
	<p>Releasable check function</p>	<p>Releasable check function in the actuator ports</p>	<p>55</p>
<p>Pressure function</p>			
	<p>Pressure limiting function</p>	<p>Pressure limitation of pump manifold pipe</p>	<p>56 ... 58</p>

Overview

	<p>Pressure shut-off function</p>	<p>Pressure shut-off function of pump inlet</p>	<p>59 ... 60</p>
	<p>Pressure reducing function</p>	<p>Pressure reducing function in the actuator ports or the P manifold pipe</p>	<p>61 ... 65</p>
<p>Flow control function</p>			
		<p>Flow control function in the actuator ports</p>	<p>66 ... 67</p>
<p>Logic function</p>			
		<p>Directional and/or pressure function with 2/2 directional cartridge valve</p>	<p>68 ... 70</p>
<p>Accumulator function</p>			
		<p>Set-up of an accumulator with pressure limiting function</p>	<p>71 ... 72</p>

Technical data

(For applications outside these values, please consult us!)

general	
Installation position	Any (preferably horizontal) ¹⁾
Ambient temperature range	°C –30 ... +50 (NBR seals) –20 ... +50 (FKM seals)
Surface protection	Galvanic coating according to DIN 50979 Fe//Zn8//Cr//T0
Material	EN-JS1030/EN-GJS-400-15 (0.7040/GG-40)

hydraulic			
Maximum operating pressure	▶ Ports A, B, P, X	bar	315
	▶ Ports T, Y, L	bar	100
Rated flow	▶ Frame size A	l/min	50
	▶ Frame size B	l/min	200
Hydraulic fluid	See table below		
Hydraulic fluid temperature range	°C	–30 ... +80 (NBR seals) –15 ... +80 (FKM seals)	
Viscosity range	mm ² /s	2.8 ... 500 ¹⁾	
Maximum admissible degree of contamination of the hydraulic fluid; Cleanliness class according to ISO 4406 (c)	Class 20/18/15 ^{1; 2)}		

Hydraulic fluid	Classification	Suitable sealing materials	Standards	Data sheet
Mineral oils	HL, HLP	NBR, FKM	DIN 51524	90220



Important information on hydraulic fluids:

- ▶ For more information and data on the use of other hydraulic fluids, please refer to data sheet 90220 or contact us.

- ▶ There may be limitations regarding the technical valve data (temperature, pressure range, life cycle, maintenance intervals, etc.)!
- ▶ The flash point of the hydraulic fluid used must be 40 K higher than the maximum solenoid surface temperature.

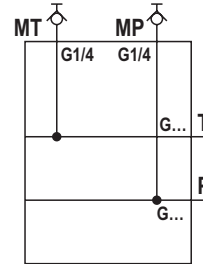
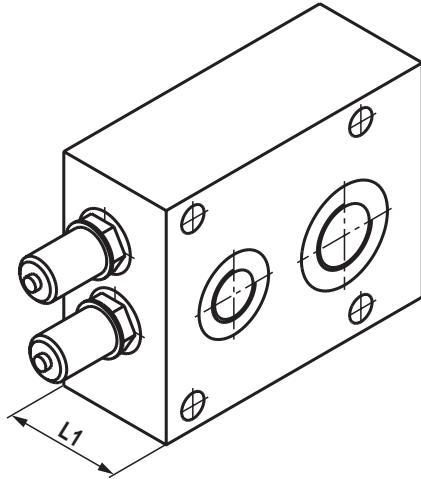
¹⁾ Observe details of subplate-mounted valves.

²⁾ The cleanliness classes specified for the components must be adhered to in hydraulic systems. Effective filtration prevents faults and simultaneously increases the life cycle of the components.

Available filters can be found at www.boschrexroth.com/filter.

Stacking element: inlet segment
(dimensions in mm)

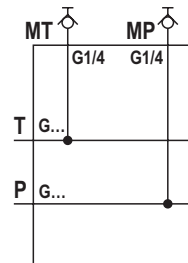
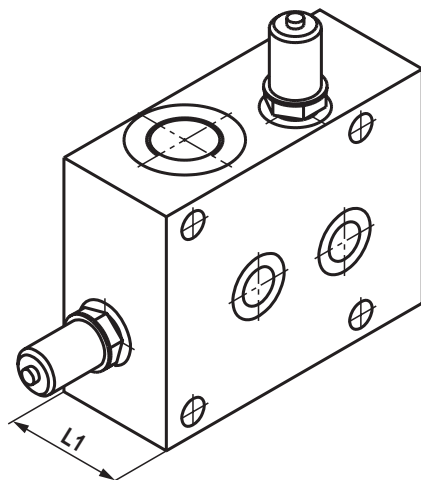
► Inlet segment right "AS"



Frame size	P	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	G1/2	G3/4	50	IH20M1A-AS01-1X/	R900247600	R901010859	R900619293
A	G3/4	G1	50	IH20M1A-AS02-1X/	R900780022	R901010860	R900780028
B	G1 1/4	G1 1/2	50	IH20M1B-AS01-1X/	R900977159	R901010864	R900245584

Stacking element: inlet segment
(dimensions in mm)

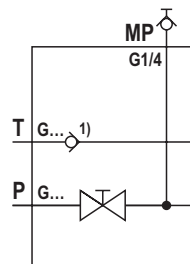
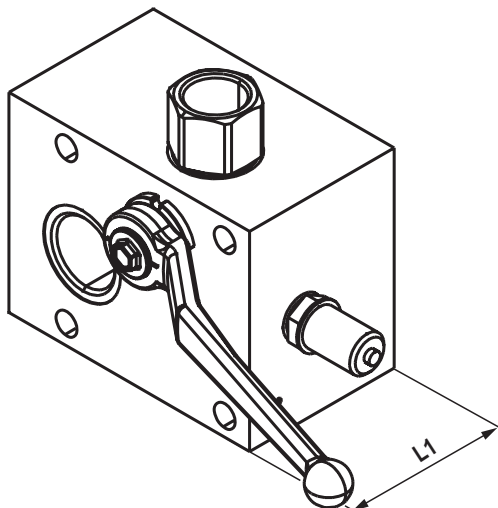
► Inlet segment left "ES"



Frame size	P	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	G3/4	G1	50	IH20M1A-ES02-1X/	R900780029	R901010862	R900780034
A	G1/2	G3/4	50	IH20M1A-ES01-1X/	R900247598	R901010861	R900619292
B	G1 1/4	G1 1/2	50	IH20M1B-ES01-1X/	R900977160	R900786556	R900245857

Stacking element: inlet segment (dimensions in mm)

► Inlet segment left "ES", with integrated ball valve



	Frame size	P	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	G3/4	G1	75	IH20M1A-ES03-1X/	R901057433	R901102829	R901057437
b	B	G1 1/4	G1 1/2	100	IH20M1B-ES03-1X/	R901057413	R901102807	R901057423

Sample assembly

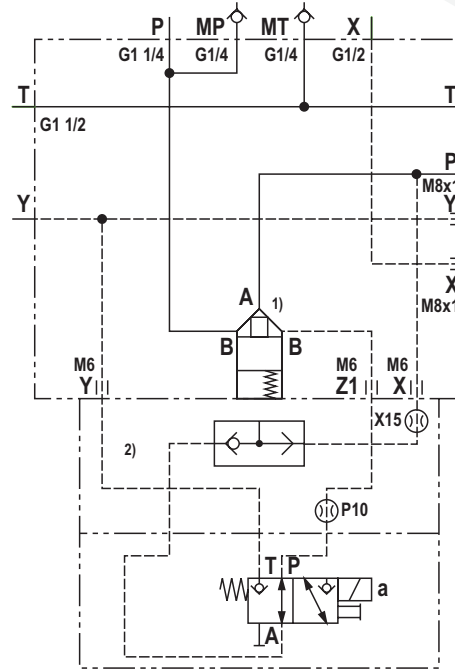
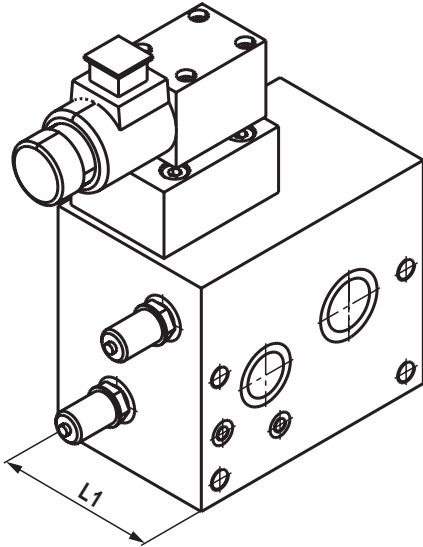
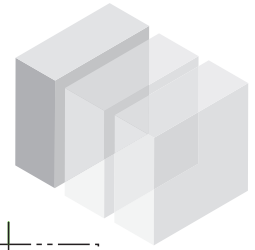
- | | |
|----------|--|
| a | <ul style="list-style-type: none"> ► optional check valve insert type RKVC-16-0,2 bar – NBR: material no. R900031396 (not included) ¹⁾ – FKM: material no. R901103578 (not included) ¹⁾ |
| b | <ul style="list-style-type: none"> ► optional check valve insert RKVC-40-0,2 bar – NBR: material no. R900734700 (not included) ¹⁾ – FKM: material no. R901103580 (not included) ¹⁾ |

Notice:

The ball valve is always included in the module.

Stacking element: inlet segment
(dimensions in mm)

► Inlet segment left "ES", for size 16 logic



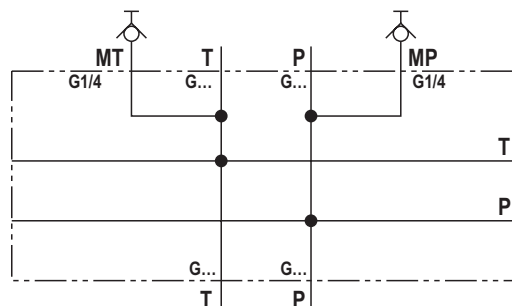
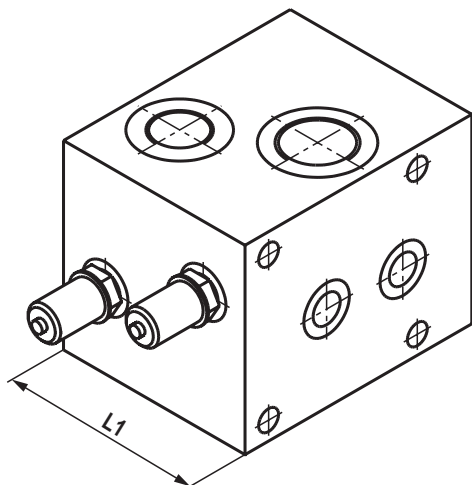
Frame size	P	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	G1 1/4	G1 1/2	75	IH20M11B-ES16R01-1X/	R901269142	R901431280	R901269208

Sample assembly

- Cartridge valve type LC 16 ...-7X/... (data sheet 21010) ¹⁾
- Logic cover type LFA 16 ...-7X/... (data sheet 21010) ²⁾
- X, Y, Z1 depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129) or ZN10027-M6-SV (material no. R913019128)
- Pilot and leak oil flow externally and into other segments possible

Stacking element: ports
(dimensions in mm)

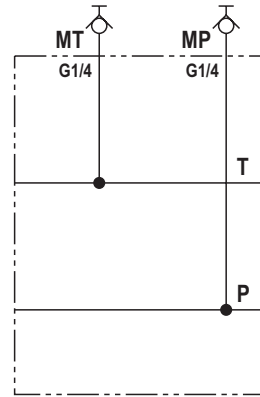
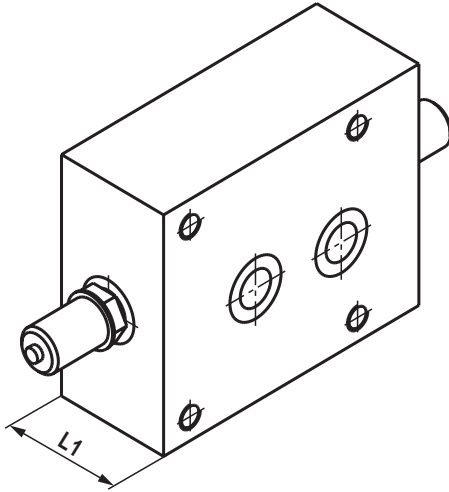
► Segment with functions in channel P and T "PT"




Frame size	P	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	G 3/4	G 1	100	IH20M4A-PT01-1X/	R901084445	-	R901084456
B	G 1 1/4	G 1 12	100	IH20M4B-PT01-1X/	R900720735	R901003944	R900720737

Stacking element: threaded segment
(dimensions in mm)

► **Threaded segment "GS"**



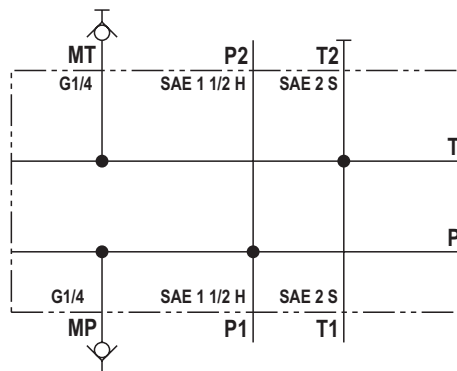
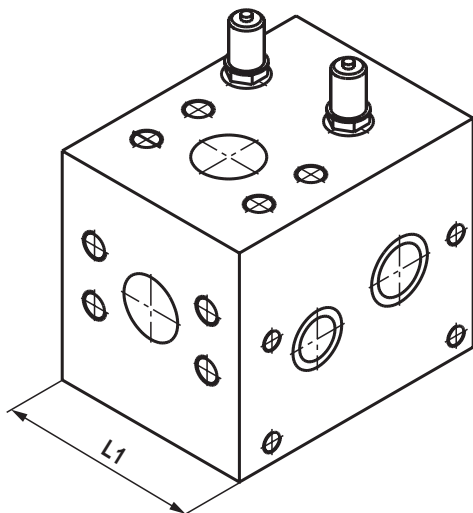
	Frame size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	50	IH20M6A-GS1-1X/	R900708074	–	R900718688
b	B	50	IH20M6A-GS1-1X/	R900619832	R901003947	R900719155

 **Notices:**

- With threads on both sides – no through holes for threaded bolts
- For the assembly of controls with excessive length
- Use only once per stacking assembly

Stacking element: threaded segment
(dimensions in mm)

► **Threaded segment with ports "GS"**



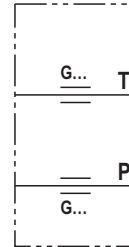
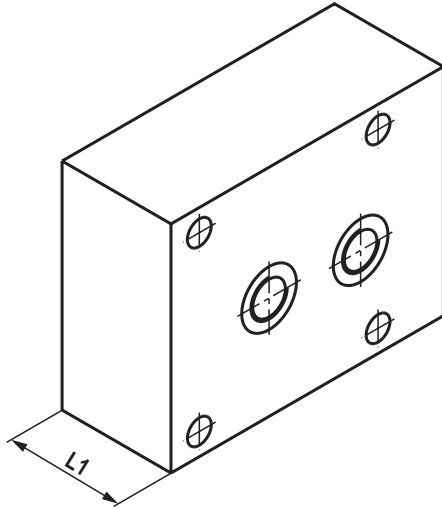
Frame size	P1	P2	T1	T2	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	SAE 1 1/2H	SAE 1 1/2H	SAE 2 S	SAE 2 S	125	IH20M6B-GS03-1X/	R901124350	R901124361	R901124365

Notices:

- With threads on both sides – no through holes for threaded bolts
- For the assembly of controls with excessive length
- Use only once per stacking assembly
- P forward and up, T downward and back

Stacking element: spacer segment
(dimensions in mm)

► **Spacer segment "DS"**



	Frame size	P	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	G3/8	G3/8	50	IH20M4A-DS01-1X/	R900708077	R901055381	R900718683
b	B	G3/4	G1	50	IH20M4B-DS01-1X/	R900619739	R900786570	R900718630

Sample assembly	
a	► Plug screw channels P and T: material no. R913019138
b	► Plug screw P: material no. R913023612 ► Plug screw T: material no. R913019140

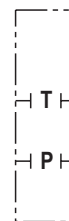
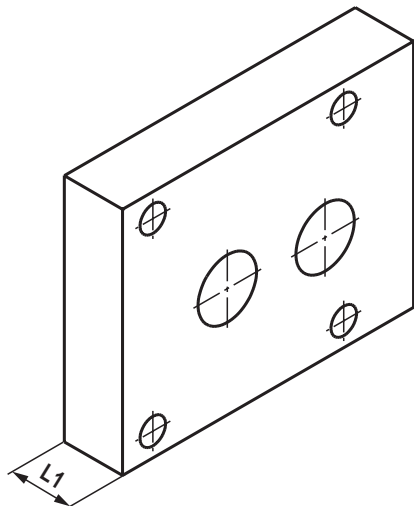


Notice:

Plate can also be used as a separator segment (separation of P and T by plug possible).

Stacking element: separator segment
(dimensions in mm)

► **Separator segment "TS"**



Frame size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	25	IH20M4A-TS01-1X/	R901129334	-	R901129337
B	25	IH20M4B-TS01-1X/	R901131772	R901170590	R901131781

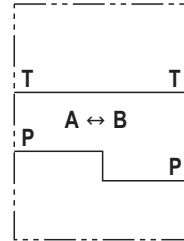
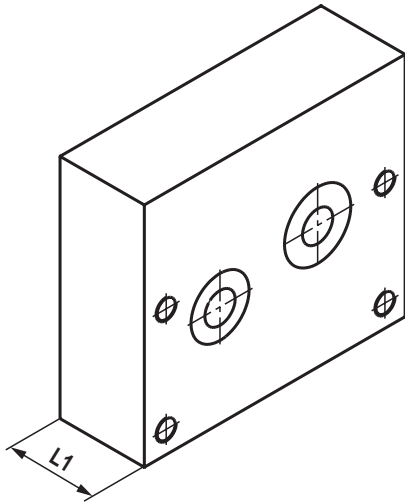


Notice:

Can also be used as left and/or right end segment.

Stacking element: reducer segment left
(dimensions in mm)

► Reducer segment frame size B right on A left "RL"



Frame size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	50	IH20M3B-RL01-1X/	R901069127	-	R901069645

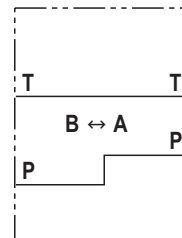
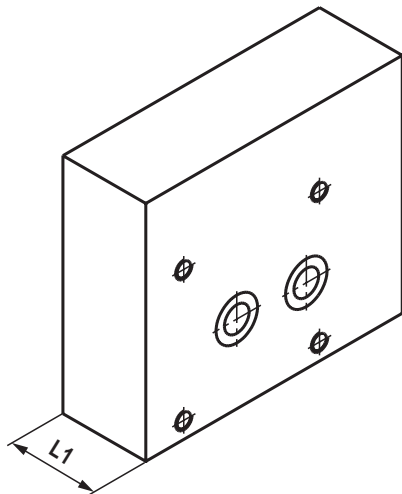


Notice:


- Threaded - no through holes for threaded bolts.
- Use only once per stacking assembly.

Stacking element: reducer segment right
(dimensions in mm)

- ▶ Reducer segment frame size B right on A left "RR"



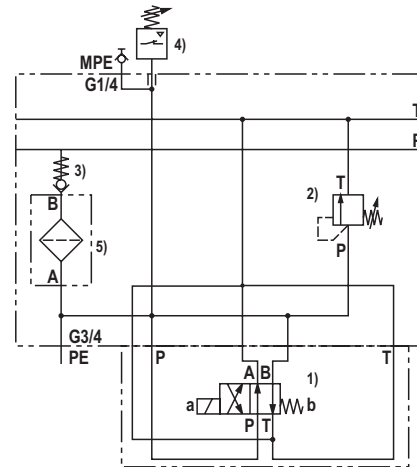
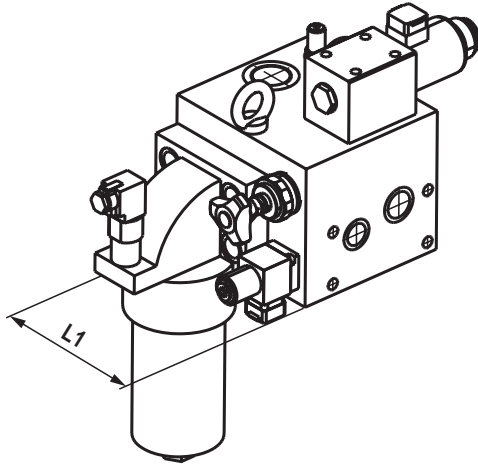
Frame size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	50	IH20M3B-RR01-1X/	R901069126	-	R901069648

 **Notice:**

- ▶ Threaded - no through holes for threaded bolts.
- ▶ Use only once per stacking assembly.

