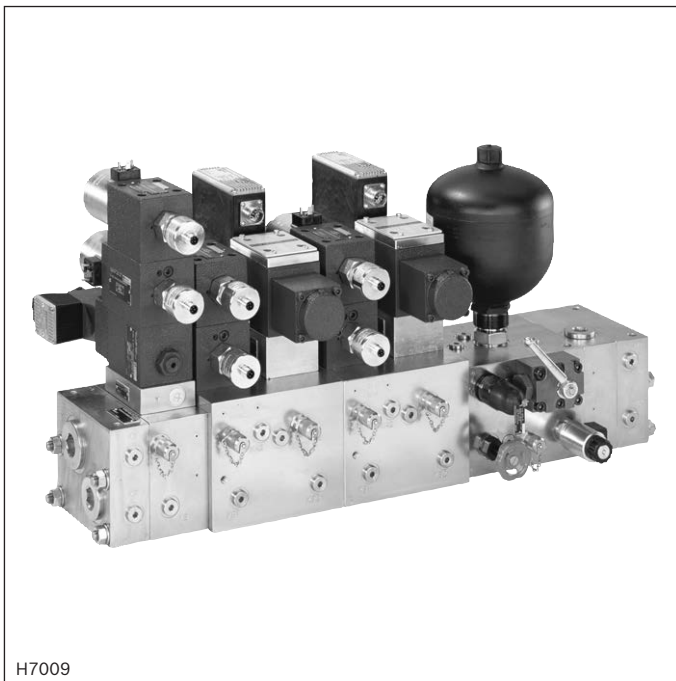


# Modular plate systems

## 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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## 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.

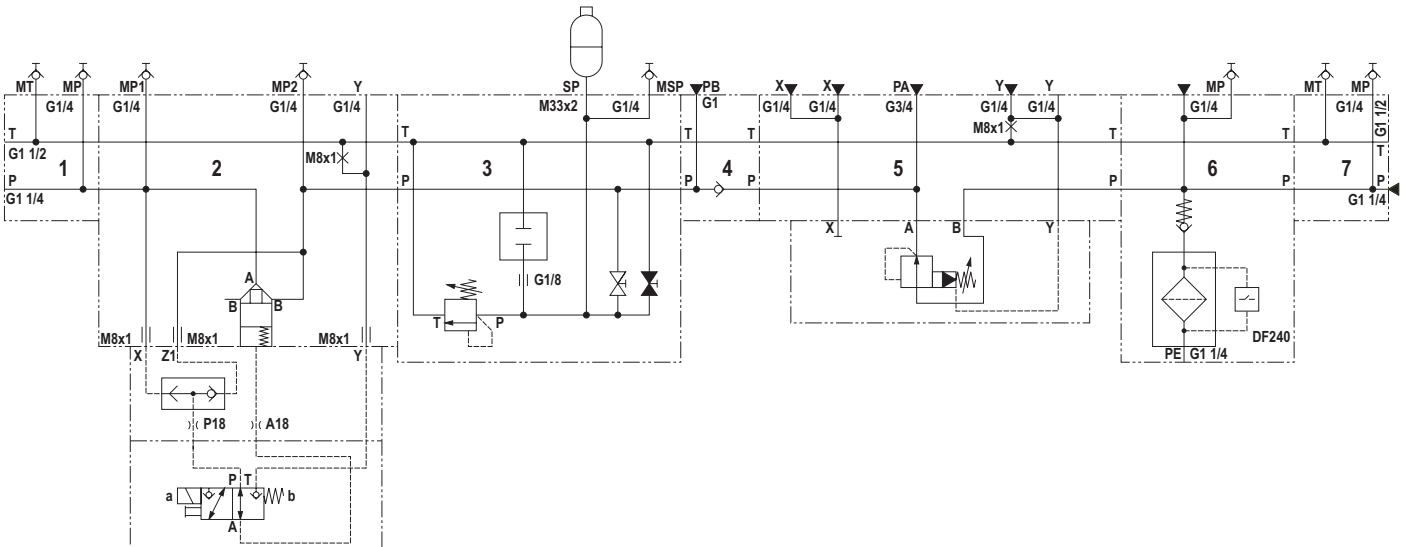
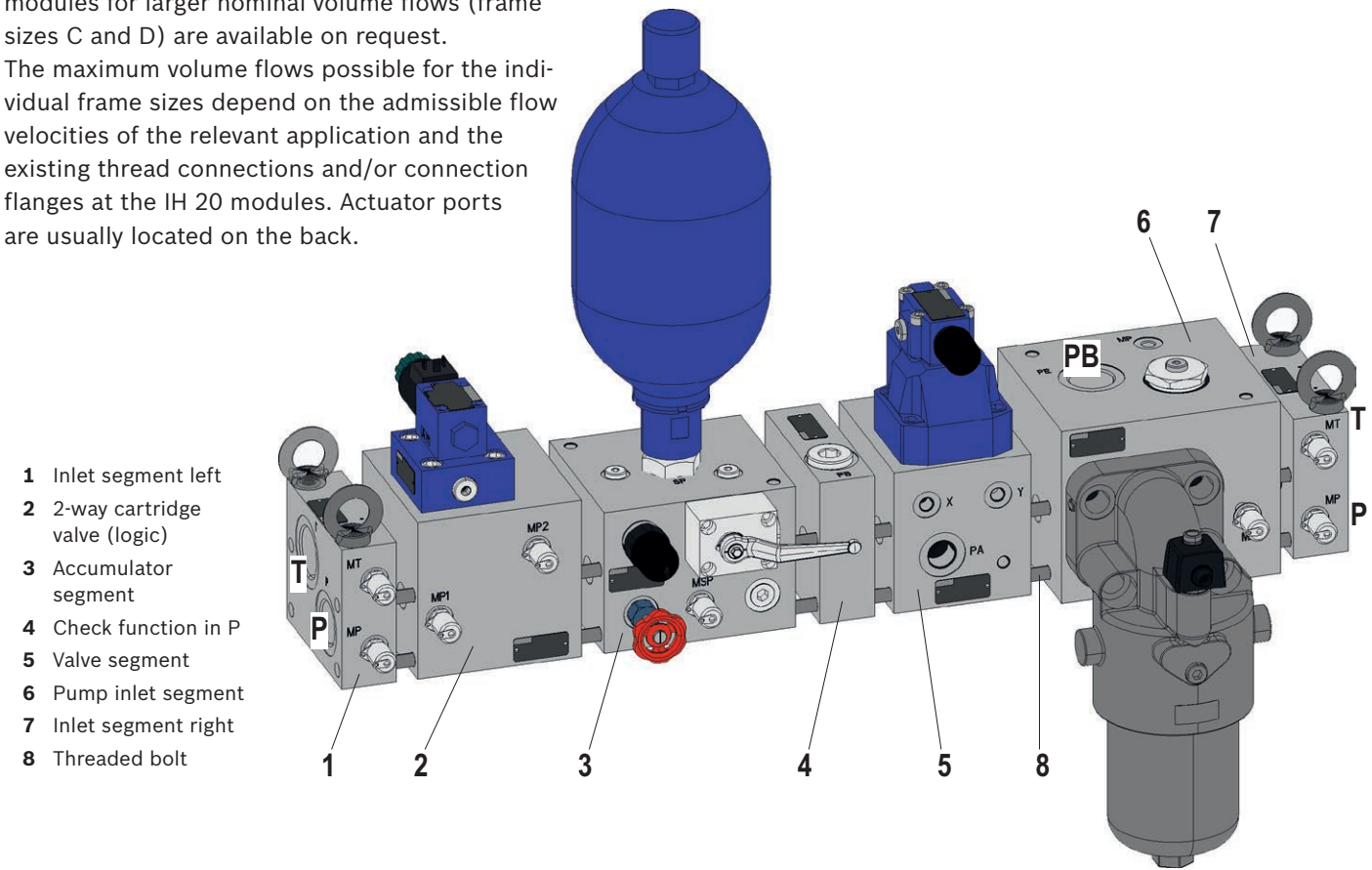
Other functions (modules) in these frame sizes and modules for larger nominal volume flows (frame sizes C and D) are available on request.

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.

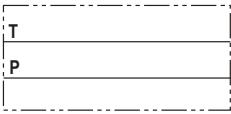
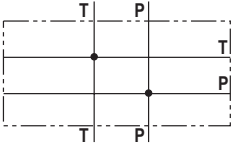
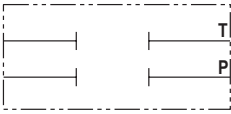

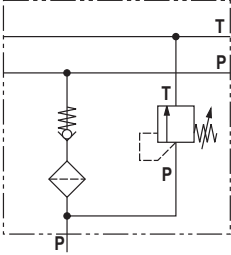
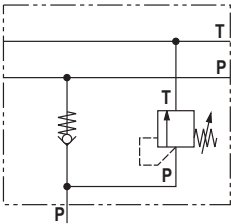
### System set-up

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

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



## Overview

| Stacking elements   |                              |   | Page      |
|---|------------------------------|---|-----------|
|    | Inlet segments<br>Left/right | Ports P and T front side  | 8 ... 10  |
|    | Ports                        | Ports P and T lateral   | 11        |
|   | Threaded segments            | Thread instead of through holes<br>(for threaded bolts)                   | 12 ... 13 |
|   | Spacer segments              | Increases the distance between<br>two segments (construction-<br>related) | 14        |
|    | Separator segments           | Interruption of manifold pipes<br>(multi-circuit systems)                 | 15        |
|    | Reducer segments             | Adaptation between the frame<br>sizes                                     | 16 ... 17 |
| Pump inlet segments   |                              |   |           |
|  | Inlet segment with filter    | Pump inlet with control for pump<br>start-up and filtration               | 18 ... 22 |
|  | Inlet segment without filter | Pump inlet with control for pump<br>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><b>Blocking function</b></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><b>Pressure function</b></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><b>Flow control function</b></p> |                                   |  |                  |
|                                     |                                   | <p>Flow control function in the actuator ports</p>                               | <p>66 ... 67</p> |
| <p><b>Logic function</b></p>        |                                   |  |                  |
|                                     |                                   | <p>Directional and/or pressure function with 2/2 directional cartridge valve</p> | <p>68 ... 70</p> |
| <p><b>Accumulator function</b></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) <sup>1)</sup>                |
| Ambient temperature range | °C<br>–30 ... +50 (NBR seals)<br>–20 ... +50 (FKM seals) |
| Surface protection        | Galvanic coating according to DIN 50979 Fe//Zn8//Cn//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)<br>–15 ... +80 (FKM seals) |     |
| Viscosity range   | mm <sup>2</sup> /s              | 2.8 ... 500 <sup>1)</sup>                          |     |
| Maximum admissible degree of contamination of the hydraulic fluid;<br>Cleanliness class according to ISO 4406 (c) | Class 20/18/15 <sup>1; 2)</sup> |  |     |

| 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.

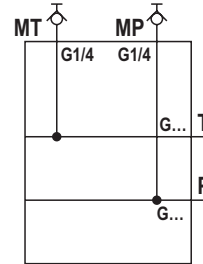
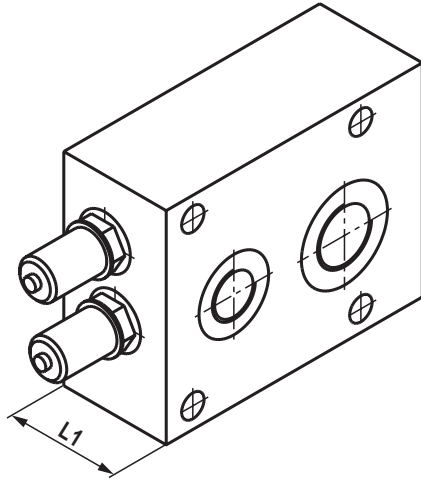
<sup>1)</sup> Observe details of subplate-mounted valves.

<sup>2)</sup> 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](http://www.boschrexroth.com/filter).

**Stacking element:** inlet segment  
(dimensions in mm)

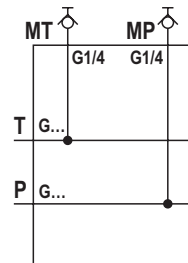
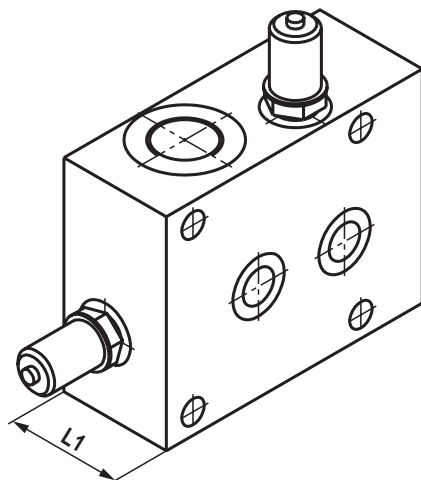
► Inlet segment right "AS"



| 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"

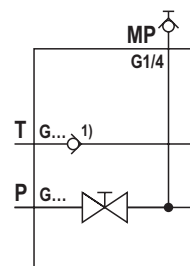
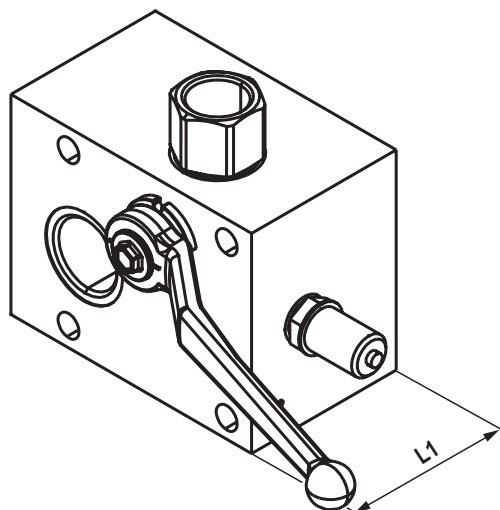


| Frame size | P      | T      | L1 | Ordering codes   | Material no. NBR | Material no. FKM | Drawing no. |
|------------|--------|--------|----|------------------|------------------|------------------|-------------|
| A          | G3/4   | G1     | 50 | IH20M1A-ES02-1X/ | R900780029       | R901010862       | 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. |
|----------|------------|--------|--------|-----|------------------|------------------|------------------|-------------|
| <b>a</b> | <b>A</b>   | G3/4   | G1     | 75  | IH20M1A-ES03-1X/ | R901057433       | R901102829       | R901057437  |
| <b>b</b> | <b>B</b>   | G1 1/4 | G1 1/2 | 100 | IH20M1B-ES03-1X/ | R901057413       | R901102807       | R901057423  |

#### Sample assembly

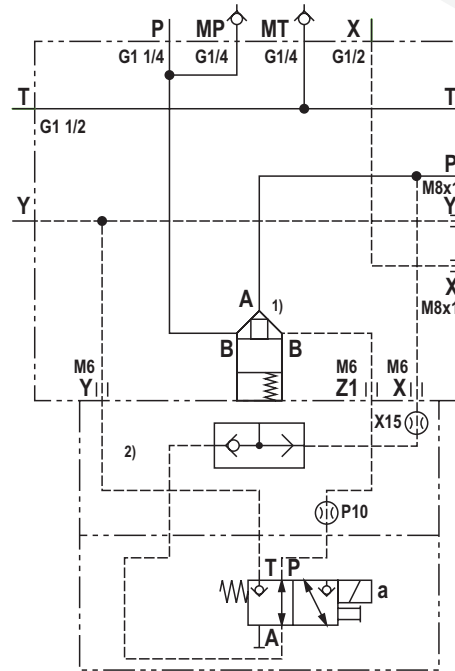
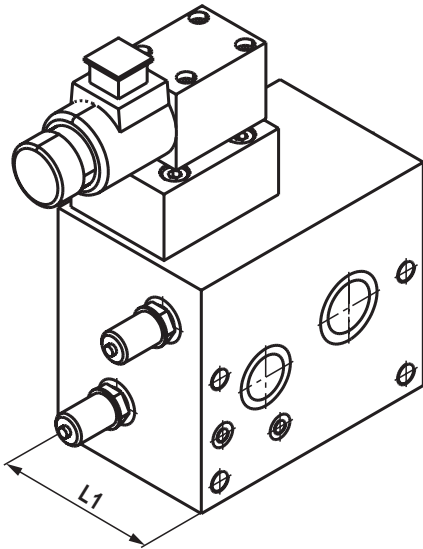
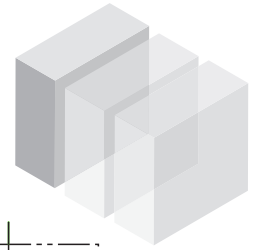
- |          |  |
|----------|--|
| <b>a</b> | <ul style="list-style-type: none"> <li>► optional check valve insert type RKVC-16-0,2 bar                             <ul style="list-style-type: none"> <li>- NBR: material no. R900031396 (not included) <sup>1)</sup></li> <li>- FKM: material no. R901103578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

#### 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



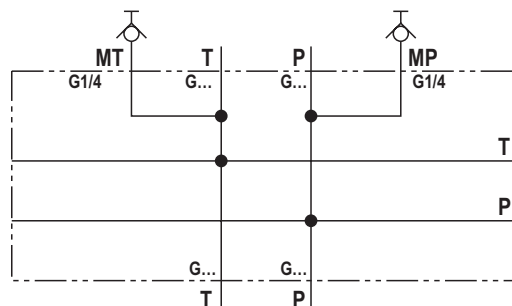
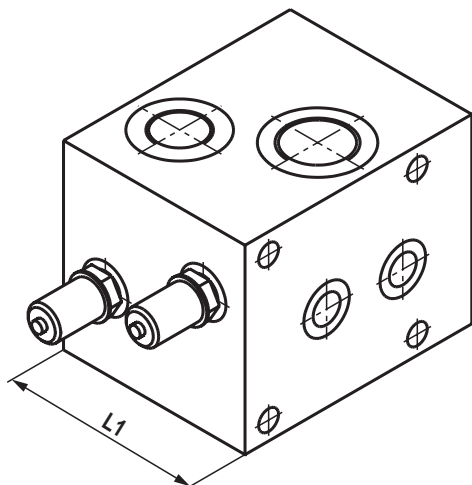
| Frame size | P      | T      | L1 | Ordering codes       | Material no. NBR | Material no. FKM | Drawing no. |
|------------|--------|--------|----|----------------------|------------------|------------------|-------------|
| B          | G1 1/4 | G1 1/2 | 75 | IH20M11B-ES16R01-1X/ | R901269142   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

**Sample assembly**

- Cartridge valve type LC 16 ...-7X/... (data sheet 21010) <sup>1)</sup>
- Logic cover type LFA 16 ...-7X/... (data sheet 21010) <sup>2)</sup>
- 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)

