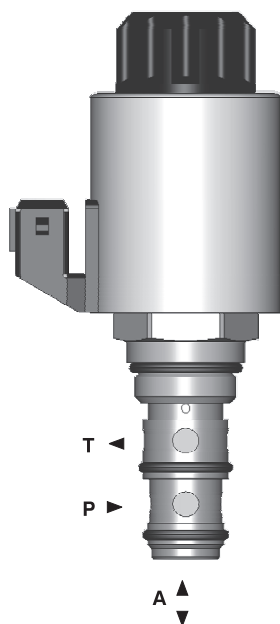


**Proportional Pressure Control Valve, Reducing - Relieving, Direct-Acting**
**PVRM3-10**

M24x1.5 •  $Q_{max}$  40 l/min (11 GPM) •  $p_{max}$  90 bar (1300 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 through CFD optimized flow paths
- › Precise pressure control vs current and excellent repeatability
- › Integrated relief function for protection against pressure peaks
- › Solenoid electrical terminal AMP Junior Timer, or Deutsch D04-2P
- › 12 or 24 V DC coils
- › 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 |
| Symbol     |                |

**Technical Data**

| Valve size / Cartridge cavity     |                       | M24x1.5 / QJ3                                     |          |             |           |
|-----------------------------------|-----------------------|---------------------------------------------------|----------|-------------|-----------|
| Max. operating pressure (port P)  | bar (PSI)             | 50 (730)                                          |          |             | 90 (1305) |
| Max. reduced pressure (port A)    | bar (PSI)             | 18 (260)                                          | 20 (290) | 30 (435)    | 80 (1160) |
| Max. flow rate P-A                | l/min (GPM)           | 40 (11)                                           |          |             |           |
| Fluid temperature range           | °C (°F)               | -30 ... +90 (-22 ... +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                     | 1.5                                               |          | 1           |           |
| Rated resistance at 20 °C (68 °F) | Ω                     | 5 ± 6.5%                                          |          | 13.4 ± 6.5% |           |
| Duty cycle                        | %                     | 100                                               |          |             |           |
| Optimal PWM frequency             | Hz                    | 150                                               |          |             |           |
| Quenching diode                   |                       | BZW06-28B                                         |          | BZW06-33B   |           |
| Enclosure type acc. to EN 60529** | AMP / Deutsch DT04-2P | (acc.to terminal type) IP67 / IP69K               |          |             |           |
| Mass with solenoid                | kg (lbs)              | 0.4 (0.88)                                        |          |             |           |

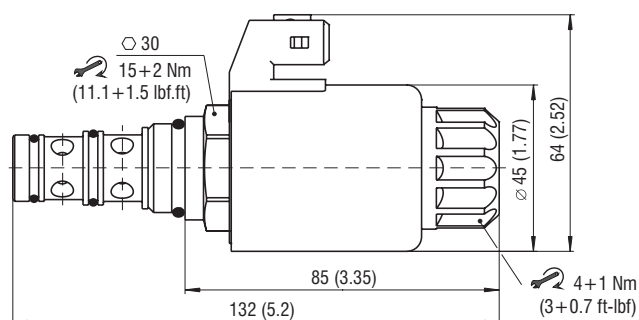
|                     | Data Sheet | Type                              |
|---------------------|------------|-----------------------------------|
| General information | GI_0060    | Products and operating conditions |
| Cavity details      | SMT_0019   | SMT-QJ3*                          |
| Spare parts         | SP_8010    |                                   |

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

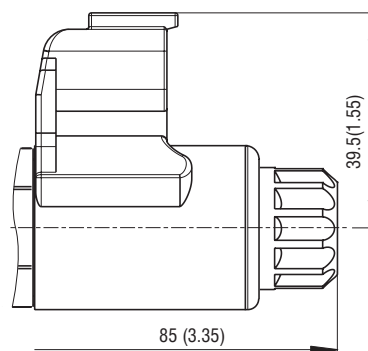
**Dimensions** in millimeters (inches)