Pump inlet segment: pump inlet segment with filter (dimensions in mm)

- Pump inlet segment for pressure limitation and depressurized circulation with pressure filter "DF"



	Frame size	PE	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	G3/4	175	IH20M4A-DF65-02-1X	R901063159	R901421496	R901062798
b	B	G1	175	IH20M4B-DF65-02-1X/	R901063280	-	R901063289
c	B	G1 1/4	200	IH20M4B-DF200-02-1X	R901063328	-	R901063331

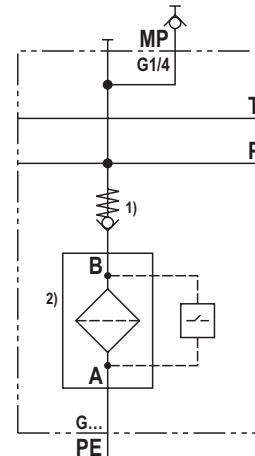
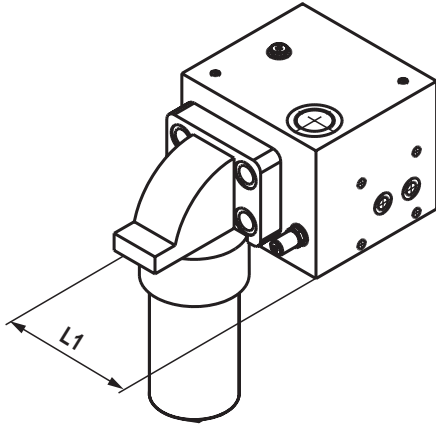
	Filter		Sample assembly
	Size	Data sheet	
a	40 ... 100	51418	<ul style="list-style-type: none"> ► Type 4WE 6 D73-6X/... (data sheet 23178) ¹⁾ ► Type DBD... 10 K1X/... (data sheet 25402) ²⁾ ► Type M-SR 15 KE...-1X/ (data sheet 20380) ³⁾ ► Type HED 8 OH2X/... (data sheet 50061) ⁴⁾ ► Filter, e. g.: 245PSFN0063-H10XLB00-V5,0-M (max. 250 bar), material no. R928024393 (NBR) (data sheet 51418) ⁵⁾ ► 350PSFN0063-H10XLB00-V5,0-M, material no. R928026491 (NBR) (data sheet 51419)
	40 ... 100	51419	
b	40 ... 100	51418	<ul style="list-style-type: none"> ► Type 4WE 6 D73-6X/... (data sheet 23178) ¹⁾ ► Type DBD. 20 K1X/... (data sheet 25402) ²⁾ ► Type M-SR 20 KE...-1X/ (data sheet 20380) ³⁾ ► Type HED 8 OH1X/... (data sheet 50061) ⁴⁾ ► Filter, e. g.: 245PSFN0100-H10XLB00-V5,0-M (max. 250 bar), material no. R928024394 (NBR) (data sheet 51418) ⁵⁾ ► 350PSFN0100-H10XLB00-V5,0-M, material no. R928026492 (NBR) (data sheet 51419)
	40 ... 100	51419	
c	160 ... 400	51418	<ul style="list-style-type: none"> ► Type 4WE 10 D73-5X/... (data sheet 23340) ¹⁾ ► Type DBD. 20 K1X/... (data sheet 25402) ²⁾ ► Type M-SR 25 KE...-1X/ (data sheet 20380) ³⁾ ► Type HED 8 OH1X/... (data sheet 50061) ⁴⁾ ► Filter, e. g.: 245PSFN0...-H10XLB00-V5,0-M (max. 250 bar) ⁵⁾ <ul style="list-style-type: none"> - 0160: material no. R928024397 (NBR) - 0250: material no. R928024398 (NBR) (data sheet 51418) ► 350PSFN0...-H10XLB00-V5,0-M <ul style="list-style-type: none"> - 0160: material no. R928026495 (NBR) - 0250: material no. R928026496 (NBR) (data sheet 51419)
	160 ... 1000	51419	

Notices:

- Filter outlet above inlet
- For optimal filter identification see online design software "Bosch Rexroth FilterSelect" (www.boschrexroth.com/filter).

Pump inlet segment: pump inlet segment with filter
(dimensions in mm)

► **Pressure filter segment "DF"**



	Frame size	PE	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	G1	150	IH20M4A-DF65-01-1X/	R901061219	–	R901061223
b	A	G1 1/4	200	IH20M4A-DF200-01-1X/	R901061676	–	R901061679
c	B	G1 1/4	150	IH20M4B-DF65-01-1X/	R900760982	–	R900761324
d	B	G1	200	IH20M4B-DF200-01-1X/	R900760983	–	R900761592

	Filter		Sample assembly
	Size	Data sheet	
a	40 ... 100	51418	► Type M-SR 20 KE...-1X/ (data sheet 20380) ¹⁾ ► Filter, e. g.: 245PSFN0063-H10XLB00- V5,0-M (max. 250 bar), material no. R928024393 (NBR) (data sheet 51418) ²⁾ ► 350PSFN0063-H10XLB00- V5,0-M, material no. R928026491 (NBR) (data sheet 51419)
	40 ... 100	51419	
b	160 ... 400	51418	► Type M-SR 25 KE...-1X/ (data sheet 20380) ¹⁾ ► Filter, e. g.: 245PSFN0160-H10XLB00- V5,0-M (max. 250 bar), material no. R928024397 (NBR) (data sheet 51418) ²⁾ ► 350PSFN0160-H10XLB00- V5,0-M, material no. R928026495 (NBR) (data sheet 51419)
	160 ... 1000	51419	
c	160 ... 400	51418	► Type M-SR 20 KE...-1X/ (data sheet 20380) ¹⁾ ► Filter, e. g.: 245PSFN0100-H10XLB00- V5,0-M (max. 250 bar), material no. R928024394 (NBR) (data sheet 51418) ²⁾ ► 350PSFN0100-H10XLB00- V5,0-M, material no. R928026492 (NBR) (data sheet 51419)
	160 ... 1000	51419	
d	160 ... 400	51418	► Type M-SR 25 KE...-1X/ (data sheet 20380) ¹⁾ ► Filter, e. g.: 245PSFN0...-H10XLB00- V5,0-M (max. 250 bar) ²⁾ – 0160: material no. R928024397 (NBR) – 0250: material no. R928024398 (NBR) (data sheet 51418) ► 350PSFN0...-H10XLB00- V5,0-M – 0160: material no. R928026495 (NBR) – 0250: material no. R928026496 (NBR) (data sheet 51419)
	160 ... 1000	51419	



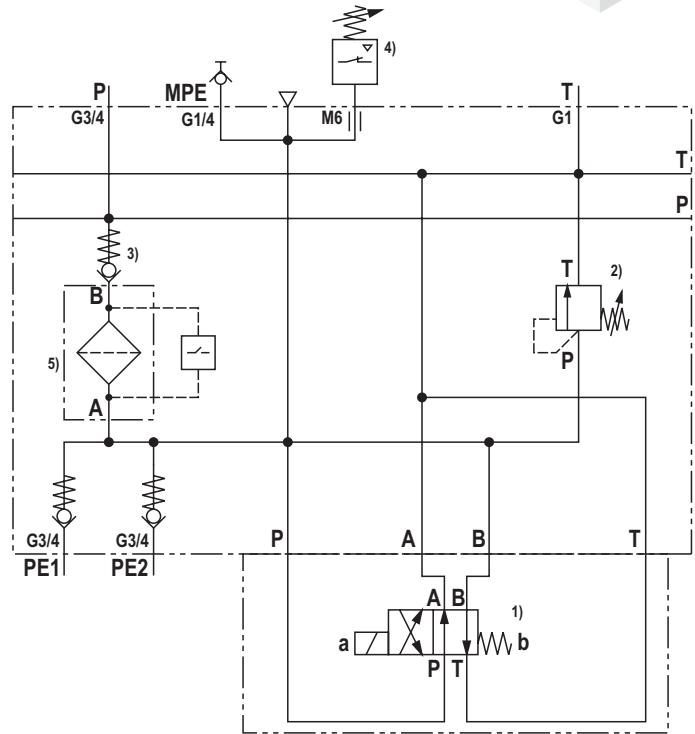
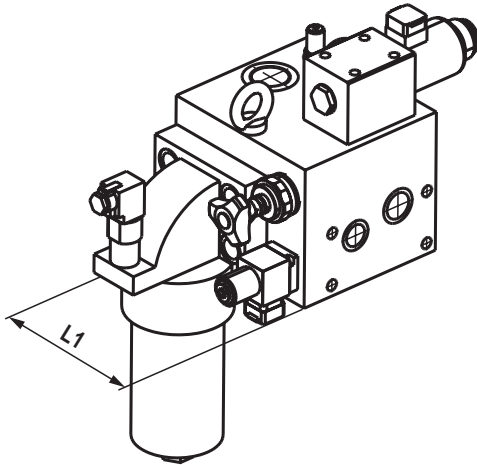
Notices:

- Filter outlet above inlet
- For optimal filter identification see online design software "Bosch Rexroth FilterSelect" (www.boschrexroth.com/filter).

Pump inlet segment: pump inlet segment with filter (dimensions in mm)



- Pump inlet segment for pressure limitation and depressurized circulation with pressure filter "DF"



Frame size	P, PE	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	G3/4	G1	200	IH20M4A-DF65-03-1X/	R901099463	-	R901099469

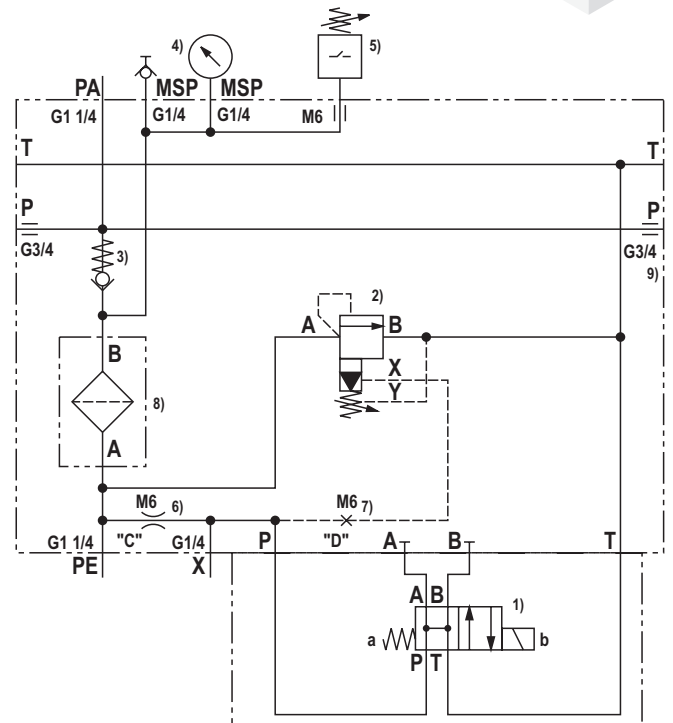
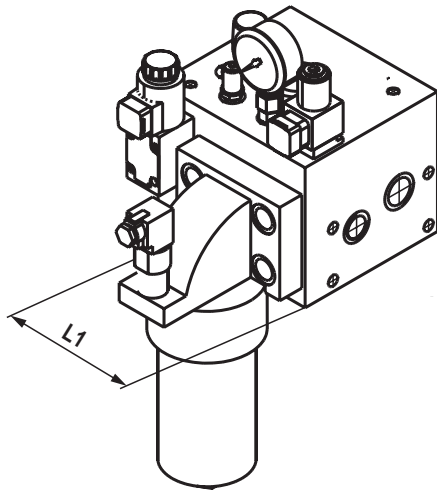
Size	Filter	
	Data sheet	Sample assembly
40 ... 100	51418	► Type 4WE 6 D73-6X/... (data sheet 23178) ¹⁾
40 ... 100	51419	► Type DBD... 10 K1X/... (data sheet 25402) ²⁾
		► Type M-SR 15 KE...-1X/ (data sheet 20380) ³⁾
		► Type HED 8 OH2X/... (data sheet 50061) ⁴⁾
		► Filter, e. g.: 245PSFN0063-H10XLB00- V5,0-M (max. 250 bar), material no. R928024393 (NBR) (data sheet 51418) ⁵⁾
		► 350PSFN0063-H10XLB00- V5,0-M, material no. R928026491 (NBR) (data sheet 51419)

Notices:

- Filter outlet above inlet
- For optimal filter identification see online design software "Bosch Rexroth FilterSelect" (www.boschrexroth.com/filter).

Pump inlet segment: pump inlet segment with filter
(dimensions in mm)

- **Pump inlet segment for pressure limitation and depressurized circulation with pressure filter "DF"**



Frame size	PE	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	G1 1/4	200	IH20M4B-DF200-03-1X/	R901082301	-	R901082308

Filter		Sample assembly
Size	Data sheet	
160 ... 400	51418	<ul style="list-style-type: none"> ► Type 4WE 6 HB6X/... (data sheet 23178) ¹⁾ ► Type DB 20 K2-1X/...XY... (data sheet 25818) ²⁾ ► Type M-SR 25 KE...-1X/ (data sheet 20380) ³⁾ ► Pressure gauge (data sheet 50205) ⁴⁾ ► Type HED 8 OH2X/... (data sheet 50061) ⁵⁾ ► Nozzle ZN10028-0,8-B-M6X6-SV (material no. R913018582) ⁶⁾ ► Plug screw ZN10027-M6-SV (material no. R913019128) ⁷⁾ ► Filter, e. g.: 245PSFN0...-H10XLB00- V5,0-M (max. 250 bar) ⁸⁾ <ul style="list-style-type: none"> - 0160: material no. R928024397 (NBR) - 0250: material no. R928024398 (NBR) (data sheet 51418) ► 350PSFN0...-H10XLB00- V5,0-M <ul style="list-style-type: none"> - 0160: material no. R928026495 (NBR) - 0250: material no. R928026496 (NBR) (data sheet 51419) ► Thread G3/4 for plug screw ZN10027-R3/4-SV (material no. R913023612) for separation in channel P with multiple pump circuits ⁹⁾ ► Sample nozzle fitting for A10VSO with DFR1 controller nozzle fitting according to installation drawing
160 ... 1000	51419	

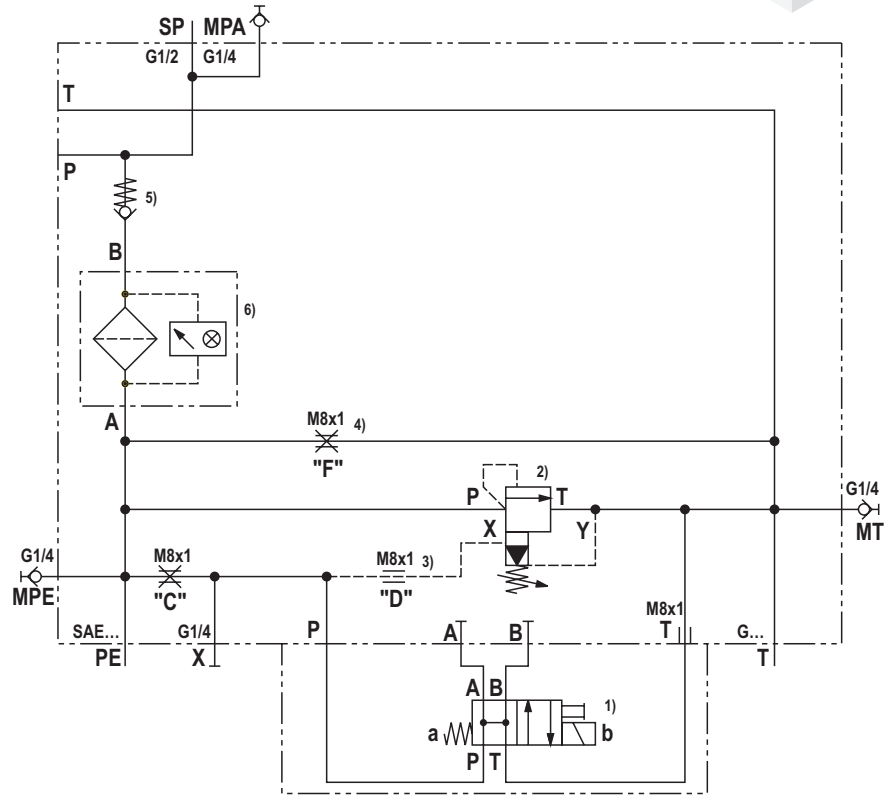
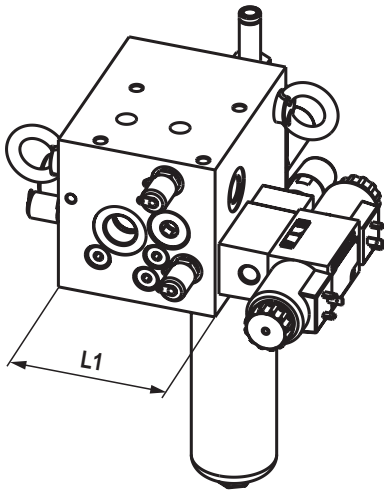
Notices:

- Filter outlet above inlet
- For optimal filter identification see online design software "Bosch Rexroth FilterSelect" (www.boschrexroth.com/filter).

Pump inlet segment: pump inlet segment with filter
(dimensions in mm)



► **Vertical design with filter on the ABPAC tank "AS"**



	Frame size	PE	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	SAE 3/4H	G3/4	130	IH20M1A-AS15R02-1X/	R901415774	-	RA54978522
b	B	SAE 1 1/4H	G1 1/4	135	IH20M1B-AS20R02-1X/	R901415777	-	RA55032769

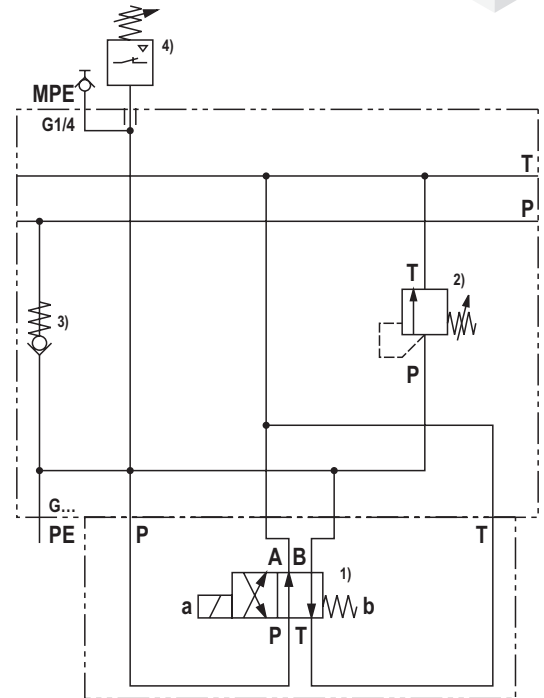
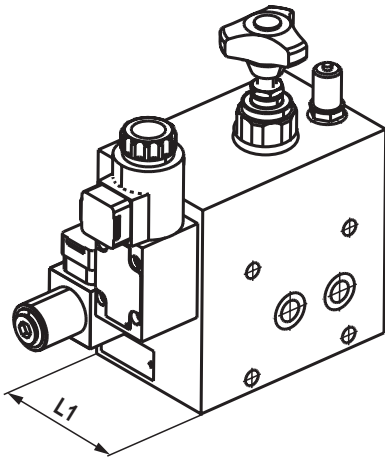
	Filter		Sample assembly
	Size	Data sheet	
a	0015 ... 0018	51405	► Type 4WE 6 HB6X/... (data sheet 23178) ¹⁾ ► Type DB 20 K2-1X/...XY... (data sheet 25818) ²⁾ ► Nozzle ZN10028-0,8-B-M8X1X8-ST (material no. R913017614) ³⁾ ► Plug screw ZN10027-M8X1-SV (material no. R913019129) ⁴⁾ ► Type M-SR 15 KE...-1X/ (data sheet 20380) ⁵⁾ ► Filter, e. g.: 245PSFN0100 (max. 250 bar) material no. R928024394 (NBR) (data sheet 51418) ⁶⁾ ► 350PSFN0100, material no. R928026492 (NBR) (data sheet 51418)
	40 ... 100	51418	
	40 ... 100	51419	
b	160 ... 400	51418	
	160 ... 1000	51419	

Notices:

- Filter outlet above inlet
- For optimal filter identification see online design software "Bosch Rexroth FilterSelect" (www.boschrexroth.com/filter).
- Nozzle fitting for DR controller or displacement pump without bypass

Pump inlet segment: pump inlet segment without filter
(dimensions in mm)

- **Pump inlet segment for pressure limitation and depressurized circulation "PT"**



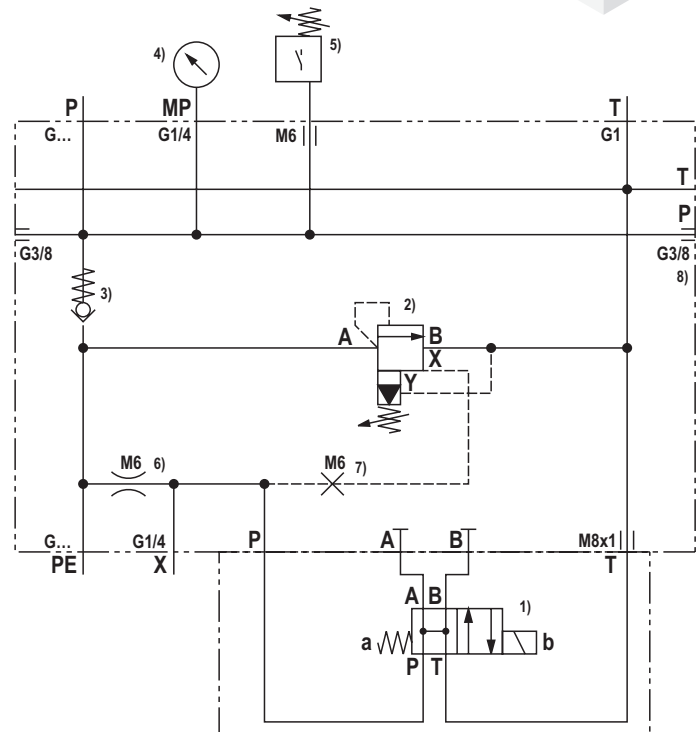
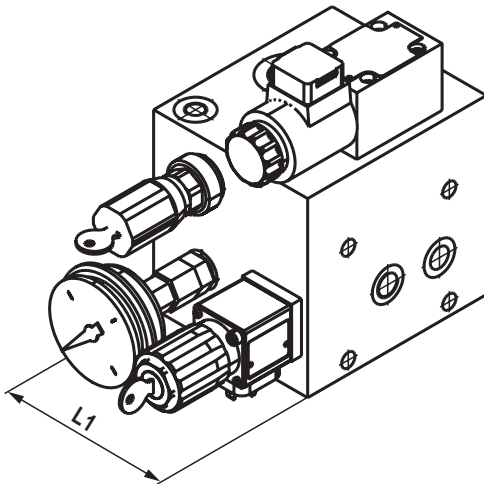
	Frame size	P	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	G3/4	100	IH20M4A-PT15X01-1X/	R901063203	–	R901062799
b	B	G1	100	IH20M4B-PT20X01-1X/	R901063306	R901296804	R901063309
c	B	G1 1/4	150	IH20M4B-PT25X01-1X/	R901063390	R901296808	R901063394

Sample assembly

a	<ul style="list-style-type: none"> ► Type 4WE 6 D73-6X/... (data sheet 23178) ¹⁾ ► Type DBD... 10 K1X/... (data sheet 25402) ²⁾ ► Type M-SR 15 KE...-1X/ (data sheet 20380) ³⁾ ► Type HED 8 OH2X/... (data sheet 50061) ⁴⁾
b	<ul style="list-style-type: none"> ► Type 4WE 6 D73-6X/... (data sheet 23178) ¹⁾ ► Type DBD... 20 K1X/... (data sheet 25402) ²⁾ ► Type M-SR 20 KE...-1X/ (data sheet 20380) ³⁾ ► Type HED 8 OH1X/... (data sheet 50061) ⁴⁾
c	<ul style="list-style-type: none"> ► Type 4WE 10 D73-5X/... (data sheet 23340) ¹⁾ ► Type DBD... 20 K1X/... (data sheet 25402) ²⁾ ► Type M-SR 25 KE...-1X/ (data sheet 20380) ³⁾ ► Type HED 8 OH1X/... (data sheet 50061) ⁴⁾

