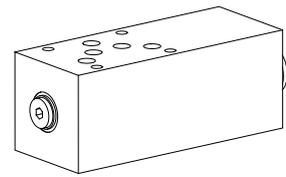


**Pressure compensating valve
Sandwich construction**

- 2- and 3-way operating
- $Q_{max} = 50$ l/min
- $p_{max} = 350$ bar

NG10
ISO 4401-05


DESCRIPTION

Pressure compensator valve with fixed setting in sandwich design with interface NG10 acc. to ISO 4401-05 with 4 ports. Available with 2-way and 3-way operation. The steel body of the sandwich valve is phosphatized and the cartridge body is zinc coated for corrosion protection. The load is sensed in line A or B with an incorporated shuttle valve.

FUNCTION

The pressure compensator valve maintains a constant differential pressure across an orifice (e.g. metering edge of a directional valve). The 2-way pressure compensator restricts the volume flow in the meter-in mode. The 3-way pressure compensator diverts the surplus volume flow to the tank line. As a result, with both compensator types the amount of flow through an orifice (directional valve) remains constant even if the load pressure changes.

APPLICATION

Pressure compensator sandwich valves are usually stacked underneath proportional directional valves. They are used in open loop circuits. 2-way pressure compensators may be installed in parallel pressure lines with a common power source to operate actuators individually. For each actuator the full pump pressure is available. Only one 3-way pressure compensator can be installed in a system.

TYPE CODE

| | | | | | | |
|--|---|---|---|-----|---|--|
| | U | F | S | A10 | # | |
| Pressure compensator, 2-way | Z | | | | | |
| Pressure compensator, 3-way | D | | | | | |
| Type of adjustment fixed setting | | | | | | |
| Sandwich construction | | | | | | |
| International standard interface ISO, NG10 | | | | | | |
| Design-Index (Subject to change) | | | | | | |

GENERAL SPECIFICATIONS

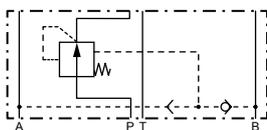
| | |
|-----------------------|---|
| Designation | 2- and 3-way pressure compensating valve |
| Size | NG10 acc. to ISO 4401-05 |
| Construction | Sandwich construction |
| Mounting | 4 mounting holes for M6 socket head screws or M6 locking screws |
| Type of connection | Thread connection plates Rows of flange plates and horizontal stacking system |
| Ambient temperature | -20 ... +50 °C |
| Installation position | any |
| Fastening torques | $M_D = 9,5$ Nm (quality 8.8) for fixing screws $M_D = 80$ Nm for screw cartridge |
| Weight | $m = 3,9$ kg |

HYDRAULIC SPECIFICATIONS

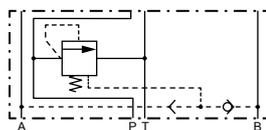
| | |
|--------------------------------------|--|
| Hydraulic fluid | Mineral oils, other media on request |
| Max. permissible contamination level | ISO 4406:1999, class 18/16/13 (Recommended filter gauge $\beta_{6...10} \geq 75$) see data sheet 1.0-50/2 |
| Viscosity range | 12 mm ² /s ... 320 mm ² /s |
| Hydraulic fluid temperature | -20 ... +70 °C |
| Peak pressure | $p_{max} = 350$ bar |
| Differential pressure | $p_{Diff.} = 10$ bar other differential pressures on request |
| Maximum volume flow | $Q_{max} = 50$ l/min |
| Leaking volume flow | see characteristics |

SWITCHING DIAGRAMS

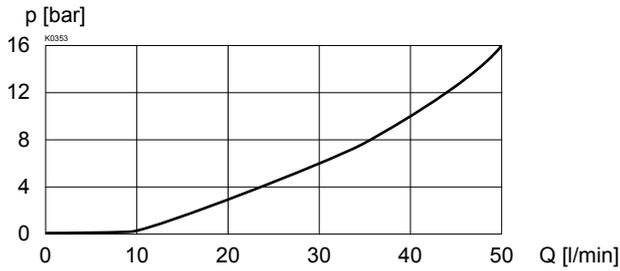
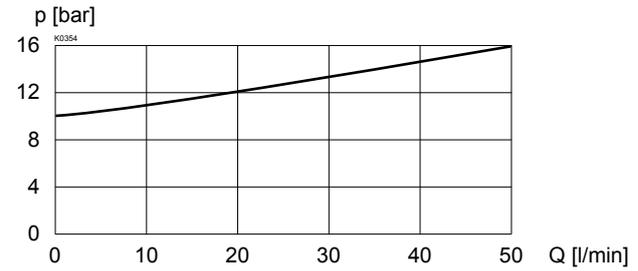
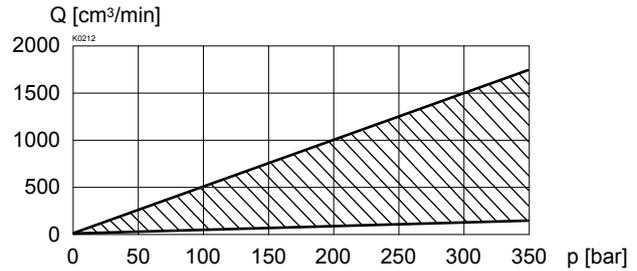
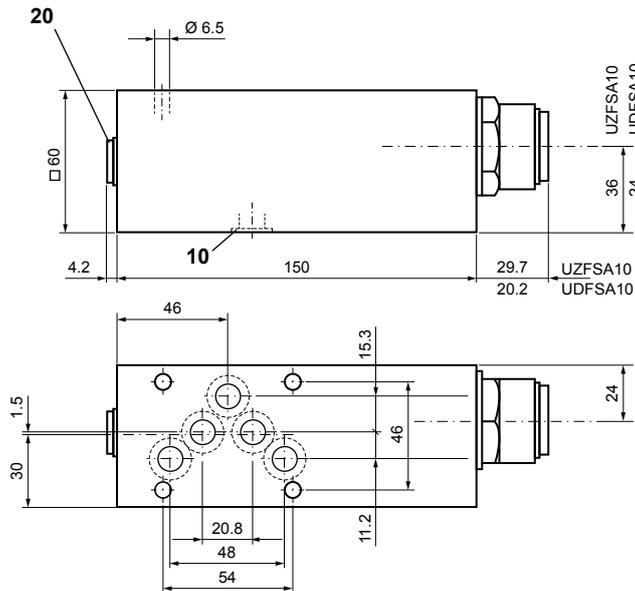
2-way operation



3-way operation


MECHANICAL ACTUATION

Fixed setting design. Other differential pressures available on request.

CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $\Delta p = f(Q)$ Pressure drop-volume flow curve
 2-way operation

 $\Delta p = f(Q)$ Pressure drop-volume flow curve
 3-way operation

 $Q_L = f(p)$ Leakage volume flow curve

DIMENSIONS

SCREW-IN CARTRIDGES INSTALLED

The following screw-in cartridges are used in the sandwich body:

| Type | Designation | Data sheet no. |
|--------|-----------------|----------------|
| UZFP33 | 2-way operation | 2.5-650 |
| UDFP33 | 3-way operation | 2.5-650 |

PARTS LIST

| Position | Article | Description |
|----------|----------|-----------------------------|
| 10 | 160.2140 | O-Ring ID 14,00 x 1,78 |
| 20 | 238.2406 | Locking screw VSTI G1/4"-ED |

ACCESSORIES

Thread connection plates and rows of flange plates register 2.9

Technical explanation see data sheet 1.0-100