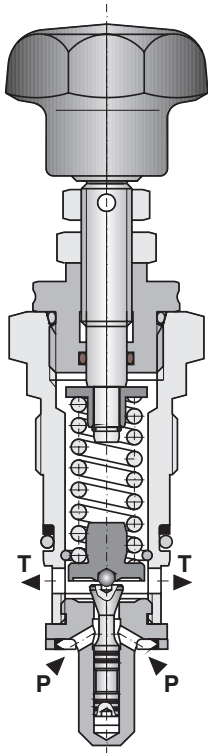


## Pressure Relief Valve, Poppet-Type, Direct-Acting

### VPP2-06

M28x1.5 •  $Q_{max}$  50 l/min (13 GPM) •  $p_{max}$  320 bar (4600 PSI)



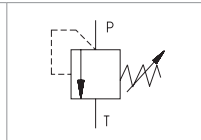
#### Technical Features

- › Excellent stability throughout flow range with rapid response to dynamic pressure changes
- › Low hysteresis, accurate pressure control and low pressure drop
- › Wide pressure range up to 320 bar
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Leak-free closing, suitable for fast cycling with long life
- › Adjustable by allen key or hand screw
- › In the standard version, the valve is black oxide coated

#### Functional Description

A poppet-type, direct-acting hydraulic relief valve in the form of a screw-in cartridge intended for use as a pressure limiting device for common hydraulic circuit protection. The spring acts on the poppet and presses it onto the valve seat. If the hydraulic pressure is below the pre-set value, the valve is closed. If the hydraulic force exceeds the pre-set value the valve opens and flow passes to the tank port until the system pressure falls below the spring pre-set value and the valve closes again.

Symbol



#### Technical Data

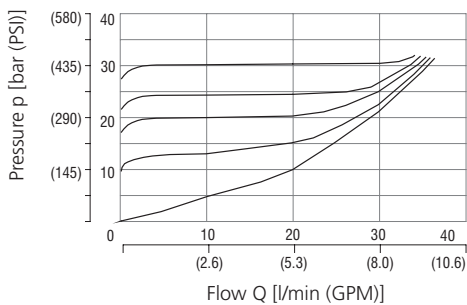
Valve size / Cartridge cavity		M28x1.5 / QP2
Max. flow	l/min (GPM)	50 (13.2)
Max. operating pressure	bar (PSI)	320 (4640)
Fluid temperature range (NBR)	°C (°F)	-30...+100 (-22 ...212)
Fluid temperature range (FPM)	°C (°F)	-20 ... +120 (-4 ... +248)
Mass	kg (lbs)	0.4 (0.88)

General information		Datasheet	Type
Valve bodies	In-line mounted	GI_0060	Products and operating conditions
Cavity details		SMT_0019	SB-QP2*
Spare parts		SP_8010	SMT-QP2*

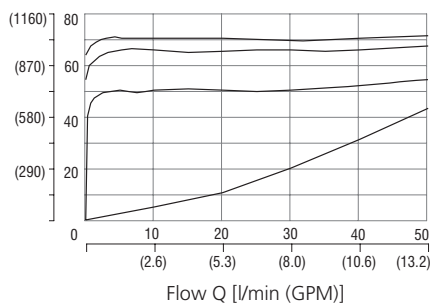
#### Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