Pump inlet segment: pump inlet segment without filter (dimensions in mm)

- Pump inlet segment for pressure limitation and depressurized circulation "VP"



	Frame size	P	PE	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	G3/8	G3/4	G1	125	IH20M4A-VP20R04-1X/	R901156578	–	R901156583
b	B	G1 1/4	–	–	125	IH20M4B-VP20R02-2X	R900763561	–	R900764344

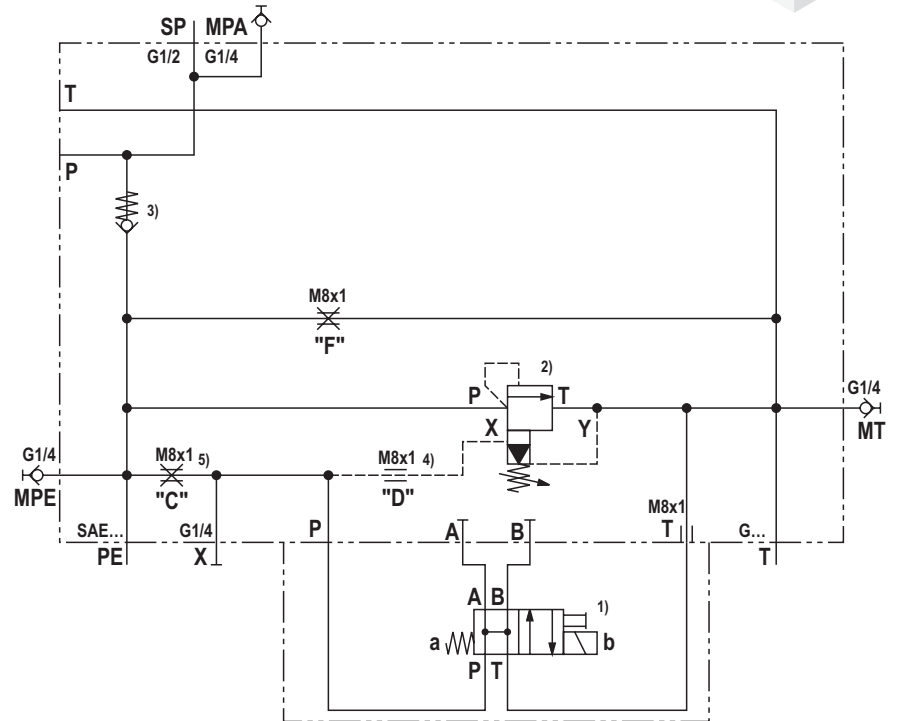
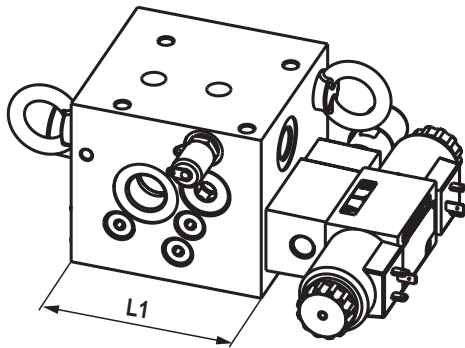
Sample assembly	
a	<ul style="list-style-type: none"> ► Type 4WE 6 HB6X/... (data sheet 23178) ¹⁾ ► Type DB 20 K...-1X/... (data sheet 25402) ²⁾ ► Type M-SR 15 KE...-1X/... (data sheet 20380) ³⁾ ► Pressure gauge (data sheet 50205) ⁴⁾ ► Type HED 8 OH2X/... (data sheet 50061) ⁵⁾ ► Nozzle ZN10028-0,8-B-M6X6-SV (material no. R913018582) ⁶⁾ ► Plug screw ZN10027-M6-SV (material no. R913019128) ⁷⁾ ► Plug screw ZN10027-R3/8-SV (material no. R913019138) ⁸⁾
b	<ul style="list-style-type: none"> ► Type 4WE 6 HB6X/... (data sheet 23340) ¹⁾ ► Type DB 20 K1-1X/... (data sheet 25818) ²⁾ ► Pressure gauge (data sheet 50205) ³⁾ ► Type HED 8 OH2X/... (data sheet 50061) ⁴⁾ ► Shut-off valve ABZSS 10-M-2X/M, material no. R900210324 (NBR) ⁵⁾ ► Nozzle ZN10028-0,8-B-M6X6-SV (material no. R913018582) ⁶⁾ ► Plug screw ZN10027-M6-SV (material no. R913019128) ⁷⁾ ► Thread G3/4 for plug screw ZN10027-R3/4-SV (material no. R913023612) for separation in channel P with multiple pump circuits ⁸⁾

Notices:

- Sample nozzle fitting for A10VSO with DFR1 controller

Pump inlet segment: pump inlet segment without filter
(dimensions in mm)

► **Vertical design on the ABPAC tank "AS"**



	Frame size	PE	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	SAE 3/4H	G3/4	115	IH20M1A-AS15R01-1X/	R901415771	-	RA54913239
b	B	SAE 1 1/4H	G1 1/4	135	IH20M1B-AS20R01-1X/	R901415775	-	RA55069481

Sample assembly

a	<ul style="list-style-type: none"> ► Type 4WE 6 HB6X/... (data sheet 23178) ¹⁾ ► Type DB 20 K2-1X/...XY... (data sheet 25818) ²⁾ ► Nozzle ZN10028-0,8-B-M8X1X8-ST (material no. R913017614) ⁴⁾ ► Plug screw ZN10027-M8X1-SV (material no. R913019129) ⁵⁾
b	<ul style="list-style-type: none"> ► Type 4WE 6 HB6X/... (data sheet 23178) ¹⁾ ► Type DB 20 K2-1X/...XY... (data sheet 25818) ²⁾ ► Type M-SR 20 KE...-1X/... (data sheet 20380) ³⁾ ► Nozzle ZN10028-0,8-B-M8X1X8-ST (material no. R913017614) ⁴⁾ ► Plug screw ZN10027-M8X1-SV (material no. R913019129) ⁵⁾

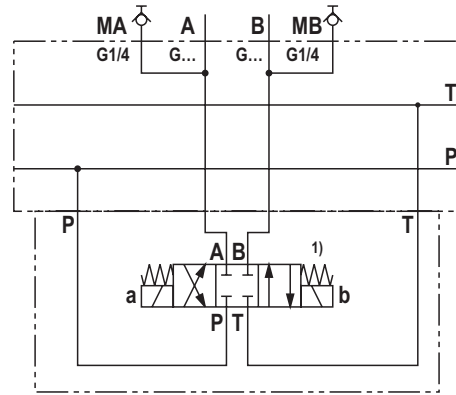
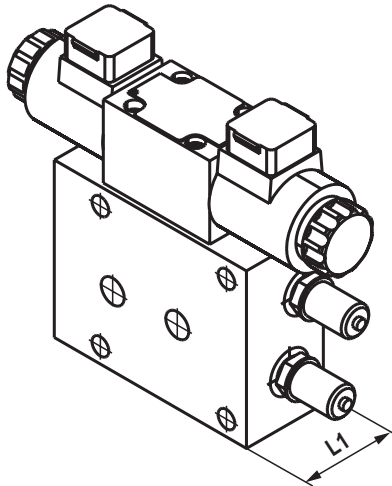


Notices:

Nozzle fitting for DR controller or displacement pump without bypass

Directional function: single
(dimensions in mm)

- ▶ Valve segment size 6 with porting pattern type 06A "VS"
- ▶ Valve segment size 10 with porting pattern type 10A "VS"
- ▶ Valve segment size 16 with porting pattern type 16A "VS"

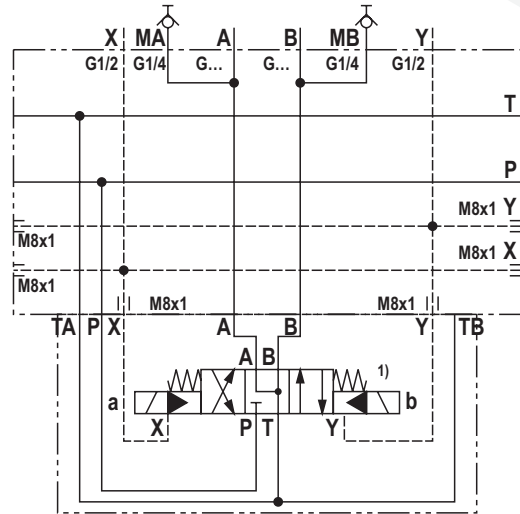
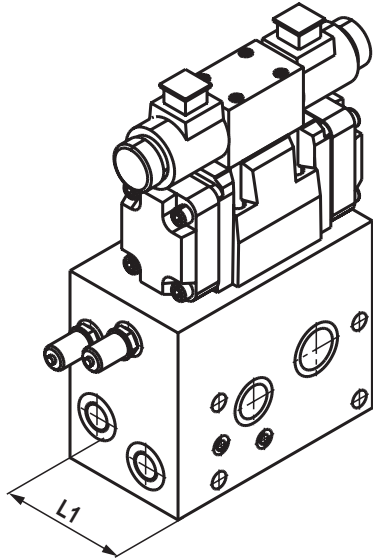


	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	6	G1/2	G1/2	50	IH20M2A-VS06A01-1X/	R900977155	R901028782	R900619291
b	A	10	G3/4	G3/4	75	IH20M2A-VS10A01-1X/	R900773110	R901103466	R900773113
c	B	6	G1/2	G1/2	50	IH20M2B-VS06A01-1X/	R900977156	R900786558	R900245791
d	B	6	G3/4	G3/4	75	IH20M2B-VS06A02-1X	R900753099	-	R900754365
e	B	10	G3/4	G3/4	75	IH20M2B-VS10A01-1X/	R900977157	R900786560	R900245792
f	B	16	G1	G1	100	IH20M2B-VS16A01-1X/	R900977158	R901001535	R900245801
g	B	16	G1 1/4	G1 1/4	150	IH20M2B-VS16A02-1X	R900753101	R901123063	R900754379
h	B	10	G1	G1	100	IH20M2B-VS10A02-1X/	R900753100	R901135696	R900754370

	Sample assembly
a	▶ Type WE 6 ...-6X/... (data sheet 23178) ¹⁾
b	▶ Type WE 10 ...-5X/... (data sheet 23340) ¹⁾
c	▶ Type WE 6 ...-6X/... (data sheet 23178) ¹⁾
d	▶ Type WE 6 ...-6X/... (data sheet 23178) ¹⁾
e	▶ Type WE 10 ...-5X/... (data sheet 23340), internal pilot oil flow ¹⁾
f	▶ Type WEH 16 ...-7X/...ET... (data sheet 24751), internal pilot oil flow ¹⁾
g	▶ Type WEH 16 ...-7X/...ET... (data sheet 24751), internal pilot oil flow ¹⁾
h	▶ Type WE 10 ...-5X/... (data sheet 23340) ¹⁾

Directional function: single
(dimensions in mm)

- ▶ Valve segment size 10 with porting pattern type 10B "VS"
- ▶ Valve segment size 16 with porting pattern type 16B "VS"



	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	B	10	G1	G1	100	IH20M2B-VS10B01-1X/	R901150332	-	R901150345
b	B	16	G1 1/4	G1 1/4	125	IH20M2B-VS16B01-1X/	R901150350	R901199330	R901150354

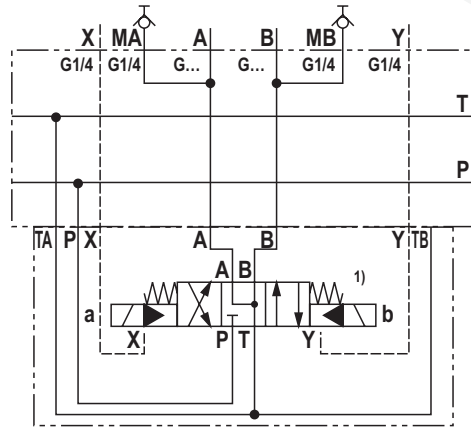
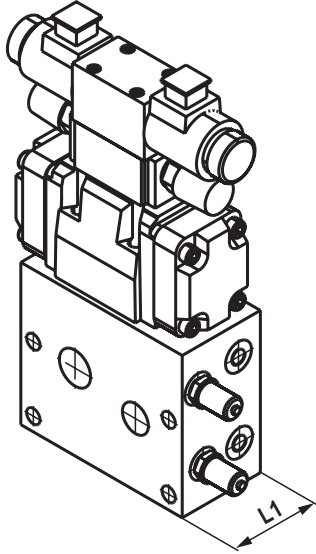
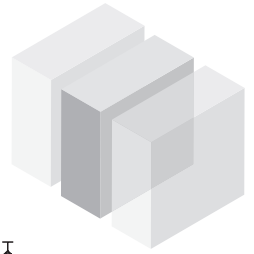
Sample assembly	
a	<ul style="list-style-type: none"> ▶ Type WE 10 ...-4X/... (data sheet 24751) ¹⁾ ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
b	<ul style="list-style-type: none"> ▶ Type WEH 16 ...-7X/... (data sheet 24751) ¹⁾ ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Notice:

Pilot and leak oil flow externally and into other segments possible

Directional function: single
(dimensions in mm)

- ▶ Valve segment size 10 with porting pattern type 10B "VS"
- ▶ Valve segment size 16 with porting pattern type 16B "VS"



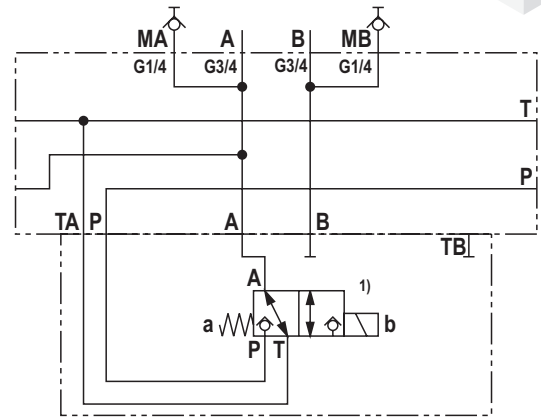
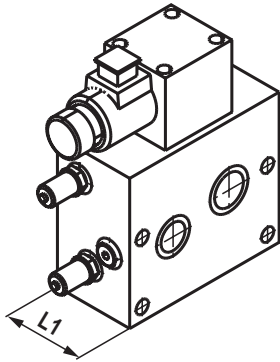
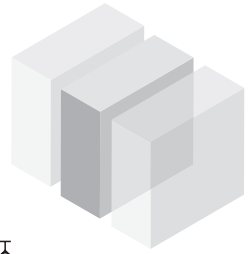
	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	B	10	G3/4	G3/4	75	IH20M2B-VS10B04-1X/	R901030689	-	R901030691
b	B	16	G1	G1	10	IH20M2B-VS16B04-1X/	R901030678	R901126048	R901030687

Sample assembly	
a	▶ Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾
b	▶ Type WEH 16 ...-7X/... (data sheet 24751) ¹⁾

Notice:
External pilot and leak oil flow

Directional function: single
(dimensions in mm)

► Valve segment size 10 with porting pattern type 10A "VP"



Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	10	G3/4	G3/4	75	IH20M4B-VP10A04-1X/	R901149258	-	R901149262

Sample assembly

- Type WE 10 ...-5X/... (data sheet 23340) ¹⁾
- Type M-...SED 10-1X/... (data sheet 22045) ¹⁾

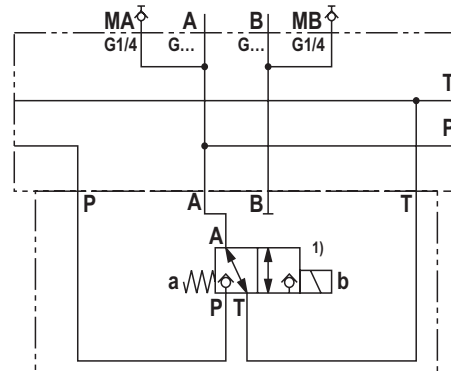
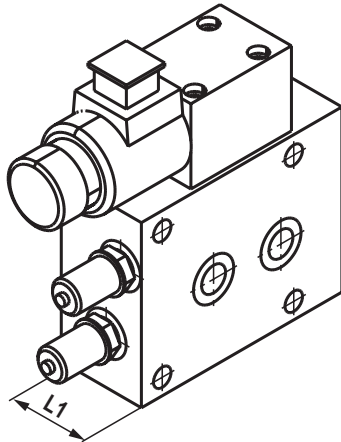


Notice:

Channel P to A continuing to the left

Directional function: single
(dimensions in mm)

- ▶ Valve segment size 6 with porting pattern type 06A "VP"
- ▶ Valve segment size 10 with porting pattern type 10A "VP"
- ▶ Valve segment size 16 with porting pattern type 16A "VP"



	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	6	G1/2	G1/2	50	IH20M4A-VP06A02-1X/	R901009817	R901028784	R901009825
b	A	10	G3/4	G3/4	75	IH20M4A-VP10A02-1X/	R901010203	R901170585	R901010208
c	B	6	G1/2	G1/2	50	IH20M4B-VP06A02-1X/	R900755445	R901003106	R900755774
d	B	10	G3/4	G3/4	75	IH20M4B-VP10A02-1X/	R900762865	R901170651	R900763545
e	B	16	G1	G1	100	IH20M4B-VP16A02-1X/	R900762866	-	R900763413

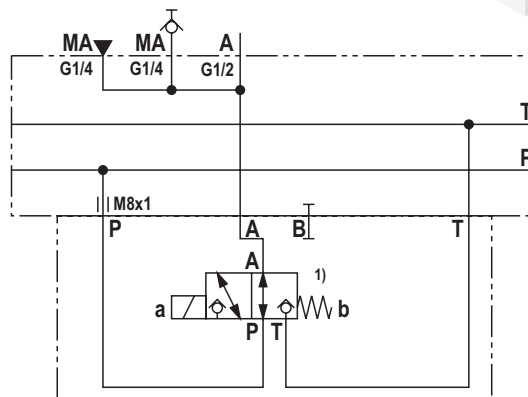
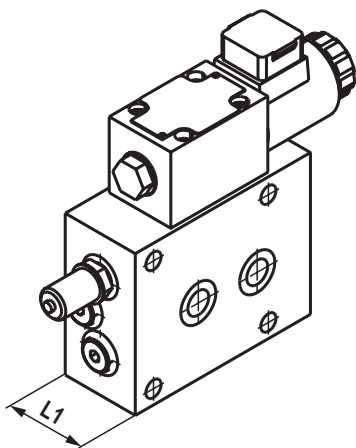
	Sample assembly
a	<ul style="list-style-type: none"> ▶ Type WE 6 ...-6X/... (data sheet 23178) ¹⁾ ▶ Type M-...SED 6 ...-1X/... (data sheet 22049) ¹⁾
b	<ul style="list-style-type: none"> ▶ Type WE 10 ...-5X/... (data sheet 23340) ¹⁾ ▶ Type M-...SED 10 ...-1X/... (data sheet 22045) ¹⁾
c	<ul style="list-style-type: none"> ▶ Type WE 6 ...-6X/... (data sheet 23178) ¹⁾ ▶ Type M-.SED 6 ...-1X/... (data sheet 22049) ¹⁾
d	<ul style="list-style-type: none"> ▶ Type WE 10 ...-5X/... (data sheet 23340) ¹⁾ ▶ Type M-.SED 10 ...-1X/... (data sheet 22045) ¹⁾
e	<ul style="list-style-type: none"> ▶ Type WEH 16 ...-7X/...ET... (data sheet 24751) ¹⁾ ▶ Internal pilot and leak oil flow

**Notice:**

Channel P to A continuing to the right

Directional function: single
(dimensions in mm)

► Valve segment size 6 with porting pattern type 06A "VS"



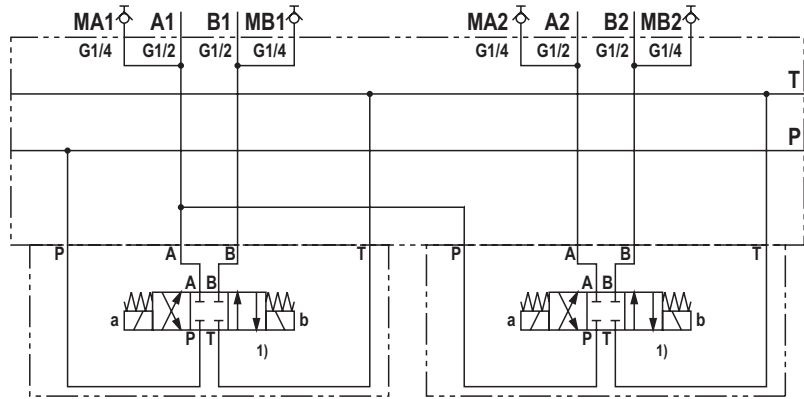
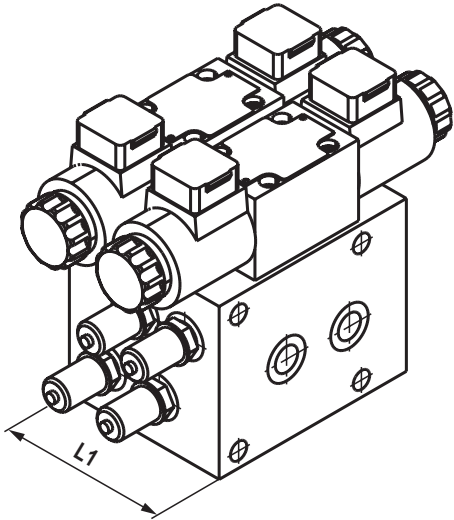
Frame size	Size	A	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	6	G1/2	50	IH20M2A-VS06A14-1X/	R901086193	R901423317	R901086197

Sample assembly

- Type M-3SED 6 ...-1X/... (data sheet 22049) ¹⁾
- Type WE 6 ...-6X/... (data sheet 23178) ¹⁾

Directional function: internally linked
(dimensions in mm)

► Valve segment size 6 with 2 x porting pattern
type 06A "VS"



