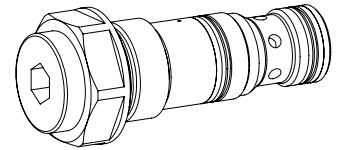


**Pressure compensator cartridge**

- ◆ 2- and 3-way function
- ◆  $Q_{max} = 25 \text{ l/min}$
- ◆  $p_{max} = 350 \text{ bar}$

**M22 x 1,5**  
**ISO 7789**

**DESCRIPTION**

Pressure compensator valve with fixed setting in screw-in cartridge construction for cavity according to ISO 7789. The task of the pressure compensator is to keep the pressure drop via a throttle point (e.g. control edge of a spool valve) almost constant. It ensures that a determined amount of oil, independent of the load pressure, flows through the spool valve when the control spool is in a specific position. Pressure compensating valves are mostly used in conjunction with proportional valves.

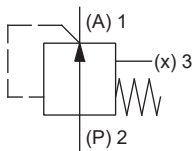
**APPLICATION**

**2-way pressure compensation valve:** Volume flow changes due to pressure or load changes at the consumer are corrected. Cylinder or motor speeds remain constant. If several consumers are operating in parallel, the full system pressure is available to each one.

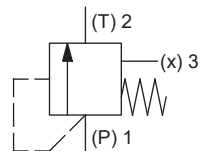
**3-way pressure compensator valve:** Excess pump flow rate is fed to the return system. Especially in the mobile area, where the necessary cooling surfaces are missing, this prevents the hydraulic system from overheating. Parallel operation is not possible. If there are several consumers, the pump pressure is adapted to the highest working pressure. For machining the cartridge cavity in steel and aluminum blocks, cavity tools are available (hire or purchase). Please refer to the data sheets in register 2.13.

**SYMBOL**

2-way function



3-way function


**ACTUATION**

Fixed adjustment construction. Other differential pressures on request.

**TYPE CODE**

2-way-pressure compensator valve	<input type="checkbox"/>	Z	U	<input type="checkbox"/>	F	PM22	-	<input type="checkbox"/>	#	<input type="checkbox"/>
3-way-pressure compensator valve	<input type="checkbox"/>	D								
Type of adjustment		Fixed adjustment								
Screw-in cartridge M22 x 1,5										
Sealing material		NBR								
		FKM (Viton)								
Design index (subject to change)										

2.5-630

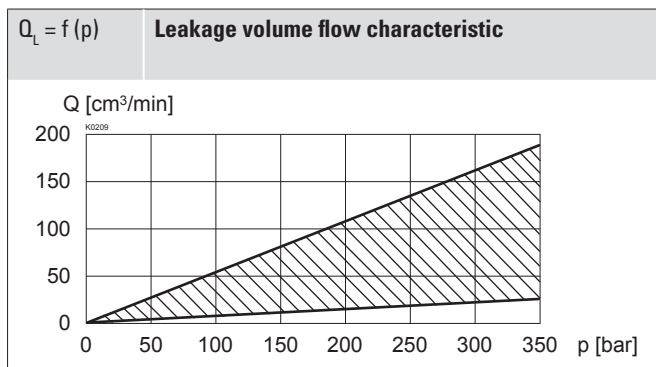
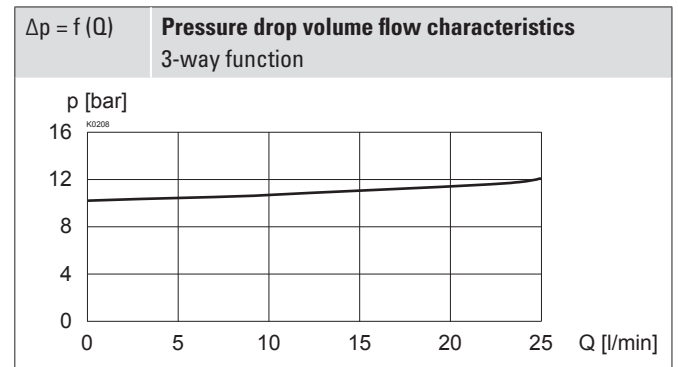
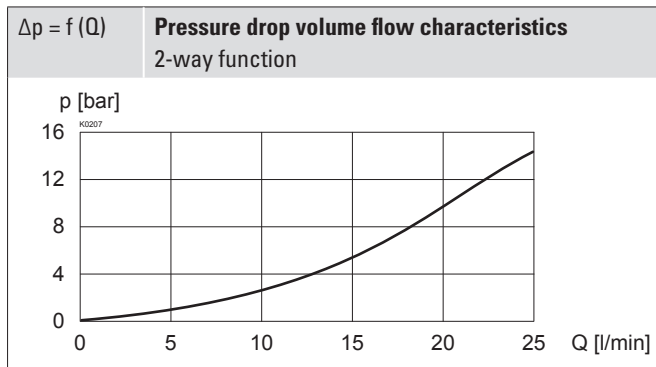
**GENERAL SPECIFICATIONS**

