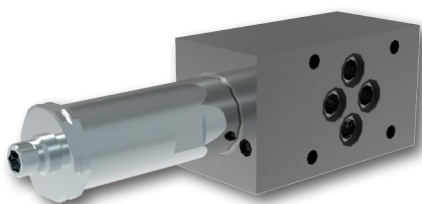


**VPN1-06/M(R)**

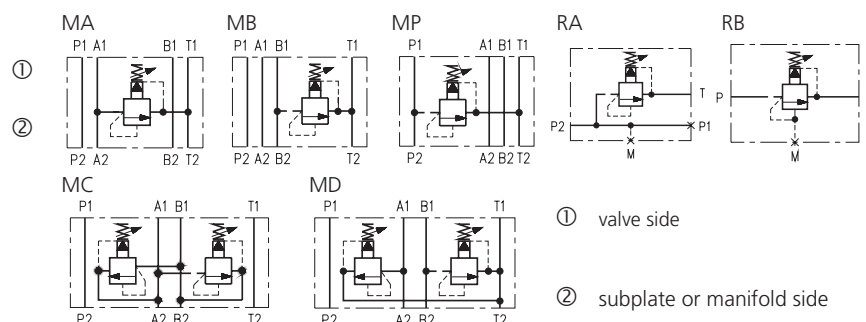
Size 04 (D02), 06 (D03) •  $Q_{max}$  70 l/min (18.5 GPM) •  $p_{max}$  320 bar (4600 PSI)



**Technical Features**

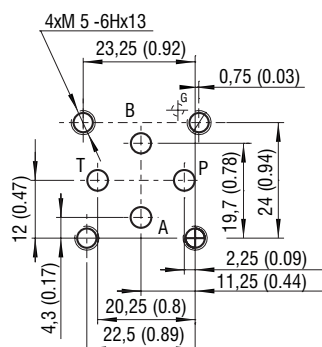
- › Pressure relief valve, spool type, pilot operated, with mounting interface acc. to ISO 4401, DIN 24340 (CETOP 02 and 03) or in-line design
- › Excellent stability throughout flow range with rapid response to dynamic pressure changes
- › Low hysteresis, accurate pressure control and low pressure drop
- › Wide pressure range up to 320 bar
- › High flow capacity
- › Hardened precision parts
- › Ideal for use as control valve where accuracy and repeatability is required
- › Adjustable by allen key or hand screw, optionally sealable (lockwire holes)
- › In the standard version, the valve housing is phosphated for basic surface corrosion protection and as preparation for painting. Steel parts are zinc-coated for 240 h salt spray protection acc. to ISO 9227
- › Enhanced surface protection for mobile sector available for the valve housing and steel parts (ISO 9227, 520 h salt spray)

**Functional Symbols**



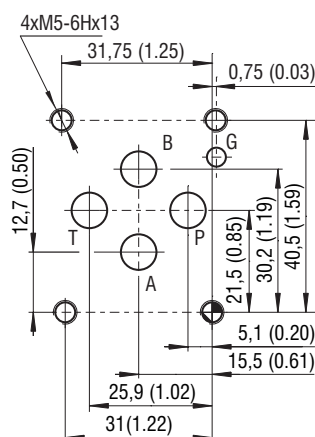
Notice: The orientation of the symbol on the name plate corresponds with the valve function.

**ISO 4401-02-01-0-05**



Ports P, A, B, T - max  $\varnothing$ 4.5 mm (0.18 in)

**ISO 4401-03-02-0-05**



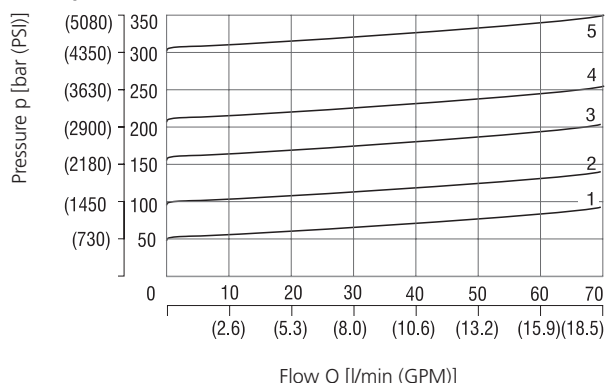
Ports P, A, B, T - max  $\varnothing$ 7.5 mm (0.29 in)

**Technical Data**

Valve size	04 (D02), 06 (D03)	
Max. flow	l/min (GPM)	70 (18.5)
Max. pressure (ports P, T)	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 - models MA (B, P) 04	kg (lbs)	0.82 (1.81)
- models MC (D) 04		1.32 (2.91)
- models MA (B, P) 06		1.2 (2.64)
- models MC (D) 06		1.5 (3.31)
- models RA1 (2), RB1 (2)		1.25 (2.76)
	Datasheet	Type
General information	GI_0060	Products operating conditions
Mounting interface	SMT_0019	Size 04 / 06
Spare parts	SP_8010	