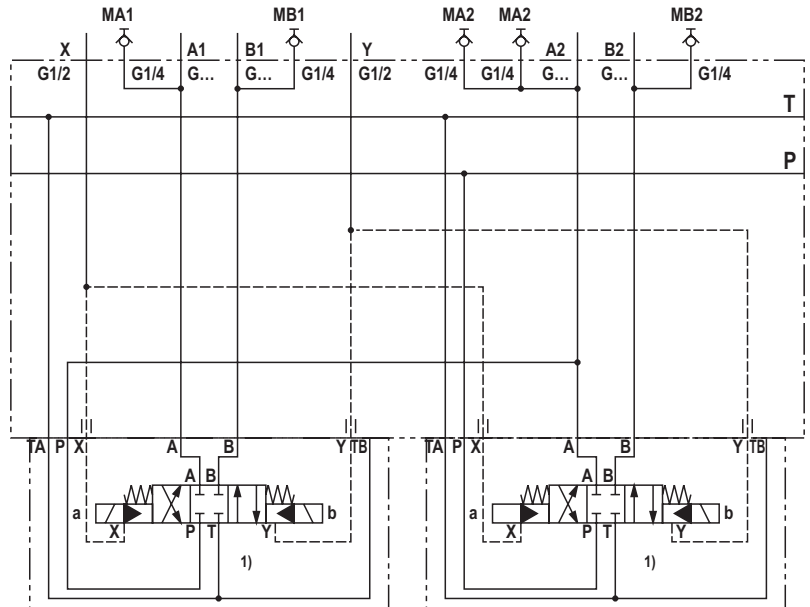
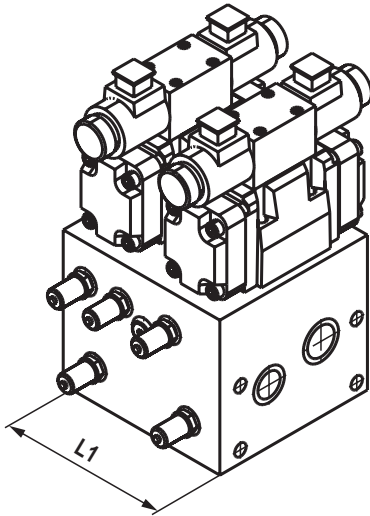
Frame size	Size	A1, A2	B1, B2	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	6	G1/2	G1/2	100	IH20M2A-VS06A02-1X/	R900773159	R901296713	R900773164

Sample assembly

► Type WE 6 ...-6X/... (data sheet 23178) ¹⁾

Directional function: internally linked
(dimensions in mm)

- ▶ Valve segment size 10 with 2 x porting pattern type 10B "VE"
- ▶ Valve segment size 16 with 2 x porting pattern type 16B "VE"

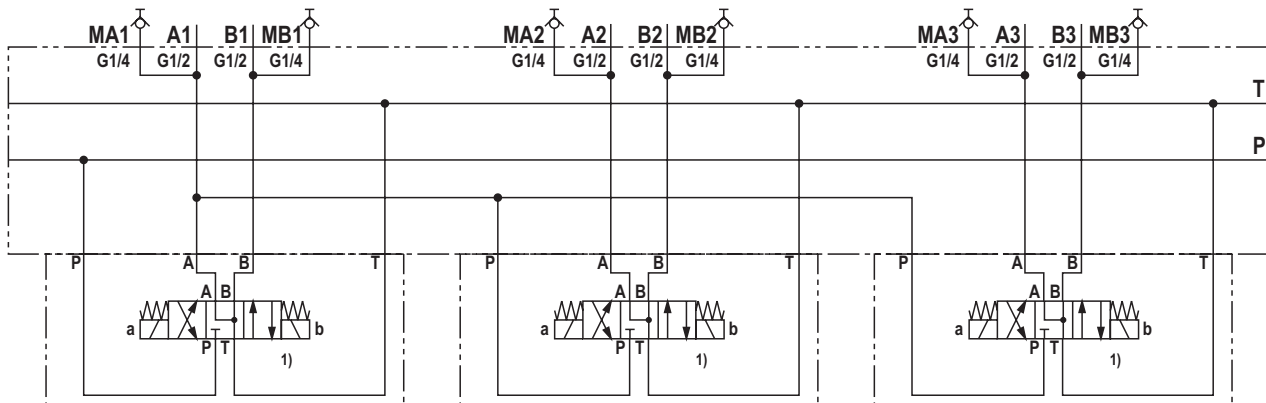
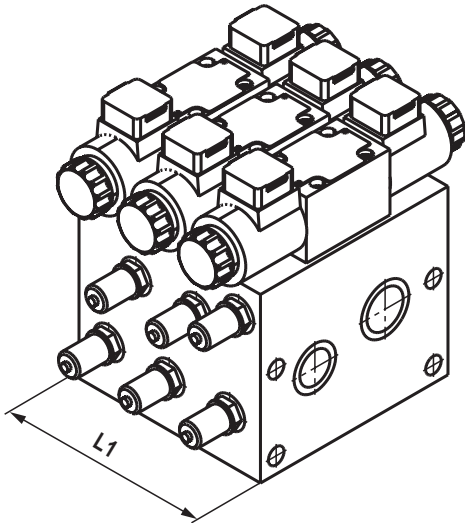


	Frame size	Size	A1, A2	B1, B2	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	G3/4	175	IH20M2A-VE10B01-1X/	R901068122	-	R901068875
b	B	10	G1	G1	175	IH20M2B-VE10B01-1X/	R900750784	R901003915	R900750789
c	B	16	G1 1/4	G1 1/4	250	IH20M2B-VE16B01-1X/	R901047159	-	R901047170

Sample assembly	
a	<ul style="list-style-type: none"> ▶ Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾ ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
b	<ul style="list-style-type: none"> ▶ Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾ ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
c	<ul style="list-style-type: none"> ▶ Type WEH 16 ...-7X/... (data sheet 24751) ¹⁾ ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Directional function: internally linked
(dimensions in mm)

► Valve segment size 6 with porting pattern type 06A "VE"



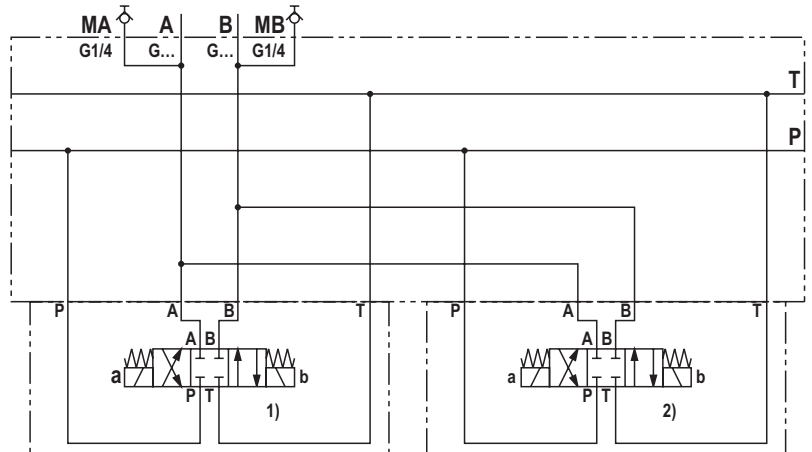
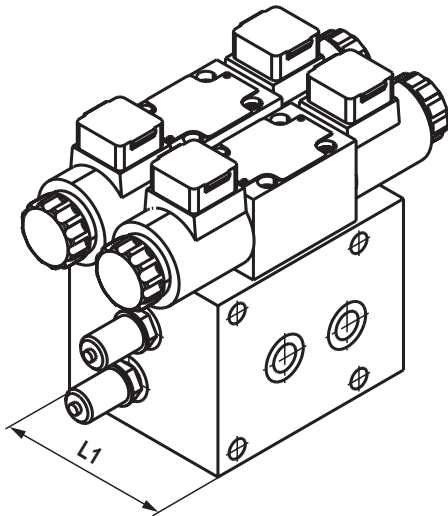
Frame size	Size	A1, A2, A3	B1, B2, B3	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	6	G1/2	G1/2	150	IH20M2B-VE06A3-1X/	R901115084	-	R901115089

Sample assembly

► Type WE 6 ...-6X/... (data sheet 23178) ¹⁾

Directional function: internally linked
(dimensions in mm)

- ▶ Valve segment size 6 with 2 x porting pattern type 06A "VE"
- ▶ Valve segment size 10 with 2 x porting pattern type 10A "VE"
- ▶ Valve segment size 10/16 with 2 x porting pattern type 10/16A "VE"

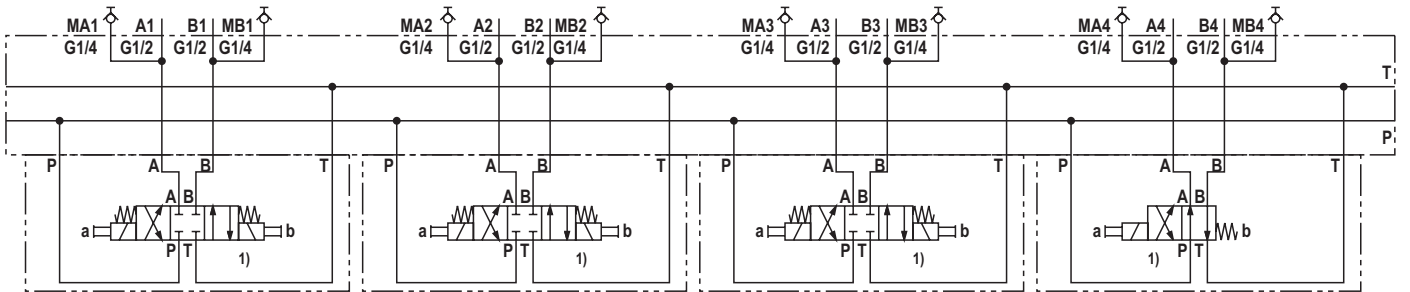
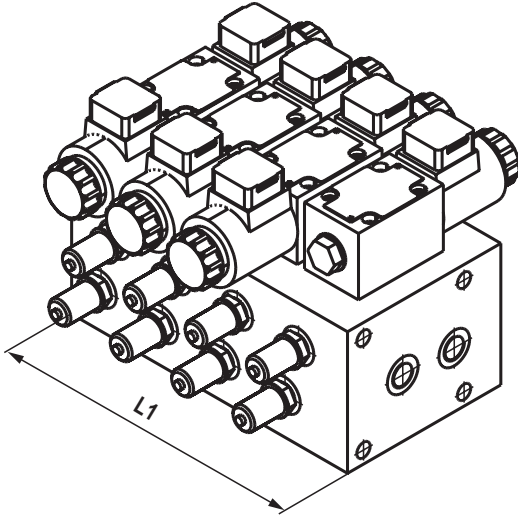


	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	6	G1/2	G1/2	100	IH20M2A-VE06A01-1X/	R900773166	R901028785	R900773170
b	B	10	G3/4	G3/4	150	IH20M2B-VE10A03-1X/	R900722157	-	R900722158
c	B	10/16	G1	G1	175	IH20M2B-VE16A03-1X/	R900767313	-	R900767324

Sample assembly	
a	▶ Type WE 6 ...-6X/... (data sheet 23178) ^{1)/2)}
b	▶ Type WE 10 ...-5X/... (data sheet 23340) ^{1)/2)}
c	▶ Type WEH 16 ...-7X/...ET... (data sheet 24751) and type WE 10 ...-5X/... (Data sheet 23340) ^{1)/2)}

Directional function: multiple
(dimensions in mm)

- Valve segment size 6 with 4 x porting pattern type 06A "VS"

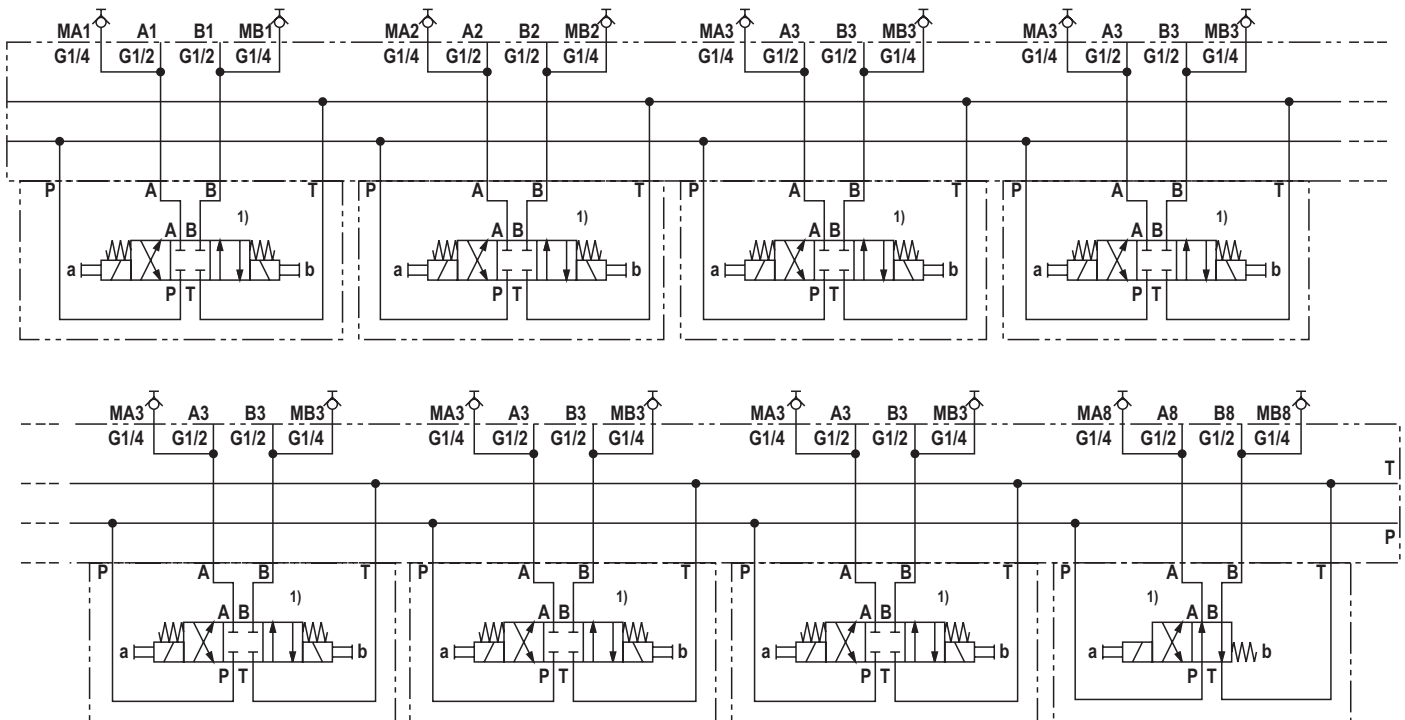
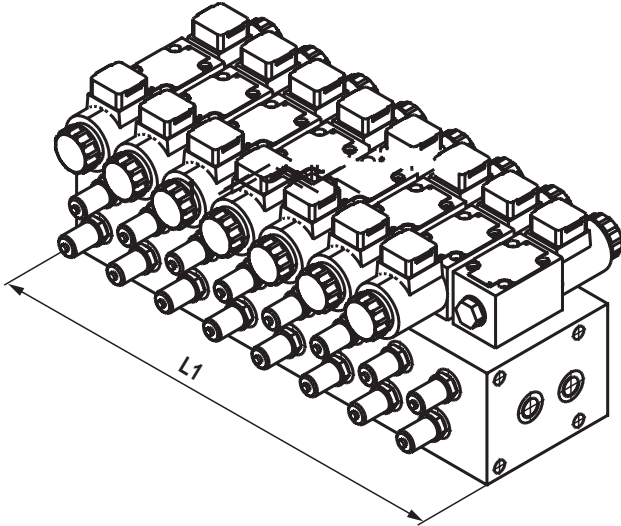


	Frame size	Size	A1, A2, A3, A4	B1, B2, B3, B4	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	6	G1/2	G1/2	225	IH20M2A-VS06A04-1X/	R901201846	R901433493	R901201849
b	B	6	G1/2	G1/2	200	IH20M2B-VS06A04-1X/	R901033078	R901103322	R901033072

Sample assembly	
a	► Type WE 6 ...-6X/... (data sheet 23178) ¹⁾
b	► Type WE 6 ...-6X/... (data sheet 23178) ¹⁾

Directional function: multiple
(dimensions in mm)

- Valve segment size 6 with 8 x porting pattern
type 06A "VS"



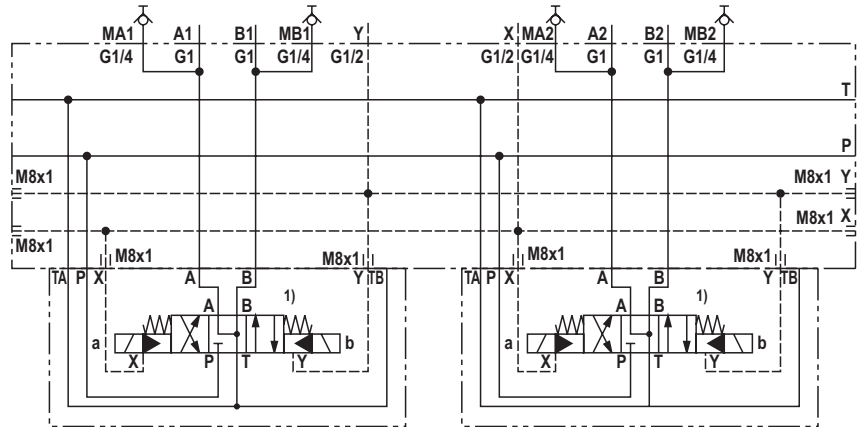
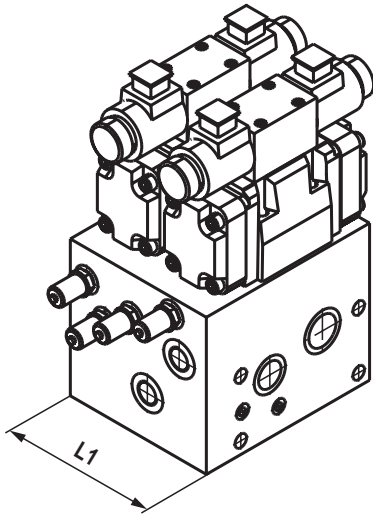
Frame size	Size	A1 ... 8	B1 ... 8	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	6	G1/2	G1/2	425	IH20M2A-VS06A03-1X/	R901201850	-	R901201853

Sample assembly

- Type WE 6 ...-6X/... (data sheet 23178) ¹⁾

Directional function: multiple
(dimensions in mm)

- ▶ Valve segment size 10 with 2 x porting pattern type 10B "VS"



Frame size	Size	A1, A2	B1, B2	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	10	G1	G1	150	IH20M2B-VS10B02-1X/	R901150346	R901431648	R901150349

Sample assembly

- ▶ Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾
- ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

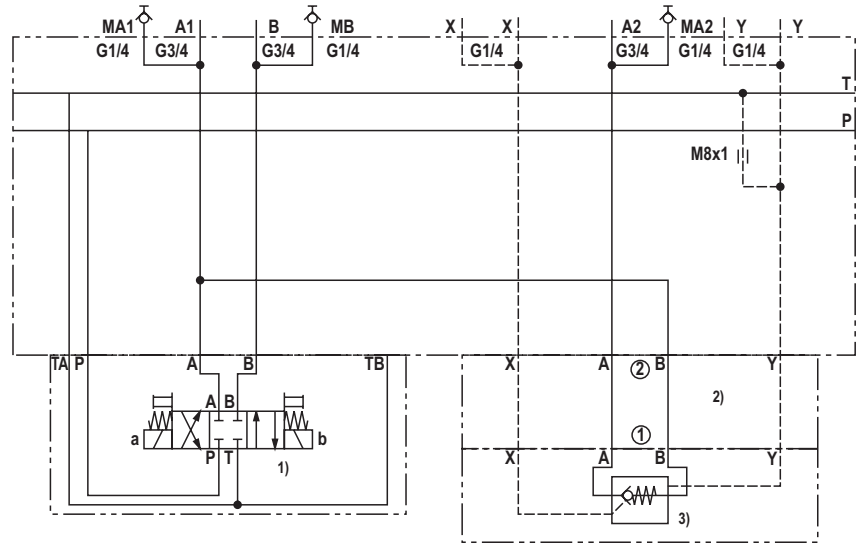
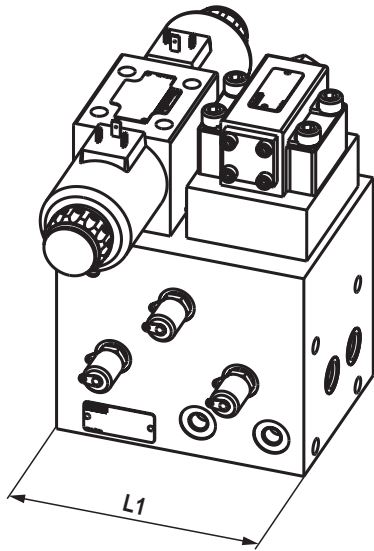


Notice:

Pilot and leak oil flow externally and into other segments possible

Directional function: with blocking function
(dimensions in mm)

- Valve segment size 10 with porting pattern types 10A and 10D "VE"



	Frame size	Size	A1, A2	B1	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	G3/4	175	IH20M2A-VE10A05-1X/	R901066036	-	R901066818
b	B	10	G3/4	G3/4	175	IH20M2B-VE10A05-1X/	R901005288	R901005289	R901005310

Sample assembly

a	<ul style="list-style-type: none"> ► Type WE 10 ...-5X/... (data sheet 23340) ¹⁾ ► Type HSZ 10 D261-3X/M00 (material no. R900947716) ²⁾ and type SL 10 PA3-4X/ (data sheet 21468) ³⁾ ► Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
b	<ul style="list-style-type: none"> ► Type WE 10 ...-5X/... (data sheet 23340) ¹⁾ ► Type HSZ 10 D261-3X/M00 (material no. R900947716) ²⁾ and type SL 10 PA3-4X/ (data sheet 21468) ³⁾ ► Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129).

