

**Technical Features**

- › Hydraulic safety relief valve suitable for use as a safety device in Category IV Group 2 applications acc.to European Commission (EC) Pressure Equipment Directive (PED) 2014/68/EU
- › CE marked valves are supplied with "Declaration of Conformity", "Operating Instructions" and the list of residual risks
- › Always follow the operating instructions supplied with the valve
- › Excellent stability throughout flow range with rapid response to dynamic pressure changes
- › Low hysteresis, accurate pressure control and low pressure drop through CFD optimized flow paths
- › 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
- › In the standard version, the valve surface is black oxide coated and the valve housing is phosphated. Alternatively, they are zinc-coated with corrosion protection of 240 h or 520 h in NSS acc. to ISO 9227

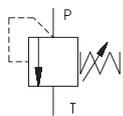
**Functional Description**

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**

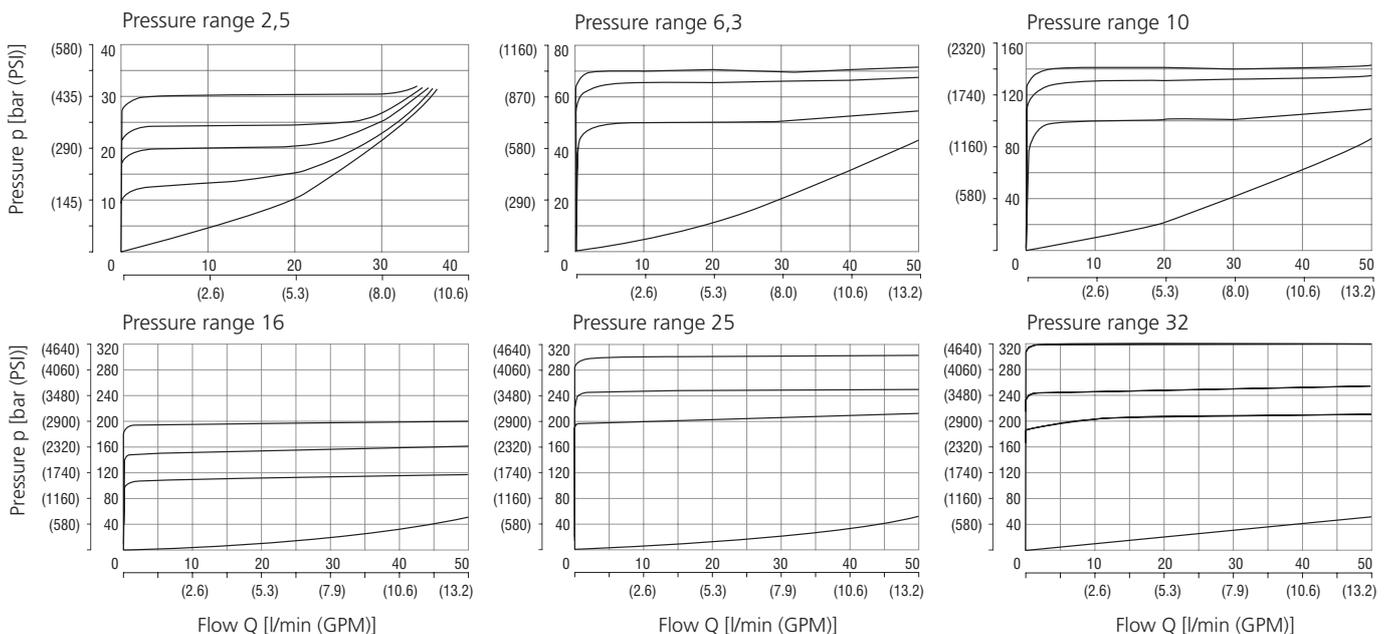
Valve size / Cartridge cavity		M28 x 1,5 / QP2
Max. flow	l/min (GPM)	50 (13.2)
Max. operating pressure	bar (PSI)	320 (4640)
Fluid temperature range (NBR)	°C (°F)	-30 ...+100 (-22... 212)
Fluid temperature range (FPM)	°C (°F)	-20 ...+120 (-4... 248)
Viscosity range	mm <sup>2</sup> /s (SUS)	10 ... 500 (49 ... 2450)
Weight	kg (lbs)	0.4 (0.88)
	Datasheet	Type
General information		HA 0060 Product and operating conditions
Valve bodies	In-line mounted	HA 0018 SB-QP2*
Cavity details		HA 0019 SMT-QP2*
Spare parts	HA 8010	

