

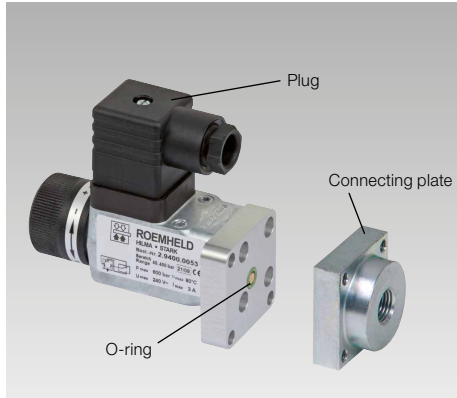


## Hydraulic Accessories

Pressure switches, valves, pressure gauges and hydraulic oil

### Pressure switches

#### Pressure switch HDS

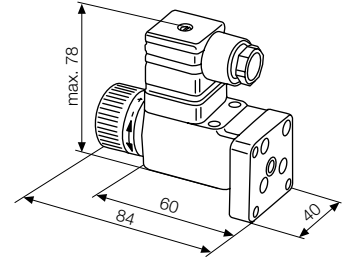


#### Description

Mini pressure switch, adjustable as a piston pressure switch

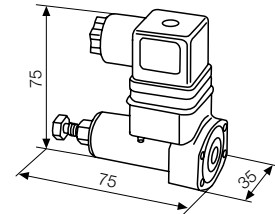
#### Technical data

|                               |               |
|-------------------------------|---------------|
| Max. operating pressure [bar] | 400           |
| Temperature range [°C]        | -40 up to +80 |
| Connection                    | DIN ISO 16873 |



| Description | Adjustment range [bar] | Part no.         |
|-------------|------------------------|------------------|
| HDS-1-120   | 10 – 120               | <b>294000051</b> |
| HDS-1-250   | 25 – 250               | <b>294000052</b> |
| HDS-1-400   | 40 – 400               | <b>294000053</b> |

#### Pressure switch DG



| Description | Adjustment range [bar] | Part no.         |
|-------------|------------------------|------------------|
| DG 33       | 200 – 600              | <b>294000019</b> |
| DG 34       | 100 – 350              | <b>294000020</b> |
| DG 35       | 20 – 210               | <b>294000021</b> |

#### Accessories for pressure switches

|                                                           |                  |
|-----------------------------------------------------------|------------------|
| <b>Connecting plate</b> for pipe connection G 1/4 for HDS | <b>295020003</b> |
| <b>Plug</b> with double LED and cable 1.5 m               | <b>209750036</b> |
| <b>Plug</b> DIN 43650, plug insert 4 x 90° rotatable      | <b>209700012</b> |
| <b>Spare O-ring</b> Ø 5 x 1.5 mm                          | <b>195010026</b> |

### Directional seat valve (WH1)



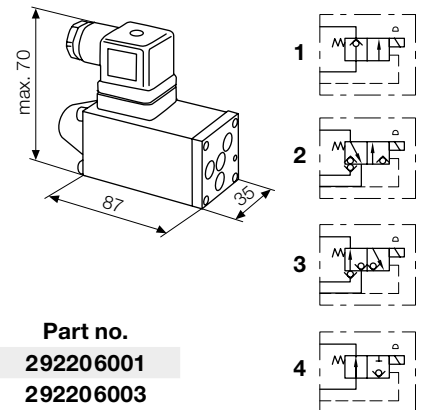
#### Description

3/2 directional control valve with leak-free and tight ball-type poppet valves. Compact design by integration of the valve components in the magnetic body.

The directional seat valve has an emergency stop.

#### Technical data

|                               |               |
|-------------------------------|---------------|
| Max. flow rate [l/min]        | 8             |
| Max. operating pressure [bar] | 400           |
| Temperature range [°C]        | -40 up to +80 |
| Solenoid voltage [V DC]       | 24            |



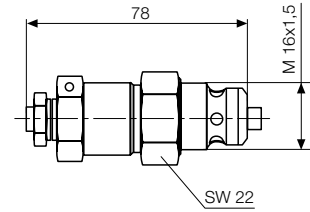
| Description | Flow rate                 | Circuit diagram  | Part no.         |
|-------------|---------------------------|------------------|------------------|
| WH 1 D      | 8 l/min                   | 1                | <b>292206001</b> |
| WH 1 N      | 8 l/min                   | 2                | <b>292206003</b> |
| NBVP 16 Z   | 20 l/min                  | 2                | <b>292206042</b> |
| WH 1 R      | 8 l/min                   | 3                | <b>292206004</b> |
| NBVP 16 Y   | 20 l/min                  | 3                | <b>292206043</b> |
| WH 1 F      | 8 l/min                   | 4                | <b>292206009</b> |
| GZ 3-1 A24  | as per customer's request |                  | <b>292201042</b> |
| G 3-1 A24   |                           | <b>292201043</b> |                  |