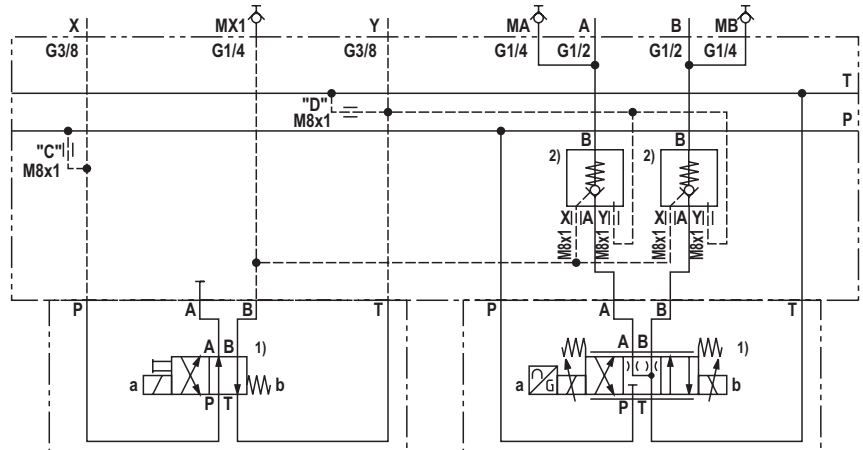
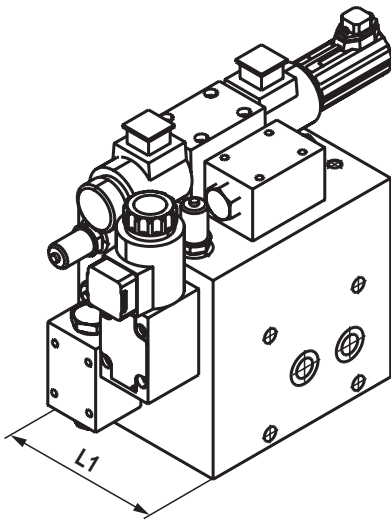


Notice:

External control for port X required

Directional function: with blocking function, electrically switchable in channels A und B (dimensions in mm)

► Valve segment size 6 with porting pattern type 06A "VS"



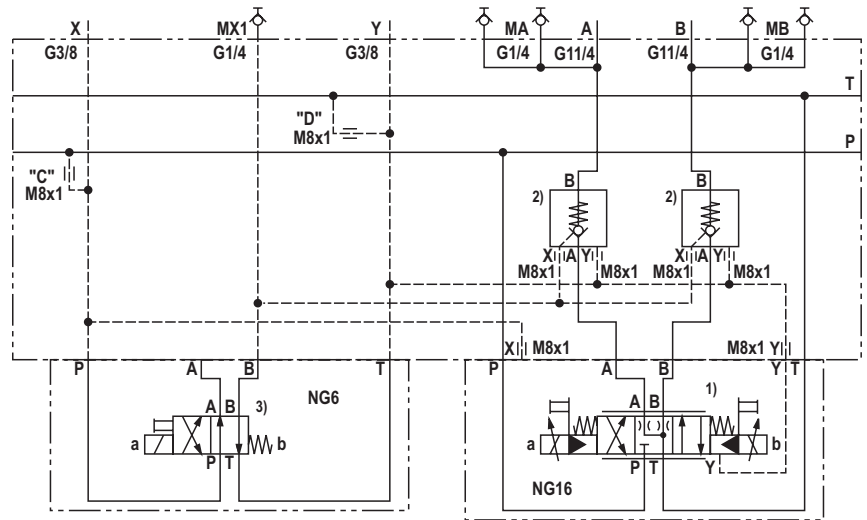
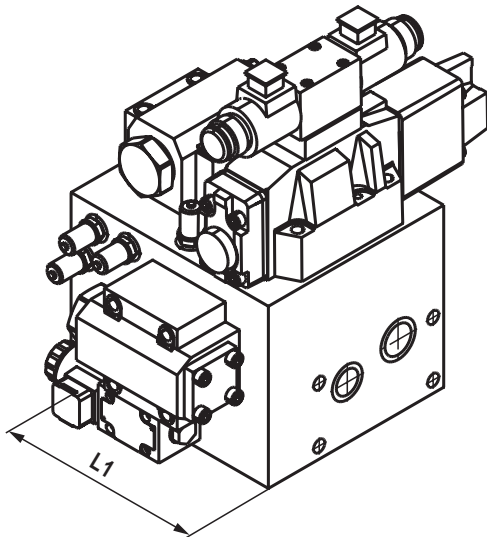
Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	6	G1/2	G1/2	125	IH20M2A-VS06A08-1X/	R901074901	-	R901074905

Sample assembly

- Type WE 6 ...-6X/... (data sheet 23178) ¹⁾
- Type SL 6 P...-6X/... (data sheet 21460) ²⁾
- Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Directional function: with blocking function, electrically switchable in channels A and B (dimensions in mm)

- ▶ Valve segment size 16 with porting pattern types 16B, 6A and 20D "VS"



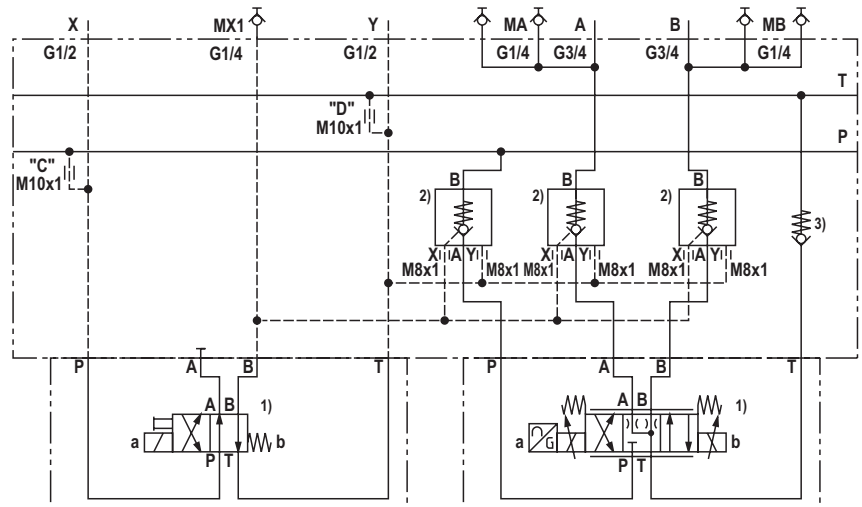
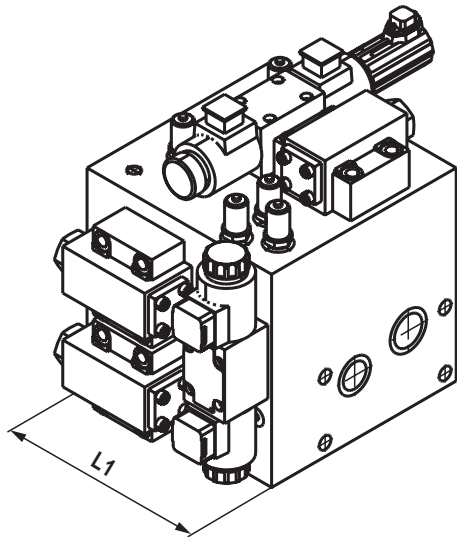
Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	16	G1/4	G1/4	225	IH20M2B-VS16B08-1X/	R901161047	-	R901161054

Sample assembly

- ▶ Type WEH 16 ...-7X/... (data sheet 24751) ¹⁾
- ▶ Type SL 20 P...-4X/... (data sheet 21468) ²⁾
- ▶ Type WE 6 ...-6X/... (data sheet 23178) ³⁾
- ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Directional function: with blocking function, electrically switchable in channels P, A und B (dimensions in mm)

- Valve segment size 6 with 2 x porting pattern types 06A and 10D "VS"



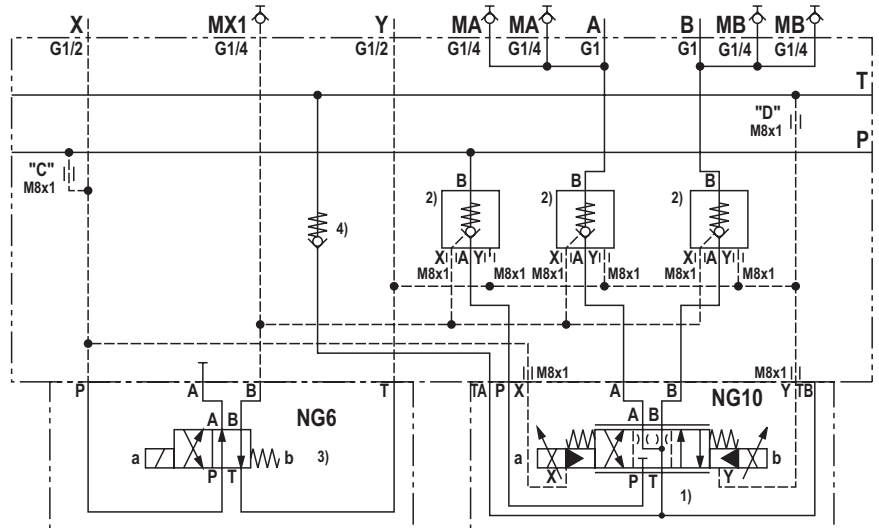
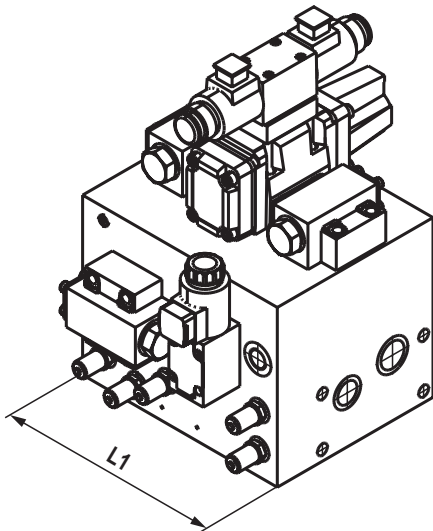
Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	6, 10	G3/4	G3/4	225	IH20M2B-VS06A09-1X/	R901072206	R901173161	R901072215

Sample assembly

- Type WE 6 ...-6X/... (data sheet 23178) ¹⁾
- Type SL 10 P...-4X/... (data sheet 21468) ²⁾
- Type M-SR 15 KE...-1X/... (data sheet 20380) ³⁾
- X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M10x1-SV (material no. R913019130) and/or plug screw ZN10027-M8x1-SV (material no. R913019129)

Directional function: with blocking function, electrically switchable in channels P, A und B (dimensions in mm)

- Valve segment size 10 with porting pattern types 10B, 6A and 10D "VS"



Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	6, 10	G1	G1	250	IH20M2B-VS10B09-1X	R901174327	R901296799	R901174331

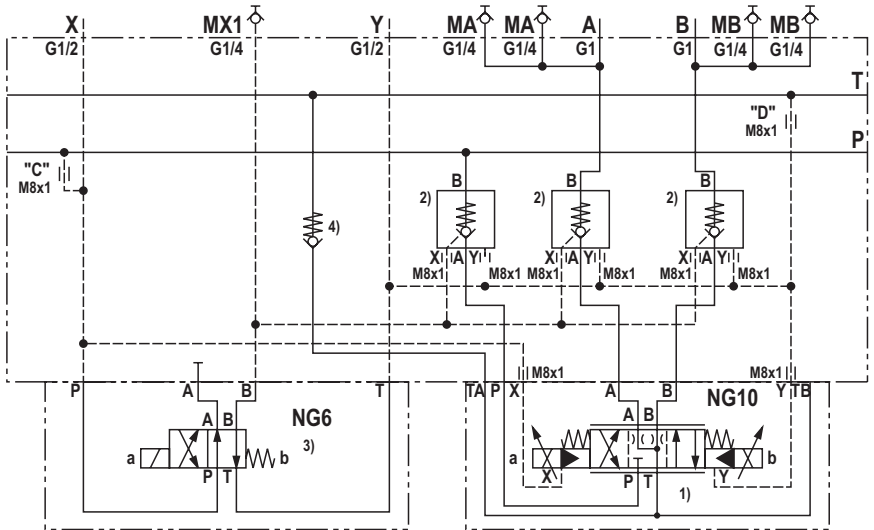
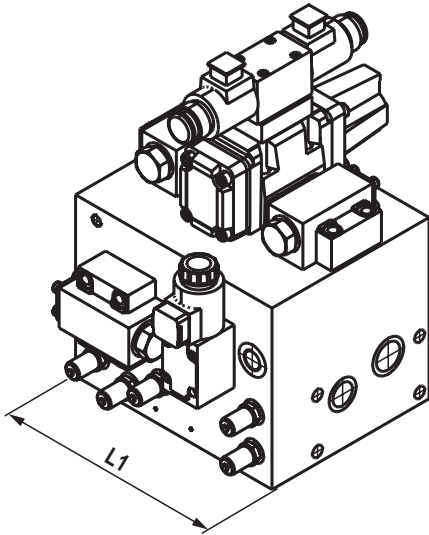
Sample assembly

- Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾
- Type SL 10 P...-4X/... (data sheet 21468) ²⁾
- Type WE 6 ...-6X/... (data sheet 23178) ³⁾
- Type M-SR 20 KE...-1X/... (data sheet 20380) ⁴⁾
- X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Directional function: with blocking function, electrically switchable in channels P, A und B (dimensions in mm)



- ▶ Valve segment size 10 with porting pattern types 06A, 10B and 10D "VS"



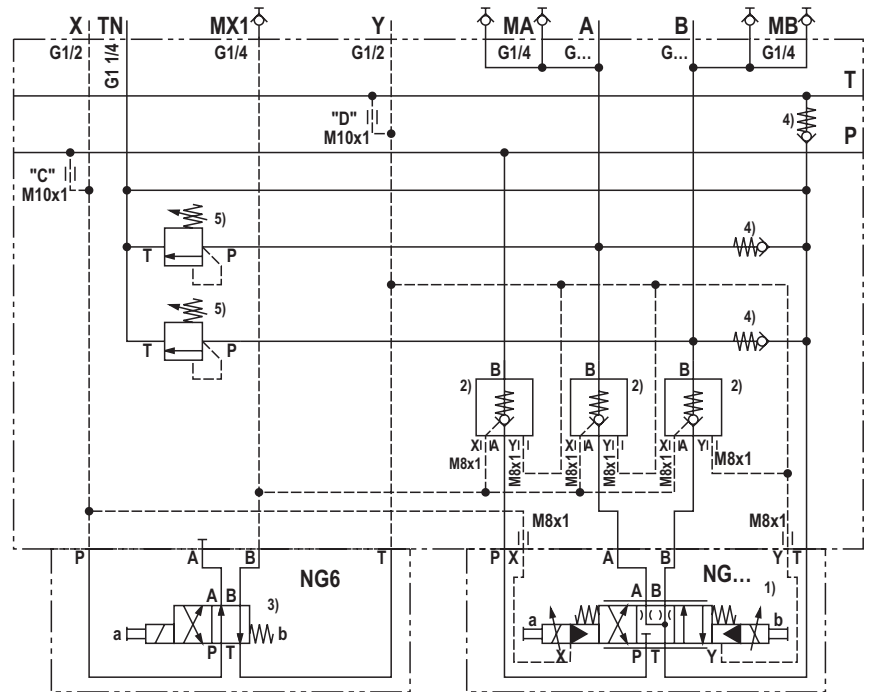
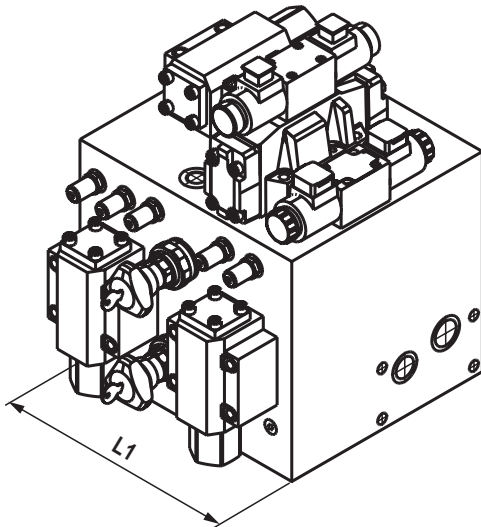
Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	6, 10	G1	G1	250	IH20M2B-VS10B09-1X	R901174327	R901296799	R901174331

Sample assembly

- ▶ Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾
- ▶ Type SL 10 P...-4X/... (data sheet 21468) ²⁾
- ▶ Type WE 6 ...-6X/... (data sheet 23178) ³⁾
- ▶ Type M-SR 20 KE...-1X/... (data sheet 20380) ⁴⁾
- ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Directional function: with blocking and pressure function
(dimensions in mm)

- Valve segment size 16 with porting pattern types 16B, 6A and 20D "VS"

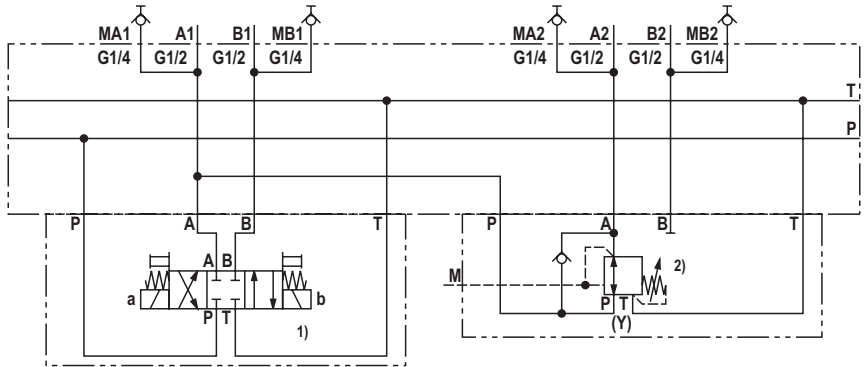
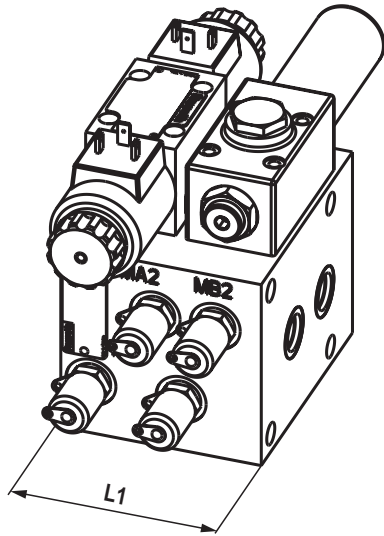


	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	B	10	G1	G1	250	IH20M2B-VS10B10-1X/	R901192533	–	R901192537
b	B	16	G1 1/4	G1 1/4	300	IH20M2B-VS16B10-1X/	R901224030	–	R901224034

Sample assembly	
a	<ul style="list-style-type: none"> ► Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾ ► Type SL 10 P...-4X/... (data sheet 21468) ²⁾ ► Type WE 6 ...-6X/... (data sheet 23178) ³⁾ ► Type M-SR 20 KE...-1X/... (data sheet 20380) ⁴⁾ ► Type DBDS 10 K1X/... (data sheet 25402) ⁵⁾ ► X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M10x1-SV (material no. R913019130) and/or plug screw ZN10027-M8x1-SV (material no. R913019129)
b	<ul style="list-style-type: none"> ► Type WEH 16 ...-4X/... (data sheet 24751) ¹⁾ ► Type SL 20 P...-4X/... (data sheet 21468) ²⁾ ► Type WE 6 ...-6X/... (data sheet 23178) ³⁾ ► Type M-SR 25 KE...-1X/... (data sheet 20380) ⁴⁾ ► Type DBDS 20 K1X/... (data sheet 25402) ⁵⁾ ► X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M10x1-SV (material no. R913019130) and/or plug screw ZN10027-M8x1-SV (material no. R913019129)

Directional function: with pressure function
(dimensions in mm)

► Valve segment size 6 with 2 x porting pattern type 06A "VS"



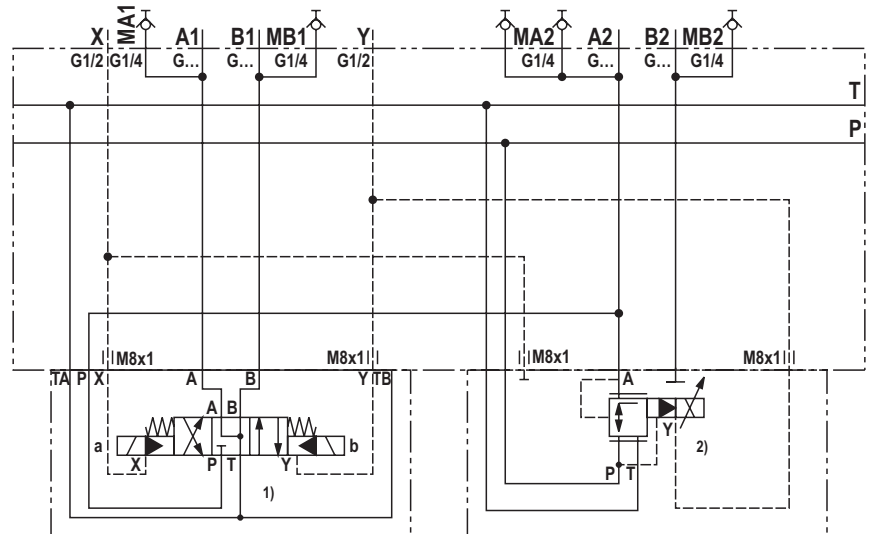
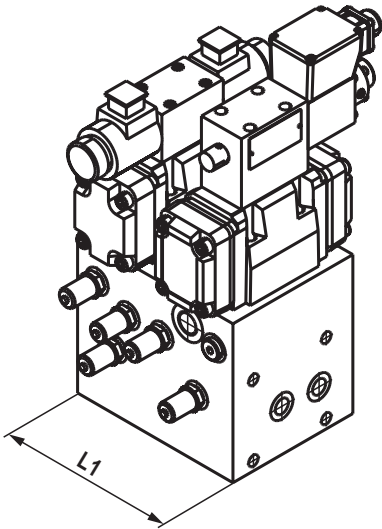
Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	6	G1/2	G1/2	100	IH20M2A-VS06A02-1X/	R900773159	R901296713	R900773164

Sample assembly

- Type WE 6 ...-6X/... (data sheet 23178) ¹⁾
- Type DR 6 DP...-5X/... (data sheet 26564) ²⁾

Directional function: with pressure function in channel P
(dimensions in mm)

- ▶ Valve segment size 10 with 2 x porting pattern type 10B "VE"
- ▶ Valve segment size 16 with 2 x porting pattern type 16B "VE"

