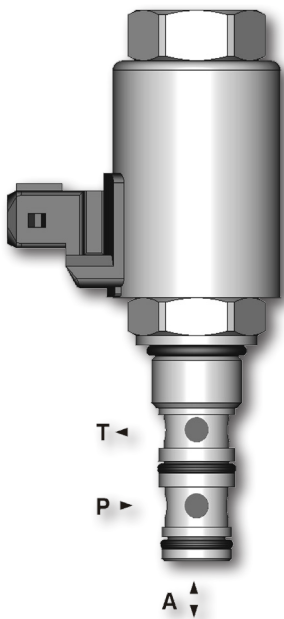


Proportional Pressure Control Valve, Reducing - Relieving, Direct-Acting

PVRM1-063

M20 x 1.5 • Q_{max} 20 l/min (5 GPM) • p_{max} 50 bar (700 PSI)



Technical Features

- › Excellent stability throughout flow range with rapid response to proportional current input change
- › Low hysteresis, accurate pressure control and low pressure drop
- › Precise pressure control vs current and excellent repeatability
- › Integrated relief function for protection against pressure peaks
- › Solenoid electrical terminal acc. to EN 175301-803-A, AMP Junior Timer, or Deutsch DT04-2P
- › 12 or 24 V DC coils
- › Optional mesh screen
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

A direct-operated, spool-type hydraulic pressure reducing-relieving valve in the form of a screw-in cartridge. Reduced pressure output is proportional to DC current input. This valve is intended for use as a pressure limiting device. Note: Consult factory for special OEM versions of this product.

Model Code	no mesh screen	with mesh screen
Symbol		

Technical Data

Valve size / Cartridge cavity		M20 x 1.5 / QE3	
Max. operating pressure (port P)	bar (PSI)	50 (730)	
Max. reduced pressure (port A)	bar (PSI)	20 (290)	32 (464)
Max. flow rate P-A	l/min (GPM)	20 (5.3)	
Fluid temperature range (NBR)	°C (°F)	-30 ...90 (-22 ...194), +100 (212) short-time	
Fluid temperature range (FPM)	°C (°F)	-20 ...90 (-4 ...194), +100 (212) short-time	
Ambient temperature range	°C (°F)	-30 ...90 (-22 ...194), +100 (212) short-time	
Response time at 100% signal	ms	< 50	
Solenoid data			
Supply voltage	V	12 DC	24 DC
Max. current	A	1	0,75
Rated resistance at 20 °C (68 °F)	Ω	7.1±6.5%	20.6±6.5%
Duty cycle	%	100	
Optimal PWM frequency	Hz	100	
Quenching diode		BZW06-28B	BZW06-33B
Enclosure type acc. to EN 60529**		(acc.to terminal type) IP65 / IP67 / IP69K	
Weight with solenoid	kg (lbs)	0.4 (0.88)	

	Data sheet	Type
General information	GI_0060	Products and operating conditions
Cavity details	SMT_0019	SMT-QE3*
Spare parts	SP_8010	

**The indicated IP protection level is only reached with a properly mounted connector.

Dimensions in millimeters (inches)