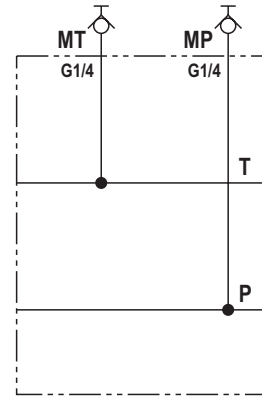
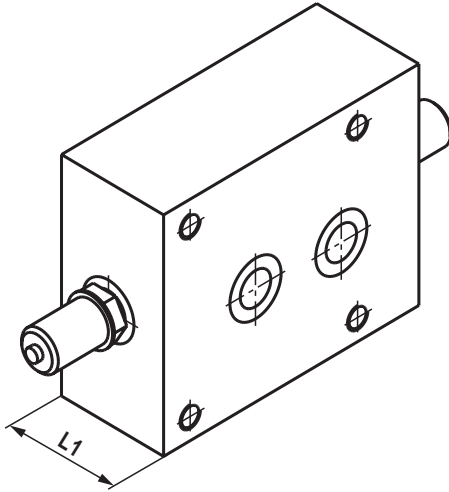
► Segment with functions in channel P and T "PT"



| 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"**



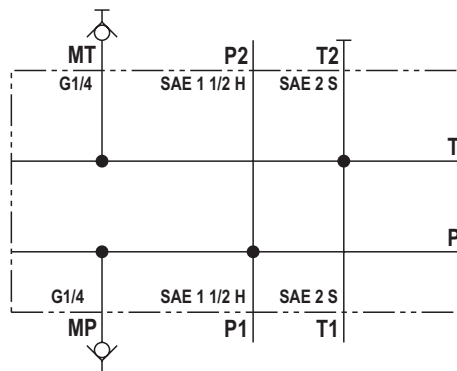
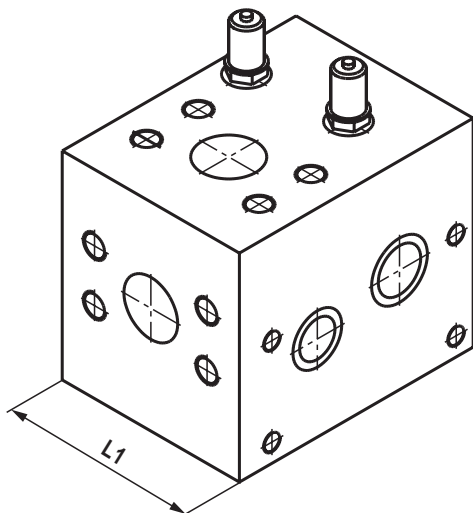
|          | Frame size | L1 | Ordering codes  | Material no. NBR | Material no. FKM | Drawing no. |
|----------|------------|----|-----------------|------------------|------------------|-------------|
| <b>a</b> | <b>A</b>   | 50 | IH20M6A-GS1-1X/ | R900708074       | –                | R900718688  |
| <b>b</b> | <b>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"**



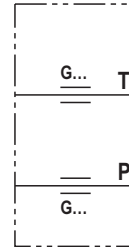
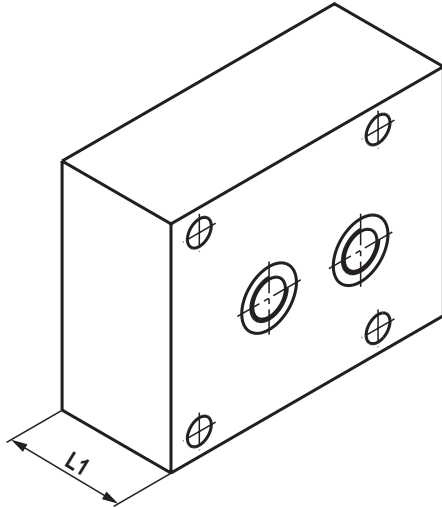
| Frame size | P1            | P2            | T1         | T2         | L1  | Ordering codes   | Material no. NBR | Material no. FKM | Drawing no. |
|------------|---------------|---------------|------------|------------|-----|------------------|------------------|------------------|-------------|
| B          | SAE<br>1 1/2H | SAE<br>1 1/2H | SAE<br>2 S | SAE<br>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. |
|----------|------------|------|------|----|------------------|------------------|------------------|-------------|
| <b>a</b> | <b>A</b>   | G3/8 | G3/8 | 50 | IH20M4A-DS01-1X/ | R900708077       | R901055381       | R900718683  |
| <b>b</b> | <b>B</b>   | G3/4 | G1   | 50 | IH20M4B-DS01-1X/ | R900619739       | R900786570       | R900718630  |

| <b>Sample assembly</b> |  |
|------------------------|--|
| <b>a</b>               | ► Plug screw channels P and T: material no. R913019138                             |
| <b>b</b>               | ► Plug screw P: material no. R913023612<br>► Plug screw T: material no. R913019140 |

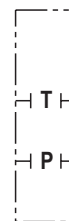
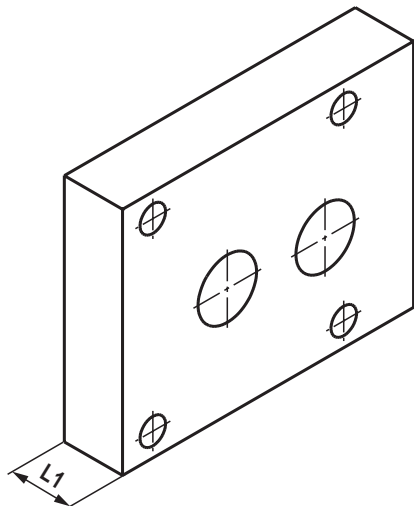


**Notice:**

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  |

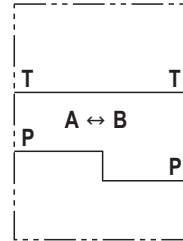
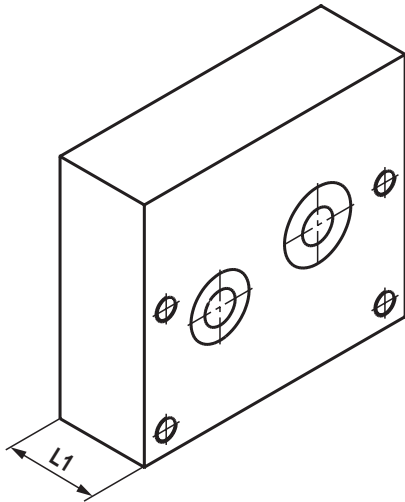


**Notice:**

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  |



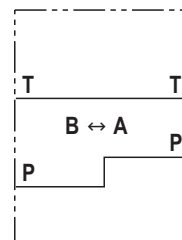
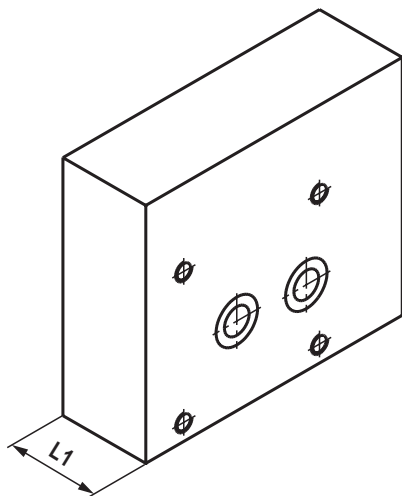
**Notice:**

- 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  |

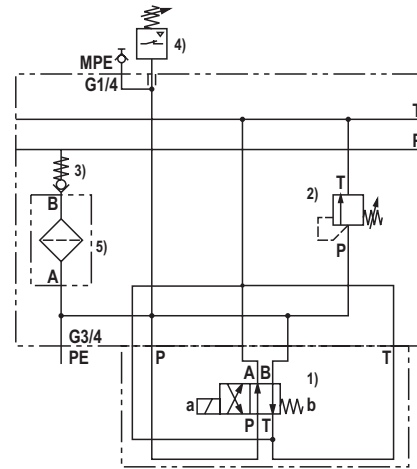
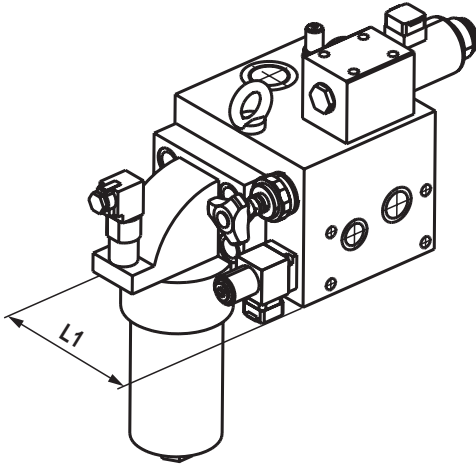
 **Notice:**

- ▶ 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  |

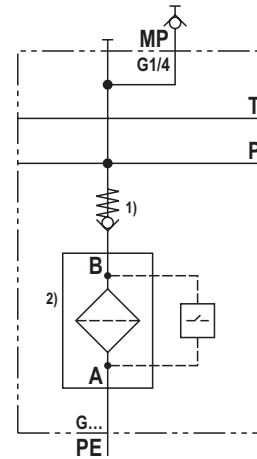
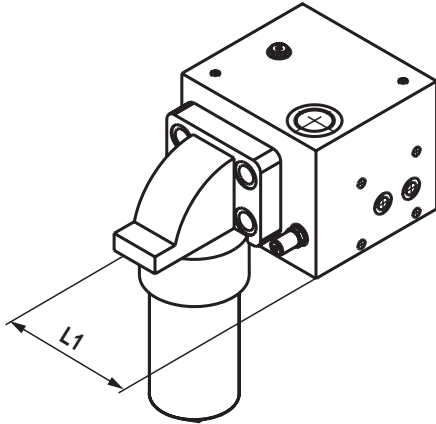
|   | Filter       |            | Sample assembly   |
|---|--------------|------------|---|
|   | Size         | Data sheet |   |
| a | 40 ... 100   | 51418      | <ul style="list-style-type: none"> <li>► Type 4WE 6 D73-6X/... (data sheet 23178) <sup>1)</sup></li> <li>► Type DBD... 10 K1X/... (data sheet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

**Notices:**

- Filter outlet above inlet
- For optimal filter identification see online design software "Bosch Rexroth FilterSelect" ([www.boschrexroth.com/filter](http://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) <sup>1)</sup><br>► Filter, e. g.: 245PSFN0063-H10XLB00- V5,0-M (max. 250 bar), material no. R928024393 (NBR) (data sheet 51418) <sup>2)</sup><br>► 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) <sup>1)</sup><br>► Filter, e. g.: 245PSFN0160-H10XLB00- V5,0-M (max. 250 bar), material no. R928024397 (NBR) (data sheet 51418) <sup>2)</sup><br>► 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) <sup>1)</sup><br>► Filter, e. g.: 245PSFN0100-H10XLB00- V5,0-M (max. 250 bar), material no. R928024394 (NBR) (data sheet 51418) <sup>2)</sup><br>► 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) <sup>1)</sup><br>► Filter, e. g.: 245PSFN0...-H10XLB00- V5,0-M (max. 250 bar) <sup>2)</sup><br>– 0160: material no. R928024397 (NBR)<br>– 0250: material no. R928024398 (NBR) (data sheet 51418)<br>► 350PSFN0...-H10XLB00- V5,0-M<br>– 0160: material no. R928026495 (NBR)<br>– 0250: material no. R928026496 (NBR) (data sheet 51419) |
|   | 160 ... 1000 | 51419      |   |

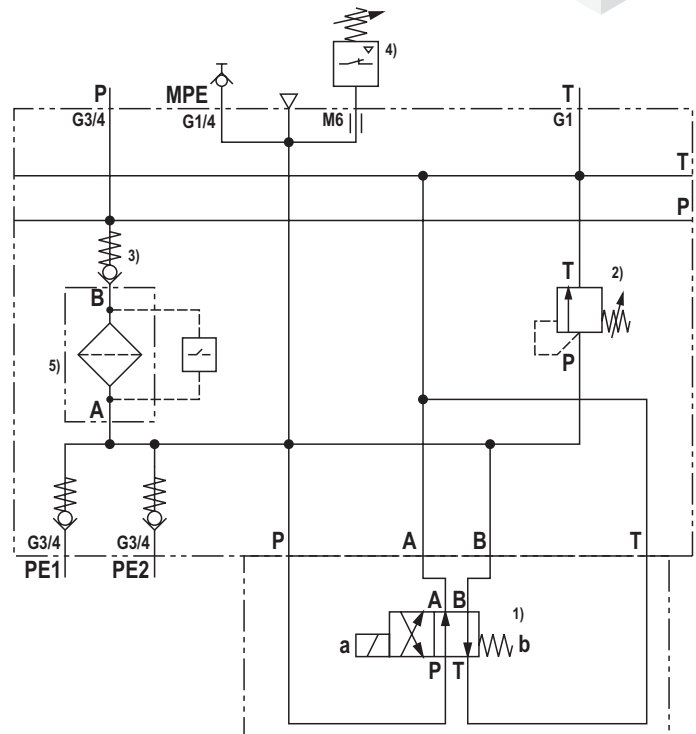
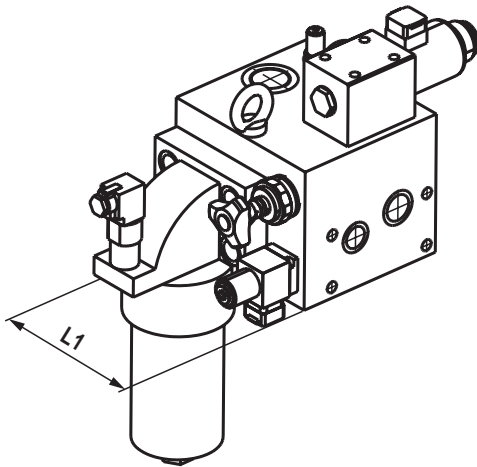


**Notices:**

- Filter outlet above inlet
- For optimal filter identification see online design software "Bosch Rexroth FilterSelect" ([www.boschrexroth.com/filter](http://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  |

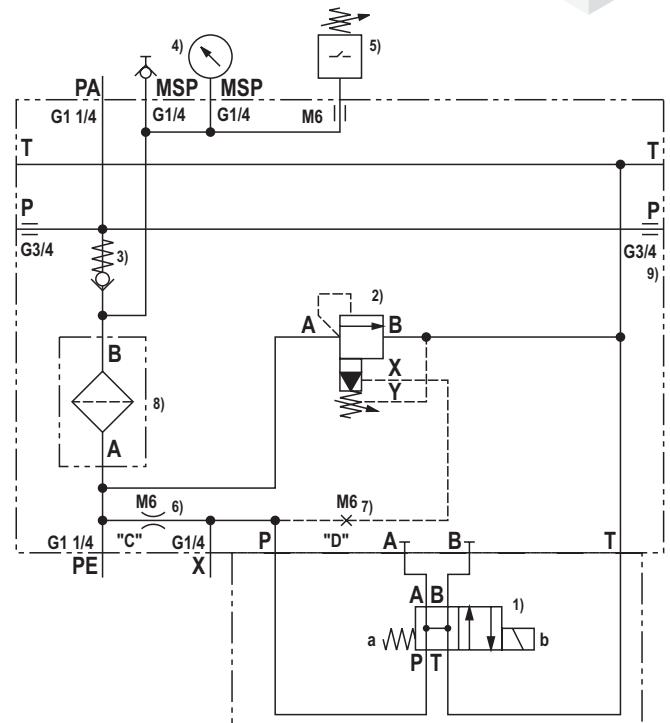
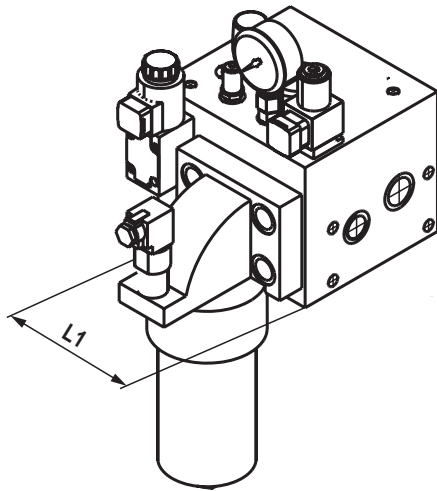
| Size       | Filter     |  |
|------------|------------|--|
|            | Data sheet | Sample assembly  |
| 40 ... 100 | 51418      | ► Type 4WE 6 D73-6X/... (data sheet 23178) <sup>1)</sup>   |
| 40 ... 100 | 51419      | ► Type DBD... 10 K1X/... (data sheet 25402) <sup>2)</sup>  |
|            |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

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

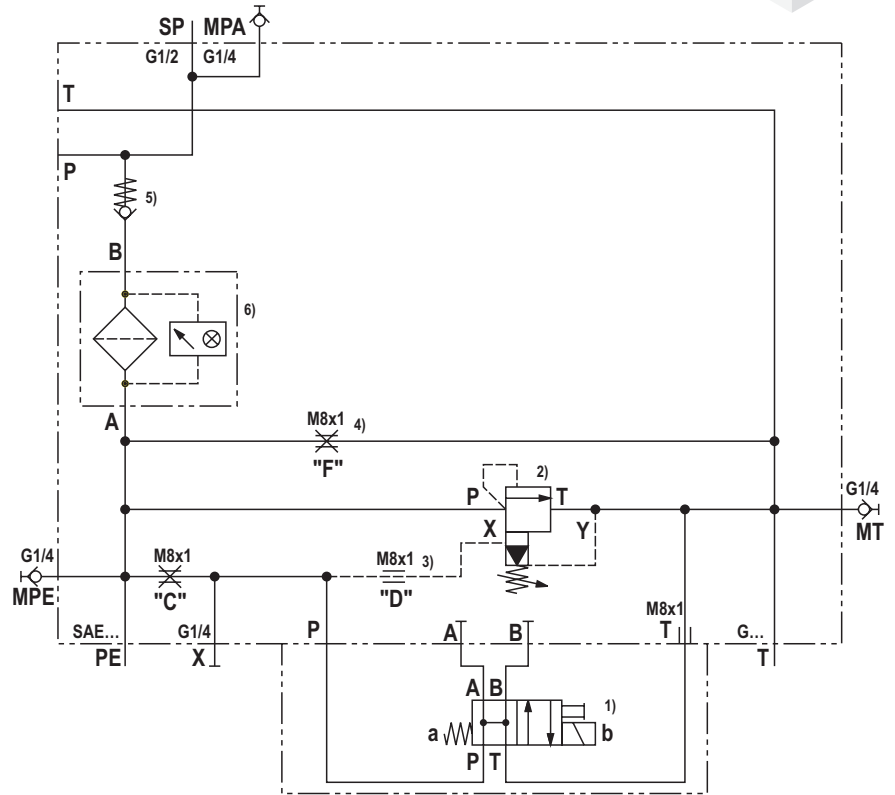
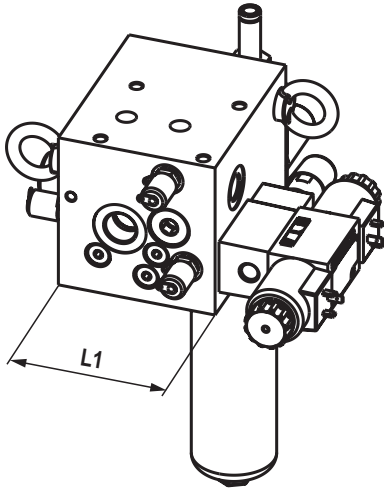
**Notices:**