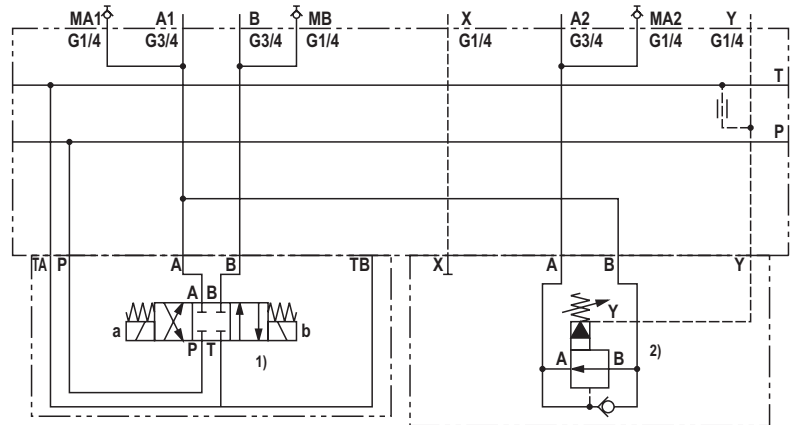
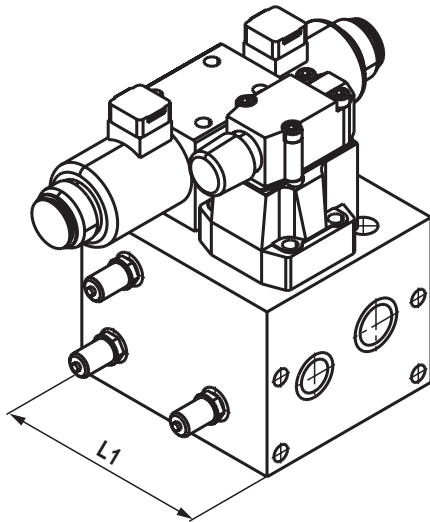


	Frame size	Size	A1, A2	B1, B2	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	G3/4	175	IH20M2A-VE10B01-1X/	R901068122	-	R901068875
b	B	10	G1	G1	175	IH20M2B-VE10B01-1X/	R900750784	R901003915	R900750789
c	B	16	G1 1/4	G1 1/4	250	IH20M2B-VE16B01-1X/	R901047159	-	R901047170

Sample assembly	
a	<ul style="list-style-type: none"> ▶ Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾ ▶ Type 3DR 10 P...-6X/... (data sheet 26915) ²⁾ ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
b	<ul style="list-style-type: none"> ▶ Type WEH 10 ...-4X/... (data sheet 24751) ¹⁾ ▶ Type 3DR 10 P...-6X/... (data sheet 26915) ²⁾ ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
c	<ul style="list-style-type: none"> ▶ Type WEH 16 ...-7X/... (data sheet 24751) ¹⁾ ▶ Type 3DR 16 P...-5X/... (data sheet 26928) ²⁾ ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Directional function: with pressure function in channel A
(dimensions in mm)

- ▶ Valve segment size 10 with porting pattern types 10A and 10D "VE"

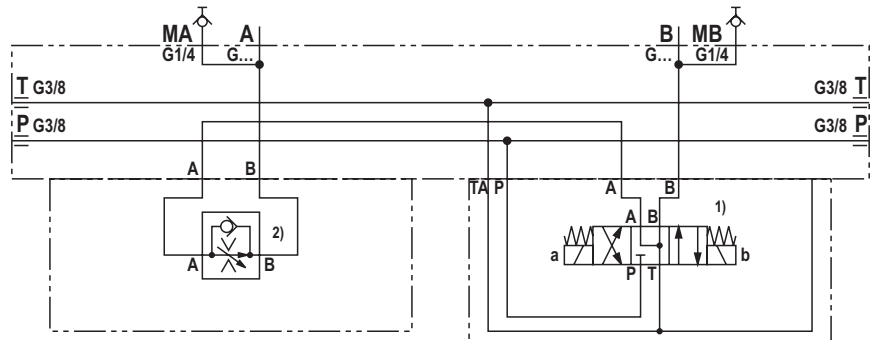
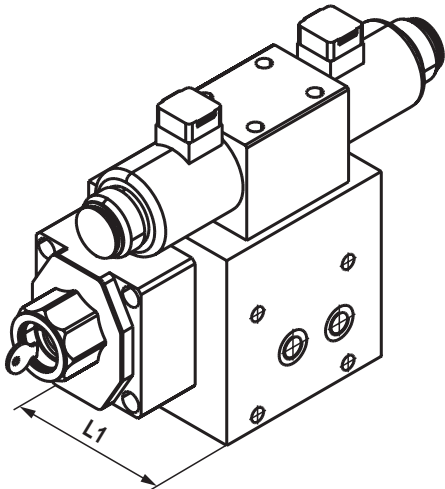


	Frame size	Size	A1, A2	B	X, Y	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	G3/4	G1/4	175	IH20M2A-VE10A05-1X/	R901066036	-	R901066818
b	B	10	G3/4	G3/4	G1/4	175	IH20M2B-VE10A05-1X/	R901005288	R901005289	R901005310

Sample assembly	
a	<ul style="list-style-type: none"> ▶ Type WE 10 ...-5X/... (data sheet 23340) ¹⁾ ▶ Type DR 10 ...-5X/... (data sheet 26892) ²⁾ ▶ Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
b	<ul style="list-style-type: none"> ▶ Type WE 10 ...-5X/... (data sheet 23340) ¹⁾ ▶ Type DR 10 ...-5X/... (data sheet 26892) ²⁾

Directional function: with flow control function in channel A
(dimensions in mm)

- Valve segment size 10 with porting pattern types 10A and 10D "VE"

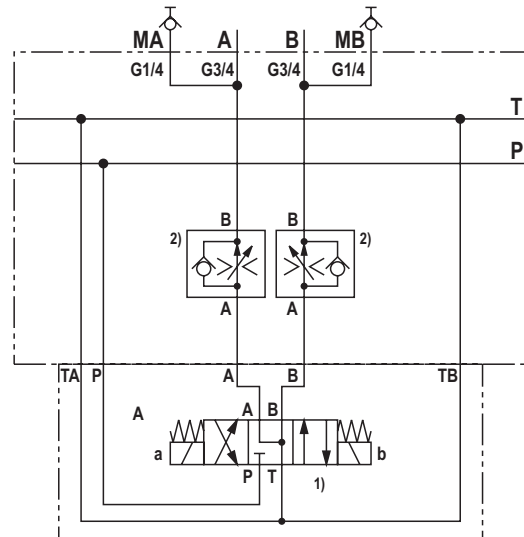
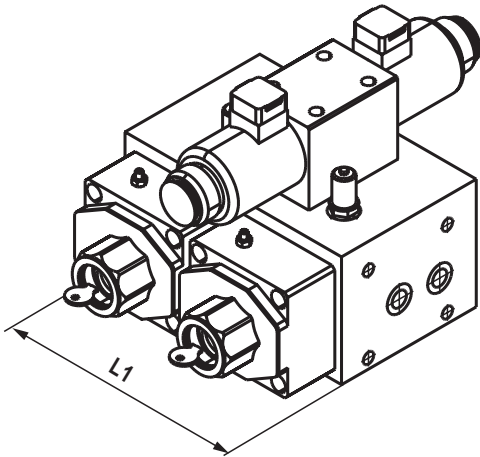


	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	G3/4	125	IH20M2A-VE10A01-1X/	R901027180	R901169761	R901027207
b	B	10	G1 1/4	G1 1/4	175	IH20M2B-VE16B12-1X/	R901161055	R901415205	R901161058

Sample assembly	
a	<ul style="list-style-type: none"> ► Type WE 10 ...-5X/... (data sheet 23340) ¹⁾ ► Type 2FRM 10 ...-3X/... (data sheet 28389) ²⁾
b	<ul style="list-style-type: none"> ► Type WEH 16 ...-7X/... (data sheet 24751) ¹⁾ ► Type 2FRM 16 ...-3X/... with Z4S 16 ...-3X/... (data sheet 28389) ²⁾

Directional function: with flow control function in channels A and B
(dimensions in mm)

- Valve segment size 10 with porting pattern types 10A and 2 x 10G "VE"



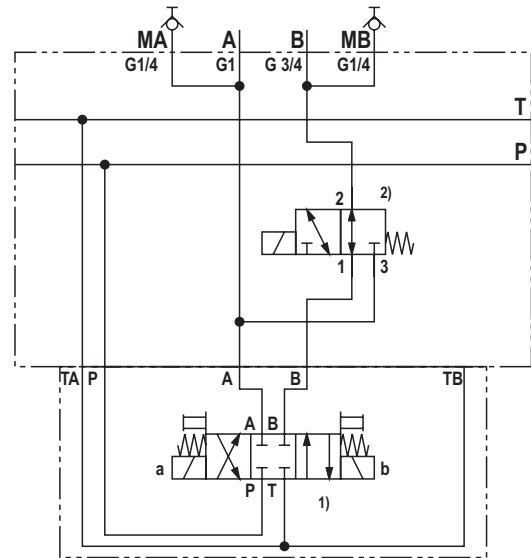
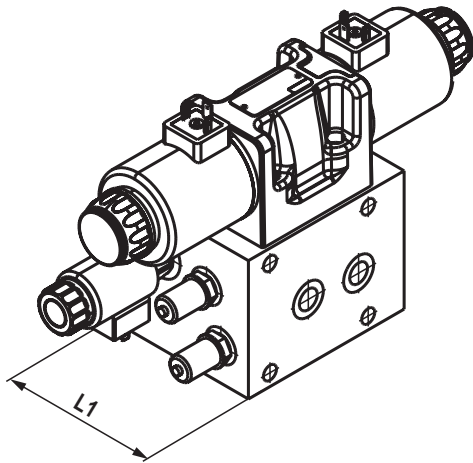
Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	10	G3/4	G3/4	225	IH20M2A-VE10A10-1X/	R901088480	R901295938	R901088483

Sample assembly

- Type WE 10 ...-5X/... (data sheet 23340) ¹⁾
- Type 2FRM 10 ...-3X/... (data sheet 28389) ²⁾

Directional function: switchable differential circuit
(dimensions in mm)

► Valve segment size 10 with porting pattern type 10A "VE"



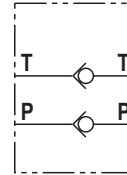
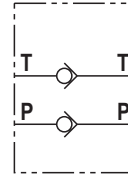
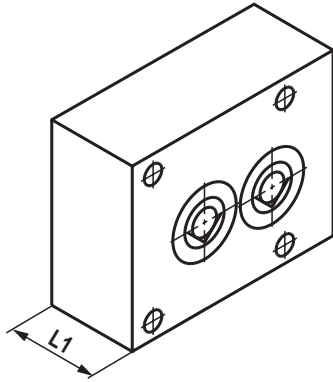
Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	10	G1	G3/4	100	IH20M2A-VE10A02-1X/	R901329735	-	R901329745

Sample assembly

- Type WE 10 ...-5X/... (data sheet 23340) ¹⁾ and
- Type KKDER1UA/HN9V (material no. R901070105), installation bore T-11A with solenoid coil 37-K4 -22G24 00 (material no. R900991121), (data sheet 18136-04) ²⁾

Blocking function: check function
(dimensions in mm)

► Valve segment for check valve in channel P and/or T "PT"



Frame size	Size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	16	50	IH20M4A-PT16X01-1X/	R901017780	R901131914	R901017783

Sample assembly

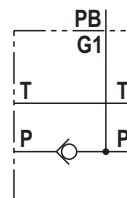
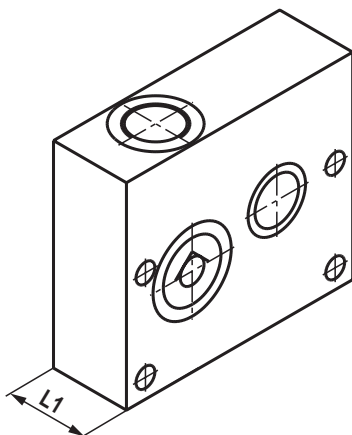
- Check valve insert type RKVC-16-0,2 bar, material no. R900031396 (NBR), material no. R901103578 (FKM)
- O-ring in channels P and T: 32,92x3,53-N-..., material no. R900008290 (NBR90), material no. R900008951 (FKM80)

Notice:

- Valve reversible → symbol inverted

Blocking function: check function
(dimensions in mm)

► Valve segment for check valve in channel P "VP"



Frame size	Size	PB	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	32	G1	50	IH20M4B-VP32X01-1X/	R900709727	R901003364	R900718663

Sample assembly

- Check valve insert type RKVC-32-0,2BAR, material no. R900015439 (NBR), material no. R901103579 (FKM).
- O-ring in channel P: 47,22x3,53-N-NBR90 (material no. R900008592)

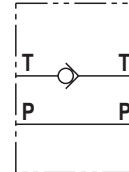
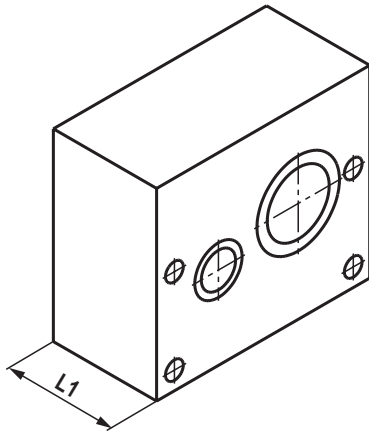


Notice:

- Port PB is always on the back of the check valve
- Valve reversible → symbol inverted

Blocking function: check function
(dimensions in mm)

► **Valve segment for check valve in channel T "VT"**



Frame size	Size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	40	75	IH20M4B-VT40X01-1X/	R900734205	R900786563	R900734208

Sample assembly

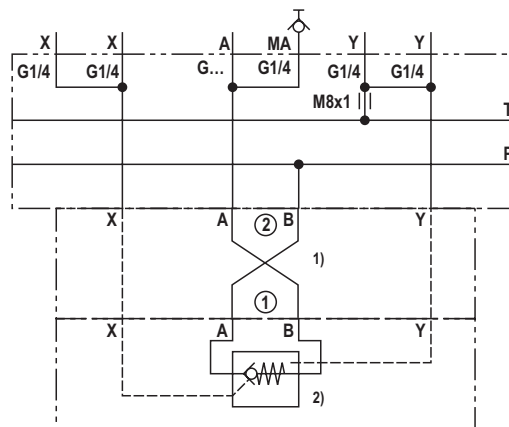
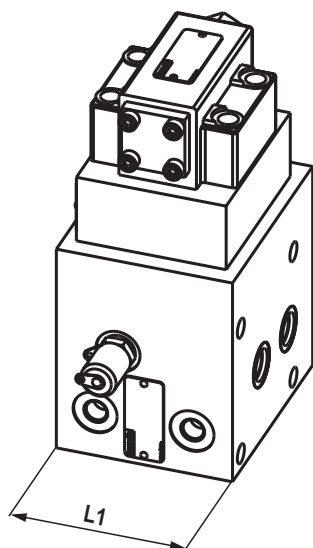
- Check valve insert type RKVC-40-0,2BAR, material no. R900734700 (NBR), material no. R901103580 (FKM).
- O-ring in channel T: 53,57x3,53-N-NBR90 (material no. R900008850)

Notice:

- Valve reversible → symbol inverted

Blocking function: releasable check function
(dimensions in mm)

- ▶ Valve segment size 10 with porting pattern type 10D "VP"
- ▶ Valve segment size 20 with porting pattern type 20D "VP"

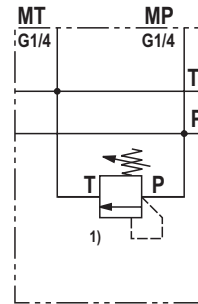
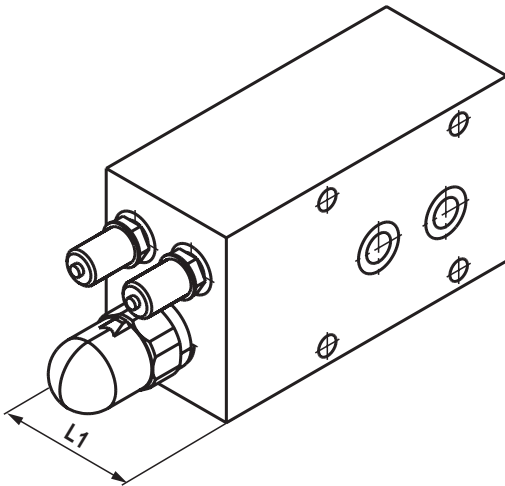


	Frame size	Size	A	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	100	IH20M4A-VP10D02-1X/	R901201846	R901066035	R901066275
b	B	20	G1	125	IH20M4B-VP20D02-1X/	R900720736	R900786572	R900720738

Sample assembly	
a	<ul style="list-style-type: none"> ▶ Type HSZ 10 D261-3X/V00 (material no. R901132069) ¹⁾ ▶ Type SV/SL 20 ...-4X/... (data sheet 21468) ²⁾ ▶ Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
b	▶ Type SV/SL 20 ...-4X/... (data sheet 21468) ¹⁾ , sandwich plate not required

Pressure function: pressure limiting function
(dimensions in mm)

► **Valve segment for pressure limitation "VP"**



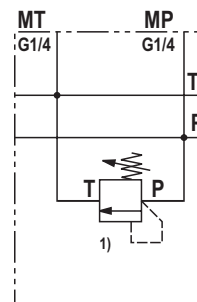
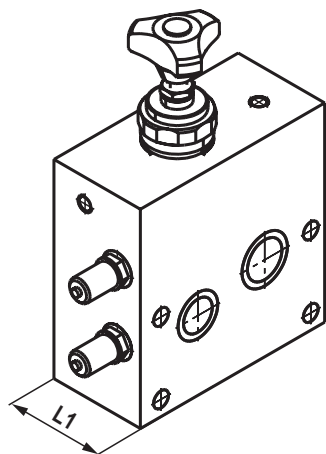
Frame size	Size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	10	75	IH20M4A-VP10R01-1X/	R900781110	-	R900781120

Sample assembly

► Type DBD... 10 K1X/... (data sheet 25402) ¹⁾

Pressure function: pressure limiting function
(dimensions in mm)

► **Valve segment for pressure limitation "VP"**



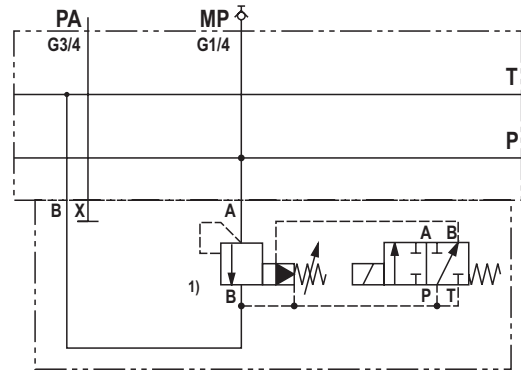
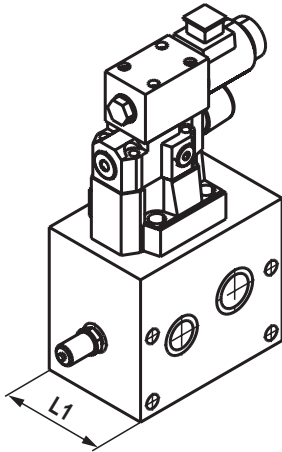
Frame size	Size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	20	75	IH20M4B-VP20R03-1X/	R901059228	-	R901059981

Sample assembly

► Type DBD. 20 K1X/... (data sheet 25402) ¹⁾

Pressure function: pressure limiting function
(dimensions in mm)

► Valve segment size 10 with porting pattern type 10E "VP"



Frame size	Size	PA	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	10	G3/4	100	IH20M4B-VP10E01-1X/	R900723358	-	R900723360

Sample assembly

► Type DB 10 ...-5X/... (data sheet 25802) ¹⁾

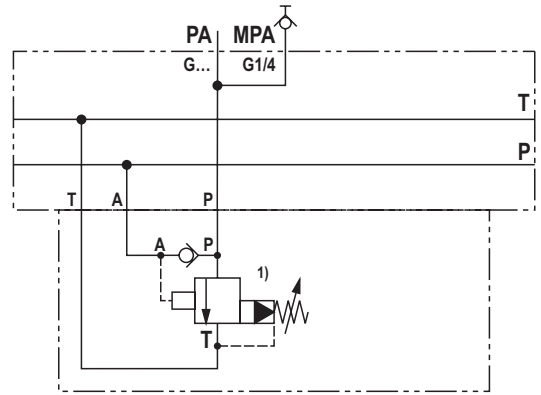
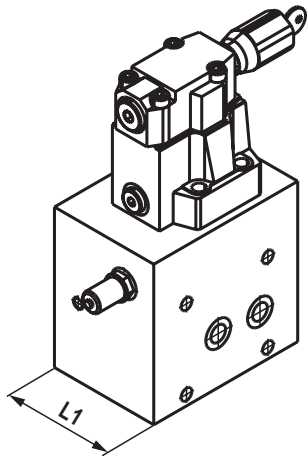


Notice:

Pressure limitation from channel P to T.