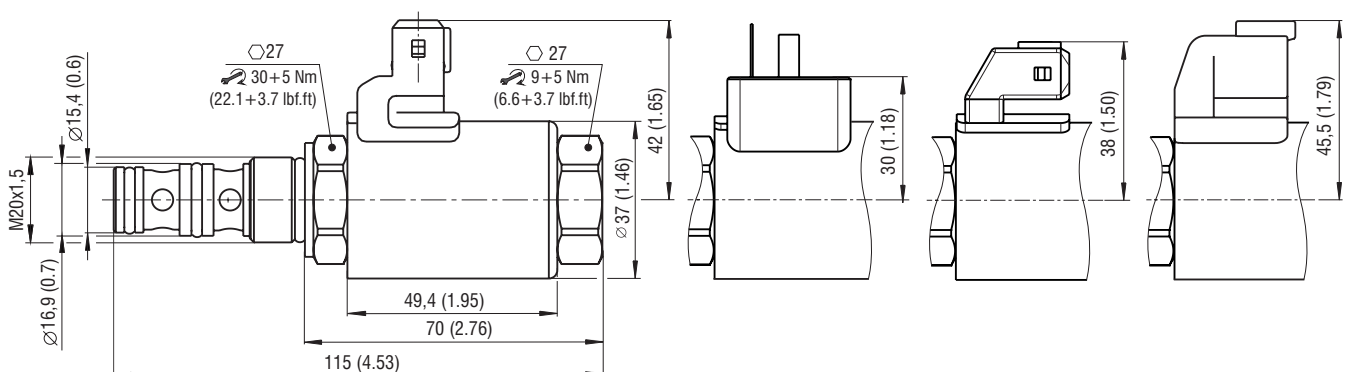
Connector type

E3, E4 - IP67
AMP Junior Timer
- radial

E1, E2 - IP65
EN 175301-803-A

E3A, E4A - IP67
AMP Junior Timer
- axial

E12A, E13A - IP67/ IP69K
Deutsch DT04-2P

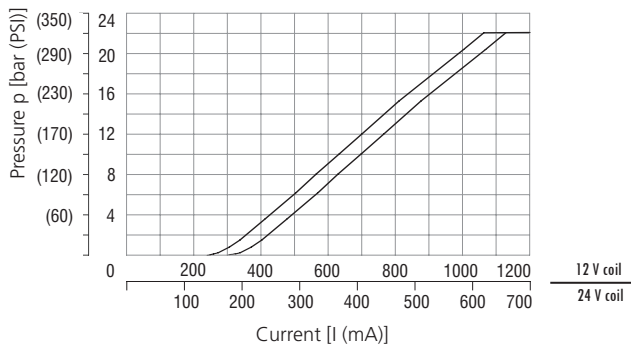


Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

Reduced pressure related to control signal

Port A, range 0 - 20 bar (290 PSI), $Q = 0 \text{ lpm}$ (GPM)
 Port P, inlet pressure 50 bar (730 PSI)

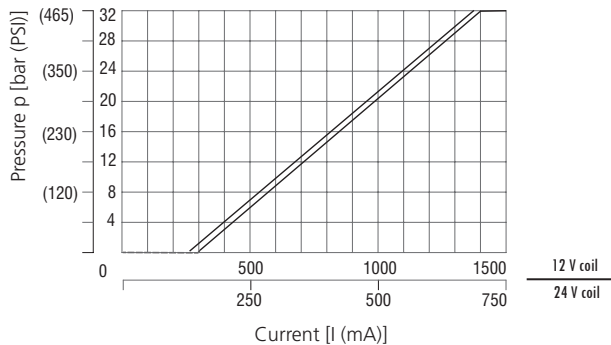
PVRM1-063/S*20



Reduced pressure related to control signal

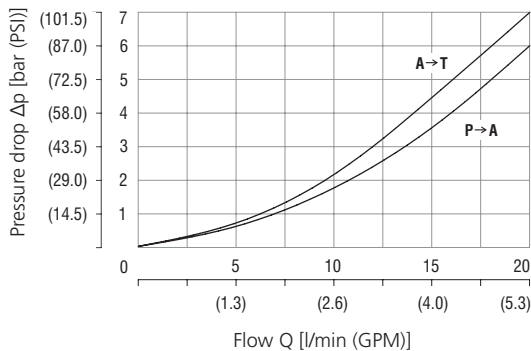
Port A, range 0 - 32 bar (464 PSI), $Q = 0 \text{ lpm}$ (GPM)
 Port P, inlet pressure 50 bar (730 PSI)

PVRM1-063/S*32



Pressure drop related to flow rate

A-T, Valve coil de-energized (relieving function)
 P-A, Valve coil energized (reducing function)



Ordering Code

PVRM1 - 063 / S - - -

Proportional pressure control valve, reducing - relieving, direct-acting

Valve cavity
 M20 x 1.5 / QE3

Model
 screw-in cartridge

Max. reduced pressure
 20 bar (290 PSI) **20**
 32 bar (464 PSI) **32**

Supply voltage / max. current
 12 V DC / max. 1 A **12**
 24 V DC / max. 0.75 A **24**

No designation
SP-125

Mesh screen
 without mesh screen
 port P, 125 microns

A
B

Surface treatment
 zinc-coated (ZnCr-3), ISO 9227 (240 h)
 zinc-coated (ZnNi), ISO 9227 (520 h)

No designation
V

Seals
 NBR
 FPM (Viton)

E1
E2
E3
E4
E3A
E4A
E12A
E13A

Connector
 EN 175301-803-A
 E1 with quenching diode
 AMP Junior Timer - radial direction (2 pins; male)
 E3 with quenching diode
 AMP Junior Timer - axial direction (2 pins; male)
 E3A with quenching diode
 E4A with quenching diode
 Deutsch DT04-2P - axial direction
 E12A with quenching diode