- Filter outlet above inlet
- For optimal filter identification see online design software "Bosch Rexroth FilterSelect" ([www.boschrexroth.com/filter](http://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  |

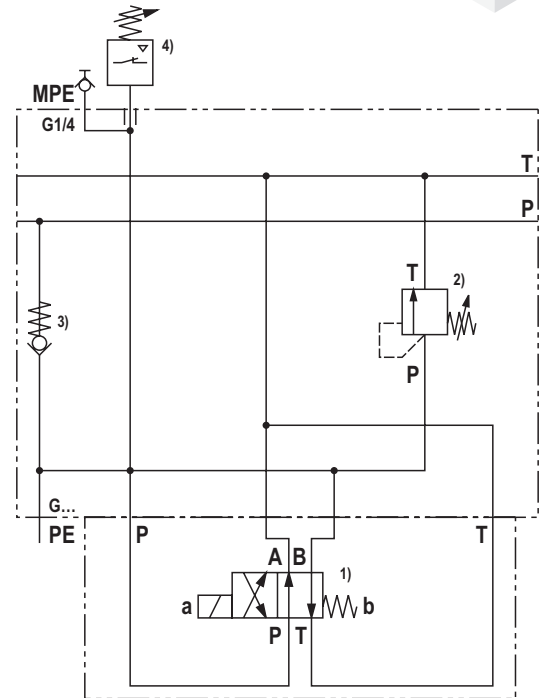
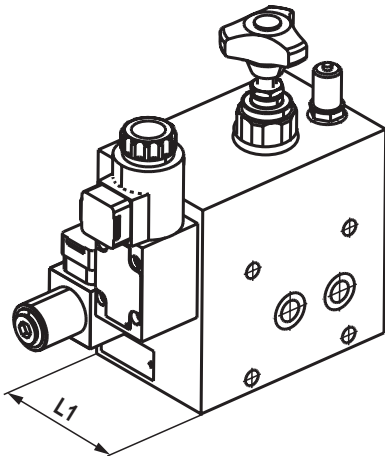
|   | Filter        |            | Sample assembly  |
|---|---------------|------------|--|
|   | Size          | Data sheet |  |
| a | 0015 ... 0018 | 51405      | ► Type 4WE 6 HB6X/... (data sheet 23178) <sup>1)</sup><br>► Type DB 20 K2-1X/...XY... (data sheet 25818) <sup>2)</sup><br>► Nozzle ZN10028-0,8-B-M8X1X8-ST (material no. R913017614) <sup>3)</sup><br>► Plug screw ZN10027-M8X1-SV (material no. R913019129) <sup>4)</sup><br>► Type M-SR 15 KE...-1X/ (data sheet 20380) <sup>5)</sup><br>► Filter, e. g.: 245PSFN0100 (max. 250 bar) material no. R928024394 (NBR) (data sheet 51418) <sup>6)</sup><br>► 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](http://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"**



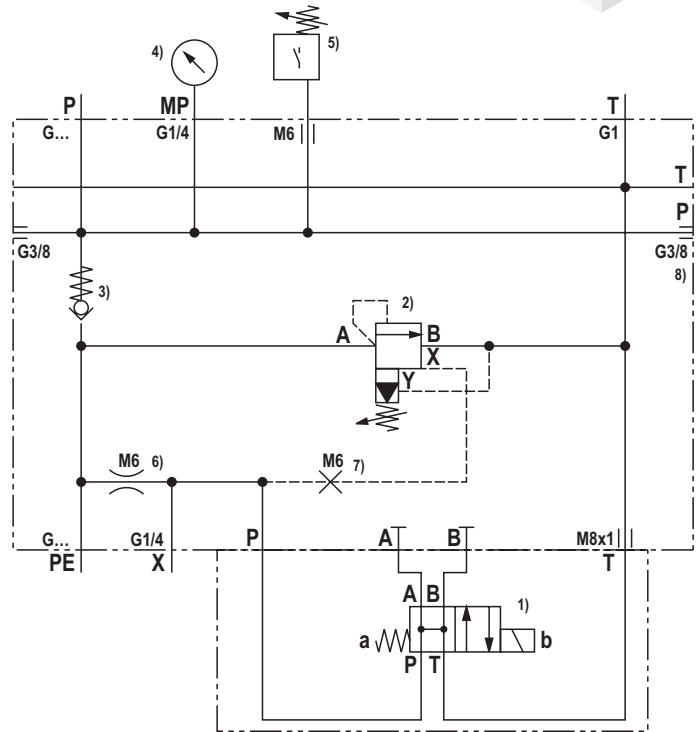
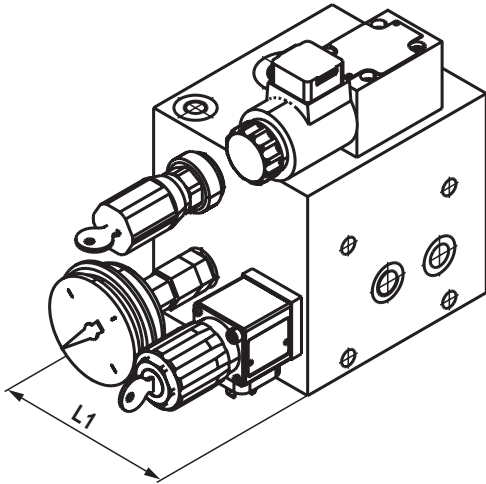
|   | Frame size | P      | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|--------|-----|---------------------|------------------|------------------|-------------|
| a | A          | G3/4   | 100 | IH20M4A-PT15X01-1X/ | R901063203       | –                | 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"> <li>► Type 4WE 6 D73-6X/... (data sheet 23178) <sup>1)</sup></li> <li>► Type DBD... 10 K1X/... (data sheet 25402) <sup>2)</sup></li> <li>► Type M-SR 15 KE...-1X/ (data sheet 20380) <sup>3)</sup></li> <li>► Type HED 8 OH2X/... (data sheet 50061) <sup>4)</sup></li> </ul> |
| b               | <ul style="list-style-type: none"> <li>► Type 4WE 6 D73-6X/... (data sheet 23178) <sup>1)</sup></li> <li>► Type DBD. 20 K1X/... (data sheet 25402) <sup>2)</sup></li> <li>► Type M-SR 20 KE...-1X/ (data sheet 20380) <sup>3)</sup></li> <li>► Type HED 8 OH1X/... (data sheet 50061) <sup>4)</sup></li> </ul>   |
| c               | <ul style="list-style-type: none"> <li>► Type 4WE 10 D73-5X/... (data sheet 23340) <sup>1)</sup></li> <li>► Type DBD. 20 K1X/... (data sheet 25402) <sup>2)</sup></li> <li>► Type M-SR 25 KE...-1X/ (data sheet 20380) <sup>3)</sup></li> <li>► Type HED 8 OH1X/... (data sheet 50061) <sup>4)</sup></li> </ul>  |

**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. |
|----------|------------|--------|------|----|-----|---------------------|------------------|------------------|-------------|
| <b>a</b> | <b>A</b>   | G3/8   | G3/4 | G1 | 125 | IH20M4A-VP20R04-1X/ | R901156578       | –                | R901156583  |
| <b>b</b> | <b>B</b>   | G1 1/4 | –    | –  | 125 | IH20M4B-VP20R02-2X  | R900763561       | –                | R900764344  |

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

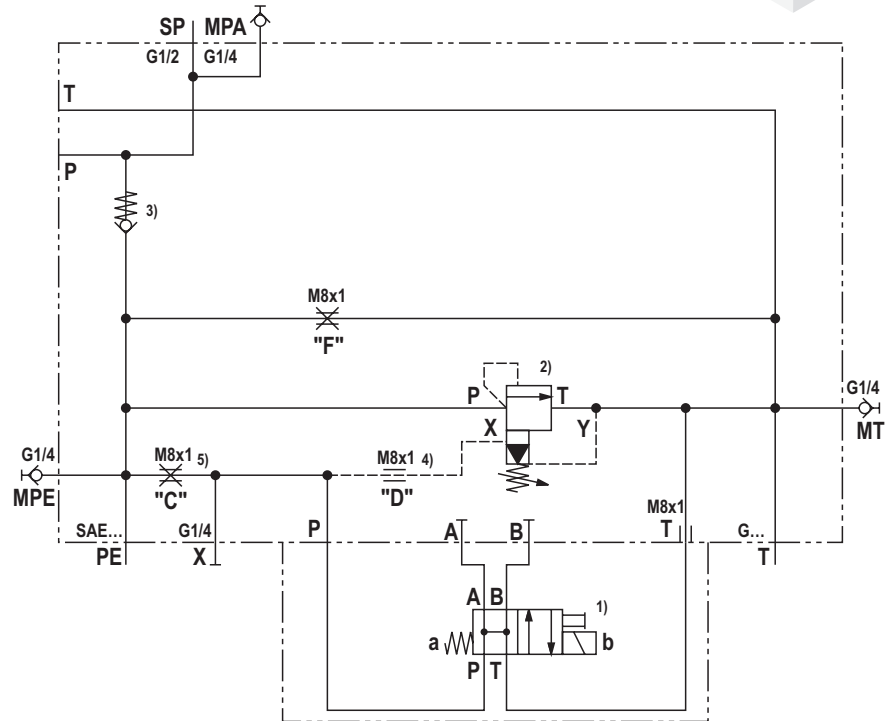
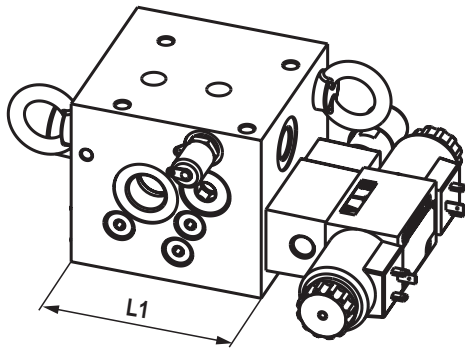
**Notices:**

- 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.<br>NBR | Material no.<br>FKM | Drawing no. |
|---|------------|---------------|--------|-----|---------------------|---------------------|---------------------|-------------|
| a | A          | SAE<br>3/4H   | G3/4   | 115 | IH20M1A-AS15R01-1X/ | R901415771          | -                   | RA54913239  |
| b | B          | SAE<br>1 1/4H | G1 1/4 | 135 | IH20M1B-AS20R01-1X/ | R901415775          | -                   | RA55069481  |

**Sample assembly**

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

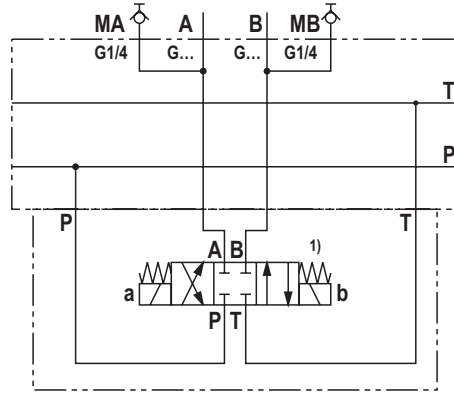
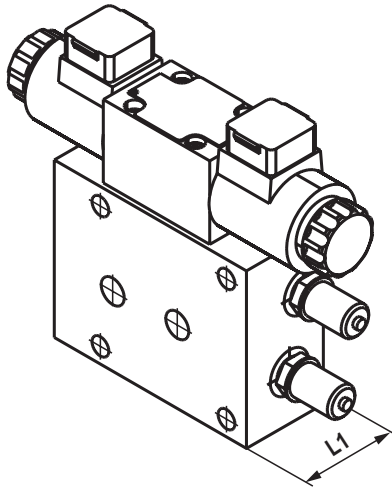


**Notices:**

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"

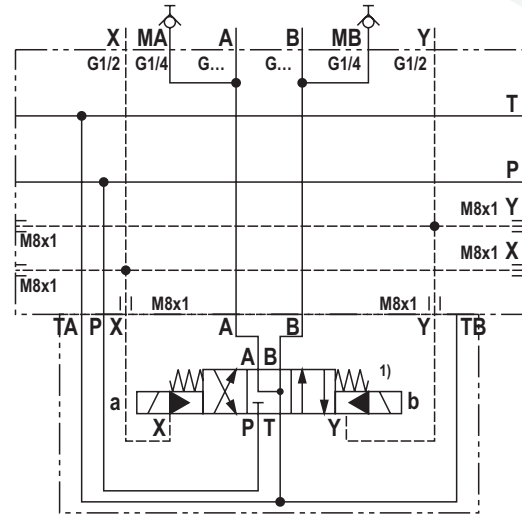
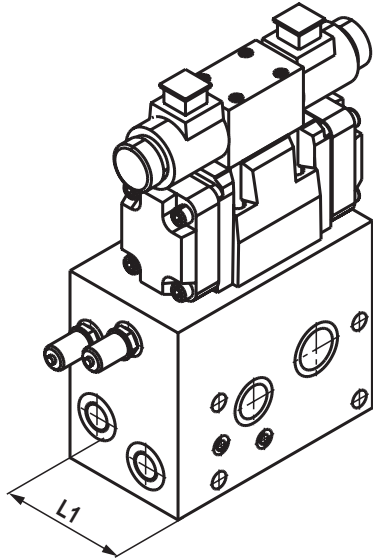


|   | Frame size | Size | A      | B      | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|--------|--------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 6    | G1/2   | G1/2   | 50  | IH20M2A-VS06A01-1X/ | 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) <sup>1)</sup>                                 |
| b               | ▶ Type WE 10 ...-5X/... (data sheet 23340) <sup>1)</sup>                                |
| c               | ▶ Type WE 6 ...-6X/... (data sheet 23178) <sup>1)</sup>                                 |
| d               | ▶ Type WE 6 ...-6X/... (data sheet 23178) <sup>1)</sup>                                 |
| e               | ▶ Type WE 10 ...-5X/... (data sheet 23340), internal pilot oil flow <sup>1)</sup>       |
| f               | ▶ Type WEH 16 ...-7X/...ET... (data sheet 24751), internal pilot oil flow <sup>1)</sup> |
| g               | ▶ Type WEH 16 ...-7X/...ET... (data sheet 24751), internal pilot oil flow <sup>1)</sup> |
| h               | ▶ Type WE 10 ...-5X/... (data sheet 23340) <sup>1)</sup>                                |

**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  |

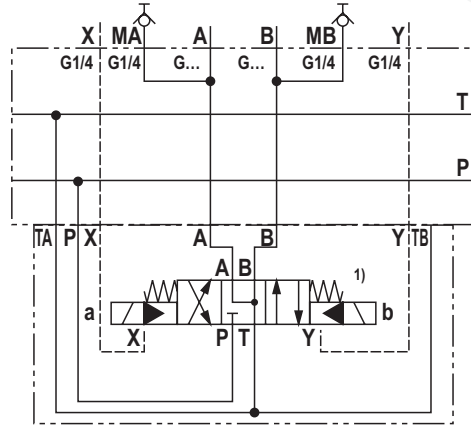
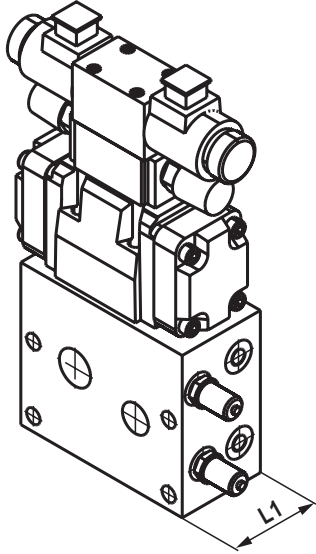
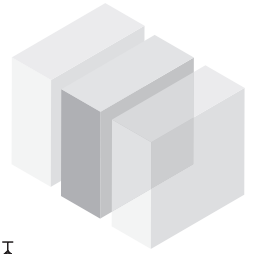
| Sample assembly |  |
|-----------------|--|
| a               | <ul style="list-style-type: none"> <li>▶ Type WE 10 ...-4X/... (data sheet 24751) <sup>1)</sup></li> <li>▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul>  |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

**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"



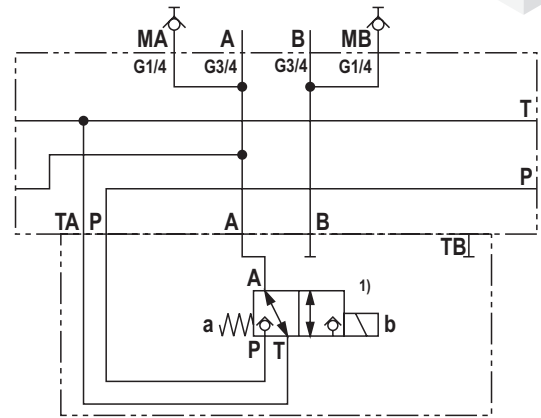
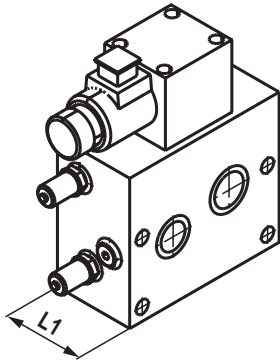
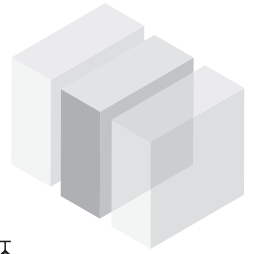
|   | Frame size | Size | A    | B    | L1 | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|------|------|----|---------------------|------------------|------------------|-------------|
| a | B          | 10   | G3/4 | G3/4 | 75 | IH20M2B-VS10B04-1X/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

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

**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) <sup>1)</sup>
- Type M-...SED 10-1X/... (data sheet 22045) <sup>1)</sup>

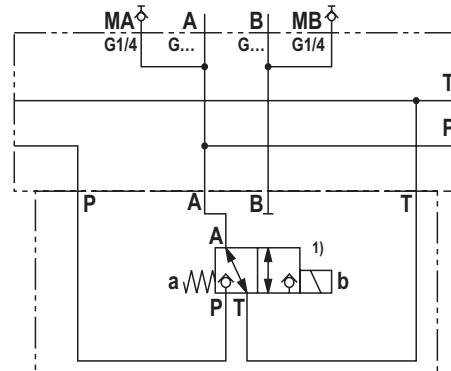
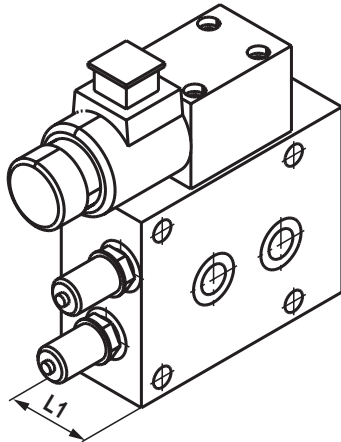


