

SCREW-IN CARTRIDGE DIRECT-ACTING RELIEF VALVE

MO-3/*

30 l/min 35 MPa (350 bar)

1 DESCRIPTION

MO-3 is a direct operated pressure relief valve in a special metric cavity M20x1,5.

The external surface is zinc coated.

There are three different pressure settings for a more accurate regulation.

The valve is designed with an anti vibration system



2 ORDERING CODE

(1)	(2)	(3)	(4)	(5)	(6)
MO	-	3	/	-	01

(1) MO: screw-in cartridge relief valve

(2) 3: nominal size

nominal flow rate = 0,5 dm³/s (approx 32 l/min)

(3) Pressure adjustment ranges:

10: from 2,5 MPa to 12,5 MPa (from 25 to 125 bar)

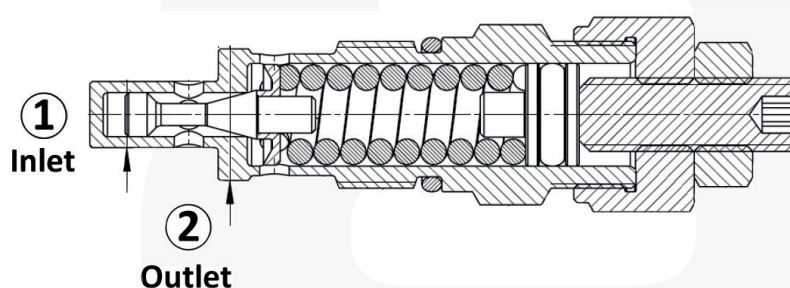
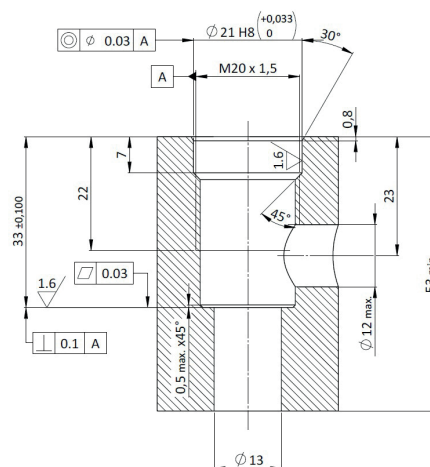
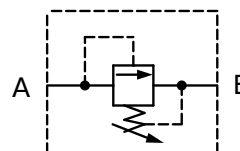
20: from 2 MPa to 25 MPa (from 40 to 250 bar)

32: from 10 MPa to 32 MPa (from 100 to 320 bar)

(4) code reserved for variants to the adjustment (knob, handwheel,etc.)

(5) code reserved for special variants (materials, seals, surface treatments etc.)

(6) 01: Design number (progressive) of the valve

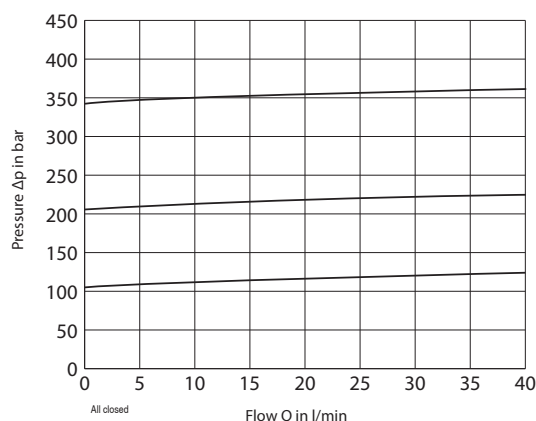


3 TECHNICAL DATA

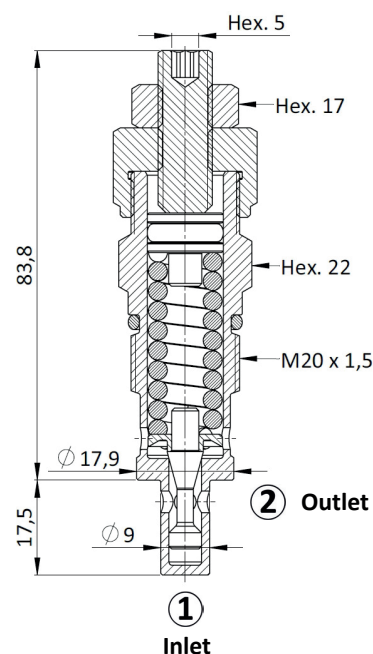
Maximum pressure range	see 2	Adjustement of the relief pressure:
Maximum rec. flow rate	40 l/min	relief pressure is reached when the axial hydraulic forces on piston 3 equal the force of spring 5; the value of the relief pressure can be therefore changed, within the limits of the chosen adjustment range, by changing the compression of spring 5. to increase the relief pressure, turn clock wise the adjustment screw 4 after having unlocked ist nut 6. Fore each pressure adjustment range, the pressure gradient is approx: M0-3/10: 1,6 MPa/mm (24 bar/turn)
Nominal flow rate	32 l/min	M0-3/20: 3,2 MPa/mm (48 bar/turn)
Pressure relief curves	see 4	M0-3/32: 5 MPa/mm (75 bar/turn)
installation and dimensions	see 5	when the required level of pressure is reached, lock the nut6.
mass	appron 0,17	Valve type M0-3/* are normally factory tested and settled, with Q=0,1 dm ³ /s (6 l/min) at the following pressures. M0-3/10: 10 MPa (100bar) (±10%) M0-3/20: 20 MPa (200bar) (±10%) M0-3/ 32: 32 MPa (320bar) (±5%)

4 TYPICAL DIAGRAMS

Typical curves for valves M0-3/* in standard configuration, with mineral oil at 36 cSt a 50°C



5 INSTALLATION DIMENSIONS



6 HYDRAULIC FLUIDS

Seals and materials used on standard valves are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.

Cartridge valves type M0-3/* must be installed in exactly machined cavities obtained in metallic bodies of strenght suitable to sustain the hydraulic efforts. When installing the valve care must be paid not to damage seal (OR 121-15,88x2,62-70 Sh) and to screw-in the valve by applying the appropriate torque of approx. 60Nm to the exagonal CH 22.