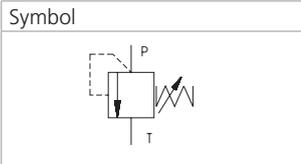
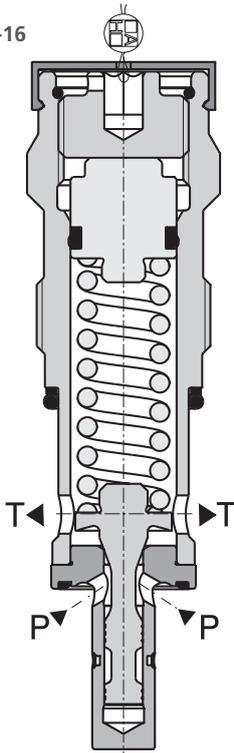


Pressure Relief Valve, Poppet Type, Direct Acting

VPP-R-16(25)

M36x2 / M42x2 • Q_{max} 120 / 400 l/min (32 / 106 GPM) • p_{max} 350 bar (5100 PSI)

VPP-R-16



Technical Features

- › Pressure relief valve, direct-acting, intended for installation in a manifold
- › Wide pressure range up to 350 bar
- › Large flow range
- › Low hysteresis, accurate pressure control and low pressure drop
- › Hardened precision parts
- › Leak-free closing, suitable for fast cycling with long life
- › Adjustment option with sealable allen head and a protective cap
- › In the standard version, the valve is zinc coated for 240 h (for size 25) and 520 h (for size 16) protection acc. to ISO 9227

Functional Description

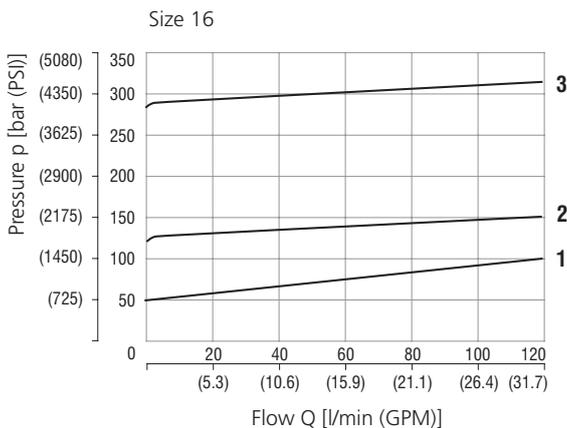
A poppet type, direct acting hydraulic relief valve in the form of a screw-in cartridge intended for use as a pressure limiting device for common hydraulic circuit protection. The spring acts on the poppet and presses it onto the valve seat. If the hydraulic pressure is below the pre-set value, the valve 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

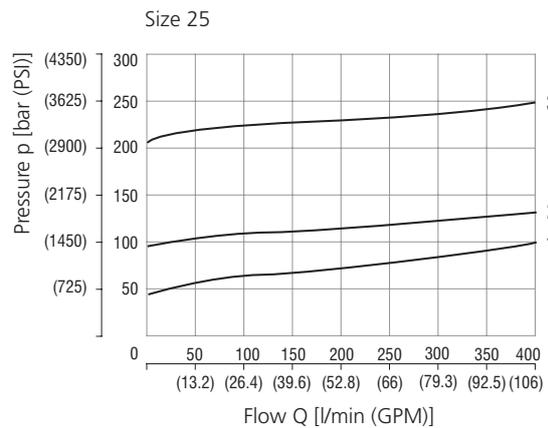
Valve size		Size 16	Size 25
Connection thread		M36x2	M42x2
Max. flow	l/min (GPM)	120 (31.7)	400 (106)
Max. inlet pressure (port P)	bar (PSI)	350 (5100)	
Max. outlet pressure (port T)	bar (PSI)	160 (2320)	
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... 212)	
Fluid temperature range (FPM)	°C (°F)	-20 ... +120 (-4 ... 248)	
Kinematic viscosity range	mm ² /s (SUS)	10 ... 500 (49 ... 2450)	
Weight	valve	0.56 (1.23)	1.03 (2.27)
	valve with body	3.06 (6.75)	5.5 (12.1)
		Datasheet	Type
General information	HA 0060	Products and operating conditions	
Spare parts	HA 8010		

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

Relief pressure related to flow rate

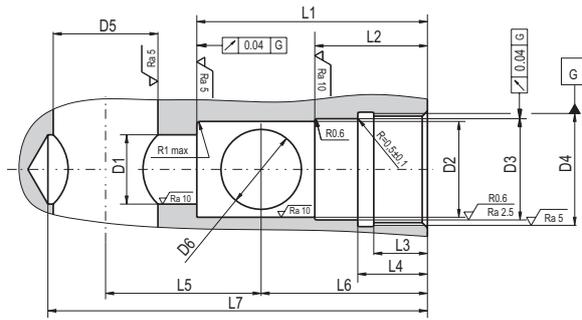


	Pressure stage	Pressure range bar (PSI)
3	28	280 - 350 (4060 - 5080 PSI)
2	13	130 - 280 (1890 - 4060 PSI)
1	5	50 - 130 (730 - 1890 PSI)