#### Notice:

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  |

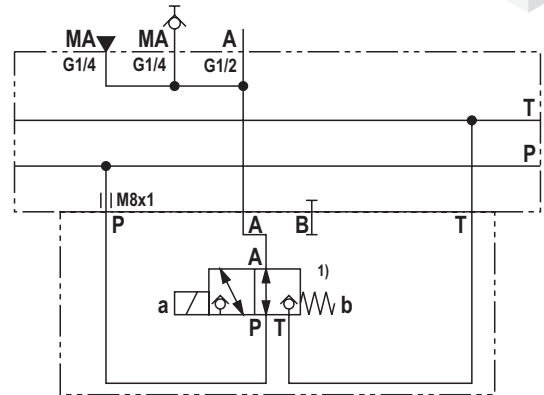
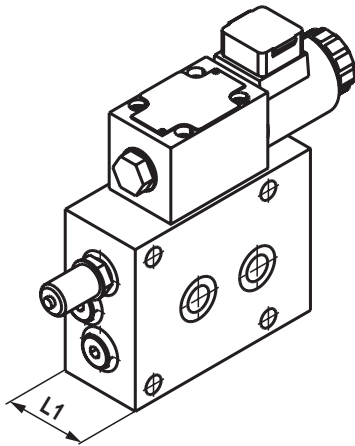
| Sample assembly |  |
|-----------------|--|
| a               | <ul style="list-style-type: none"> <li>▶ Type WE 6 ...-6X/... (data sheet 23178) <sup>1)</sup></li> <li>▶ Type M-...SED 6 ...-1X/... (data sheet 22049) <sup>1)</sup></li> </ul>   |
| b               | <ul style="list-style-type: none">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

**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"



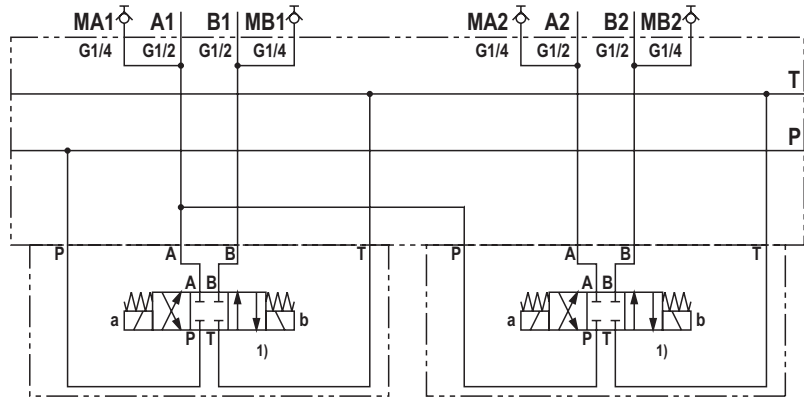
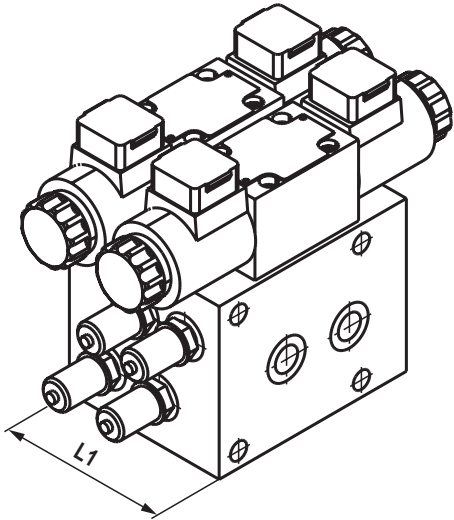
| Frame size | Size | A    | L1 | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|------------|------|------|----|---------------------|------------------|------------------|-------------|
| A          | 6    | G1/2 | 50 | IH20M2A-VS06A14-1X/ | R901086193       | R901423317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

#### Sample assembly

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

**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  |

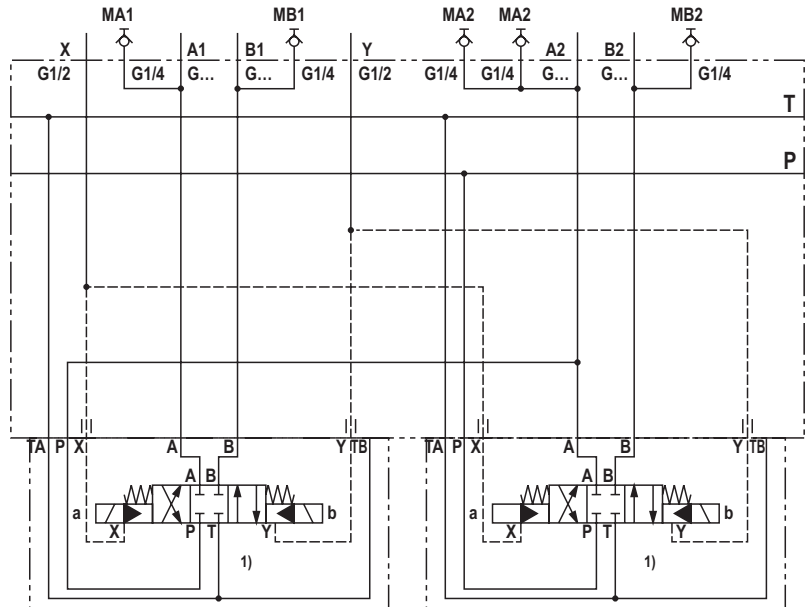
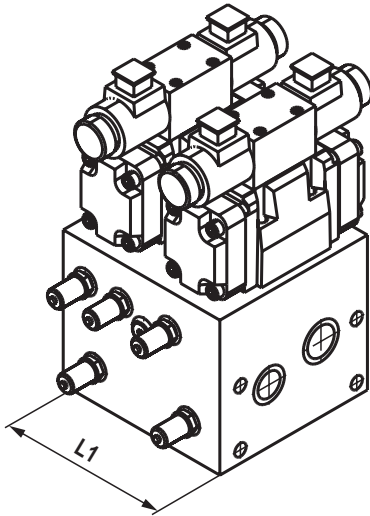
**Sample assembly**

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



**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"



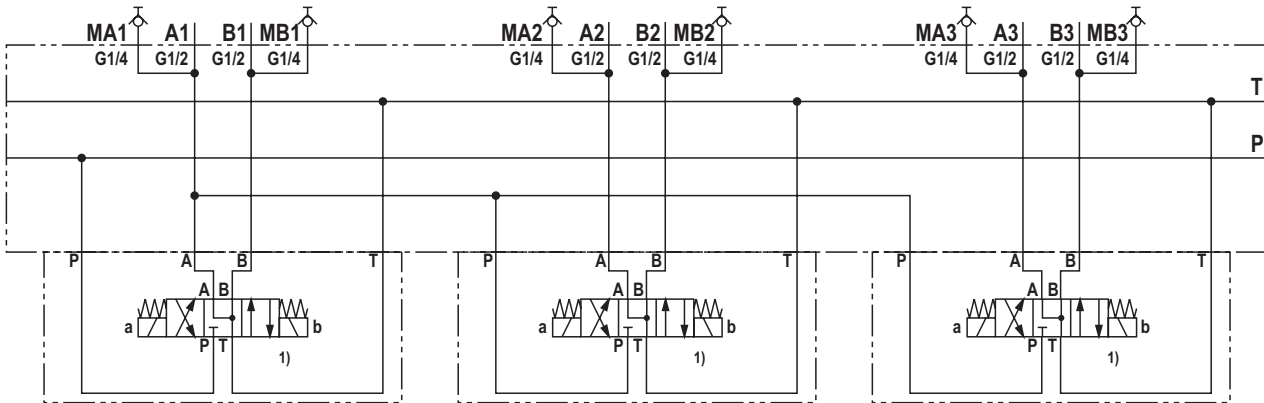
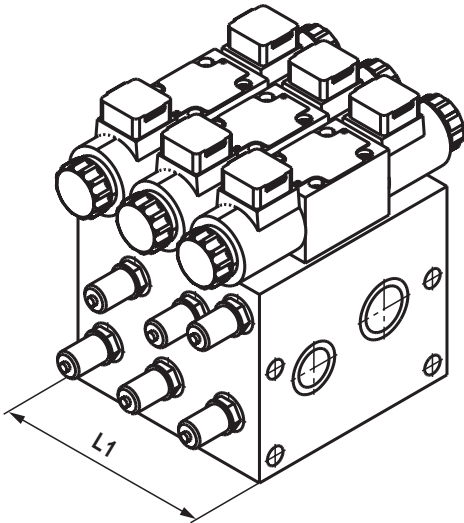
|   | Frame size | Size | A1, A2 | B1, B2 | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|--------|--------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 10   | G3/4   | G3/4   | 175 | IH20M2A-VE10B01-1X/ | 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"> <li>▶ Type WEH 10 ...-4X/... (data sheet 24751) <sup>1)</sup></li> <li>▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul> |
| b               | <ul style="list-style-type: none"> <li>▶ Type WEH 10 ...-4X/... (data sheet 24751) <sup>1)</sup></li> <li>▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul> |
| c               | <ul style="list-style-type: none"> <li>▶ Type WEH 16 ...-7X/... (data sheet 24751) <sup>1)</sup></li> <li>▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul> |

**Directional function:** internally linked  
(dimensions in mm)



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



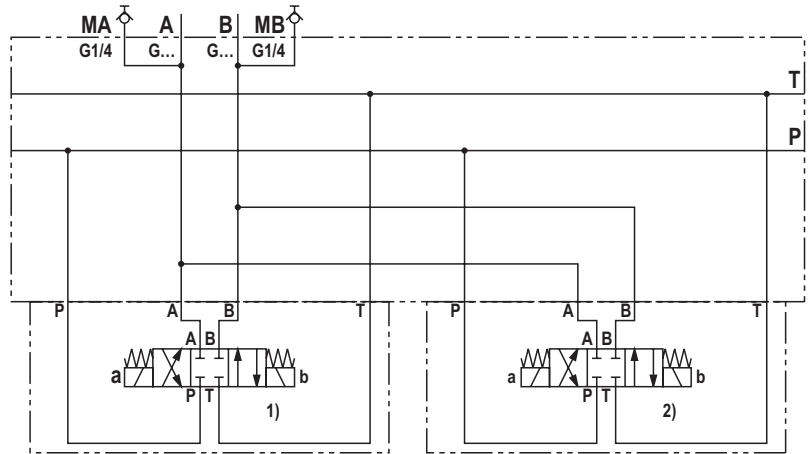
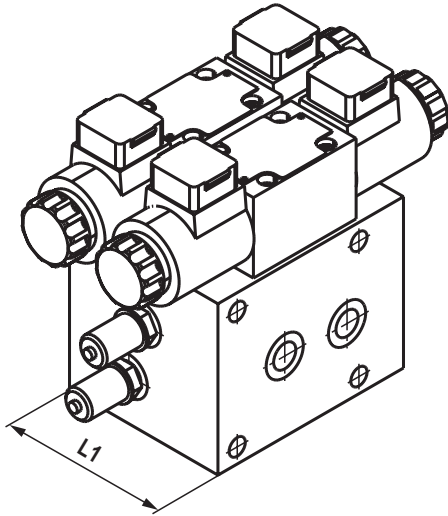
| Frame size | Size | A1, A2, A3 | B1, B2, B3 | L1  | Ordering codes     | Material no. NBR | Material no. FKM | Drawing no. |
|------------|------|------------|------------|-----|--------------------|------------------|------------------|-------------|
| B          | 6    | G1/2       | G1/2       |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

**Sample assembly**

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

**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"



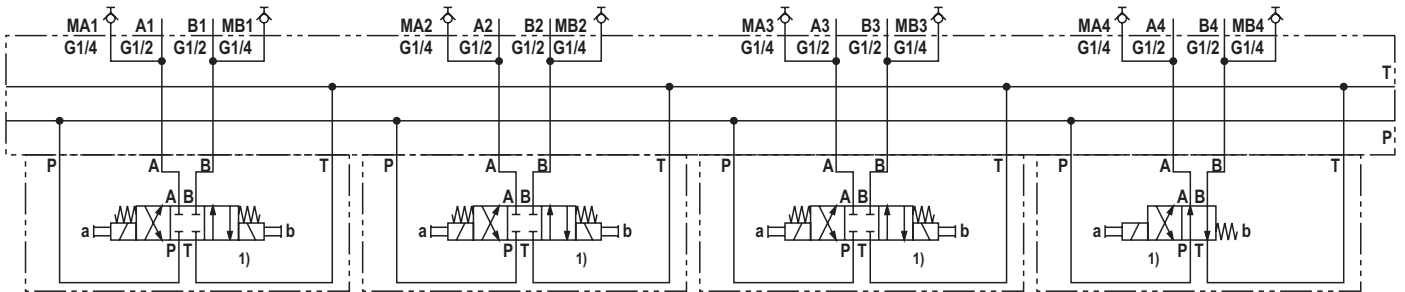
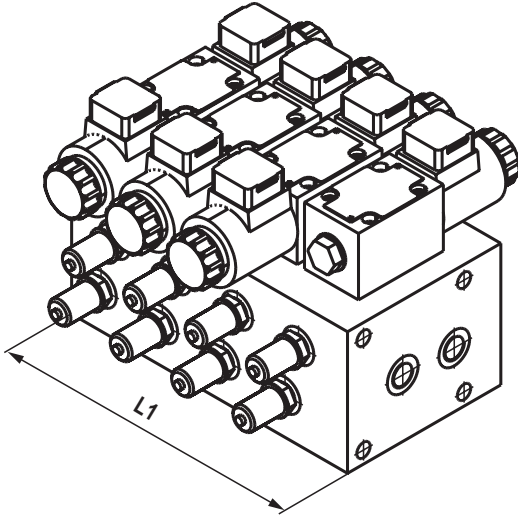
|   | Frame size | Size  | A    | B    | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|-------|------|------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 6     | G1/2 | G1/2 | 100 | IH20M2A-VE06A01-1X/ | 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) <sup>1)/2)</sup>   |
| b               | ▶ Type WE 10 ...-5X/... (data sheet 23340) <sup>1)/2)</sup>  |
| c               | ▶ Type WEH 16 ...-7X/...ET... (data sheet 24751) and type WE 10 ...-5X/... (Data sheet 23340) <sup>1)/2)</sup> |

**Directional function:** multiple  
(dimensions in mm)



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

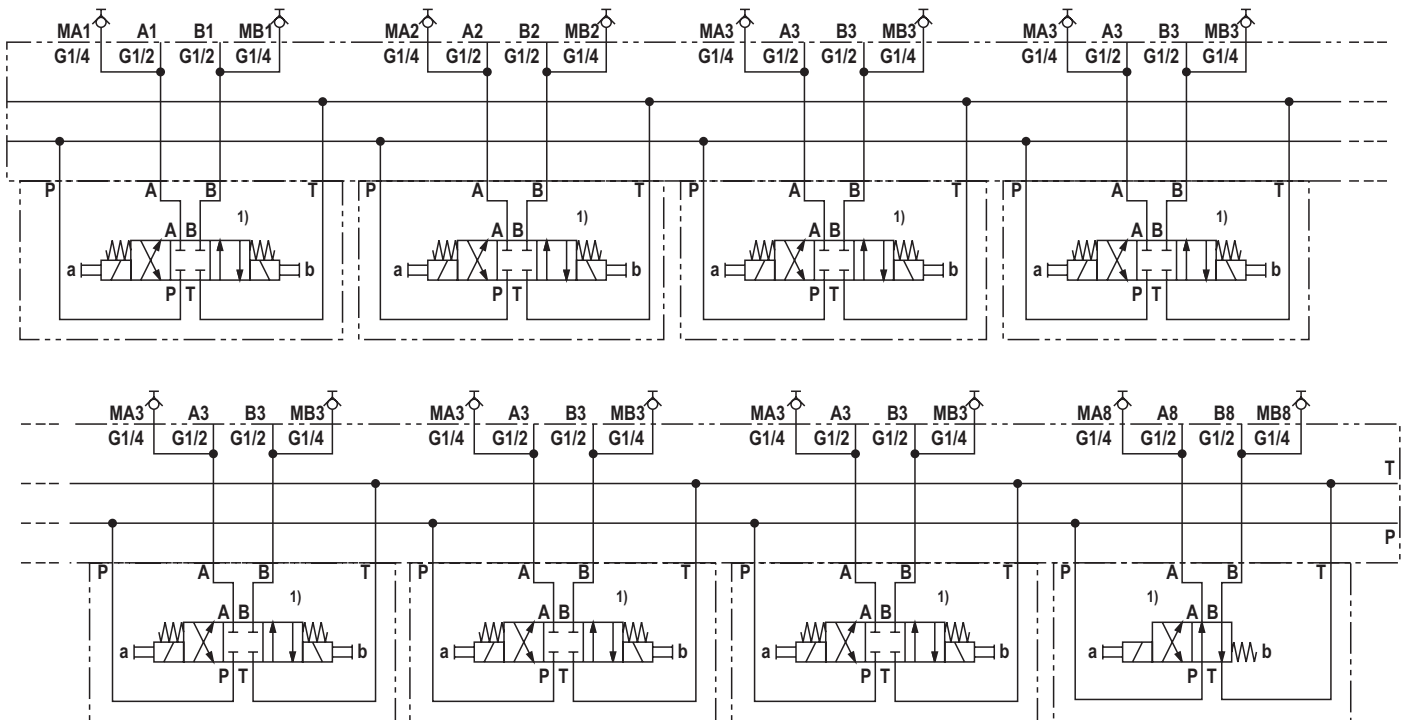
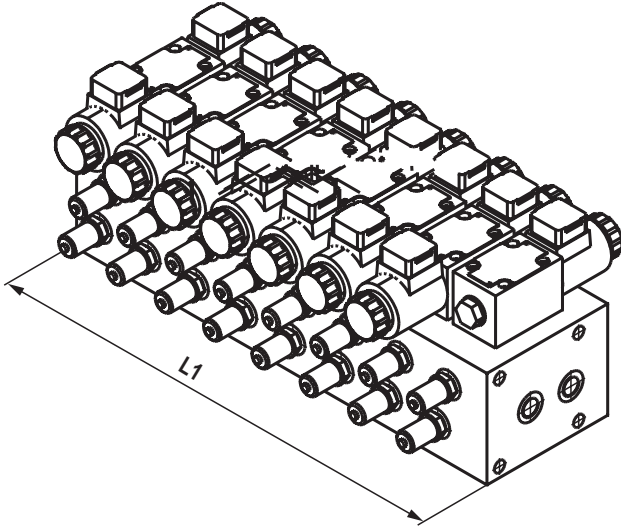


|          | Frame size | Size | A1, A2, A3, A4 | B1, B2, B3, B4 | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|----------|------------|------|----------------|----------------|-----|---------------------|------------------|------------------|-------------|
| <b>a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

