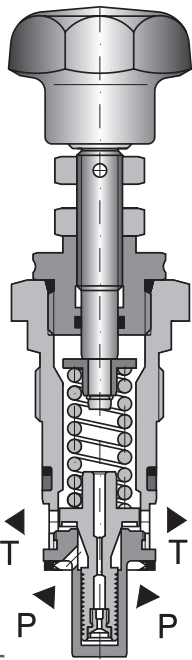


Pressure Relief Valve, Poppet Type, Direct Acting

VPP1-06(10)

M28x1.5 / M35x1.5 • Q_{max} 50 l/min (13 GPM) / 120 l/min (32 GPM) • p_{max} 320 bar (4600 PSI)



Size 06



Size 10

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
- › Low volume leaks, suitable for fast cycling with long life
- › Adjustable by allen key or hand screw
- › In the standard version, the cartridge valve is black oxide coated and the valve body is phosphated

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.



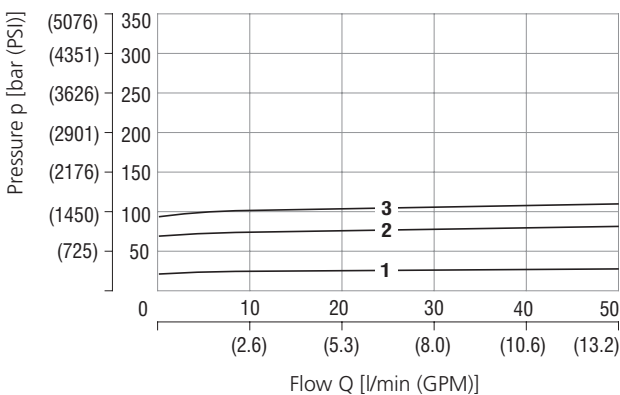
Technical Data

Valve size		size 06	size 10
Valve size / Cartridge cavity		M28x1.5 / QP2	M35x1.5 / QT2
Max. flow	l/min (GPM)	50 (13.2)	120 (31.7)
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)	
Weight	kg (lbs)	0.4 (0.88)	0.5 (1.10)
Datasheet		Type	
General information		GI_0060 Products and operating conditions	
Valve bodies	In-line mounted	SB_0018 SB-QP2*	SB-QT2*
Cavity details		SMT_0019 SMT-QP2*	SMT-QT2*
Spare parts		SP_8010	

Characteristics measured at v = 32 mm²/s (156 SUS)

