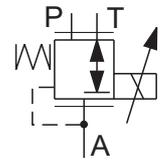


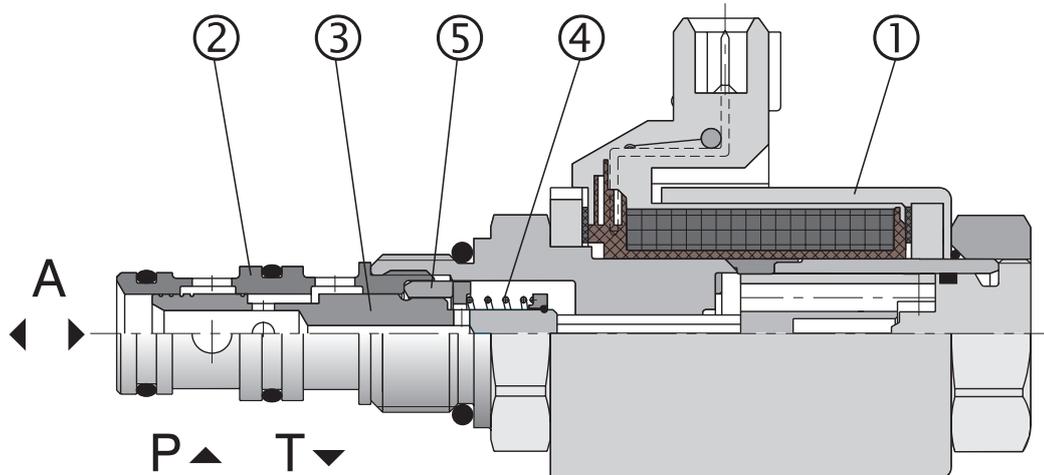
- Reducing valves suitable for mobile applications
- Compact design
- Installation dimensions to ISO 7789



Functional Description

The reducing valve PVRM1 is a directly operated 3-way valve controlled by proportional solenoid (1). In the de-energized state, the spring (4) holds the control spool (3) in relation to the housing in such a position that the input pressure in port P is blocked, whereas the port A is connected with tank. The electric current through the solenoid shifts the spool and closes gradually the return port and opens the inlet to the output port A. The reduced pressure in port A brought to the solenoid room acts on the differential area of the spool, this being

created by adapter (5). The solenoid pushes on the spool with a force, which is proportional to the current. Acting against this force is the force created by the reduced pressure acting on the differential area. In a balanced state, both the forces are equal. This arrangement ensures the proportional relation between the reduced pressure in port A and the control current. The basic surface treatment of the solenoid is blackened, other parts are zinc coated.



General Data

Design	spool valve	
Mounting mode	screw-in cartridge M20 x 1.5	
Mounting position	optional	
Flow direction	see the symbol	
Ambient temperature, max.	°C (°F)	-30 ...90 (-22 ...194), +100 °C (212 °F for a short term)

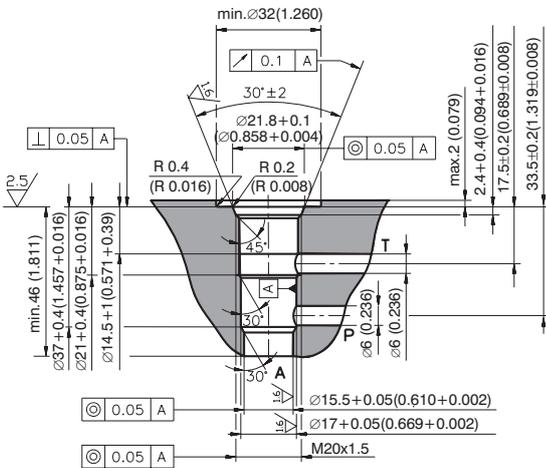
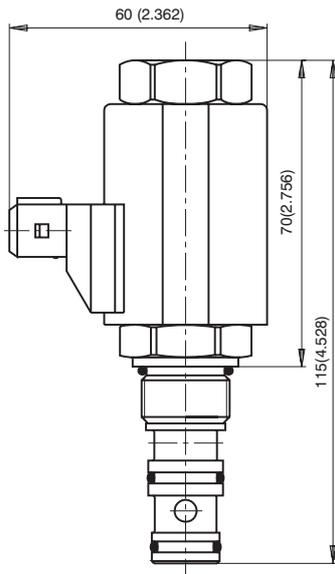
Solenoid Technical Data

Supply voltage	V	12
Rated current	A	1
Rated resistance at 20 °C (68 °F)	Ω	7,1 ± 6.5 %
Rated power	W	22
Duty cycle	%	100
Pressure tightness (dynamic)	bar (PSI)	50 (725.19)
Wire insulation class		200 from DIN IEC 60085
Electric connection		2- poles AMP Junior-Timer
Enclosure type to EN 60529		IP 65
Control		PWM-signal 100 Hz
Quenching		BZW 06 P28B

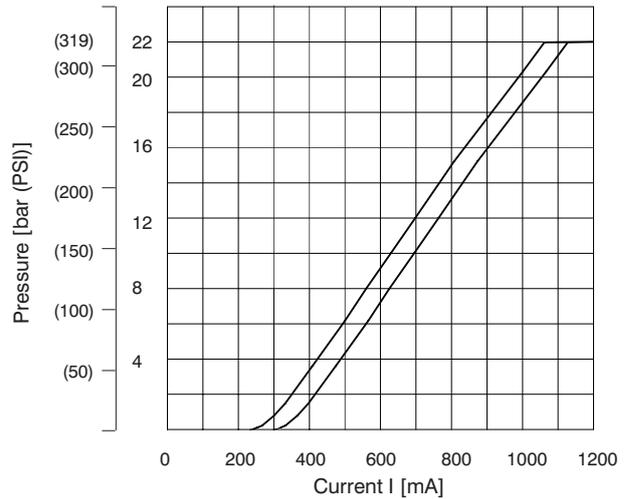
Valve Technical Data

Max. input pressure	bar (PSI)	50 (725.19)
Operating pressure	bar (PSI)	20 (289.86)
Max. flow rate	L/min (US GPM)	20 (5.29)
Hydraulic fluid		Hydraulic oils of power classes (HL, HLP) to DIN 51524
Viscosity range	mm ² /s (SUS)	10 ... 800 (49 ... 3920)
Fluid temperature range	°C (°F)	-30 ...90 (-22 ...194), +100 °C (212 °F for a short term)
Maximum degree of fluid contamination		Class 21/18/15 to ISO 4406 (1999)
Response time at 100 % signal	ms	< 50

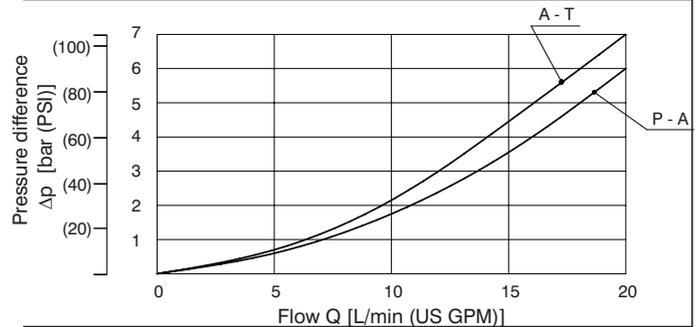
Valve Dimensions Dimensions in mm (inches)



p-I Characteristics



Δp-Q Characteristics



Caution!

- The technical information regarding the product presented in this catalogue is for descriptive purposes only. It should not be construed in any case as a guaranteed representation of the product properties in the sense of the law.

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