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

**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  |

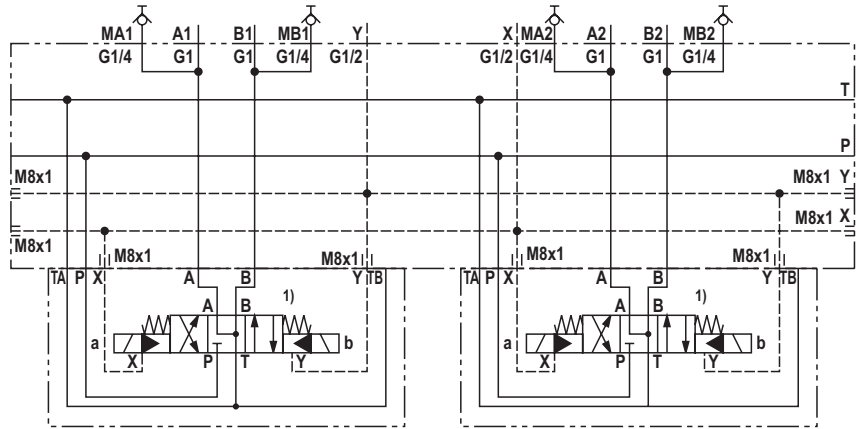
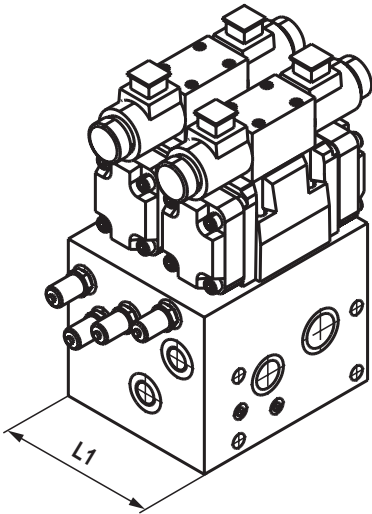
**Sample assembly**

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

**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) <sup>1)</sup>
- ▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)

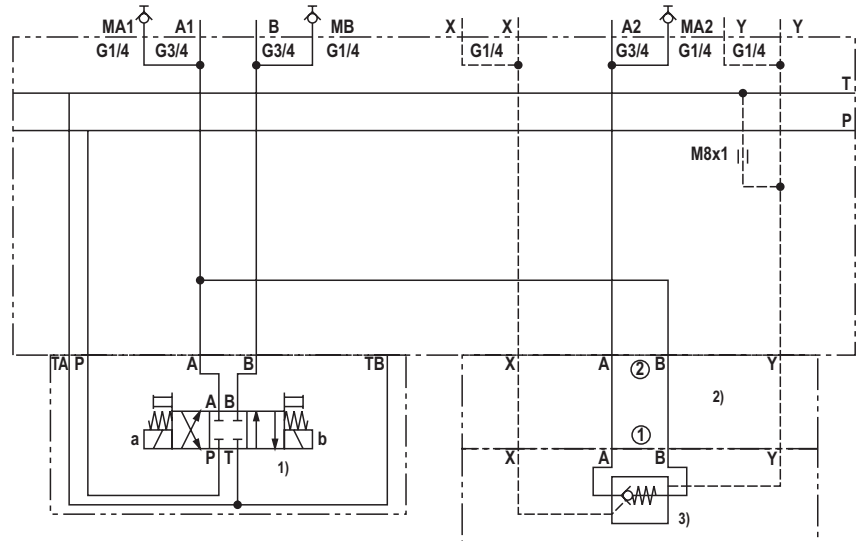
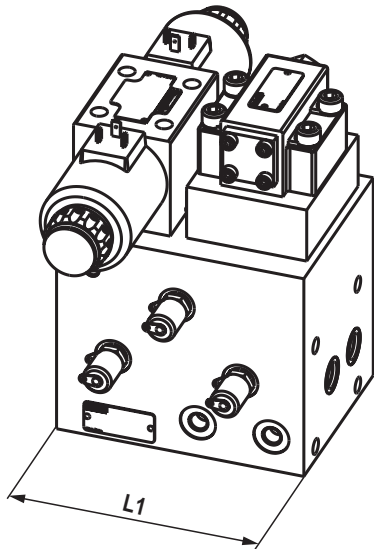


**Notice:**

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

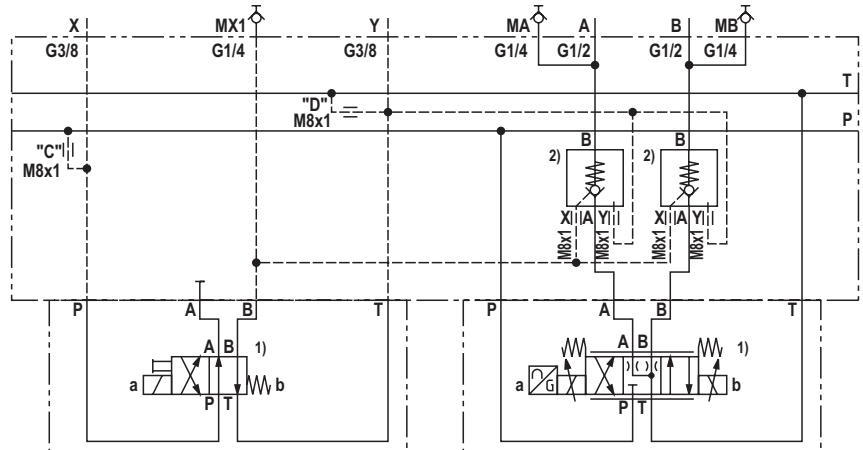
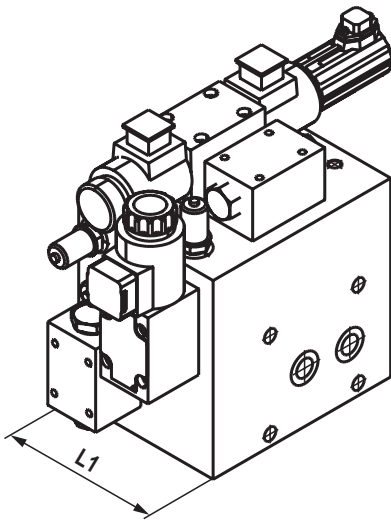


#### Notice:

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  |

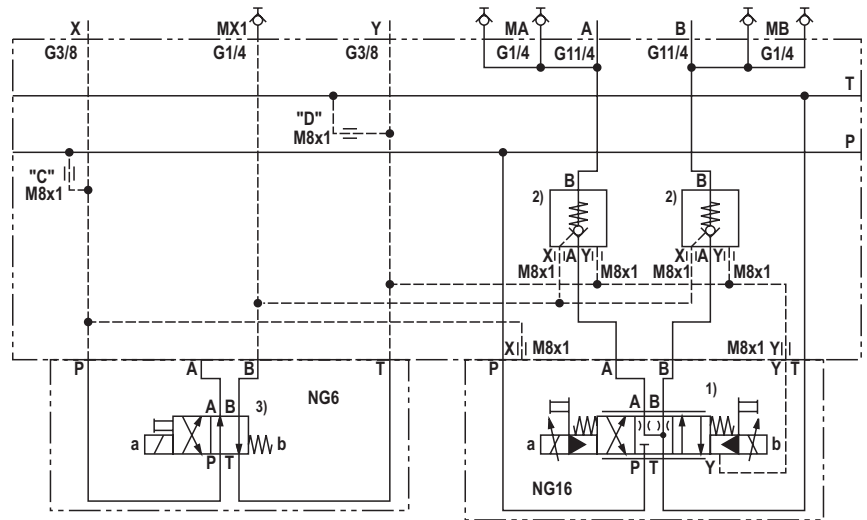
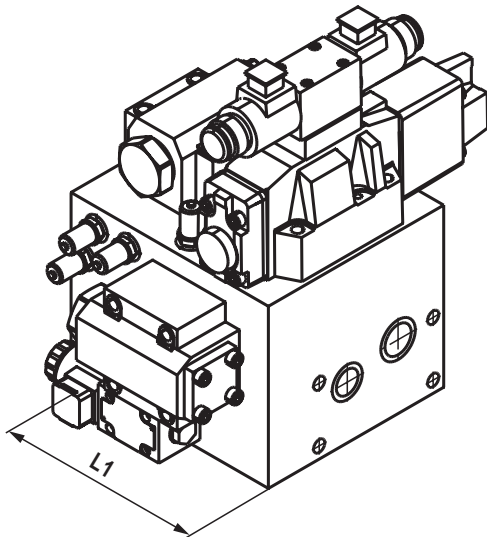
#### Sample assembly

- Type WE 6 ...-6X/... (data sheet 23178) <sup>1)</sup>
- Type SL 6 P...-6X/... (data sheet 21460) <sup>2)</sup>
- 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"



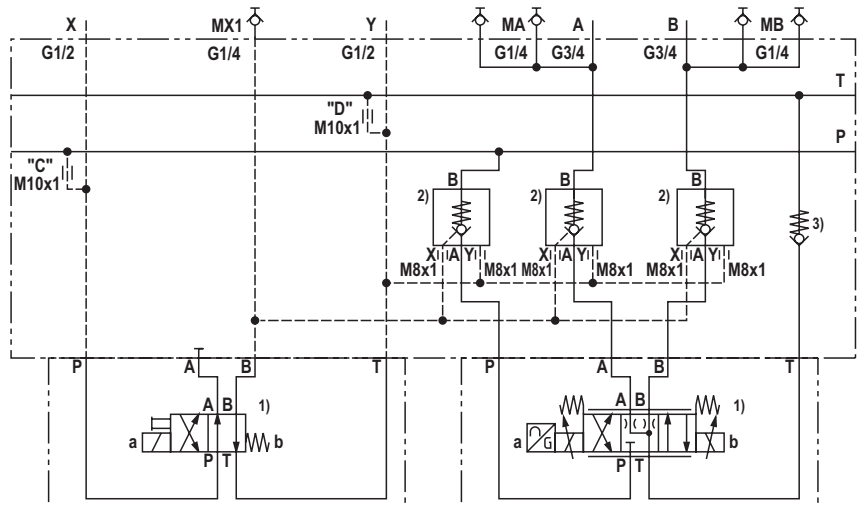
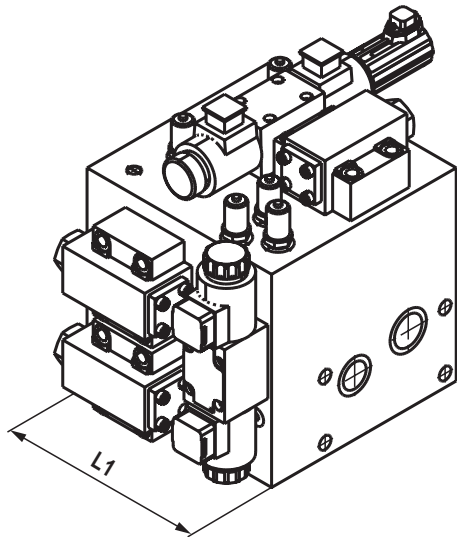
| Frame size | Size | A    | B    | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|------------|------|------|------|-----|---------------------|------------------|------------------|-------------|
| B          | 16   | G1/4 | G1/4 | 225 | IH20M2B-VS16B08-1X/ | R901161047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

#### Sample assembly

- Type WEH 16 ...-7X/... (data sheet 24751) <sup>1)</sup>
- Type SL 20 P...-4X/... (data sheet 21468) <sup>2)</sup>
- Type WE 6 ...-6X/... (data sheet 23178) <sup>3)</sup>
- 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"



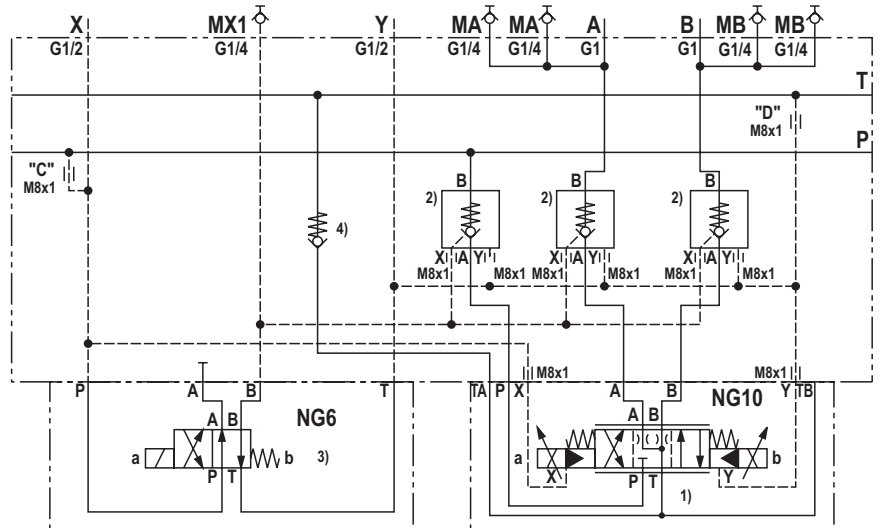
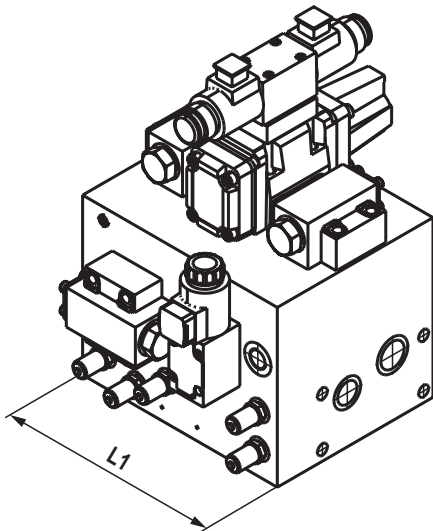
| Frame size | Size  | A    | B    | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|------------|-------|------|------|-----|---------------------|------------------|------------------|-------------|
| B          | 6, 10 | G3/4 | G3/4 | 225 | IH20M2B-VS06A09-1X/ | R901072206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

#### Sample assembly

- Type WE 6 ...-6X/... (data sheet 23178) <sup>1)</sup>
- Type SL 10 P...-4X/... (data sheet 21468) <sup>2)</sup>
- Type M-SR 15 KE...-1X/... (data sheet 20380) <sup>3)</sup>
- 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"



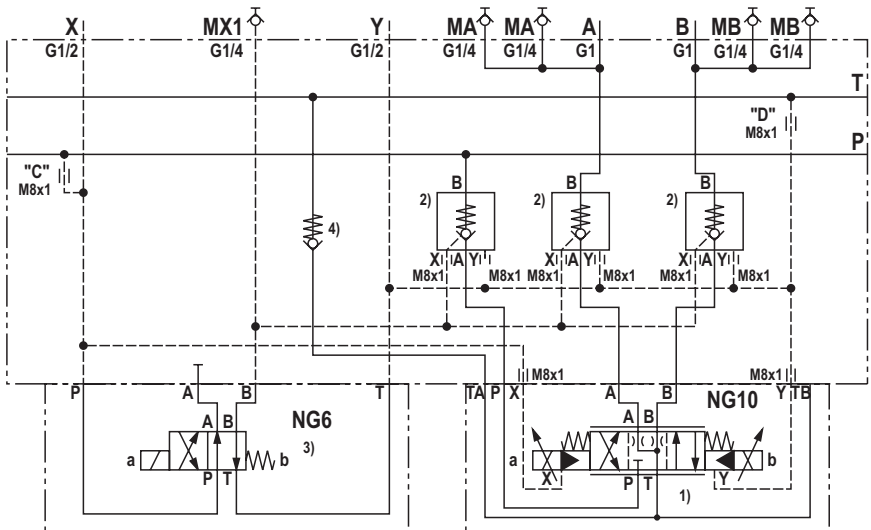
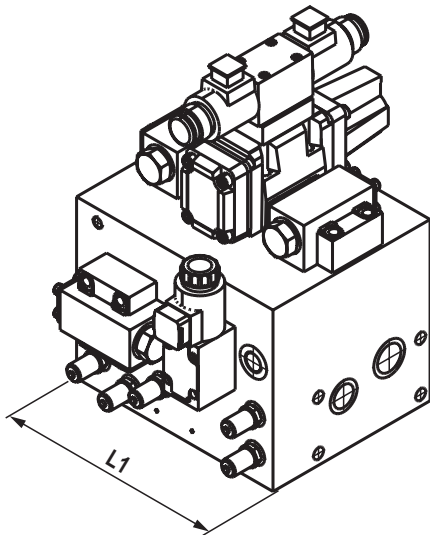
| Frame size | Size  | A  | B  | L1  | Ordering codes     | Material no. NBR | Material no. FKM | Drawing no. |
|------------|-------|----|----|-----|--------------------|------------------|------------------|-------------|
| B          | 6, 10 | G1 | G1 | 250 | IH20M2B-VS10B09-1X | R901174327      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

#### Sample assembly

- Type WEH 10 ...-4X/... (data sheet 24751) <sup>1)</sup>
- Type SL 10 P...-4X/... (data sheet 21468) <sup>2)</sup>
- Type WE 6 ...-6X/... (data sheet 23178) <sup>3)</sup>
- Type M-SR 20 KE...-1X/... (data sheet 20380) <sup>4)</sup>
- 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"



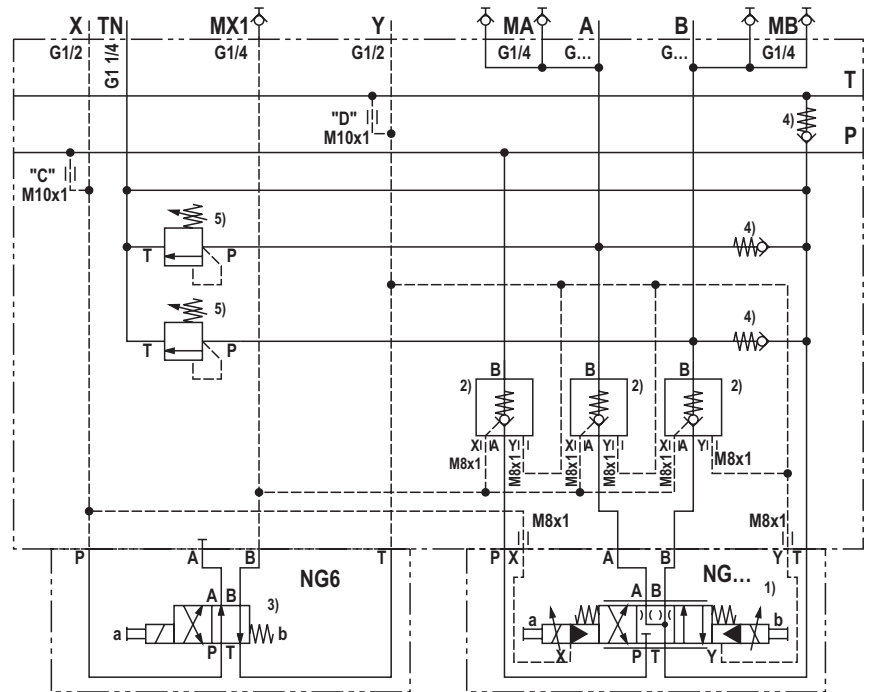
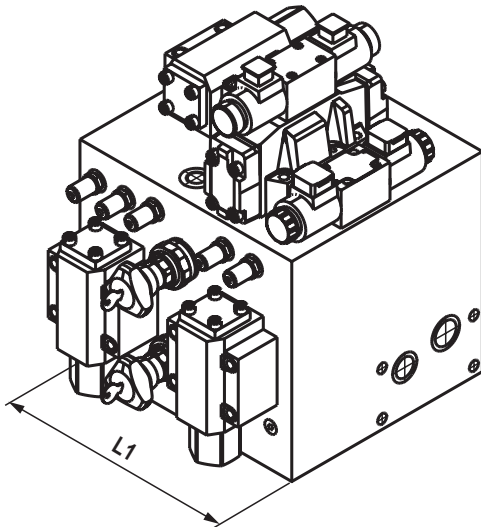
| Frame size | Size  | A  | B  | L1  | Ordering codes     | Material no. NBR | Material no. FKM | Drawing no. |
|------------|-------|----|----|-----|--------------------|------------------|------------------|-------------|
| B          | 6, 10 | G1 | G1 | 250 | IH20M2B-VS10B09-1X | R901174327      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