**Pressure relief valve**



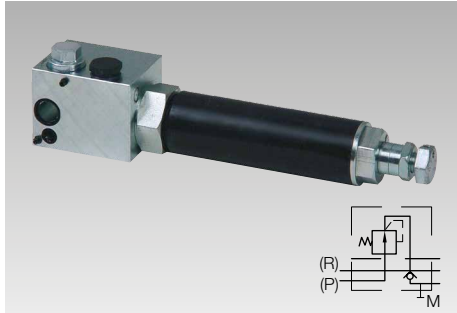
**Description**

Safety valve to prevent exceeding the maximum admissible pressure and for limiting operating pressures.



| Description  | Flow rate [l/min] | Part no.  |
|--------------|-------------------|-----------|
| CMV 1B - 420 | 20                | 292300114 |

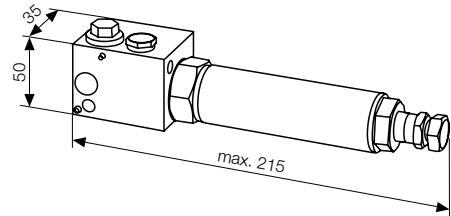
**Pressure reducing valve**



**Description**

Pressure control valve for keeping the lower output pressure in the secondary circuit constant without affecting the higher pressure in the primary circuit.

Screw-in type valve in combination with connector block.



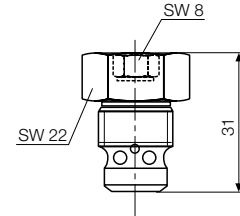
| Description | Range of adjustment [bar] | Part no.  |
|-------------|---------------------------|-----------|
| CZ 5/80/5R  | 15 – 130                  | 292320023 |

**Check valves**



**Description**

Stop valves with free flow in one direction and blocked oil flow in the opposite direction.



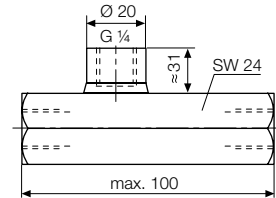
| Description | Connection | Part no.  |
|-------------|------------|-----------|
| CRK 1       | M 16 x 1.5 | 292500076 |

**Check valves for pipe installation**



**Description**

Check valves with one flow direction. Housing made from galvanised steel. Spring-loaded ball-type poppet valve, leakage-free. Pilot-operated by hydraulic pressure. Control pressure = 0.38 x operating pressure + 12.



| Description | Pilot operated | Connection | Graphical symbol | Part no.  |
|-------------|----------------|------------|------------------|-----------|
| B2-1        | no             | G 1/4      |                  | 292500008 |
| B2-2        | no             | G 3/8      |                  | 292500009 |
| B2-3        | no             | G 1/2      |                  | 292500010 |
| RH1         | yes            | G 1/4      |                  | 292500047 |
| RH2         | yes            | G 3/8      |                  | 292500034 |

**Pressure gauge**



**Description**

Pressure gauge with steel pipe spring and glycerine filling. Ø 63 mm

| Pressure range [bar] | Connection           | Part no.  |
|----------------------|----------------------|-----------|
| 0 – 600              | G 1/4, at the bottom | 138660004 |
| 0 – 160              | G 1/4, at the bottom | 138660050 |
| 0 – 600              | G 1/4, on the back   | 138660051 |

**Hydraulic oil**

| Description | Temp. range [°C] | Container [l] | Part no.  |
|-------------|------------------|---------------|-----------|
| HLP 32      | 10 – 50          | 1             | 698950010 |
| HLP 32      | 10 – 50          | 5             | 698910010 |
| HLP 46      | 20 – 60          | 1             | 698960010 |
| HLP 46      | 20 – 60          | 5             | 698970010 |

**Hydraulic oil Oemeta** fire-resistant

| Description | Temp. range [°C] | Part no.   |
|-------------|------------------|------------|
| HF-DU       | 10 – 200         | on request |

(e.g. for the use in forging presses)