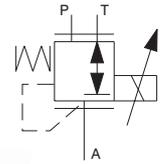


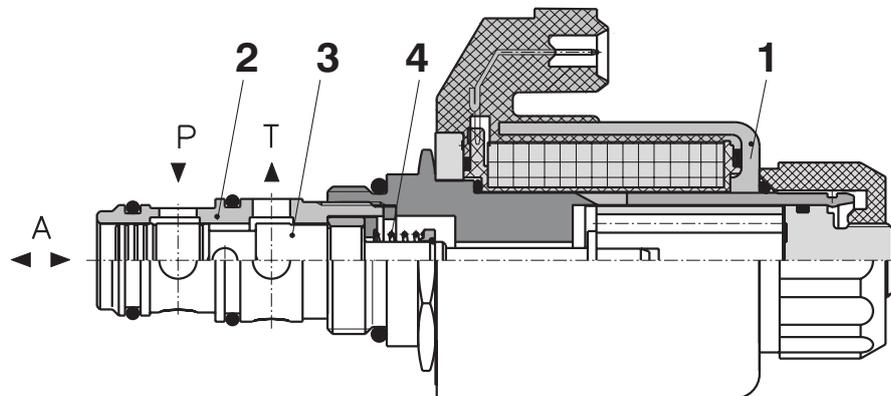
- Reducing valves suitable for mobile applications
- Compact design
- Installation dimensions to ISO 7789



## Functional Description

The valve PVRM3 is the directly controlled 3 way [2] reducing valve controlled by a proportional solenoid. In basic position (zero coil current) the channel A is connected to tank via channel T, whereas the channel P is closed. In this state the reduced pressure in channel A equals zero. With increasing the coil current the solenoid force gradually increases [1] and shifts, after overcoming the spring pretension [4], the spool [3] to position gradually decreasing the opened way A-T until the pressure in channel A increases due to opening the way P-A. The reduced pressure is led through the spool boring into the space of the actuating system, where it

acts on the smaller spool are. With increasing the reduced pressure in channel A, the created force acting in direction of the solenoid force increases and assist in overcoming the hydrodynamic forces acting on spool. For every value of the coil exciting current, there is a state of equilibrium of forces between the solenoid force, spring force, force acting on the smaller spool area and hydrodynamic forces. The reduced pressure is exactly defined by coil current, as shown on the static pressure characteristic. In basic variant a part of the valve is exhibited to influence of the environmental atmosphere and the coil zinc plated.



## General Data

Design	spool valve	
Mounting mode	screw-in cartridge M24 x 1.5	
Mounting position	unrestricted	
Flow direction	see the symbol	
Ambient temperature, max.	°C (°F)	-20 ... 100 (-4 ... 212)

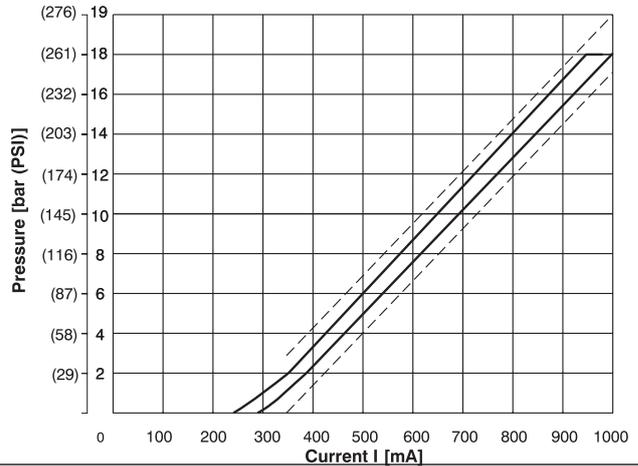
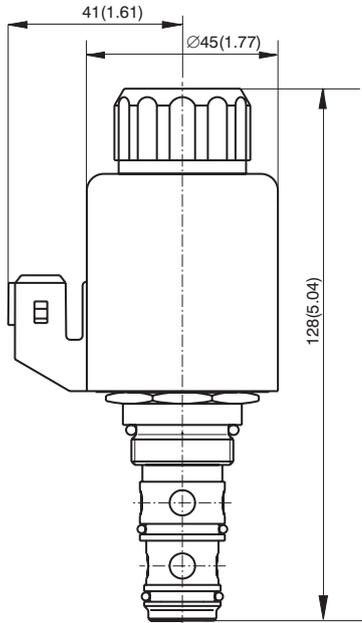
## Solenoid Technical Data