**Connector type**

AMP Junior Timer E3A, E4A - IP67



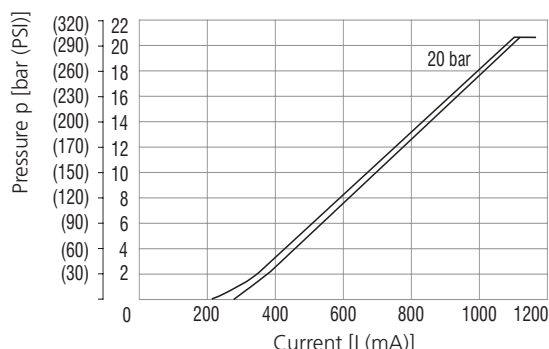
Deutsch DT04-2P - E12A, E13A - IP69K



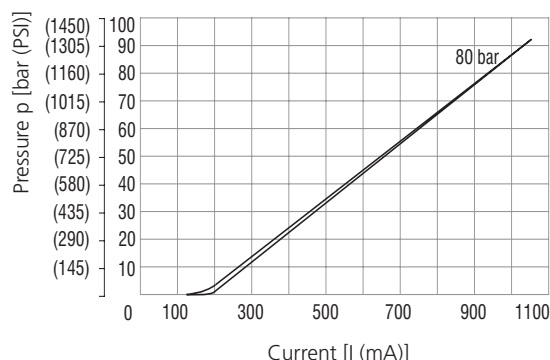
**Characteristics** measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

**Reduced pressure related to control signal**

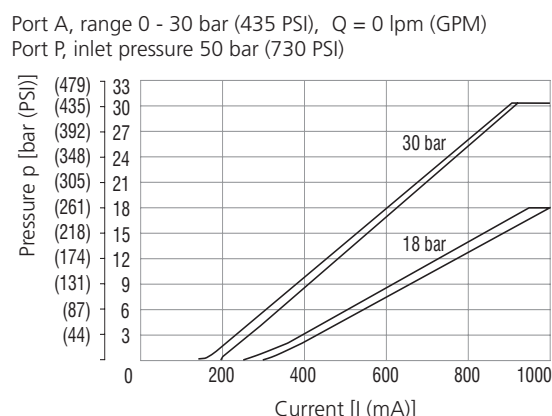
Port A, range 0 - 20 bar (290 PSI),  $Q = 0 \text{ lpm}$  (GPM)  
 Port P, inlet pressure 50 bar (730 PSI)


**Reduced pressure related to control signal**

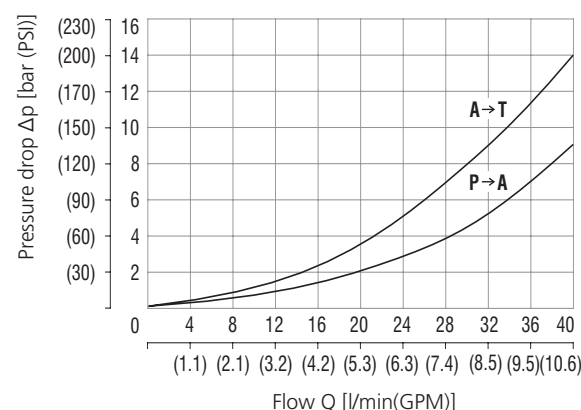
Port A, range 0 - 80 bar (1160 PSI),  $Q = 0 \text{ lpm}$  (GPM)  
 Port P, inlet pressure 90 bar (1305 PSI)


**Reduced pressure related to control signal**

Port A, range 0 - 18 bar (260 PSI),  $Q = 0 \text{ lpm}$  (GPM)  
 Port P, inlet pressure 50 bar (730 PSI)


**Pressure drop related to flow rate**

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


**Ordering Code**

**PVRM3 - 10 / S -**  -    -

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

**Valve cavity**  
 M24x1.5 / QJ3

**Model**  
 screw-in cartridge

**Max. reduced pressure**  
 18 bar (260 PSI)  
 20 bar (290 PSI)  
 30 bar (435 PSI)  
 80 bar (1160 PSI)

**Supply voltage / max. current**  
 12 V DC / 1.5 A  
 24 V DC / 1 A

**18**  
**20**  
**30**  
**80**  
**12**  
**24**

**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)

**E3A**  
**E4A**  
**E12A**  
**E13A**

**Connector type**  
 AMP Junior Timer - axial direction (2 pins; male)  
 E3A with quenching diode  
 Deutsch DT04-2P - axial direction  
 E12A with quenching diode