1PAA SERIES PRESSURE REDUCING / RELIEVING VALVE

PILOT OPERATED

1PAA60

GUIDED PISTON TYPE



APPLICATION

This pilot operated valve can be used with flows of up to 30 litres/min (8 US GPM) and inlet pressures of up to 350 bar (5000 psi) in both reducing and relieving modes. The inbuilt relief allows externally induced pressures to be relieved back to tank. The valve is ideal for secondary pressure control in any circuit. When using at pressure below 40 bar, consult graph.

Operation

This valve is normally open allowing inlet oil to pass to the regulated line until the outlet (regulated) pressure exceeds the setting of the pilot section. When this setting is acheived a pilot flow occurs, causing a pressure imbalance across the main spool, which then moves throttling the inlet flow and preventing any further pressure rise in the regulated line. If any external force causes the regulated pressure to rise more than 5-10% above the setting, the main spool moves back further, opening the regulated port to the tank line, thus working as a relief valve.

Pressure Drop





Features

Cartridge construction with hardened, ground and honed working parts giving smooth, stable operation over all pressure ranges.

Specifications

Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

Rated Flow	30 litres/min (8 US GPM) SEE GRAPH		
Max Setting	350 bar (5000 psi)		
Max Differential	210 bar (3000 psi) between 1 and 2		
Cartridge Material	Working parts hardened and ground steel. External surfaces zinc plated		
Body Material	Standard aluminium (up to 210 bar*) Add Suffix '377' for steel option		
Mounting Position	Unrestricted		
Cavity Number	CVB-22-06-0 (See Section 17)		
Torque Cartridge into Cavity	75 Nm (55 lbs ft)		
Weight	1PAA600.23 kg (0.50 lbs)1PA651.06 kg (2.30 lbs)		
Seal Kit Number	SK632 (Nitrile) SK632V (Viton)		
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)		
Operating Temp	-20°C to +90°C		
Pilot Flow	140 millilitres/min @ standard setting		
Nominal Viscosity Range	5 to 500 cSt		

*For applications above 210 bar please consult our technical department or use the steel body option.

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CARTRIDGE ONLY

Basic Code: 1PAA60



COMPLETE VALVE

BASIC CODE:	1PAA65
Body Only Part Numbers	

BSP, aluminium		SAE, aluminium	
3/8"	B13519		
1/2"	B13521	1/2"	B10801



1/2" B13526

78.0



Where measurements are critical request certified drawings



We reserve the right to change specifications without notice