Pressure function: pressure shut-off function
(dimensions in mm)

► Valve segment size 10 with porting pattern type 10R "VP"



	Frame size	Size	PA	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	100	IH20M4A-VP10R02-1X	R901071097	–	R901071100
b	B	20	G1 1/4	125	IH20M4B-VP10R01-1X	R900751485	R900751485	R900751496

Sample assembly	
a	► Type DA 10...-5X/... (data sheet 26411) ¹⁾
b	► Type DA 20...-5X/... (data sheet 26411) ¹⁾

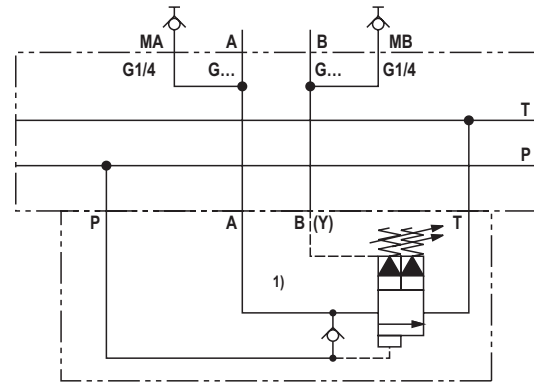
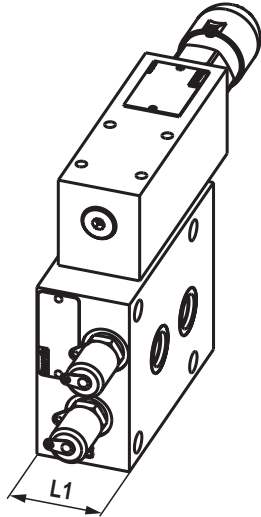


Notice:

Accumulator charging function

Pressure function: pressure shut-off function
(dimensions in mm)

► Valve segment size 6 with porting pattern type 6A "VS"

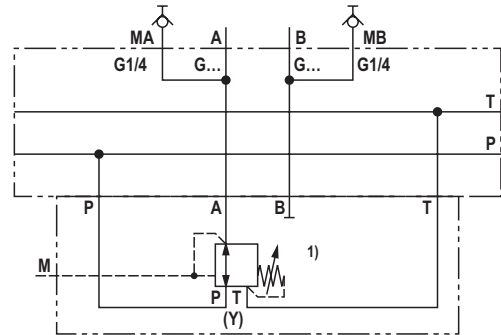
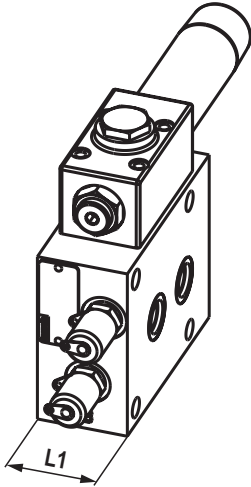


	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	6	G1/2	G1/2	50	IH20M2A-VS06A01-1X/M01	R900977155	R901028782	R900619291
b	B	6	G1/2	G1/2	50	IH20M2B-VS06A01-1X/	R900977156	R900786558	R900245791
c	B	6	G3/4	G3/4	75	IH20M2B-VS06A02-1X	R900753099	–	R900754365

Sample assembly	
a	► Type DA 6...-5X/...VP (data sheet 26405) ¹⁾
b	► Type DA 6...-5X/...VP (data sheet 26405) ¹⁾
c	► Type DA 6...-5X/...VP (data sheet 26405) ¹⁾

Pressure function: pressure reducing function
(dimensions in mm)

► Valve segment size 6 with porting pattern type 6A "VS"

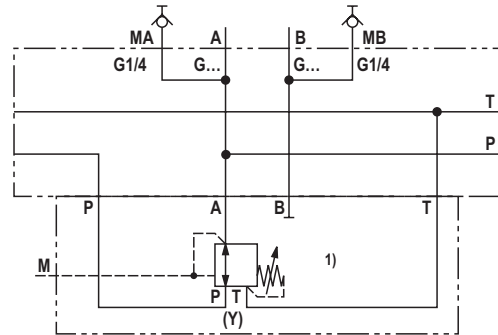
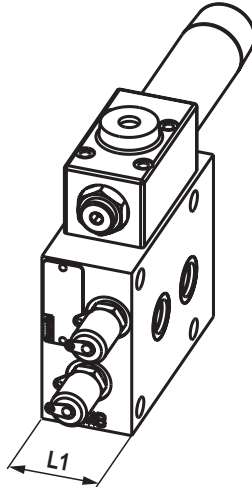


	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	6	G1/2	G1/2	50	IH20M2A-VS06A01-1X/M01	R900977155	R901028782	R900619291
b	B	6	G1/2	G1/2	50	IH20M2B-VS06A01-1X/	R900977156	R900786558	R900245791
c	B	6	G3/4	G3/4	75	IH20M2B-VS06A02-1X	R900753099	-	R900754365

Sample assembly	
a	► Type DR 6 DP...-5X/... (data sheet 26564) ¹⁾
b	► Type DR 6 DP...-5X/... (data sheet 26564) ¹⁾
c	► Type DR 6 DP...-5X/... (data sheet 26564) ¹⁾

Pressure function: pressure reducing function
(dimensions in mm)

► Valve segment size 6 with porting pattern type 6A "VP"

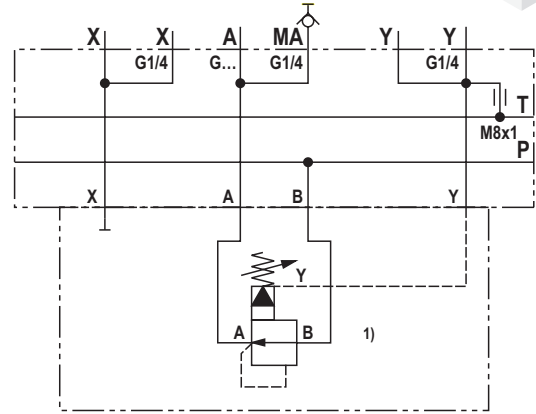
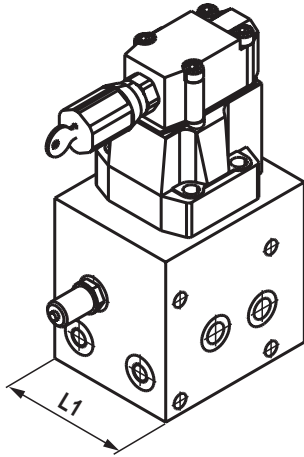


	Frame size	Size	A	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	6	G1/2	G1/2	50	IH20M4A-VP06A02-1X/	R901009817	R901028784	R901009825
b	B	6	G1/2	G1/2	50	IH20M4B-VP06A02-1X/	R900755445	R901003106	R900755774

Sample assembly	
a	<ul style="list-style-type: none"> ► Type DR 6 DP...-5X/... (data sheet 26564) ¹⁾ ► Valve, reversible with type HSZ (material no. R900735049)
b	<ul style="list-style-type: none"> ► Type DR 6 DP...-5X/... (data sheet 26564) ¹⁾ ► Valve, reversible with type HSZ (material no. R900735049)

Pressure function: pressure reducing function
(dimensions in mm)

- ▶ Valve segment size 10 with porting pattern type 10D "VP"
- ▶ Valve segment size 20 with porting pattern type 20D "VP"

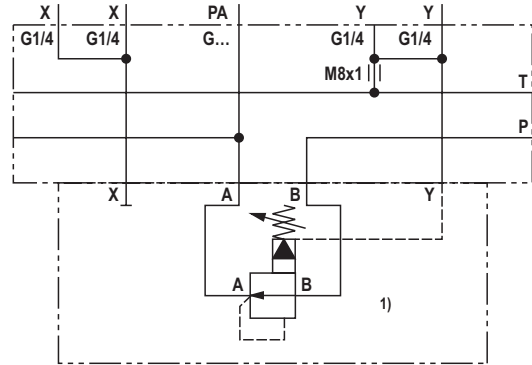
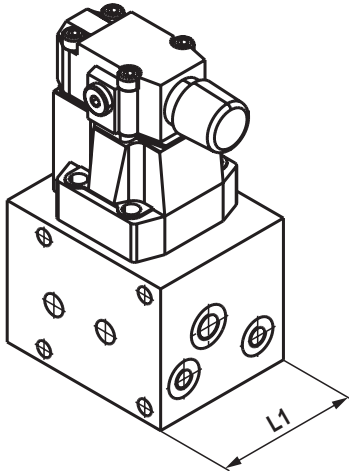


	Frame size	Size	A	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	100	IH20M4A-VP10D02-1X/	R901066035	R901297722	R901066275
b	B	20	G1	125	IH20M4B-VP20D02-1X/	R900720736	R900786572	R900720738

Sample assembly	
a	<ul style="list-style-type: none"> ▶ Type DR 10 ...-5X/... (data sheet 26892) ¹⁾ ▶ Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)
b	<ul style="list-style-type: none"> ▶ Type DR 20 ...-5X/... (data sheet 26892) ¹⁾ ▶ Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Pressure function: pressure reducing function
(dimensions in mm)

- ▶ Valve segment size 10 with porting pattern type 10D "VP"
- ▶ Valve segment size 20 with porting pattern type 20D "VP"

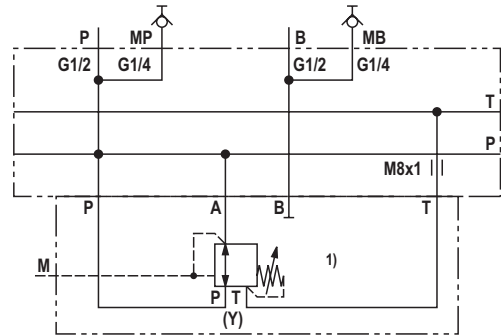
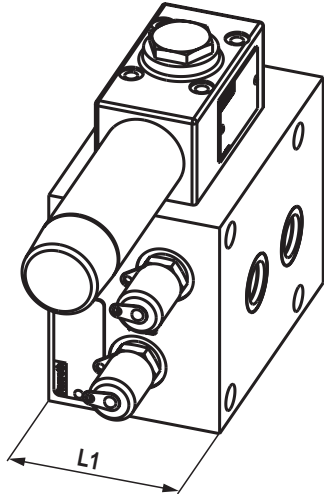


	Frame size	Size	PA	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/8	100	IH20M4A-VP10D01-1X/	R901030700	R901154890	R901030703
b	B	20	G3/4	125	IH20M4B-VP20D01-1X/	R900709724	R901003366	R900718657

Sample assembly	
a	<ul style="list-style-type: none"> ▶ Type DR 10 ...-5X/... (data sheet 26892) ¹⁾ ▶ Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129) ▶ Function rotatable by sandwich plate type HSZ 10 D261-3X/M00 (material no. R900921406)
b	<ul style="list-style-type: none"> ▶ Type DR 20 ...-5X/... (data sheet 26892) ¹⁾ ▶ Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129) ▶ Function rotatable by sandwich plate type HSZ 20 D261-3X/M00 (material no. R900921406)

Pressure function: pressure reducing function
(dimensions in mm)

► Valve segment size 6 with porting pattern type 06A "VP"



Frame size	Size	P	B	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
A	10	G1/2	G1/2	75	IH20M4A-VP06A01-1X/	R901071088	-	R901071091

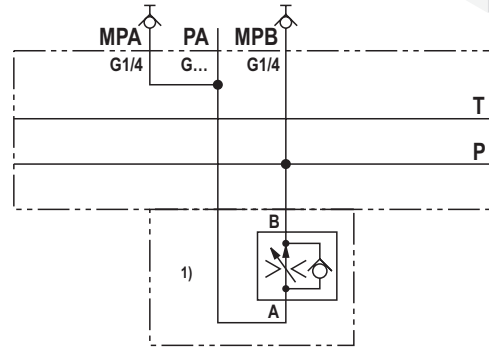
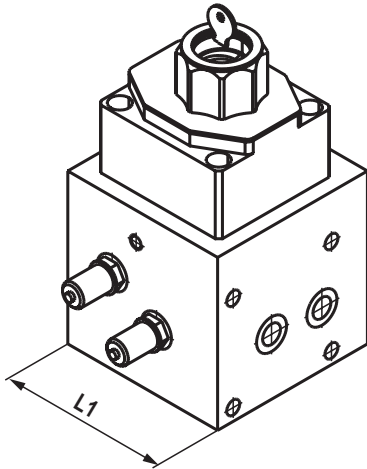
Sample assembly

► Type DR 6 DP...-5X DR 6 DP...-5X/... (acc. to RE 26564) ¹⁾

Flow control function

(dimensions in mm)

- ▶ Valve segment size 10 with porting pattern type 10G "VP"
- ▶ Valve segment size 16 with porting pattern type 16G "VP"



	Frame size	Size	PA	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	G3/4	225	IH20M4A-VP10G01-1X/	R901072342	–	R901072346
b	B	16	G1 1/4	200	IH20M4B-VP16G01-1X/	R900741957	R901364582	R900742938

Sample assembly	
a	▶ Type 2FRM 10 ...-3X/... (data sheet 28389) ¹⁾
b	▶ Type 2FRM 16 ...-3X/... (data sheet 28389) ¹⁾
	▶ Type 2FRM 10 ...-3X/... (data sheet 28389) with type HSE 16 G10G001-3X/ (material no. R900534949) ¹⁾



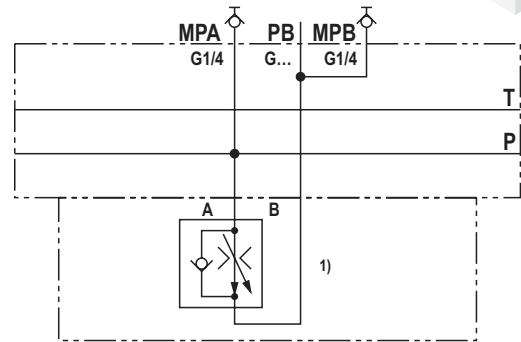
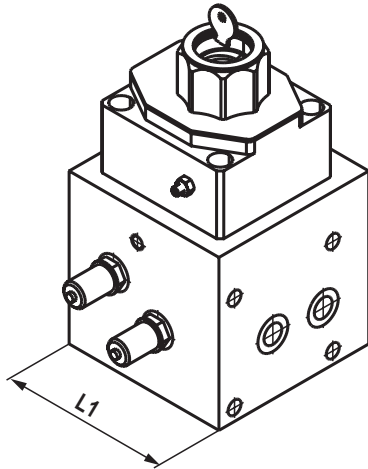
Notice:

Flow control function from channel PA to P

Flow control function

(dimensions in mm)

- ▶ Valve segment size 6 with porting pattern type 06A "VP"
- ▶ Valve segment size 10 with porting pattern type 10G "VP"



	Frame size	Size	PB	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	6	G1/2	125	IH20M4A-VP06A01-1X/	R901071088	-	R901071091
b	A	10	G3/4	125	IH20M4A-VP10G02-1X	R901182956	-	R901182961

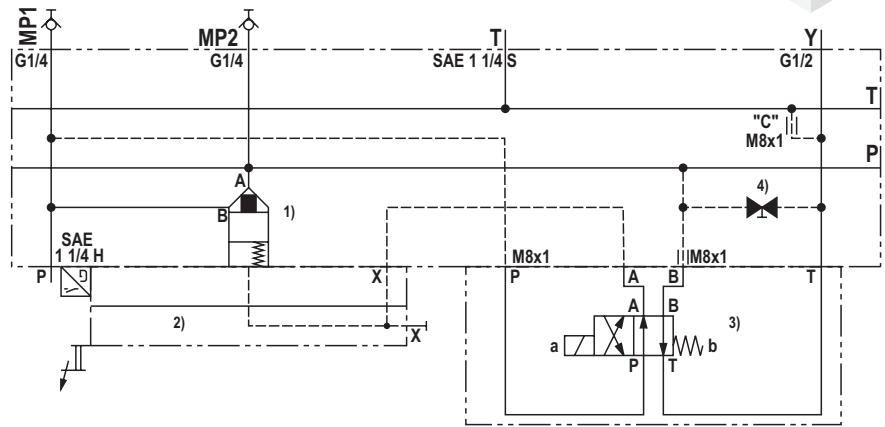
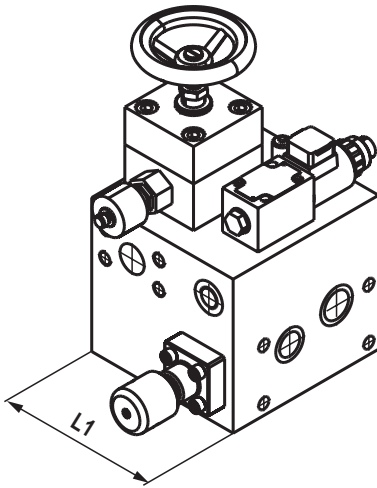
Sample assembly	
a	▶ Type 2FRM 6 ...-3X/... (data sheet 28163) ¹⁾
b	▶ Type 2FRM 10 ...-3X/... (data sheet 28389) ¹⁾

Notice:

Flow control function from channel P to PB (B)

Logic function: directional function
(dimensions in mm)

► Valve segment for logic size 25 "VP"



Frame size	Size	P	T	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	25	SAE 1 1/4H	SAE 1 1/4S	175	IH20M4B-VP25R04-1X/	R901140197	R901246864	R901140207

Sample assembly

- Type LC 25 ...-7X/... (data sheet 21010) ¹⁾
- LFA 25 ...-7X/... (data sheet 21010) ²⁾
- WE 6 ...-6X/... (data sheet 23178) ³⁾
- Shut-off valve 094-010-013/DN10PN350, material no. R901233686 (NBR) 094-010-014/DN10PN350, material no. R901233695 (FKM) or type M-S 10 KX00-3X/..., material no. R901237682 (NBR), material no. R901252425 (FKM) (data sheet 20385) with blind flange type S10-3X/... E/M/, material no. R900304796 (NBR), material no. R901248070 (FKM) ⁴⁾
- Thread M8x1, Y, T for Y external, closed with plug screw. Thread in channels P and B for plug screw M8x1 or nozzle plug screw ZN10027-M8x1-SV (material no. R913019129)
- Nozzle: Nozzle ZN10028-1-B-M8x1X8-SV (material no. R913018600)

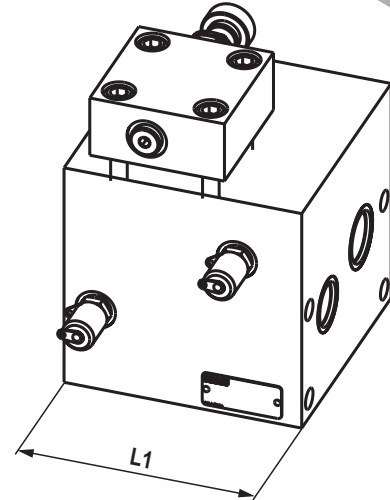
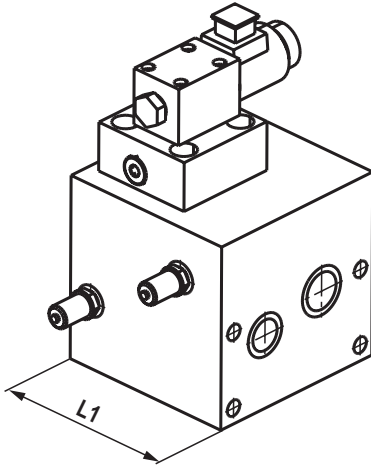


Notice:

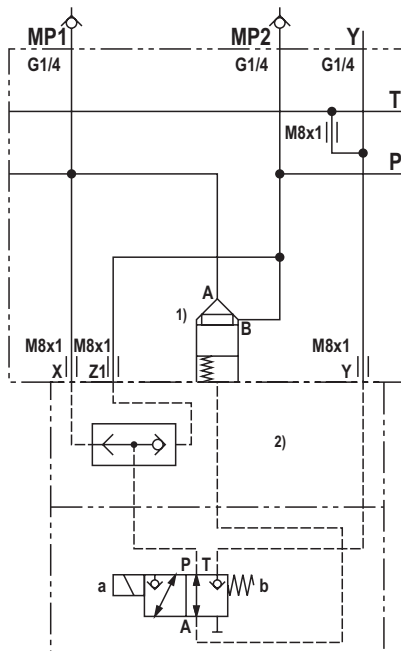
Leakage-free blocking port P with unloading from channel P to T.

Logic function: directional or pressure function
(dimensions in mm)

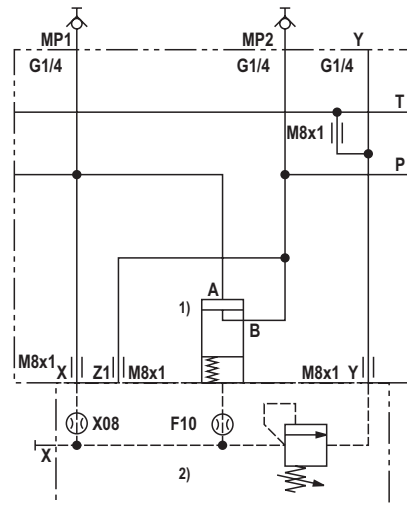
► Valve segment for logic size 25 in channel P "VP"



Directional function (shut-off)



Pressure function (pressure reduction)



Frame size	Size	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	25	150	IH20M4B-VP25R01-1X/	R900722155	R901065095	R900722156

Sample assembly

- Type LC 25 ...-7X/... (data sheet 21010) ¹⁾
- Type LFA 25 ...-7X/... (data sheet 21010) ²⁾
- Port X, Y, Z1, Y and T depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no.: R913019129)

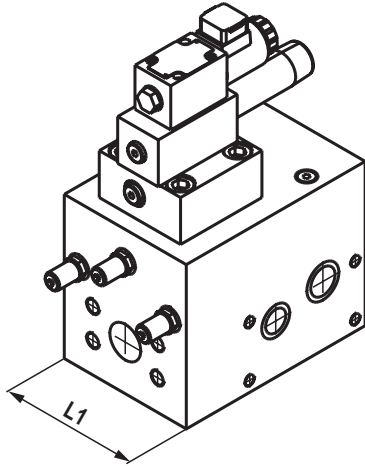
Notice:

- Leakage-free blocking from channel B to A.
- The function is determined by the cartridge valve and the logic cover.