#### Sample assembly

- Type WEH 10 ...-4X/... (data sheet 24751) <sup>1)</sup>
- Type SL 10 P...-4X/... (data sheet 21468) <sup>2)</sup>
- Type WE 6 ...-6X/... (data sheet 23178) <sup>3)</sup>
- Type M-SR 20 KE...-1X/... (data sheet 20380) <sup>4)</sup>
- 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"

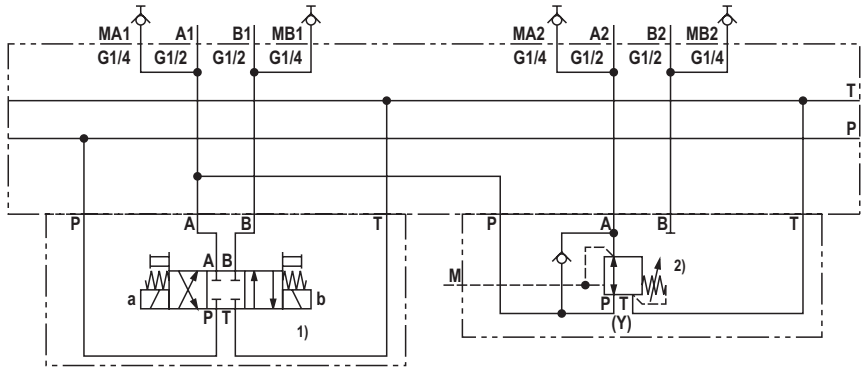
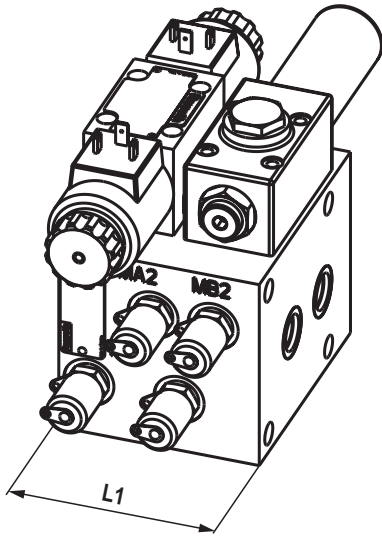


|   | Frame size | Size | A      | B      | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|--------|--------|-----|---------------------|------------------|------------------|-------------|
| a | B          | 10   | G1     | G1     | 250 | IH20M2B-VS10B10-1X/ | 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"> <li>► Type WEH 10 ...-4X/... (data sheet 24751) <sup>1)</sup></li> <li>► Type SL 10 P...-4X/... (data sheet 21468) <sup>2)</sup></li> <li>► Type WE 6 ...-6X/... (data sheet 23178) <sup>3)</sup></li> <li>► Type M-SR 20 KE...-1X/... (data sheet 20380) <sup>4)</sup></li> <li>► Type DBDS 10 K1X/... (data sheet 25402) <sup>5)</sup></li> <li>► 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)</li> </ul> |
| b               | <ul style="list-style-type: none"> <li>► Type WEH 16 ...-4X/... (data sheet 24751) <sup>1)</sup></li> <li>► Type SL 20 P...-4X/... (data sheet 21468) <sup>2)</sup></li> <li>► Type WE 6 ...-6X/... (data sheet 23178) <sup>3)</sup></li> <li>► Type M-SR 25 KE...-1X/... (data sheet 20380) <sup>4)</sup></li> <li>► Type DBDS 20 K1X/... (data sheet 25402) <sup>5)</sup></li> <li>► 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)</li> </ul> |

**Directional function:** with pressure function  
(dimensions in mm)

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



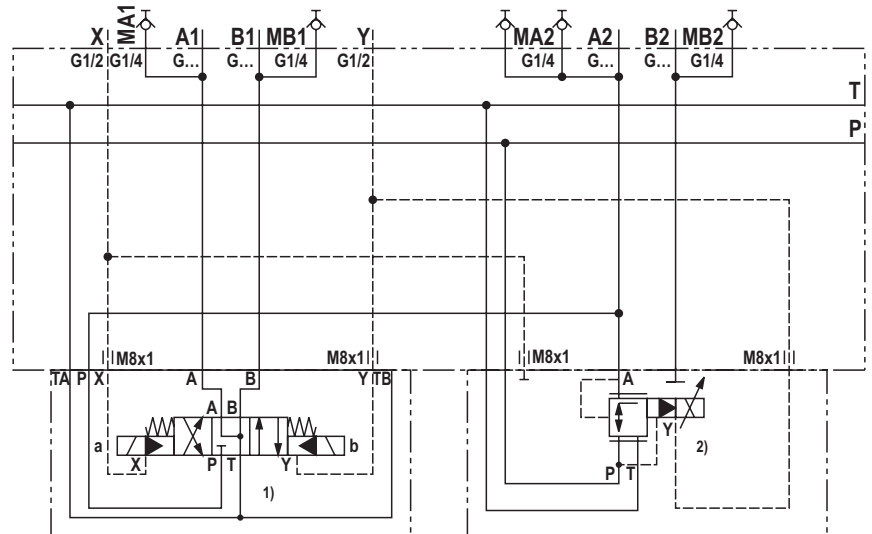
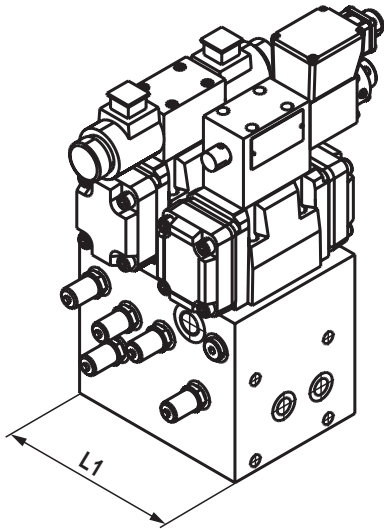
| Frame size | Size | A    | B    | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|------------|------|------|------|-----|---------------------|------------------|------------------|-------------|
| A          | 6    | G1/2 | G1/2 | 100 | IH20M2A-VS06A02-1X/ | R900773159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

**Sample assembly**

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

**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"

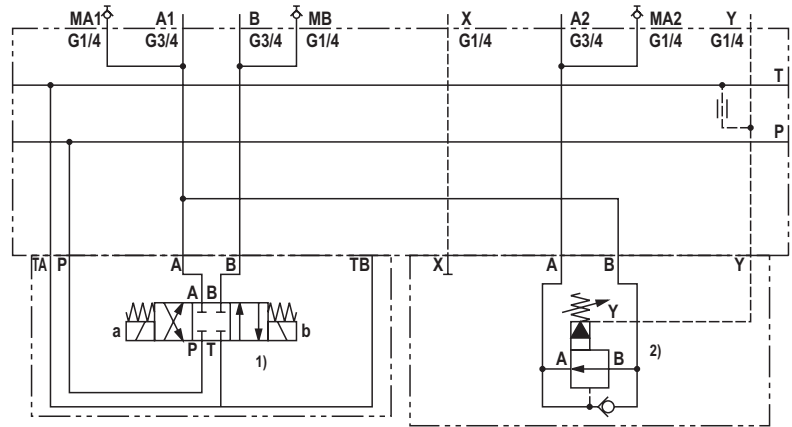
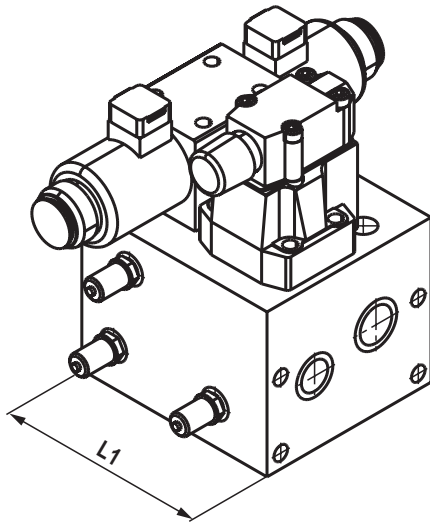


|   | Frame size | Size | A1, A2 | B1, B2 | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|--------|--------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 10   | G3/4   | G3/4   | 175 | IH20M2A-VE10B01-1X/ | 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"> <li>▶ Type WEH 10 ...-4X/... (data sheet 24751) <sup>1)</sup></li> <li>▶ Type 3DR 10 P...-6X/... (data sheet 26915) <sup>2)</sup></li> <li>▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul> |
| b               | <ul style="list-style-type: none"> <li>▶ Type WEH 10 ...-4X/... (data sheet 24751) <sup>1)</sup></li> <li>▶ Type 3DR 10 P...-6X/... (data sheet 26915) <sup>2)</sup></li> <li>▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul> |
| c               | <ul style="list-style-type: none"> <li>▶ Type WEH 16 ...-7X/... (data sheet 24751) <sup>1)</sup></li> <li>▶ Type 3DR 16 P...-5X/... (data sheet 26928) <sup>2)</sup></li> <li>▶ X, Y depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul> |

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

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



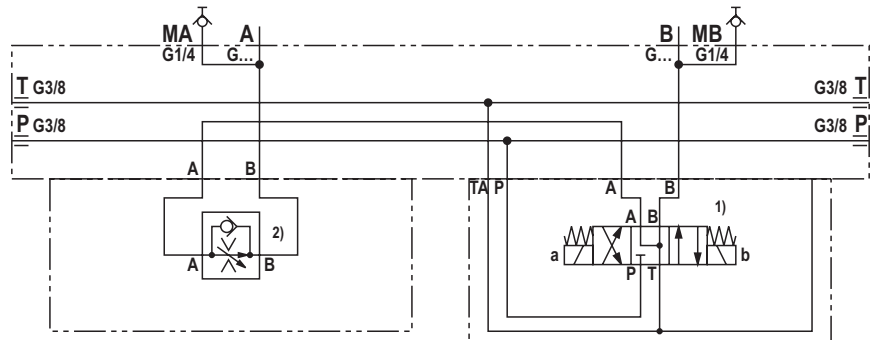
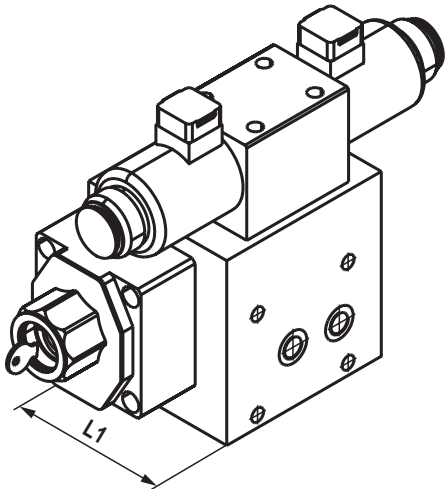
|   | Frame size | Size | A1, A2 | B    | X, Y | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|--------|------|------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 10   | G3/4   | G3/4 | G1/4 | 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"> <li>▶ Type WE 10 ...-5X/... (data sheet 23340) <sup>1)</sup></li> <li>▶ Type DR 10 ...-5X/... (data sheet 26892) <sup>2)</sup></li> <li>▶ Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul> |
| b               | <ul style="list-style-type: none"> <li>▶ Type WE 10 ...-5X/... (data sheet 23340) <sup>1)</sup></li> <li>▶ Type DR 10 ...-5X/... (data sheet 26892) <sup>2)</sup></li> </ul>  |



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

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

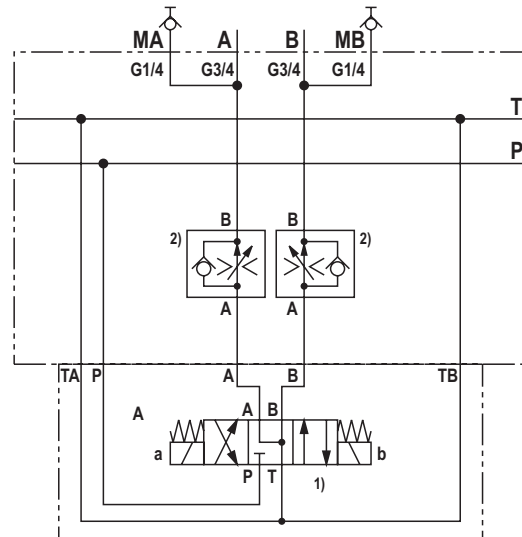
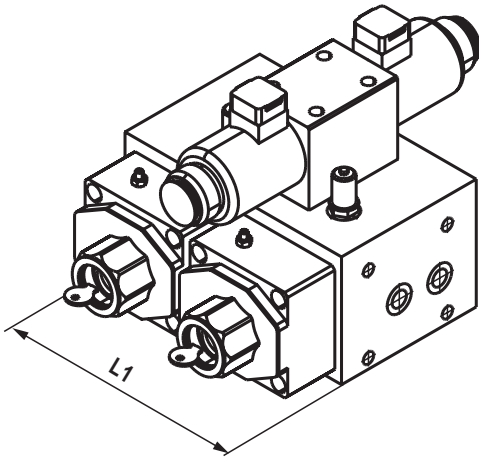


|   | Frame size | Size | A      | B      | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|--------|--------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 10   | G3/4   | G3/4   | 125 | IH20M2A-VE10A01-1X/ | 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"> <li>► Type WE 10 ...-5X/... (data sheet 23340) <sup>1)</sup></li> <li>► Type 2FRM 10 ...-3X/... (data sheet 28389) <sup>2)</sup></li> </ul>                         |
| b               | <ul style="list-style-type: none"> <li>► Type WEH 16 ...-7X/... (data sheet 24751) <sup>1)</sup></li> <li>► Type 2FRM 16 ...-3X/... with Z4S 16 ...-3X/... (data sheet 28389) <sup>2)</sup></li> </ul> |

**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"



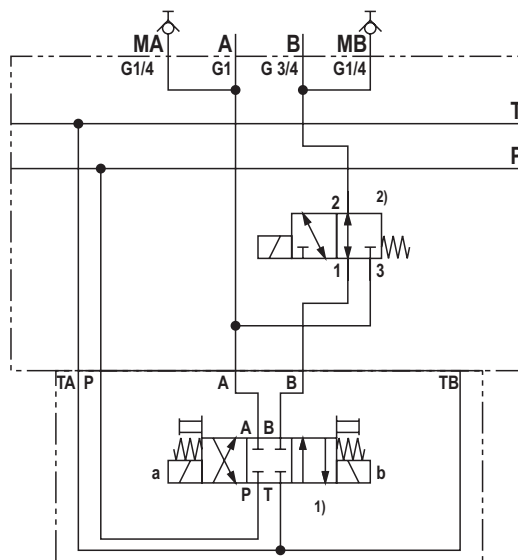
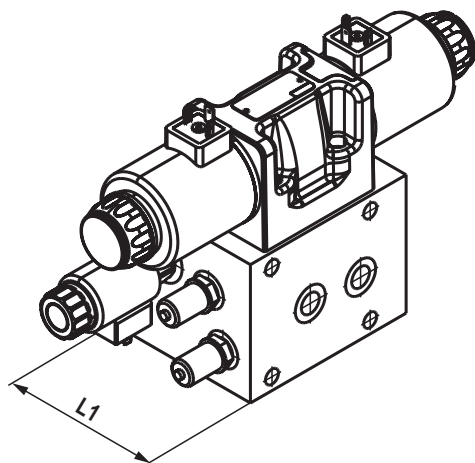
| Frame size | Size | A    | B    | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|------------|------|------|------|-----|---------------------|------------------|------------------|-------------|
| A          | 10   | G3/4 | G3/4 | 225 | IH20M2A-VE10A10-1X/ | R901088480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

#### Sample assembly

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

**Directional function:** switchable differential circuit  
(dimensions in mm)

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



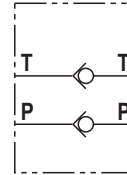
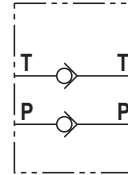
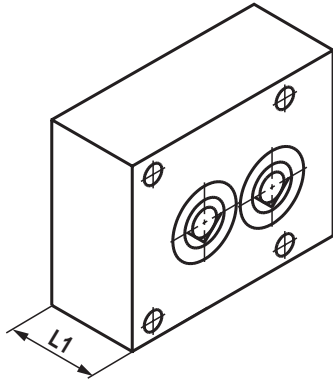
| Frame size | Size | A  | B    | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|------------|------|----|------|-----|---------------------|------------------|------------------|-------------|
| A          | 10   | G1 | G3/4 | 100 | IH20M2A-VE10A02-1X/ | R901329735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

**Sample assembly**

- Type WE 10 ...-5X/... (data sheet 23340) <sup>1)</sup> 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) <sup>2)</sup>

**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

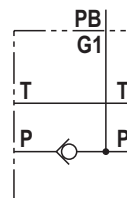
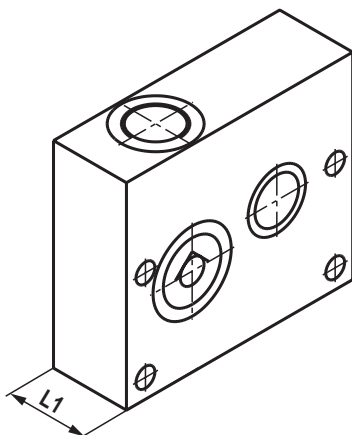
- Check valve insert type RKVC-16-0,2 bar, material no. R900031396 (NBR), material no. R901103578 (FKM)
- O-ring in channels P and T: 32,92x3,53-N-..., material no. R900008290 (NBR90), material no. R900008951 (FKM80)

#### 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)

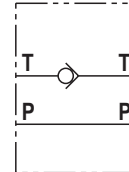
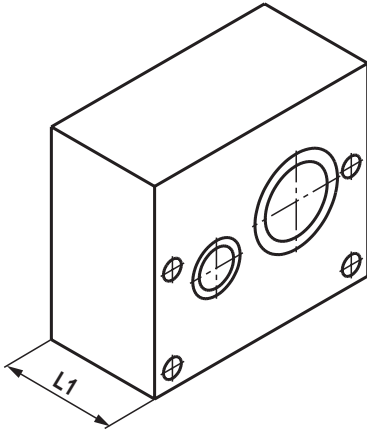


#### Notice:

- 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)

