

BENCOR (Pty) Ltd.

Pressure valves



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 leakage flow which has to be led pressureless via port R to the tank. 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

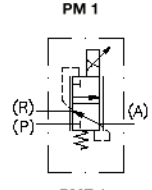
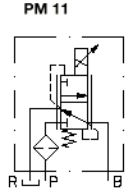
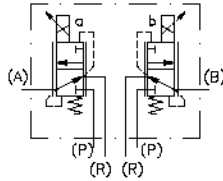
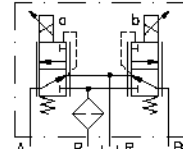
Adjustability: Electro-proportional

$p_{\max P}$: 40 bar

$p_{\max A}$: 19 bar

Q_{\max} : approx. 2 l/min

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 nom. pressure difference) $\Delta p = p_A - p_R$	0 ... 4,5 bar, 19 bar		0 ... 7,5 bar		 
Additional versions	<ul style="list-style-type: none"> 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 Type PMZ, in explosion proof design (EExmIIIT4) also available 				
Solenoid voltage	12V DC and 24V DC				
	(control current 0 ... 0,63 A (24V DC); 0 ... 1,2 A (12V DC))				
	<ul style="list-style-type: none"> Control via proportional amplifier (see also "Additional information") 				