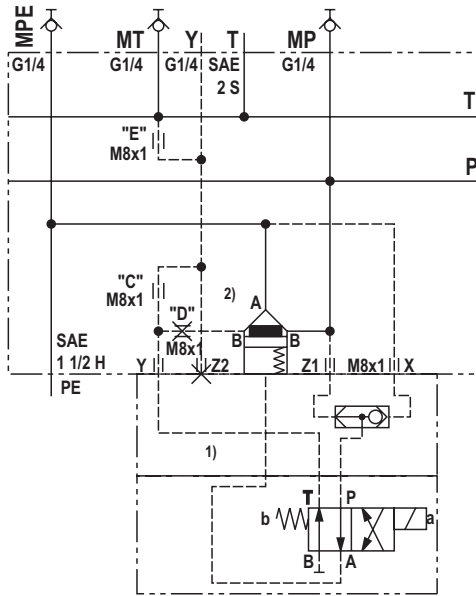
Logic function: directional and pressure function
(dimensions in mm)



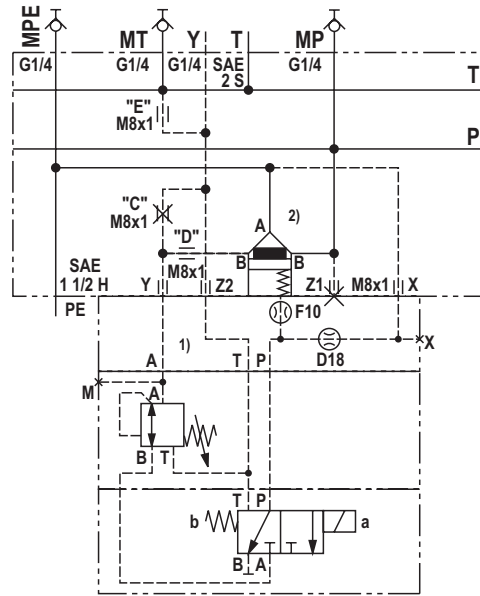
► Valve segment for logic size 32 "VP"



Directional function (shut-off)



Pressure function (pressure reduction)



Frame size	Size	PE	T	Y	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	32	SAE 1 1/2H	SAE 2S	G1/4	150	IH20M6B-VP32R01-1X/	R901153672	-	R901153675

Sample assembly

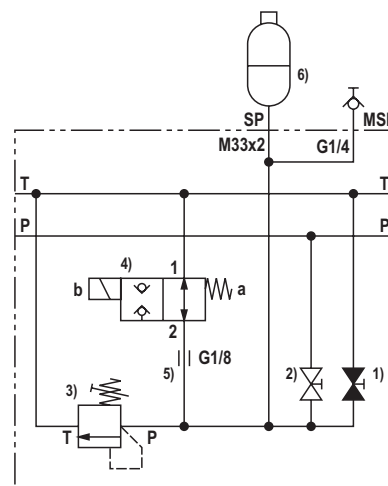
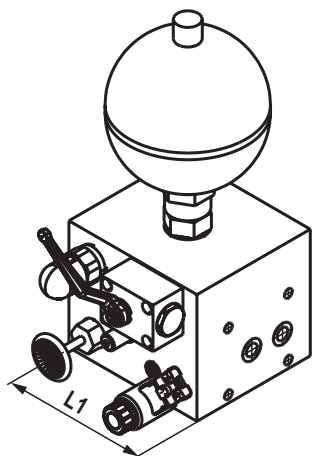
- Type LC 32 ...-7X/...¹⁾; Type LFA 32 ...-7X/...²⁾ (data sheets 21010 and 21050)
- Thread M8x1 depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

Notice:

- With threads on both sides – no through holes for threaded bolts.
- Use only once per stacking assembly, for the assembly of controls with excessive length.
- Module is threaded segment

Accumulator function

(dimensions in mm)

► **Accumulator segment for accumulator safety circuit**

	Frame size	Size	SP	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
a	A	10	M33 x 2	175	IH20M4A-SP10R01-1X/	R900781825	R901126073	R900781830
b	B	10	M33 x 2	175	IH20M4B-SP10R03-1X/	R900761088	R901003361	R900762437

Sample assembly

a	<ul style="list-style-type: none"> ► Ball valve type BKHU-DN10..., material no. R901236098 (NBR), material no. R901259687 (FKM) ¹⁾ ► Shut-off valve type ABZSS 10..., material no. R900210324 (NBR), material no. R900089468 (FKM) ²⁾ ► Type DBD... 10 K1X/E... (data sheet 25402) ³⁾ ► Type KSDER1PB/HN9V, material no. R901151294 (FKM) with solenoid coil 37-K4 -22G24 00 (material no. R900991121) or plug screw M20x1,5x35,5SW10V*BG, material no. R900617084 (FKM) ⁴⁾ ► Thread G1/8 e.g. for nozzle ZN10028-1,2-B-R1/8X8& (material no. R913023889) ⁵⁾ ► Accumulator ... accumulator adapter S ... – M33x2,0 – port SP: M33 x 2 ⁶⁾
b	<ul style="list-style-type: none"> ► Ball valve BKHU-DN10-11231 &, material no. R901236098 (NBR) ¹⁾ ► Shut-off valve ABZSS 10-M-2X/M, material no. R900210324 (NBR) ²⁾ ► DBD. 10 K1X/E... (data sheet 25402) ³⁾ ► KSDER1PB/HN9V, material no. R901151294 (FKM) with solenoid coil 37-K4 -22G24 00 (material no. R900991121) or plug screw M20x1,5x 35,5SW10V*BG, material no. R900617084 (FKM) ⁴⁾ ► Thread G1/8, e.g. for nozzle ZN10028-1,2-B-R1/8X8-SV (material no. R913023889) ⁵⁾ ► Accumulator ... accumulator adapter S ... – M33x2,0 – port SP: M33 x 2 ⁶⁾

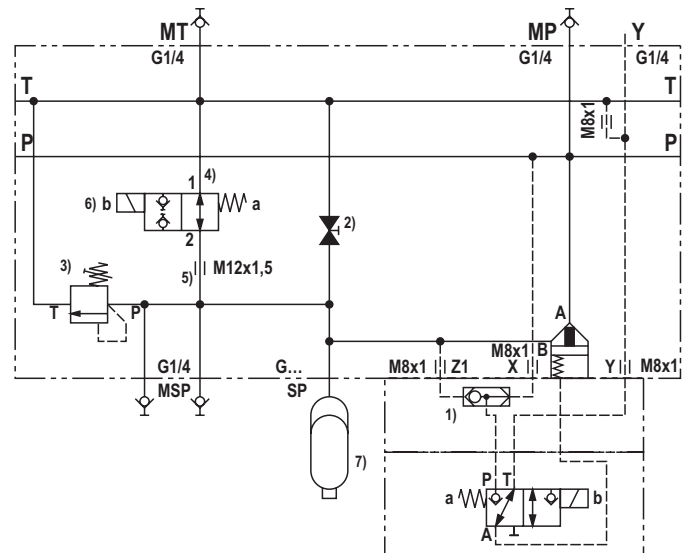
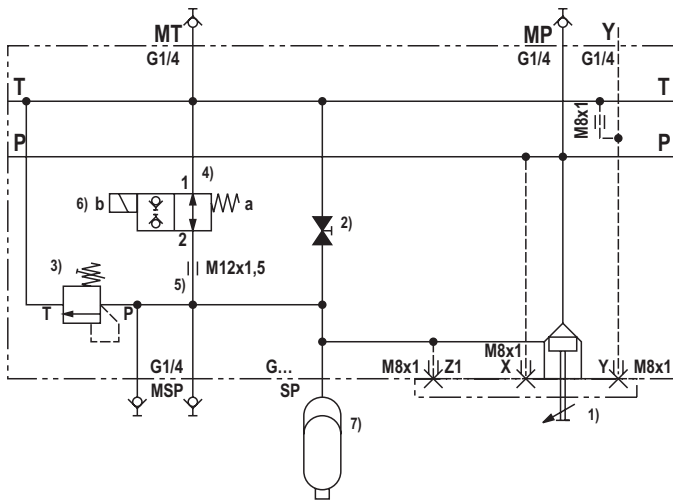
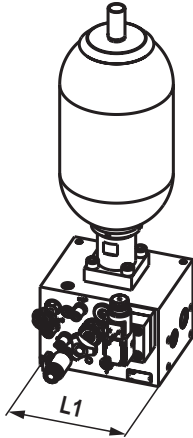
**Notice:**

A depressurized connection of port T to the tank must be ensured.

Accumulator function

(dimensions in mm)

► Accumulator segment for accumulator safety circuit



Frame size	Size	SP	L1	Ordering codes	Material no. NBR	Material no. FKM	Drawing no.
B	25	G1 1/4; G2	250	IH20M4B-SP25R01-1X	R901065080	R901065092	R901065090

Sample assembly

- Shut-off valve 094-025-005/DN25PN350, material no. R901233690 (NBR), 094-025-006/DN25PN350, material no. R901233699 (FKM) or type LC/LFA 25 (data sheet 21010) ¹⁾
- Shut-off valve type ABZSS 10-M-2X/M, material no. R900210324 (NBR) ²⁾
- Type DBD. 20 K1X/E... (data sheet 25402) ³⁾
- Type KSDER1PB/HN9V, material no. R901151294 (FKM) ⁴⁾
- Thread M12x1,5, e.g. for nozzle ZN10028-1,2-B-M12X1,5X10- SV (material no. R913023890) ⁵⁾
- Solenoid coil 37-K4 -22G24 00 (material no. R900991121) or plug screw M20x1,5x 35,5SW10V*BG (material no. R900617084)(FKM) ⁶⁾
- Accumulator ... accumulator flange S307 (G1 1/4) / S309 (G2) thread M8x1 depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129) ⁷⁾



Notice:

A depressurized connection of port T to the tank must be ensured.

Accessories (separate order)

Mounting elements and tightening torques

Frame size	Denomination		Material no.	Thread	Tightening torque in Nm $\pm 10\%$
A	Threaded bolt	DIN 976-M10-B-10.9	R913000279	M10	45
	Hexagon nut	ISO 4032-M10-10-&	R913015547	M10	
	Disc	ISO 7089-10-200HV &	R913001898	M10	
B	Threaded bolt ¹⁾	DIN 976-M12x1,25-B-10.9	R913000239	M12 x 1.25	90
	Hexagon nut ¹⁾	ISO 8673-M12x1,25-10-&	R913016703	M12 x 1.25	
	Threaded bolt	DIN 976-M12-B-10.9	R913000595	M12	90 ²⁾
	Hexagon nut	ISO 4032-M12-10-&	R913015548	M12	
	Disc	ISO 7089-12-200HV &	R913007600	M12	

- ¹⁾ Can only be used in stacking assemblies without module of functional group 6 "supplementary segments" (threaded segments), as these modules have M12x1.25 threads on both sides for accepting the threaded bolts.
- ²⁾ Setting of nominal tightening torque (M_A in Nm) at the assembly tool. Selection of the assembly tool according to the specified tolerance class. The required friction coefficient ($\mu_{total} = 0.09 \dots 0.14$) is to be ensured through the use of a suitable lubricant or by means of mounting elements with sliding coating.



Notice:

Reliable connection of the massive segments in order to form an IH20 stacking assembly is ensured by threaded bolts. Only threaded bolts according to DIN 976 and of property class 10.9 may be used. The correct tightening torque prevents loosening of the connection in case of increasing loads. The threaded bolts are stocked by the meter and are shortened to the required length during installation.

Seals (standard)

Frame size	Denomination	Dimension/material no.	
		Channel P	Channel T
A	R-ring	18.64 x 3.53 x 3.53	18.64 x 3.53 x 3.53
	Material no. NBR	R900017462	R900017462
	Material no. FKM	R900017628	R900017628
B	R-ring	28.43 x 3.40 x 3.53	33.34 x 3.53 x 3.53
	Material no. NBR	R900017469	R900017471
	Material no. FKM	R900017631	R900017632



Notice:

In between the massive segments pre-tensioned with threaded bolts according to DIN 976, the channels are usually sealed with rectangular rings. Formation of gaps is excluded due to the high forces. The large, flat contact surfaces prevent stress.

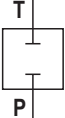
Accessories (separate order)

Plug screws for plugging of unused threaded ports

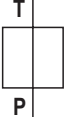
p_N in bar	Thread ¹⁾	Material short text	Material no. (NBR) "N"	Material no. (FKM) "F"
400	G1/8 A	VERSCHLUSSSCHRAUBE ZN10001-G1/8A- x ² -ST	R913011600	R913011608
	G1/4 A	VERSCHLUSSSCHRAUBE ZN10001-G1/4A- x ² -ST	R913011601	R913011609
	G3/8 A	VERSCHLUSSSCHRAUBE ZN10001-G3/8A- x ² -ST	R913011602	R913011610
	G1/2 A	VERSCHLUSSSCHRAUBE ZN10001-G1/2A- x ² -ST	R913011603	R913011611
	G3/4 A	VERSCHLUSSSCHRAUBE ZN10001-G3/4A- x ² -ST	R913011604	R913011612
	G1 A	VERSCHLUSSSCHRAUBE ZN10001-G1A- x ² -ST	R913011605	R913011613
250	G1 1/4 A	VERSCHLUSSSCHRAUBE ZN10001-G1 1/4A- x ² -ST	R913011606	R913011614
	G1 1/2 A	VERSCHLUSSSCHRAUBE ZN10001-G1 1/2A- x ² -ST	R913011607	R913011615
320	G1 1/4 A	VERSCHLUSSSCHRAUBE G1 1/4- x ² *B	R900838090	R901117528
	G1 1/2 A	VERSCHLUSSSCHRAUBE G1 1/2- x ² *B	R900838095	R901117530

► Cap elements for type DBD... and type M-SR...KE

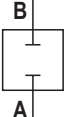
Plug screw DBD., function P → T separated

Symbol according to ISO 1219	Mounting cavity, size	Material short text	Material no. (NBR)	Material no. (FKM)
	6	VERSCHLUSSSCHRAUBE DBD. 6 K10/x ¹ *BG	R900305874	R900830785
	10	VERSCHLUSSSCHRAUBE M35X1.5X 52.0 x ¹ *BG	R900305875	R901253278
	20	VERSCHLUSSSCHRAUBE M45X1.5X 70.0 x ¹ *BG	R900305876	R900827264
	30	VERSCHLUSSSCHRAUBE M60X2.0X 84.0 x ¹ *BG	R900305877	R901253281

Plug screw DBD., function P → T open

Symbol according to ISO 1219	Mounting cavity, size	Material short text	Material no. (NBR)	Material no. (FKM)
	6	VERSCHLUSSSCHRAUBE DBD. 6 K10/x ¹ P-T*BG	R900320590	R901031626
	10	VERSCHLUSSSCHRAUBE M35X1.5X 52.0 x ¹ *BG	R900320591	-
	20	VERSCHLUSSSCHRAUBE M45X1.5X 70.0 x ¹ *BG	R900320592	-

Plug type M-SR...KE, function A → B separated

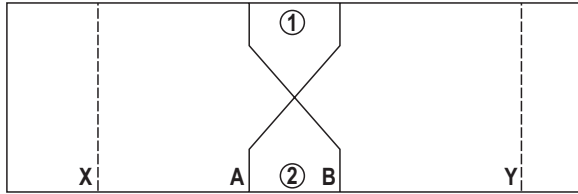
Symbol according to ISO 1219	Mounting cavity, size	Material short text	Material no. (NBR)	Material no. (FKM)
	8	STOPFEN M-SR 8 KE-1X/x ² *BG	R900542329	R901299231
	10	STOPFEN M-SR 10 KE-1X/x ² *BG	R900542330	R901299232
	15	STOPFEN M-SR 15 KE-1X/x ² BG	R900542331	R901299229
	20	STOPFEN M-SR 20 KE-1X/x ² *BG	R900542332	R900827247
	25	STOPFEN M-SR 25 KE-1X/x ² *BG	R900542333	R901117940

1) Designation NBR or FKM

2) = "Without designation" for NBR, "V" for FKM

Accessories (separate order)

► Sandwich plates


Notice:

Valves of types DR..., SL... or DZ have identical porting pattern types. The indicated sandwich plates can be used to reverse the direction of flow. The valves are rotated by 180°.

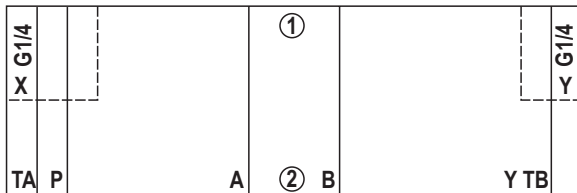
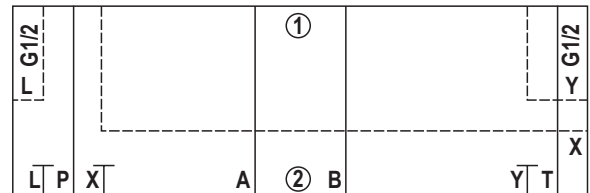
Sandwich plates for rotation of a pressure reduction (DR), pressure activation (DZ) or check valve function (SL)

Size/porting pattern type	Material short text	Material no. (NBR) "N"	Material no. (FKM) "F"
10D	HSZ 10 D261-3X/x ¹ 00	R900947716	R901132069
20D	HSZ 20 D261-3X/x ¹ 00	R900921406	R901130835
30D	HSZ 30 D261-4X/x ¹ 00	R901155108	R901155086

¹⁾ = "M" for NBR, "V" for FKM


Notice:

In order to build directional valves size 10 and size 16 with external control lines on IH20 segments of frame sizes A and B, without ports X and Y, the following sandwich plates are needed:

Size 10

Size 16



Sandwich plates with external ports X and Y

Size/porting pattern type	Material short text	Material no. (NBR) "N"	Material no. (FKM) "F"
10B	HSZ 10 B097-3X/x ¹ 01	R900320785	R900321347
16B	HSZ 16 B095-3X/x ¹ 01	R900568516	R901297536

¹⁾ = "M" for NBR, "V" for FKM

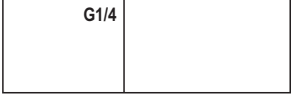
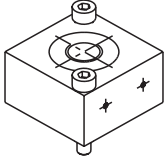
Accessories (separate order)

► Adapter plates

 **Notice:**

In order to replace a pressure switch of of type HED 8 OH by another type with threaded port G1/4, the following adapter plate is needed:

Adapter plate type HED 8 OH on port G1/4

Porting pattern type 04J	Material short text	Material no. (NBR) "N"	Material no. (FKM) "F"
 	HSA 04 J021-3X/x ¹ 01	R900548703	R901232508

1) = "M" for NBR, "V" for FKM

Devices and associated porting pattern types

Type	Data sheet	ISO / DIN / Rexroth specific hole pattern	Porting pattern type
2 FRE 6..2X/..	29188	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A
2 FRM 6...-3X/...	28163		
3 DREP(E) 6..2X/...	29184		
3 WE 6.6X/...	23178		
3 WE 6.73.6X/...A12	23183		
3 WH.6..5X/...	22282		
3 WM 6.5X/...	22280		
3 WMR.6-5X/...	22284		
4 WRA 6..-2X/...	29055		
4 WRE 6..-2X/...	29061		
4 WRPDH6...-2X/...	29391		
4 WRPE6...-2X/...	29025		
4 WRPE6...EA-2X/...	29024		
4 WRPEH6...-3X/...	29121		
4 WRPNH 6...-2X/...	29191		
4 WRREH 6...-1X/...	29041		
4 WRSE 6..-3X/...	29067		
4 WRSEH 6...-3X/...	29069		
4 WS(E)2EM 6-2X/...	29564		
DA 6 V.2.5X/..FS..	26405		
DBE 6..-1X/...	29158		
DBE(E)6-2X/...	29258		
DBEBE 6-1X/...	29159		
DBEP 6.06-1X/...	29164		
DBET(E).-6X/...	29162		
DBETA-6X/...	29262		
DBETB(E)X-1X/...	29151		
DR 6 DP.-5X/...	26564		
DRE(E) . 6...-1X/..	29175		

Devices and associated porting pattern types

DREB 6 X-1X/...	29182	ISO 4401-03-02-0-05 and NFPA T3.5.1 R2-2002 D03	06A		
DREBE 6 X-1X/...	29195				
DRS 6-1X/...	29173				
DZ 6 DP-5X/...	26076				
M-2SED 6..1X/350..	22049				
M-2SEW 6..3X/420..	22058				
SL 6 PB-6X/...	21460				
3 WE 10 ..5X/...	23340	ISO 4401-05-04-0-05 and NFPA T3.5.1 R2-D05	10A		
3 WE 10..3X/...	23327				
3 WEH 10..4X/...	24751				
3 WHH 10..4X/...	24851				
3 WMM 10..5X/...	22334				
4 WRDE 10...-5X/...	29093				
4 WRGE 10...-1X/...	29070				
4 WRKE 10..-3X/...	29075				
4 WRLD10-3X/...	29288				
4 WRLE10...E/W-3X/...	29089				
4 WRLE10...V-3X/...	29088				
4 WRPEH10...-2X/...	29037				
4 WRTE 10..-4X/...	29083				
4 WRVE 10...-2X/...	29077				
4 WRZ(E) 10...-7X/...	29115				
4 WRZ(E)(M) 10...-7X/...	29117				
4 WS(E)2E.10-5X/...	29583				
5-3WE 10..5X/...	23352				
M-2SED 10..1X/350...	22045				
M-3SEW 10.1X/420...	22075				
DA(W) 10-.-5X/...	26411	Rexroth specific hole pattern 10R	10D (10R)		
DBEBE 10-1X/...	29163	ISO 5781-06-07-0-00	10D		
DR 10 DP-4X/...	26580				
DR 10-.-4X/...	26893				
DR 10-.-5X/...	26892				
DRE(M) 10-.-6X/...	29276				
DREB10 Z-1X/...	29198				
DREBE10 Z-1X/...	29199				
DRG 10-1X/...	29145				
DZ 10 DP-4X/...	26099				
DZ 10-.-5X/...	26391				
FD 12 PA2X/...	27551				
SL 10 P.-4X/...	21468				
DB(W) 10..-4X/...	25818			ISO 6264-06-09-*97	10E
DB(W) 10..-5X/...	25802			ISO 6264-06-09-*97	
DB3U 10..5X/...	25826	ISO 6264-06-09-*97			
DBD . 10 P 1X/...	25402	Rexroth specific hole pattern			
DBG 10-1X/...	29139	ISO 6264-06-09-*97			
2 FRE 10-4X/...	29190	ISO 6263-06-05-0-97	10G		
2 FRH 10-3X/...	28389	ISO 6263-06-05-0-97			
3 FRM 10-2X/...	28862	similar to ISO 6263-06-05-0-97, observe position of actuator ports			
3 DRE(M)(E) 16 P-7X/...	29286	ISO 4401-07-07-0-05 and NFPA T3.5.1 R2-D07	16A		
4 WS(E)2E.16-2X/...	29591				
4 WSE3E.16-2X/...	29620				
H-4WMM 16.7X/...	22371				

Additional information

- ▶ Hydraulic fluids on mineral oil basis
 - ▶ Environmentally compatible hydraulic fluids
 - ▶ Flame-resistant, water-free hydraulic fluids
 - ▶ Flame-resistant hydraulic fluids - containing water (HFAE, HFAS, HFB, HFC)
 - ▶ Reliability characteristics according to EN ISO 13849
 - ▶ Hexagon socket head cap screws, metric/UNC
 - ▶ Hydraulic valves for industrial applications
 - ▶ General product information on hydraulic products
 - ▶ Assembly, commissioning and maintenance of industrial valves
 - ▶ Assembly, commissioning and maintenance of hydraulic systems
 - ▶ Selection of filters
 - ▶ Information on available spare parts
- Data sheet 90220
Data sheet 90221
Data sheet 90222
Data sheet 90223
Data sheet 08012
Data sheet 08936
Operating instructions 07600-B
Data sheet 07008
Data sheet 07300
Data sheet 07900
www.boschrexroth.com/filter
www.boschrexroth.com/spc

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