Symbol



**Characteristics** measured at v = 32 mm<sup>2</sup>/s (156 SUS)

**Relief pressure related to flow rate**



**Valves Adjusted by the Manufacturer**

- › The valves are adjusted for the specified pressure at the relevant flow rate and they are fitted with tamper-indicating seals
- › The pressure and flow rate values are indicated in the valve description on the product [pressure: in bar, flow rate in l/min]
- › The seals bear the company logo

**Valves NOT Adjusted by the Manufacturer**

- › Valves have no tamper-indicating seals
- › No pressure and no flow rate indicated
- › After the completion of the functional test, the adjusting screw is completely loosened and the pressure is set to  $p = 0$  bar
- › To adjust the required valve pressure proceed as follows:
  - turn the adjusting screw to the right (clockwise) to increase the pressure
  - turn the adjusting screw to the left (counter-clockwise) to decrease the pressure
- › The manufacturer accepts no responsibility for the adjustment, securing, and sealing of the valve

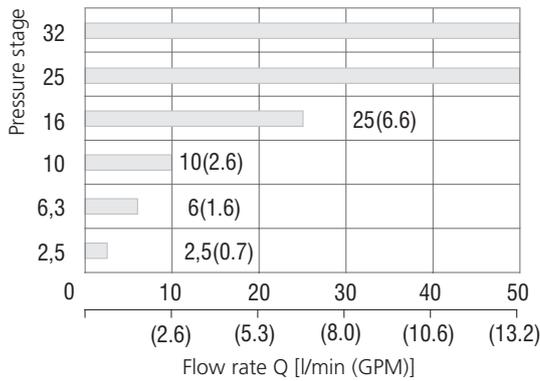
**Residual Risks**

Residual risks are listed and preventive measures against the occurrence of residual risk are described in the document „Operating instructions for pressure relief valve VPP2-06-xV/xx-CE1017“ which is delivered with each valve.

**Operating Region**

The diagram shows the operating region where the valve meets the requirements of Directive 2014/68/EU and Standard ISO 4126-1 on maximum short-time overshoot of system pressure by 10 % above the set cracking pressure when the valve opens. The dynamics of the valve depend on the kinematic viscosity of working fluid.

Measurement conditions: oil Renolin VG 32,  $T = 40$  °C (104 °F) ,  $V = 0.5$  l (0.132 gal US)

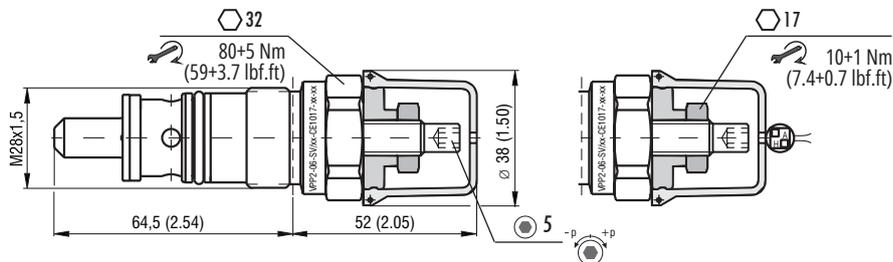


Operating region characteristics from certification of VPP2-06-xV/xx-CE1017\*

**Dimensions in millimeters (inches)**

**Model T**

**Model L**



**Ordering Code**

VPP2-06- [ ] V / [ ] [ ] - CE1017- [ ] - [ ]

**Pressure relief valve, PED certified, poppet type, direct acting M28 x 1,5**

**Adjustment option**

allen key (hex. 5), with protective cap **T**  
 allen key (hex. 5), with protective cap, sealable (lockwire holes) **L**

**Model**

screw-in cartridge

**Pressure range**

up to 25 bar (360 PSI) **2,5**  
 up to 63 bar (910 PSI) **6,3**  
 up to 100 bar (1450 PSI) **10**  
 up to 160 bar (2320 PSI) **16**  
 up to 250 bar (3630 PSI) **25**  
 up to 320 bar (4600 PSI) **32**

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

**Relief pressure and flow rate setting**  
 120/6 (example) 120 bar / 6 l/min

**Certification PED**  
 notified body number CE1017

No designation  
**V**

**Seals**  
 NBR  
 FPM (Viton)

If not preset valves are ordered, pressure and flow rate information is not shown.