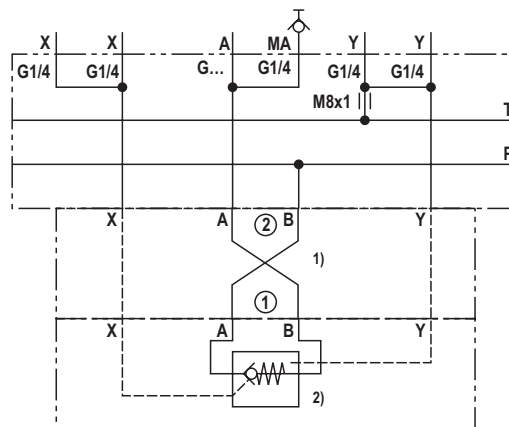
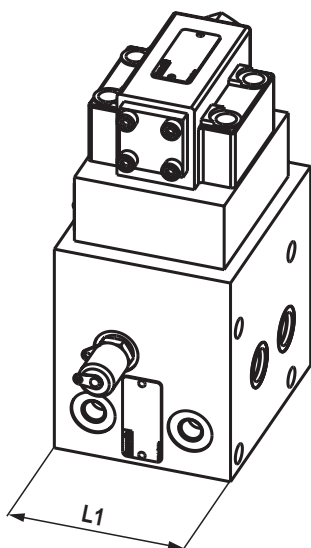


#### Notice:

- 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"

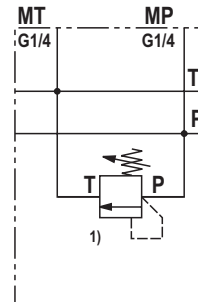
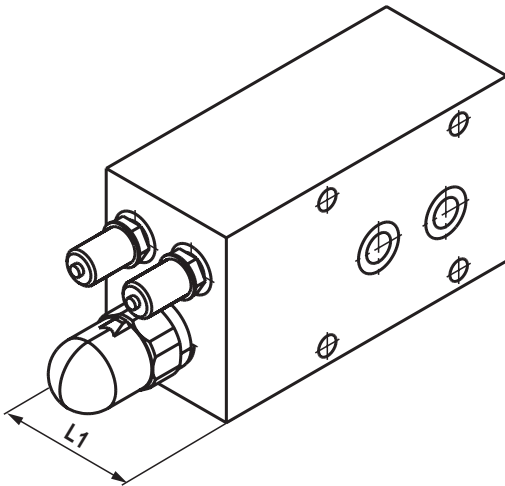


|   | Frame size | Size | A    | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 10   | G3/4 | 100 | IH20M4A-VP10D02-1X/ | R901201846   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

| Sample assembly |   |
|-----------------|---|
| a               | <ul style="list-style-type: none"> <li>▶ Type HSZ 10 D261-3X/V00 (material no. R901132069) <sup>1)</sup></li> <li>▶ Type SV/SL 20 ...-4X/... (data sheet 21468) <sup>2)</sup></li> <li>▶ Y internal depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no. R913019129)</li> </ul> |
| b               | ▶ Type SV/SL 20 ...-4X/... (data sheet 21468) <sup>1)</sup> , 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  |

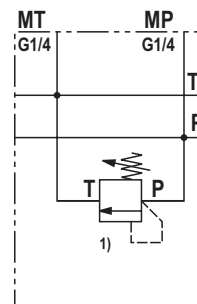
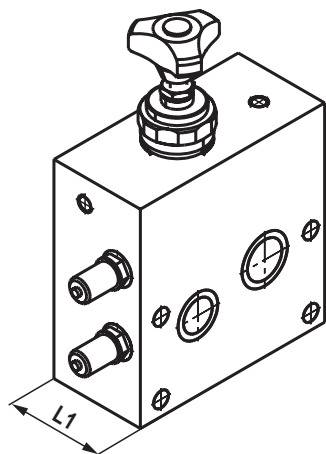
**Sample assembly**

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



**Pressure function:** pressure limiting function  
(dimensions in mm)

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



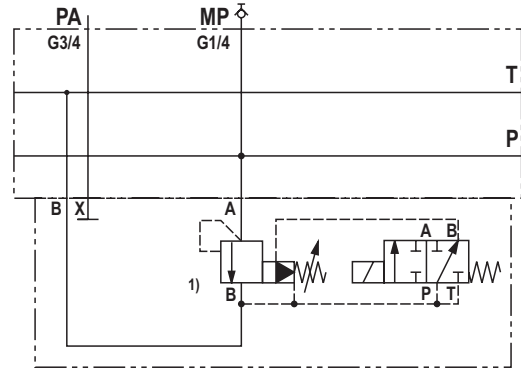
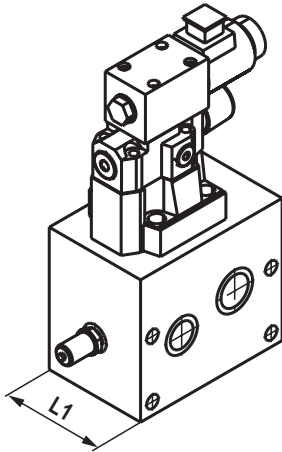
| Frame size | Size | L1 | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|------------|------|----|---------------------|------------------|------------------|-------------|
| B          | 20   | 75 | IH20M4B-VP20R03-1X/ | R901059228       | -                | R901059981 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

**Sample assembly**

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

**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**

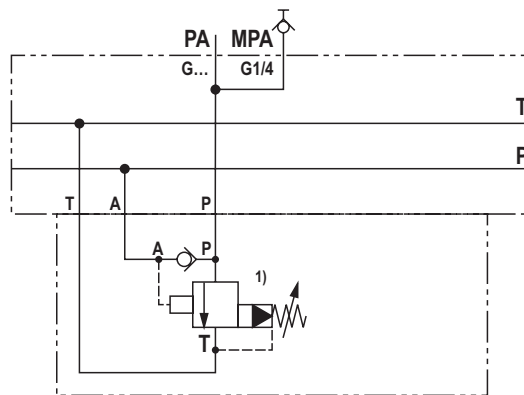
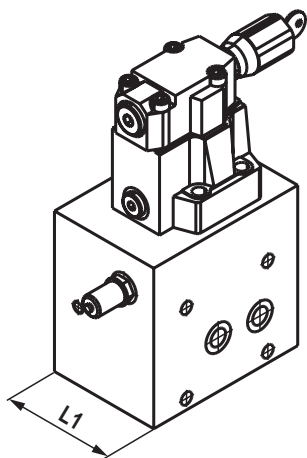
► Type DB 10 ...-5X/... (data sheet 25802) <sup>1)</sup>

**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"



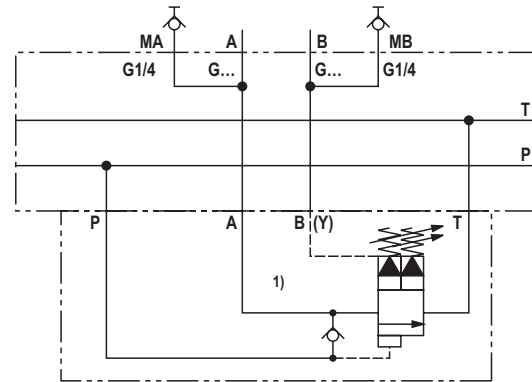
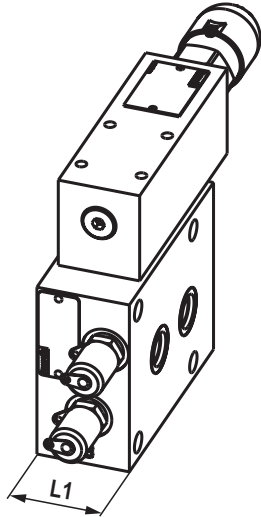
|   | Frame size | Size | PA     | L1  | Ordering codes     | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|--------|-----|--------------------|------------------|------------------|-------------|
| a | A          | 10   | G3/4   | 100 | IH20M4A-VP10R02-1X | R901071097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

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

**Notice:**  
Accumulator charging function

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

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

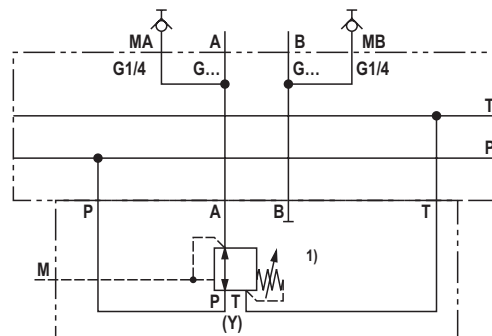
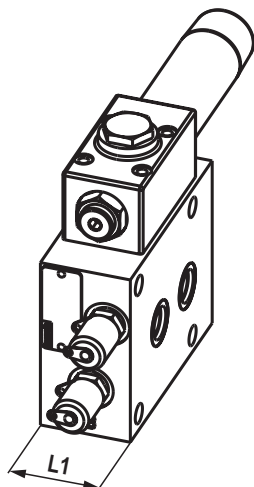


|   | Frame size | Size | A    | B    | L1 | Ordering codes         | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|------|------|----|------------------------|------------------|------------------|-------------|
| a | A          | 6    | G1/2 | G1/2 | 50 | IH20M2A-VS06A01-1X/M01 | 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) <sup>1)</sup> |
| b               | ► Type DA 6...-5X/...VP (data sheet 26405) <sup>1)</sup> |
| c               | ► Type DA 6...-5X/...VP (data sheet 26405) <sup>1)</sup> |

**Pressure function:** pressure reducing function  
(dimensions in mm)

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

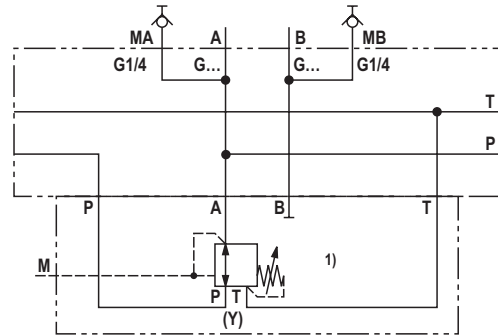
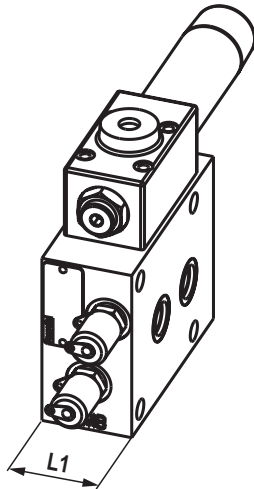


|   | Frame size | Size | A    | B    | L1 | Ordering codes         | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|------|------|----|------------------------|------------------|------------------|-------------|
| a | A          | 6    | G1/2 | G1/2 | 50 | IH20M2A-VS06A01-1X/M01 | 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) <sup>1)</sup> |
| b               | ► Type DR 6 DP...-5X/... (data sheet 26564) <sup>1)</sup> |
| c               | ► Type DR 6 DP...-5X/... (data sheet 26564) <sup>1)</sup> |

**Pressure function:** pressure reducing function  
(dimensions in mm)

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

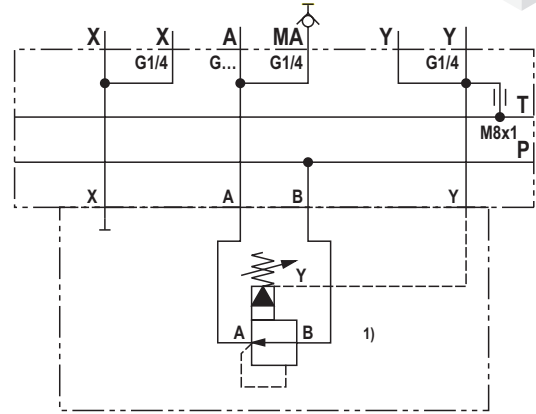
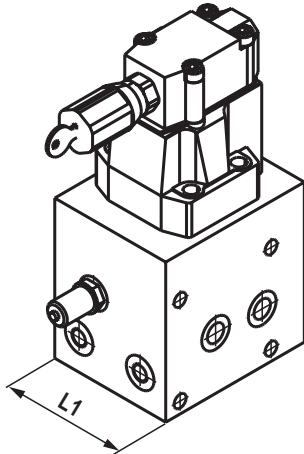


|   | Frame size | Size | A    | B    | L1 | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|------|------|----|---------------------|------------------|------------------|-------------|
| a | A          | 6    | G1/2 | G1/2 | 50 | IH20M4A-VP06A02-1X/ | 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"> <li>► Type DR 6 DP...-5X/... (data sheet 26564) <sup>1)</sup></li> <li>► Valve, reversible with type HSZ (material no. R900735049)</li> </ul> |
| b               | <ul style="list-style-type: none"> <li>► Type DR 6 DP...-5X/... (data sheet 26564) <sup>1)</sup></li> <li>► Valve, reversible with type HSZ (material no. R900735049)</li> </ul> |

**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"

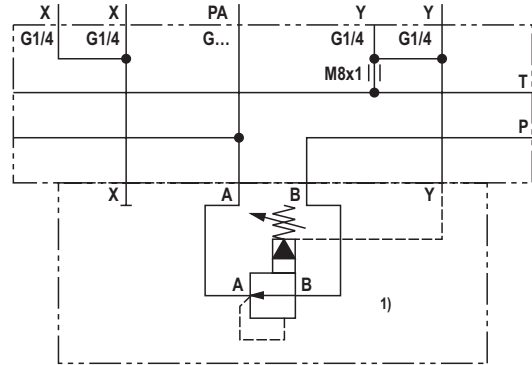
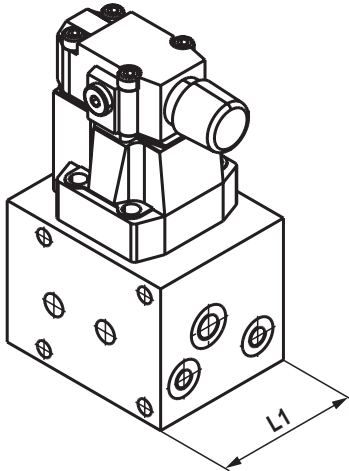


|   | Frame size | Size | A    | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 10   | G3/4 | 100 | IH20M4A-VP10D02-1X/ | R901066035   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

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

**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"



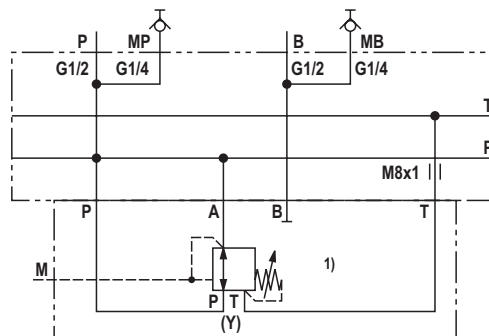
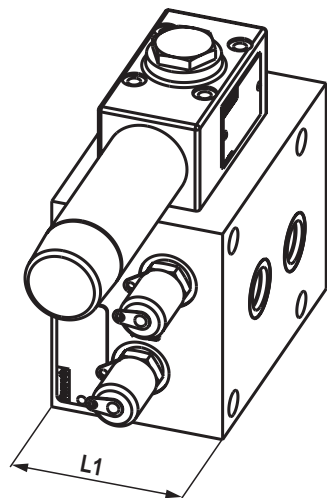
|   | Frame size | Size | PA   | L1  | Ordering codes      | Material no. NBR | Material no. FKM | Drawing no. |
|---|------------|------|------|-----|---------------------|------------------|------------------|-------------|
| a | A          | 10   | G3/8 | 100 | IH20M4A-VP10D01-1X/ | R901030700   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

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



**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  |

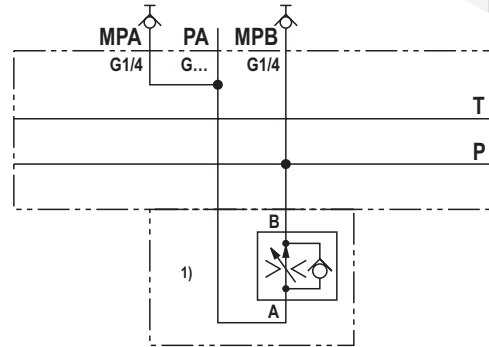
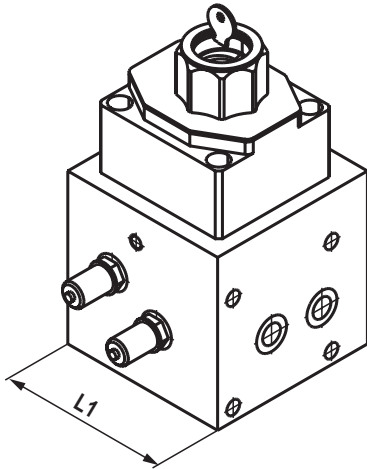
**Sample assembly**

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

## 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  |

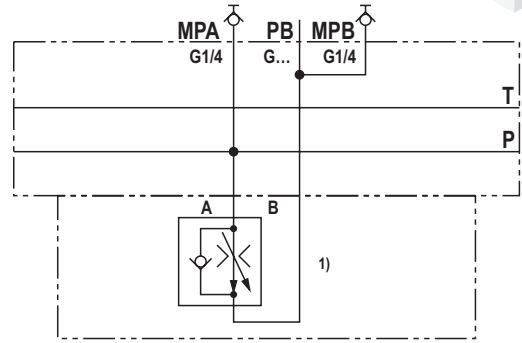
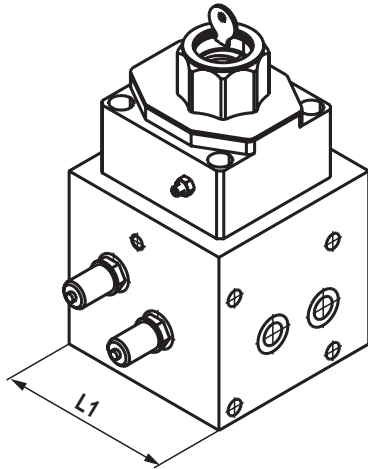
| Sample assembly |   |
|-----------------|---|
| a               | ▶ Type 2FRM 10 ...-3X/... (data sheet 28389) <sup>1)</sup>  |
| b               | ▶ Type 2FRM 16 ...-3X/... (data sheet 28389) <sup>1)</sup>  |
|                 | ▶ Type 2FRM 10 ...-3X/... (data sheet 28389) with type HSE 16 G10G001-3X/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