##### Relief pressure related to flow rate

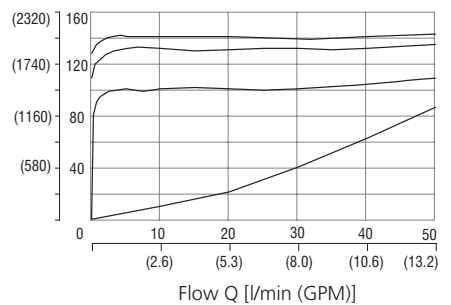
Pressure range 2.5



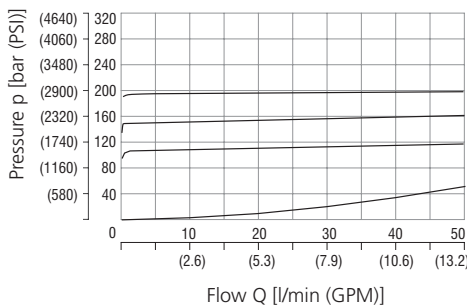
Pressure range 6.3



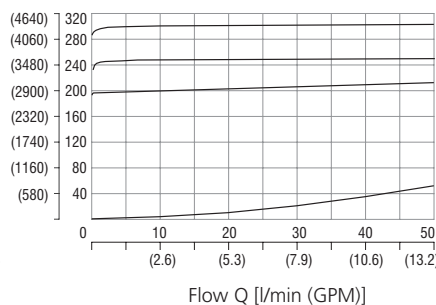
Pressure range 10



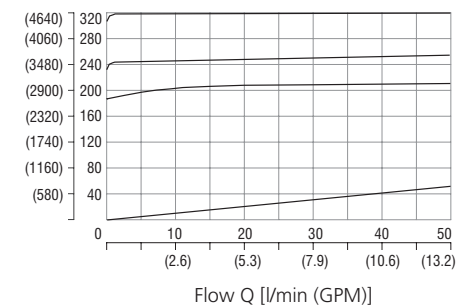
Pressure range 16



Pressure range 25

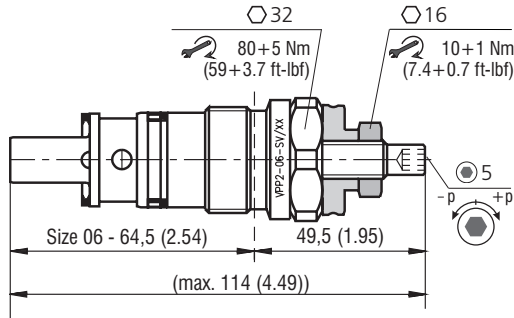


Pressure range 32

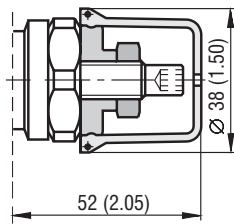


**Dimensions** in millimeters (inches)

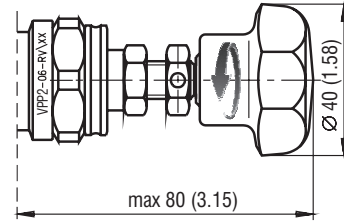
**Model S**



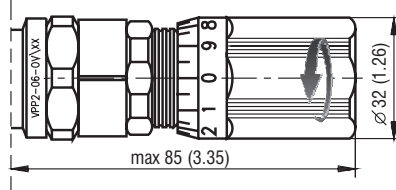
**Model T**



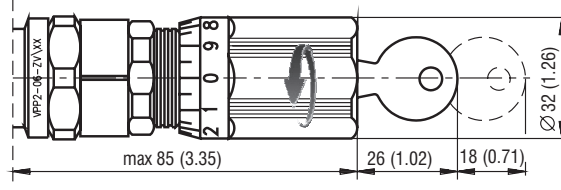
**Model RP**



**Model O**

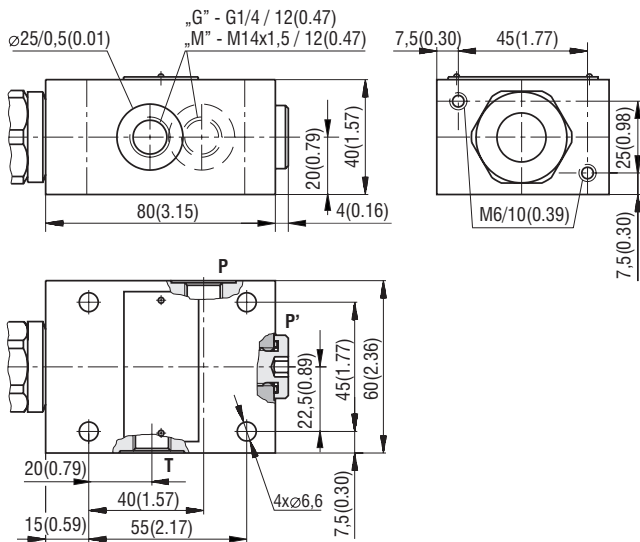


**Model Z**

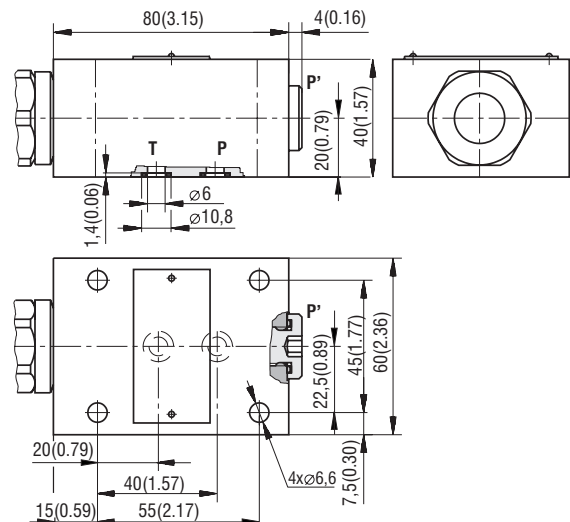


**Dimensions** in millimeters (inches)

**Cartridge in threaded housing - models „M“ and „G“**



**Cartridge in subplate mounted housing - model „P“**



Port P' (either P or P' can be used as input port), thread G1/4 (M14x1.5), depth 12 mm (0.47 in)

Port P' (e.g. for pressure measuring), thread M14x1.5, depth 12 mm (0.47 in)  
Note: subplates - see catalog HA 0002

**Ordering Code**

VPP2-06 - [ ] [ ] / [ ] [ ] - [ ]

**Pressure relief valve, poppet-type, direct-acting**  
M28x1.5

**Adjustment option**  
allen key (hex. 5), without protective cap  
allen key (hex. 5), with protective cap  
hand screw, plastic  
non-lockable cylindrical hand screw  
lockable cylindrical hand screw

**Model**  
screw-in cartridge  
cartridge in threaded housing - metric threads  
cartridge in threaded housing - with BSP threads  
cartridge in subplate mounted housing

S  
T  
RP  
O  
Z

V  
M  
G  
P

**Surface treatment (cartridge valve only)**  
No designation black oxide coating  
A zinc-coated (ZnCr-3), ISO 9227 (240 h)  
B zinc-coated (ZnNi), ISO 9227 (520 h)

No designation  
V

**Seals**  
NBR  
FPM (Viton)

**Pressure range**  
2.5 up to 25 bar (360 PSI)  
6.3 up to 63 bar (910 PSI)  
10 up to 100 bar (1450 PSI)  
16 up to 160 bar (2320 PSI)  
25 up to 250 bar (3630 PSI)  
32 up to 320 bar (4600 PSI)