

Miniature proportional pressure reducing valves type PM

These proportional pressure reducing valves are used for circuits, where other devices i.e. directional spool valves should be controlled with a low flow and varying pressure. The pressure on the secondary side (port A) can be adjusted, independently from the pressure on the primary side, according to an electrical signal.

The reduced pressure at port A will change proportional to alternation of the electrical input signal.

There is a design related permanent leakage flow apparent at R, which has to be led back to the tank via a depressurized line. These pressure reducing valves feature a override compensation i.e. acting like a pressure limiting valve, if the pressure on the secondary side exceeds the set pressure e.g. due to external forces.



Nomenclature: Prop. pressure reducing valve

Design: Assembly kit
Individual valve,
Manifold mounting

Adjustability: Electro-proportional

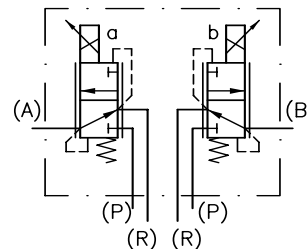
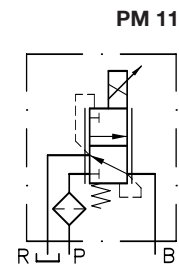
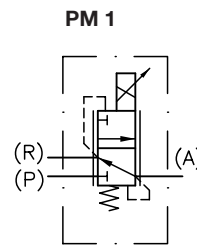
$P_{max P}$: 40 bar

$P_{max A}$: 19 bar

Q_{max} : approx. 2 lpm

Basic types and general parameters

Basic type	PM 1	PMZ 1	PM 11	PM 12	Symbol
Design	Assembly kit Single valve Twin valve		Manifold mounting valve Single valve Twin valve		
Pressure range					
(prop. adjustable)		0 ... 4.5 bar	0 ... 5.5 bar	0 ... 7.5 bar	
nom. pressure difference	0 ... 9 bar	0 ... 11.5 bar	0 ... 14 bar	0 ... 19 bar	
$\Delta p = p_A - p_R$					



Additional versions

- Type PM 11 and PM 12, with orifices $\varnothing 0.6$ mm in port A and B to dampen oscillations and/or return pressure stop in port R
- Valve bank type PMZ 1-A5, up to 10 prop. pressure reducing valve sections

Solenoid voltage

- 12V DC and 24V DC
(control current 0 ... 0.63 A (24V DC); 0 ... 1.2 A (12V DC))
- Control via proportional amplifier
(see also "Additional information")