**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  |

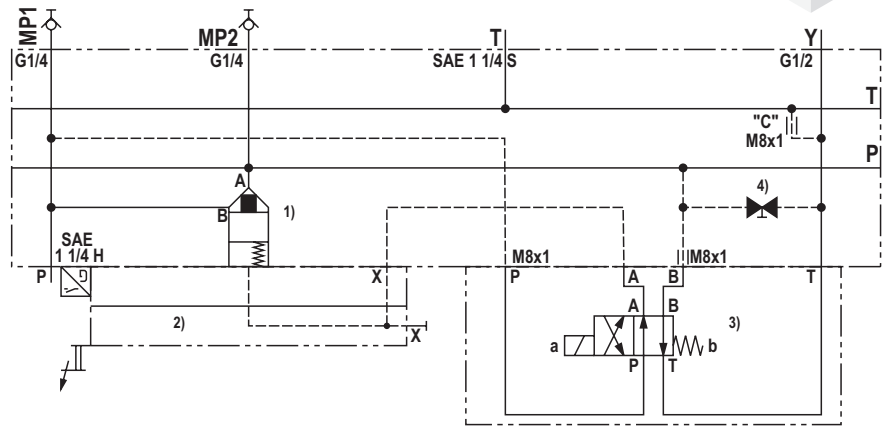
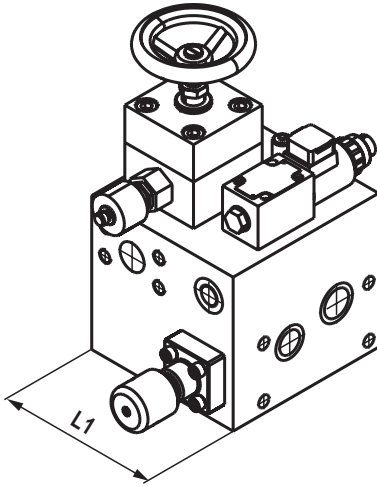
| Sample assembly |  |
|-----------------|--|
| a               | ▶ Type 2FRM 6 ...-3X/... (data sheet 28163) <sup>1)</sup>  |
| b               | ▶ Type 2FRM 10 ...-3X/... (data sheet 28389) <sup>1)</sup> |

**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<br>1 1/4H | SAE<br>1 1/4S | 175 | IH20M4B-VP25R04-1X/ | R901140197       | R901246864       | R901140207  |

#### Sample assembly

- Type LC 25 ...-7X/... (data sheet 21010) <sup>1)</sup>
- LFA 25 ...-7X/... (data sheet 21010) <sup>2)</sup>
- WE 6 ...-6X/... (data sheet 23178) <sup>3)</sup>
- 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) <sup>4)</sup>
- 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)

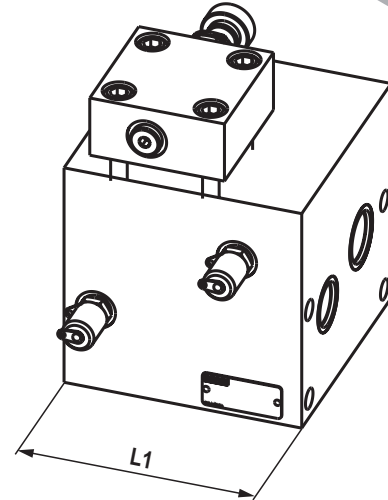
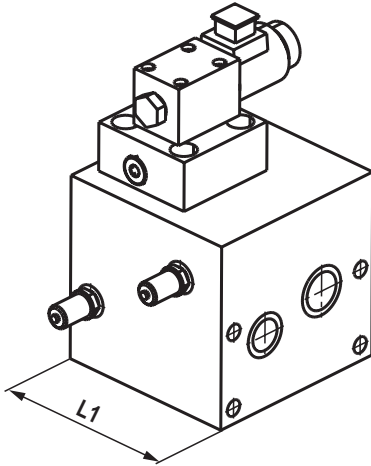


#### Notice:

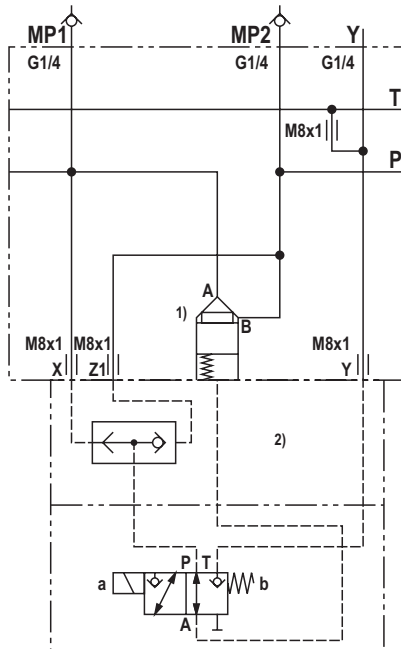
Leakage-free blocking port P with unloading from channel P to T.

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

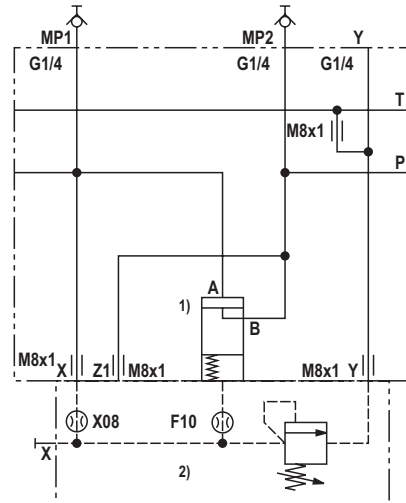
► Valve segment for logic size 25 in channel P "VP"



**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

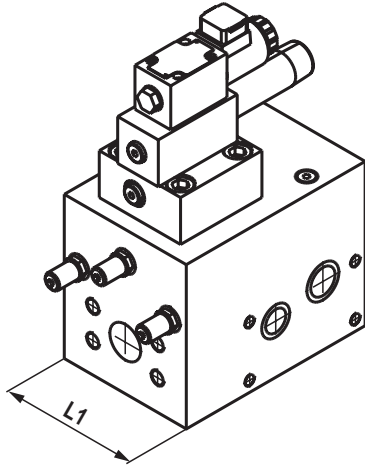
- Type LC 25 ...-7X/... (data sheet 21010) <sup>1)</sup>
- Type LFA 25 ...-7X/... (data sheet 21010) <sup>2)</sup>
- Port X, Y, Z1, Y and T depending on built-on valve; if applicable, closed with plug screw ZN10027-M8x1-SV (material no.: R913019129)

#### Notice:

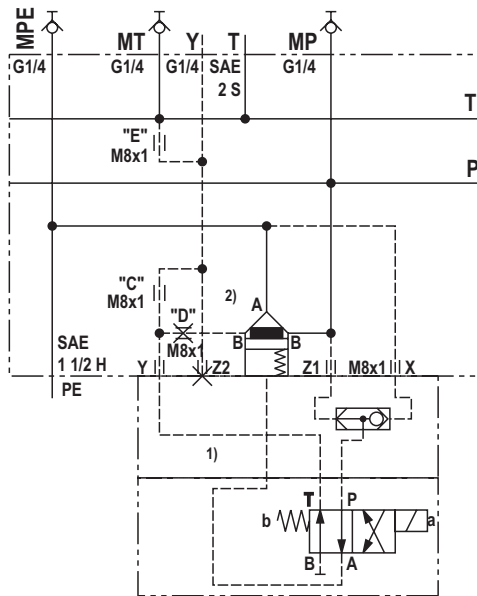
- Leakage-free blocking from channel B to A.
- The function is determined by the cartridge valve and the logic cover.

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

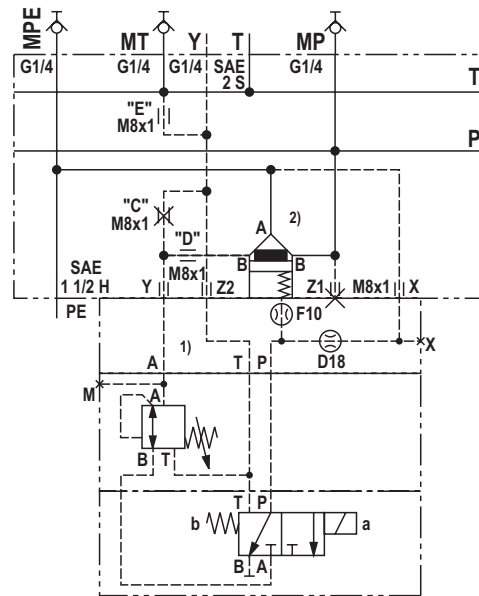
► Valve segment for logic size 32 "VP"



**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<br>1 1/2H | SAE<br>2S | G1/4 | 150 | IH20M6B-VP32R01-1X/ | R901153672       | -                | R901153675  |

**Sample assembly**

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

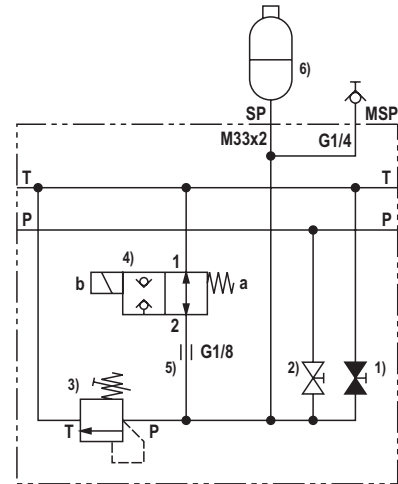
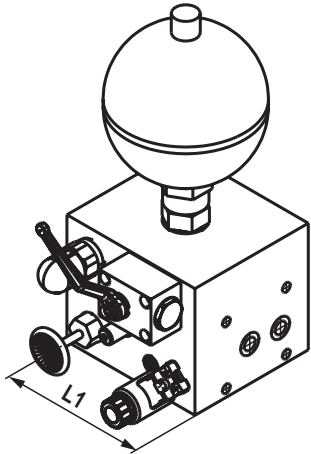
**Notice:**

- 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

- |          |  |
|----------|--|
| <b>a</b> | <ul style="list-style-type: none"> <li>► Ball valve type BKHU-DN10..., material no. R901236098 (NBR), material no. R901259687 (FKM) <sup>1)</sup></li> <li>► Shut-off valve type ABZSS 10..., material no. R900210324 (NBR), material no. R900089468 (FKM) <sup>2)</sup></li> <li>► Type DBD... 10 K1X/E... (data sheet 25402) <sup>3)</sup></li> <li>► 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) <sup>4)</sup></li> <li>► Thread G1/8 e.g. for nozzle ZN10028-1,2-B-R1/8X8&amp; (material no. R913023889) <sup>5)</sup></li> <li>► Accumulator ... accumulator adapter S ... – M33x2,0 – port SP: M33 x 2 <sup>6)</sup></li> </ul> |
| <b>b</b> | <ul style="list-style-type: none"> <li>► Ball valve BKHU-DN10-11231 &amp;, material no. R901236098 (NBR) <sup>1)</sup></li> <li>► Shut-off valve ABZSS 10-M-2X/M, material no. R900210324 (NBR) <sup>2)</sup></li> <li>► DBD. 10 K1X/E... (data sheet 25402) <sup>3)</sup></li> <li>► 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) <sup>4)</sup></li> <li>► Thread G1/8, e.g. for nozzle ZN10028-1,2-B-R1/8X8-SV (material no. R913023889) <sup>5)</sup></li> <li>► Accumulator ... accumulator adapter S ... – M33x2,0 – port SP: M33 x 2 <sup>6)</sup></li> </ul>  |

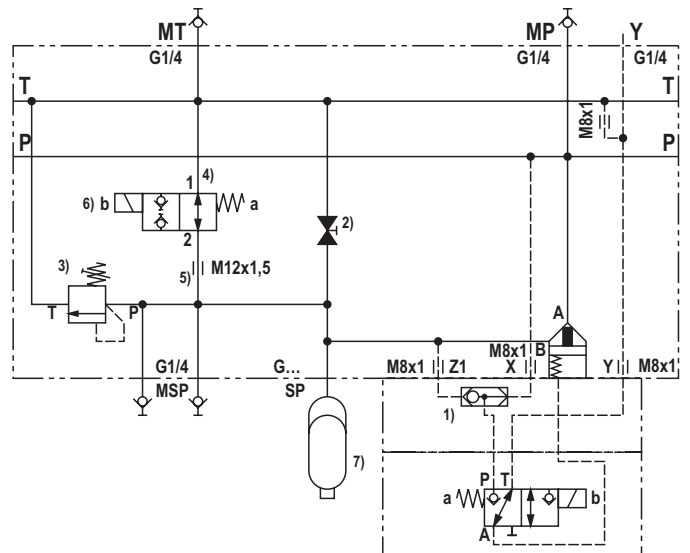
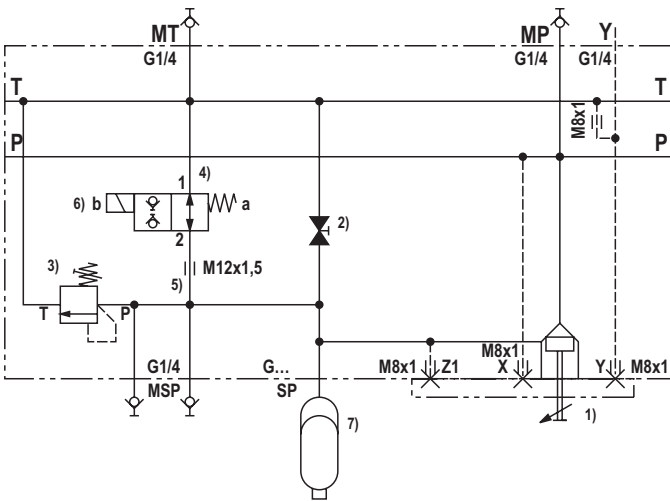
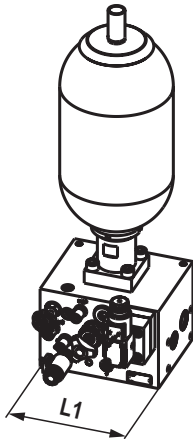
#### Notice:

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) <sup>1)</sup>
- Shut-off valve type ABZSS 10-M-2X/M, material no. R900210324 (NBR) <sup>2)</sup>
- Type DBD. 20 K1X/E... (data sheet 25402) <sup>3)</sup>
- Type KSDER1PB/HN9V, material no. R901151294 (FKM) <sup>4)</sup>
- Thread M12x1,5, e.g. for nozzle ZN10028-1,2-B-M12X1,5X10- SV (material no. R913023890) <sup>5)</sup>
- Solenoid coil 37-K4 -22G24 00 (material no. R900991121) or plug screw M20x1,5x 35,5SW10V\*BG (material no. R900617084)(FKM) <sup>6)</sup>
- 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) <sup>7)</sup>



**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<br>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 <sup>1)</sup> | DIN 976-M12x1,25-B-10.9 | R913000239   | M12 x 1.25 | 90                                    |
|            | Hexagon nut <sup>1)</sup>   | ISO 8673-M12x1,25-10-&  | R913016703   | M12 x 1.25 |                                       |
|            | Threaded bolt               | DIN 976-M12-B-10.9      | R913000595   | M12        | 90 <sup>2)</sup>                      |
|            | Hexagon nut                 | ISO 4032-M12-10-&       | R913015548   | M12        |                                       |
|            | Disc                        | ISO 7089-12-200HV &     | R913007600   | M12        |                                       |

- <sup>1)</sup> 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.
- <sup>2)</sup> 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.

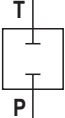
## Accessories (separate order)

## Plug screws for plugging of unused threaded ports

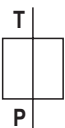
| $p_N$ in bar | Thread <sup>1)</sup> | Material short text                                    | Material no. (NBR)<br>"N" | Material no. (FKM)<br>"F" |
|--------------|----------------------|--|---------------------------|---------------------------|
| 400          | G1/8 A               | VERSCHLUSSSCHRAUBE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

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

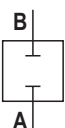
## Plug screw DBD., function P → T separated

| Symbol according to ISO 1219   | Mounting cavity, size | Material short text                                 | Material no. (NBR) | Material no. (FKM) |
|--|-----------------------|---|--------------------|--------------------|
|  | 6                     | VERSCHLUSSSCHRAUBE DBD. 6 K10/x <sup>1</sup> *BG    | R900305874         | R900830785         |
|  | 10                    | VERSCHLUSSSCHRAUBE M35X1.5X 52.0 x <sup>1</sup> *BG | R900305875         | R901253278         |
|  | 20                    | VERSCHLUSSSCHRAUBE M45X1.5X 70.0 x <sup>1</sup> *BG | R900305876         | R900827264         |
|  | 30                    | VERSCHLUSSSCHRAUBE M60X2.0X 84.0 x <sup>1</sup> *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 <sup>1</sup> P-T*BG | R900320590         | R901031626         |
|   | 10                    | VERSCHLUSSSCHRAUBE M35X1.5X 52.0 x <sup>1</sup> *BG | R900320591         | -                  |
|   | 20                    | VERSCHLUSSSCHRAUBE M45X1.5X 70.0 x <sup>1</sup> *BG | R900320592         | -                  |

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

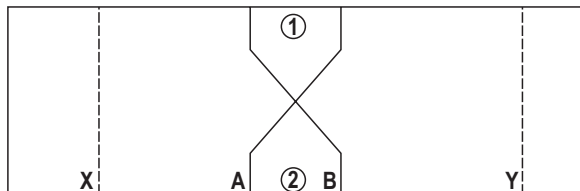
| Symbol according to ISO 1219  | Mounting cavity, size | Material short text                      | Material no. (NBR) | Material no. (FKM) |
|---|-----------------------|--|--------------------|--------------------|
|  | 8                     | STOPFEN M-SR 8 KE-1X/x <sup>2</sup> *BG  | R900542329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

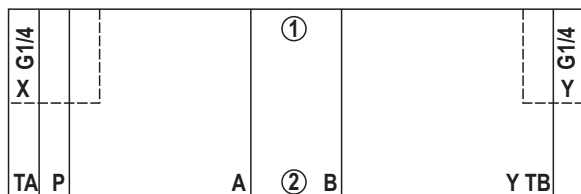
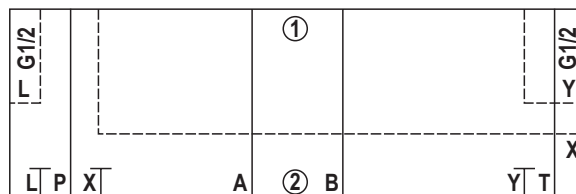
### Sandwich plates for rotation of a pressure reduction (DR), pressure activation (DZ) or check valve function (SL)

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

<sup>1)</sup> = "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)<br>"N" | Material no. (FKM)<br>"F" |
|---------------------------|----------------------------------|---------------------------|---------------------------|
| 10B                       | HSZ 10 B097-3X/x <sup>1</sup> 01 | R900320785                | R900321347                |
| 16B                       | HSZ 16 B095-3X/x <sup>1</sup> 01 | R900568516                | R901297536                |

<sup>1)</sup> = "M" for NBR, "V" for FKM

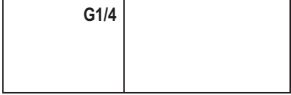
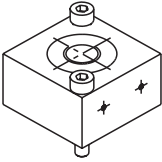
## Accessories (separate order)

### ► 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)<br>"N" | Material no. (FKM)<br>"F" |
|--|----------------------------------|---------------------------|---------------------------|
|   | HSA 04 J021-3X/x <sup>1</sup> 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 |   |           |
| 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,<br>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](http://www.boschrexroth.com/filter)  
[www.boschrexroth.com/spc](http://www.boschrexroth.com/spc)

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## Notes

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