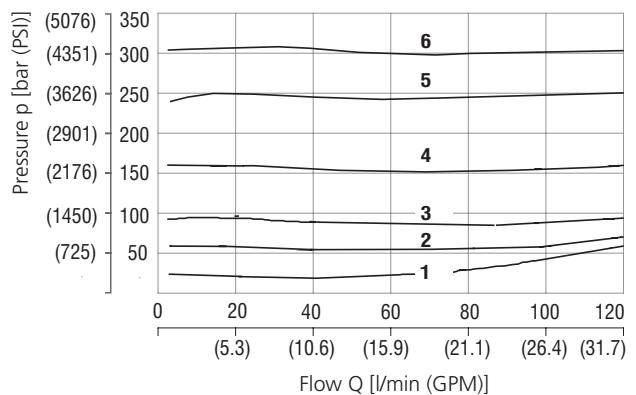
Relief pressure related to flow rate

Size 06



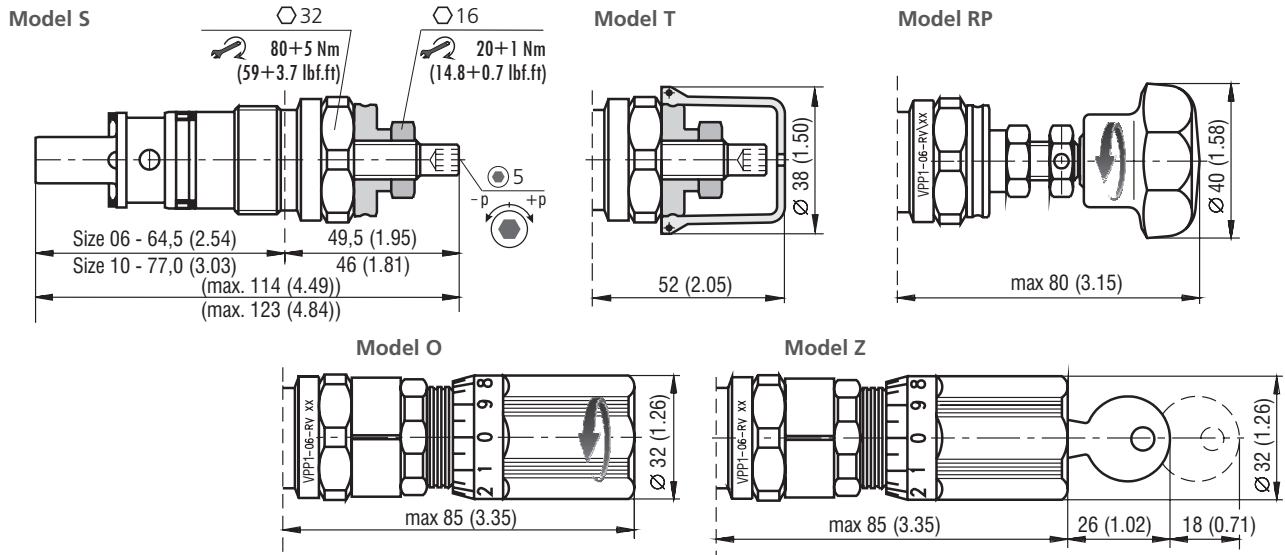
	Pressure range
3	10
2	6.3
1	2.5

Size 10



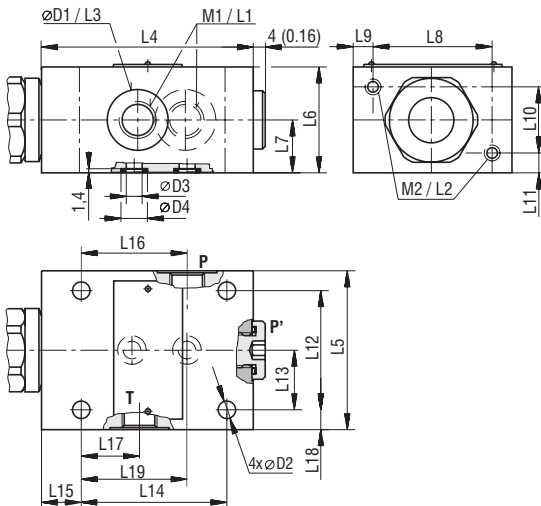
	Pressure range
6	32
5	25
4	16
3	10
2	6.3
1	2.5

Dimensions in millimeters (inches)



Dimensions in millimeters (inches)

Cartridge in threaded housing - models „M“, „G“ and „P“



Port P' (as input can be used P or P') thread M1/L1

Model	06-xM/x	06-xG/x	06-xP/x	10-xM/x	10-xG/x	10-xP/x
M1	M14x1.5	G1/4	G1/4	M22x1.5	G1/2	G1/4
M2	M6			M8		
ØD1	25(0.98)			34(1.34)		
ØD2	6.6(0.26)			9(0.35)		
ØD3			6(0.24)			10(0.39)
ØD4			10.8(0.43)			15.6(0.61)
L1	12(0.47)			16(0.63)		
L2	10(0.39)			20(0.79)		
L3	0.5(0.02)			0.5(0.02)		
L4	80(3.15)			100(3.94)		
L5	60(2.36)			80(3.15)		
L6	40(1.57)			60(2.36)		
L7	20(0.79)			30(1.18)		
L8	45(1.77)			60(2.36)		
L9	7.5(0.30)			10(0.39)		
L10	25(0.98)			40(1.57)		
L11	7.5(0.30)			10(0.39)		
L12	45(1.77)			60(2.36)		
L13	22.5(0.89)			30(1.18)		
L14	55(2.17)			70(2.76)		
L15	15(0.59)			20(0.79)		
L16	40(1.57)			49(1.93)		
L17	20(0.79)			21(0.83)		
L18	7.5(0.30)			10(0.39)		
L19			40(1.57)			45(1.77)

Ordering Code

VPP1- [] - [] / [] - []

Pressure relief valve, poppet type, direct acting M28x1.5 / M35x1.5

Nominal size
size 06 **06***
size 10 **10**

* VPP1-06 only available for pressure range 2.5; 6.3 and 10

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 **V**
cartridge in threaded housing - with metric threads **M**
cartridge in threaded housing - with BSP threads **G**
cartridge in subplate mounted housing **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)

Seals
No designation NBR
V 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)