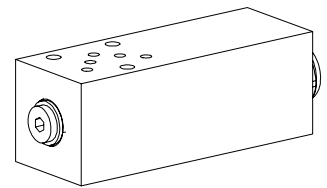


**Pressure compensating valve
Sandwich construction**

- 2- and 3-way operation
- $Q_{max} = 10 \text{ l/min}$
- $p_{max} = 315 \text{ bar}$

NG4-Mini[®]

DESCRIPTION

Pressure compensator valve with fixed setting in sandwich design with interface NG4-Mini acc. to Wandfluh standard 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 through 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.

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TYPE CODE

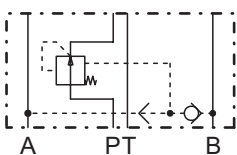
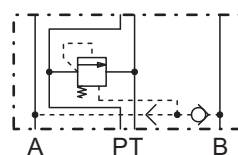
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Pressure compensator, 3-way operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Types of adjustment: fixed setting							
Sandwich construction							
Mounting interface NG4-Mini							
Design-Index (Subject to change)							

GENERAL SPECIFICATIONS

Designation	2- and 3-way pressure compensating valve
Size	NG4-Mini acc. to Wandfluh standard
Construction	Sandwich construction
Mounting	3 mounting holes for M5 socket head screws or M5 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 torque	$M_D = 5,5 \text{ Nm}$ (Qual. 8.8) for fixing screws $M_D = 50 \text{ Nm}$ for screw cartridge
Weight	$m = 1,5 \text{ kg}$

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	$p_{max} = 315 \text{ bar}$
Differential pressure	$p_{Doff} = 10 \text{ bar}$ other differential pressures on request
Maximum volume flow	$Q_{max} = 10 \text{ l/min}$
Leakage volume flow	see characteristics

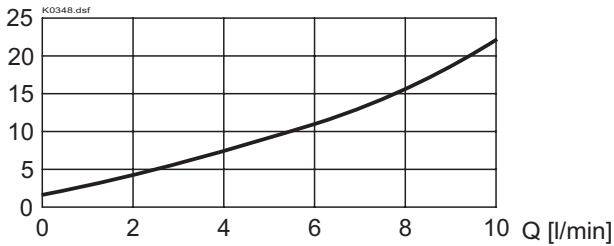
SWITCHING DIAGRAMS
2-way operation

3-way operation

MECHANICAL ACTUATION

Fixed setting design. Other differential pressures available on request.

CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$

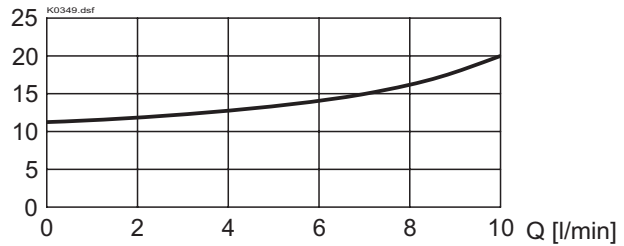
2-way operation

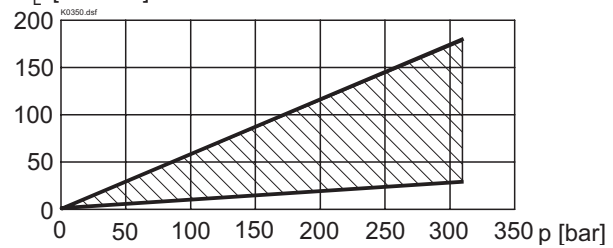
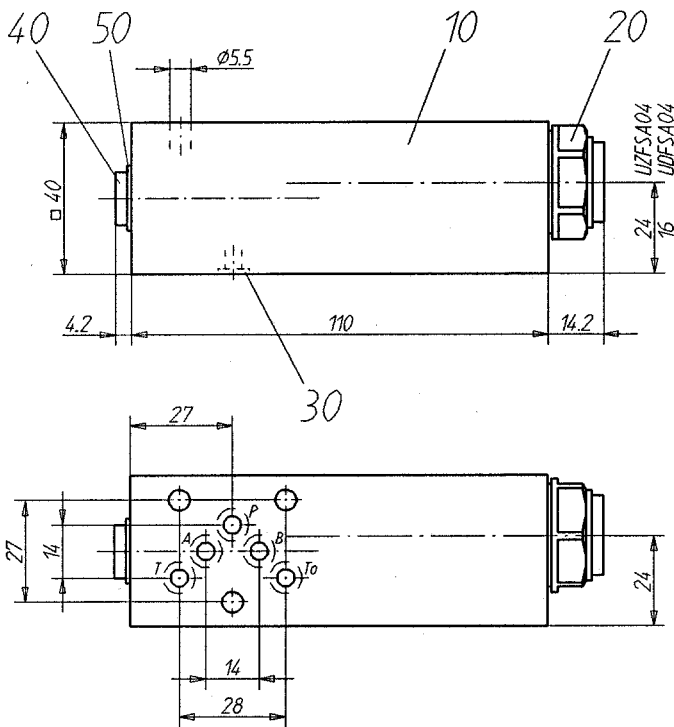
 $\Delta p = f(Q)$ Pressure drop-volume flow curve

 Δp [bar]


3-way operation

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

 Δp [bar]

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

 Q_L [cm³/min]

DIMENSIONS

PARTS LIST

Position	Article	Description
10	130.4603 130.4604	Sandwich plate for 2-way operation Sandwich plate for 3-way operation
20	597.3000 597.3001	Cartridge UZFPM22 (Data sheet 2.5-630) Cartridge UDFPM22 (Data sheet 2.5-630)
30	160.2052	O-Ring ID 5,28x1,78
40	238.1202	Locking screw DIN 908 G1/8"
50	49.2102	Bonded seal ID 10,7x17x1,5

ACCESSORIES

Thread connection plates and rows of flange plates register 2.9

Technical explanation see data sheet 1.0-100E