Designation	2- and 3-way pressure compensator valve
Mounting	Screw-in cartridge construction
Nominal size	M22 x 1,5 according to ISO 7789
Ambient temperature	-25...+70 °C (NBR) -20...+70 °C (FKM)
Weight	0,40 kg (2-way function) 0,40 kg (3-way function)
MTTFd	150 years

**HYDRAULIC SPECIFICATIONS**

Working pressure	$p_{max} = 350 \text{ bar}$
Differenzdruck	$\Delta p = 10 \text{ bar}$ other Differenzdrücke on request
Maximum volume flow	$Q_{max} = 25 \text{ l/min}$
Leakage oil	See characteristics
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm <sup>2</sup> /s...320 mm <sup>2</sup> /s
Temperature range fluid	-25...+70 °C (NBR) -20...+70 °C (FKM)
Contamination efficiency	Class 18 / 16 / 13
Filtration	Required filtration grade $\beta_{6...10} \geq 75$ , see data sheet 1.0-50

**PERFORMANCE SPECIFICATIONS**

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

**SEALING MATERIAL**

NBR or FKM (Viton) as standard, choice in the type code

**SURFACE TREATMENT**

♦ All external parts of the cartridge are zinc-nickel coated

**INSTALLATION NOTES**

Mounting type	Screw-in cartridge M22 x 1,5
Mounting position	Any, preferably horizontal
Tightening torque	$M_D = 60 \text{ Nm}$ Screw-in cartridge

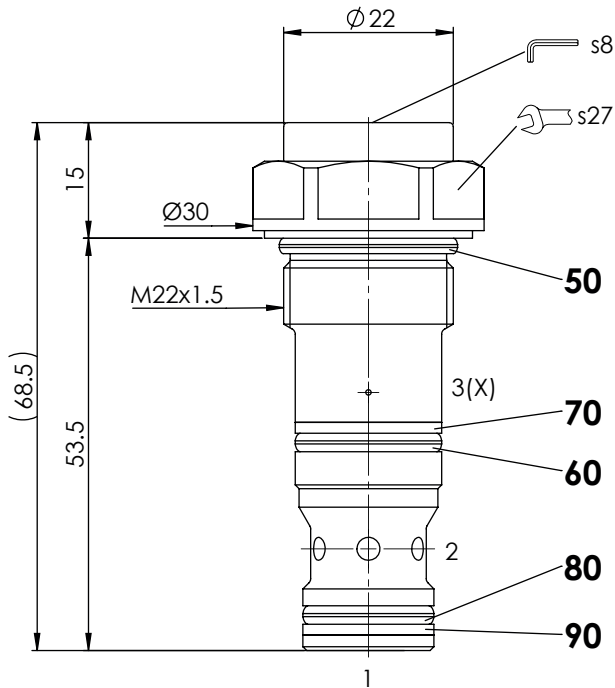
**Attention!** Pressure compensations are intended for open loop circuits only!

**STANDARDS**

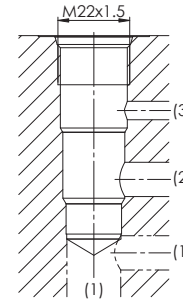
Cartridge cavity	ISO 7789
Contamination efficiency	ISO 4406

**DIMENSIONS**

2- and 3-way


**HYDRAULIC CONNECTION**

Cavity drawing according to ISO 7789-22-06-0-98


**Note!**


For detailed cavity drawing and cavity tools see data sheet 2.13-1006

**PARTS LIST**

Position	Article	Description
50	160.2188	O-ring ID 18,77 x 1,78 (NBR)
	160.6188	O-ring ID 18,77 x 1,78 (FKM)
60	160.2156	O-ring ID 15,60 x 1,78 (NBR)
	160.6156	O-ring ID 15,60 x 1,78 (FKM)
70	049.3196	Backup ring rd 16,1 x 19 x 1,4
80	160.2120	O-ring ID 12,42 x 1,78 (NBR)
	160.6124	O-ring ID 12,42 x 1,78 (FKM)
90	049.3176	Backup ring rd 14,1 x 17 x 1,4

**ACCESSORIES**

Sandwich plate NG4-Mini	Data sheet 2.5-820
Sandwich plate NG6	Data sheet 2.5-840
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50