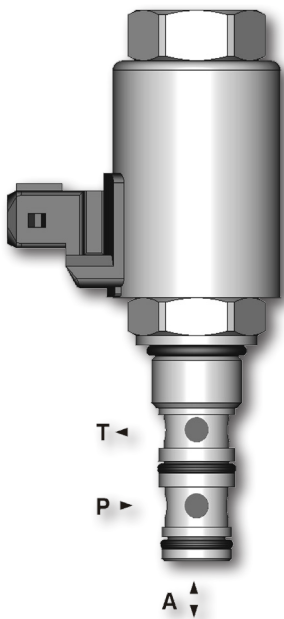


**Proportional Pressure Control Valve, Reducing - Relieving, Direct-Acting**
**PVRM1-063**

 M20 x 1.5 • Q<sub>max</sub> 20 l/min (5 GPM) • p<sub>max</sub> 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.

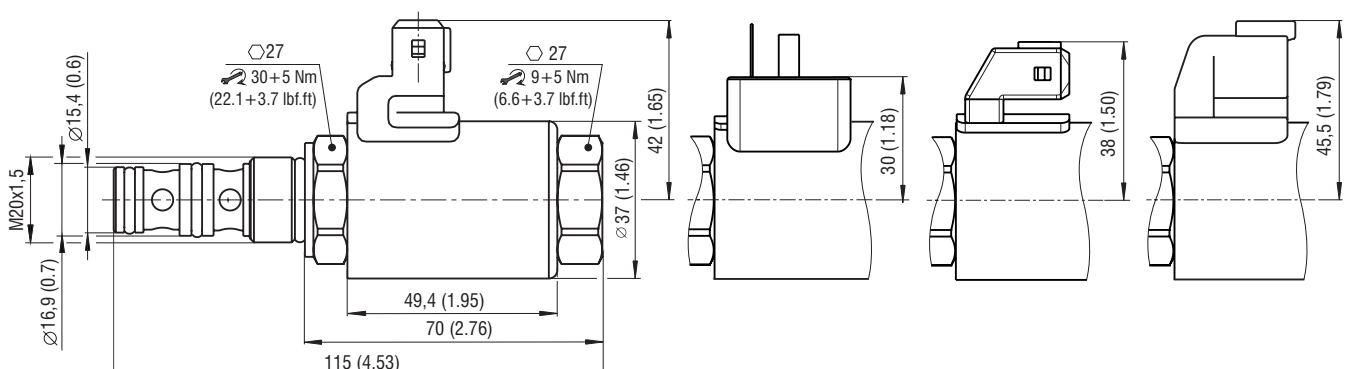
**Dimensions** in millimeters (inches)

**Connector type**

 E3, E4 - IP67  
 AMP Junior Timer  
 - radial

 E1, E2 - IP65  
 EN 175301-803-A

 E3A, E4A - IP67  
 AMP Junior Timer  
 - axial

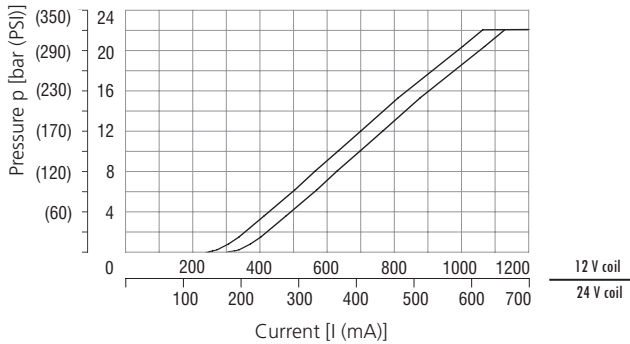
 E12A, E13A - IP67/ IP69K  
 Deutsch DT04-2P


**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)

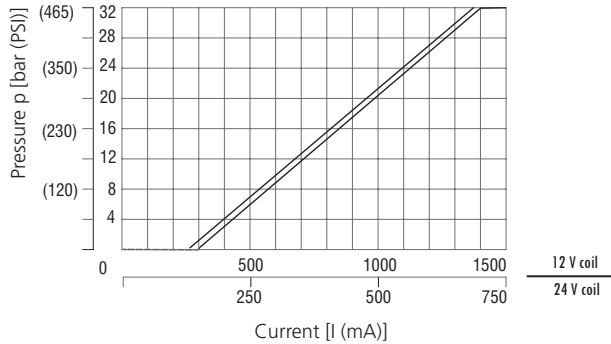
**PVRM1-063/S\*20**



**Reduced pressure related to control signal**

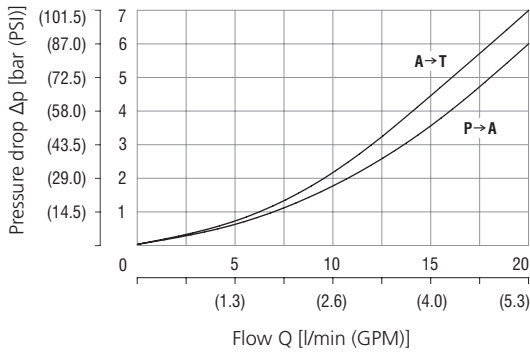
Port A, range 0 - 32 bar (464 PSI),  $Q = 0 \text{ lpm}$  (GPM)  
 Port P, inlet pressure 50 bar (730 PSI)

**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  
 Deutsch DT04-2P - axial direction  
 E12A with quenching diode