	Pressure stage	Pressure range bar (PSI)
3	20	200 - 350 (2900 - 5080 PSI)
2	10	100 - 200 (1450 - 2900 PSI)
1	5	50 - 100 (730 - 1450 PSI)

Cavity dimensions in millimeters (inches)

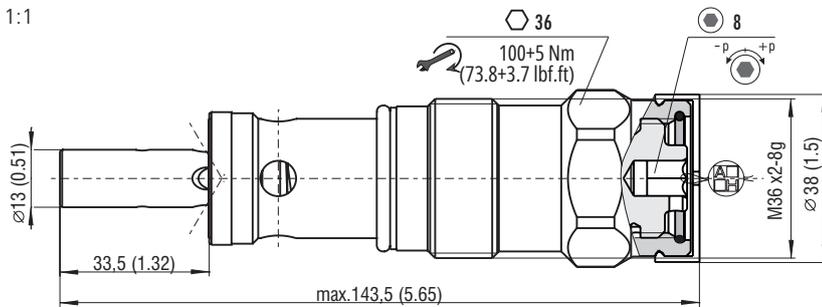


Size	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	Ø D6	Dimensions in mm (in)
16	20 H14 (0.79)	30 H11 (1.18)	32.6 H10 (1.28)	M36x2-7H	30 (1.18)	25 (0.98)	
25	26 H14 (1.02)	36 H11 (1.42)	38 H10 (1.50)	M42x2-7H	34 (1.34)	31 (1.22)	
Size	L1	L2	L3	L4	L5	L6	L7
16	66 (2.6 / 2.61)	31 (1.22 / 1.22)	18 (0.71 / 0.73)	21 (0.83 / 0.85)	46 (1.81)	44 (1.73 / 1.75)	105 (4.13)
25	86 (3.4)	44 (1.73)	20 (0.79)	26 (1.02)	58 (2.29)	62 (2.44)	135 (5.32)

Dimensions in millimeters (inches)

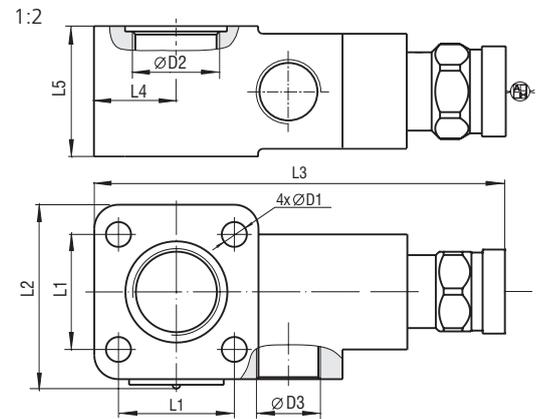
VPP-R-16

1:1



VPPB-R

1:2



Size	Ø D1	Ø D2	Ø D3	L1	L2	L3	L4	L5
16	10.5 (0.41)	M33x2	M27x2	48 (1.89)	66 (2.60)	168 (6.61)	33 (1.30)	57 (2.24)
25	13 (0.51)	M42x2	M33x2	60 (2.36)	85 (3.35)	218 (8.58)	42.5 (1.67)	68 (2.68)

Ordering Code

VPP [] -R- [] - [] - [] - [] - []

Pressure relief valve, poppet type, direct acting

Design of valve
screw-in cartridge valve with a body

no designation
B

Valve size
size 16
size 25

16
25

Range of adjustable pressure - pressure stage size 16
50 - 130 bar (730 - 1890 PSI)
130 - 280 bar (1890 - 4060 PSI)
280 - 350 bar (4060 - 5080 PSI)

5
13
28

Range of adjustable pressure - pressure stage size 25
50 - 100 bar (730 - 1450 PSI)
100 - 200 bar (1450 - 2900 PSI)
200 - 350 bar (2900 - 5080 PSI)

5
10
20

Surface treatment
A zinc-coated (ZnCr-3), ISO 9227 (240 h) (only for size 25)
B zinc-coated (ZnNi), ISO 9227 (520 h) (only for size 16)

No designation
V

Seals
NBR
FPM (Viton)

Adjustment option
S allen key (hex. 8), without protective cap
T allen key (hex. 8), with protective cap
L allen key (hex. 8), with protective cap, sealable (lockwire holes)