Supply voltage	V	9 .. 15
Rated current	A	1,5
Rated resistance at 20 °C (68 °F)	Ω	5 ± 0,25
Duty cycle	%	100
Wire insulation class	200 from IEC 085	
Electric connection	2- poles AMP Junior-Timer AXIAL	
Enclosure type EN 60 529	IP 65	
Control	Hz	PWM-signal 150

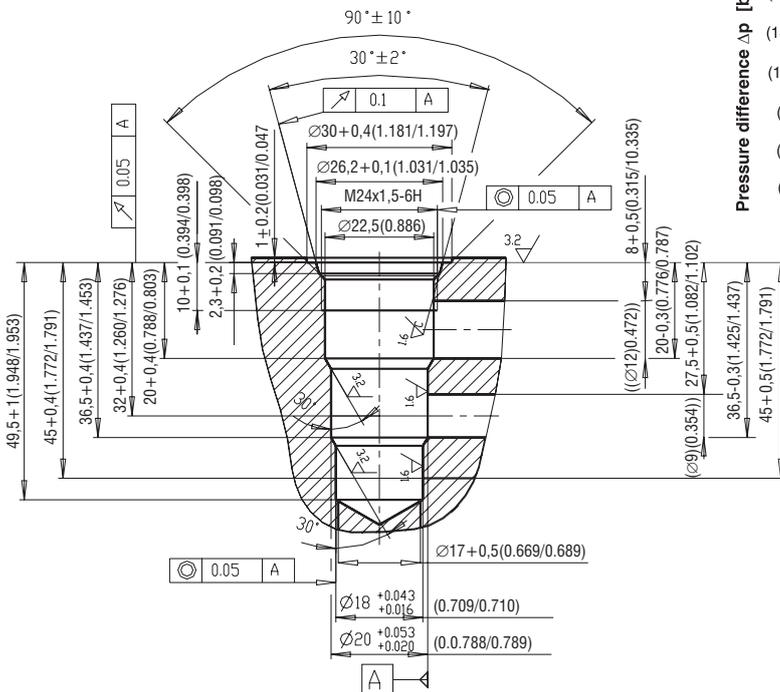
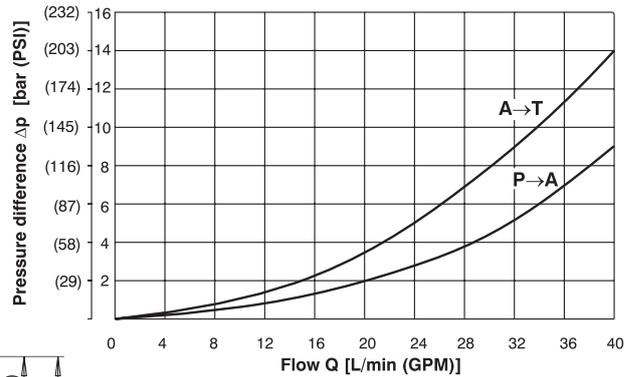
# Valve Technical Data

Max. input pressure	bar (PSI)	50 (725.19)
Operating pressure	bar (PSI)	18,5 (268.32)
Max. flow rate	L/min (GPM)	40 (10.57)
Hydraulic fluid		Hydraulic oils of power classes (HL, HLP) to DIN 51524
Viscosity range	mm <sup>2</sup> /s (SUS)	10 ... 400 (61.45 ... 1840)
Fluid temperature range	°C (°F)	-20 ... 100 (-4 ... 212)
Maximum degree of fluid contamination		Class 21/18/15 to ISO 4406

## Valve Dimensions Dimensions in mm (inches)      p-I Characteristics



## Δp-Q Characteristics



### Caution!

- The packing foil is recyclable. The protective plate can be returned to manufacturer.
- 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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