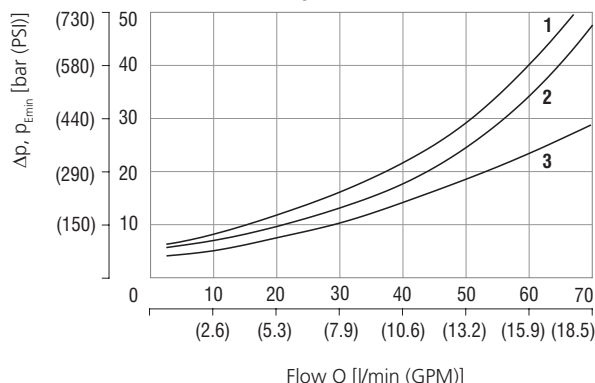
**Characteristics** measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

**Relief pressure related to flow rate**



Pressure range	6	10	16	21	32
	1	2	3	4	5

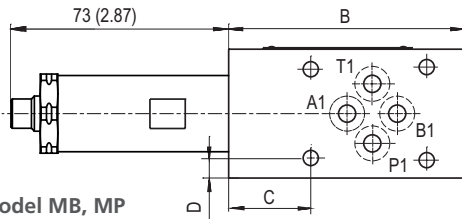
**Minimum set and circulation pressure**



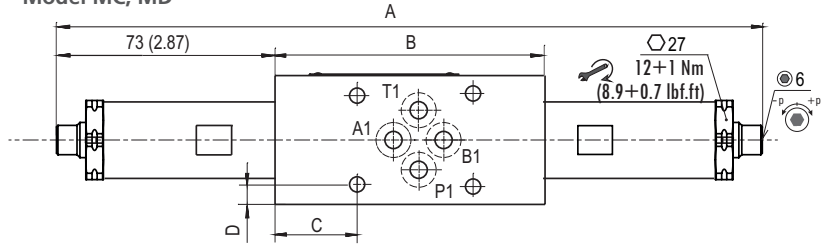
Models	MC	MA, MB, MP, MD	RA, RB
	1	2	3

Dimensions in millimeters (inches)

**Model MA**

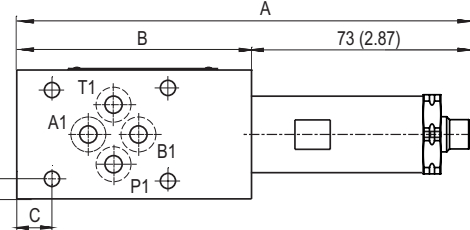


**Model MC, MD**

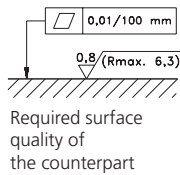


**Model MB, MP**

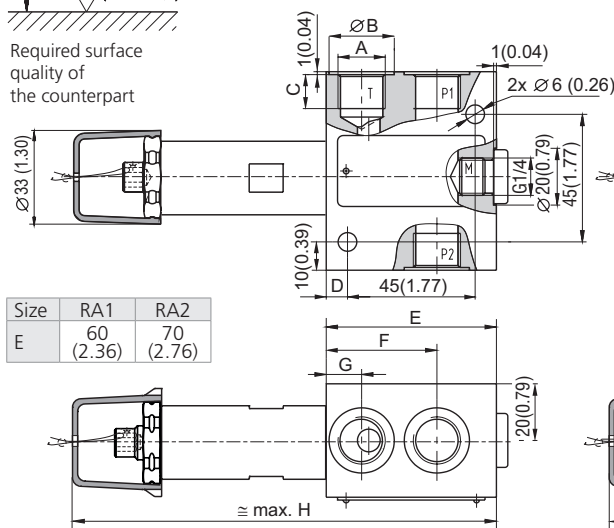
Size	04 (D02)	06 (D03)
MA, MB, MC, MD, MP		
D	6.25 (0.25)	7 (0.28)
E	34.6 (1.36)	40 (1.57)
F	35 (1.38)	45 (1.77)



Version	Size	04 (D02)	06 (D03)
MA (B,P)	A	153 (6.02)	
MC (D)		250 (9.84)	240 (9.45)
MA (B,P)	B	80 (3.15)	
MC (D)		104 (4.09)	94 (3.70)
MA (C,D)	C	40 (1.57)	25.5 (1.0)
MB (P)		16 (0.63)	11.5 (0.45)

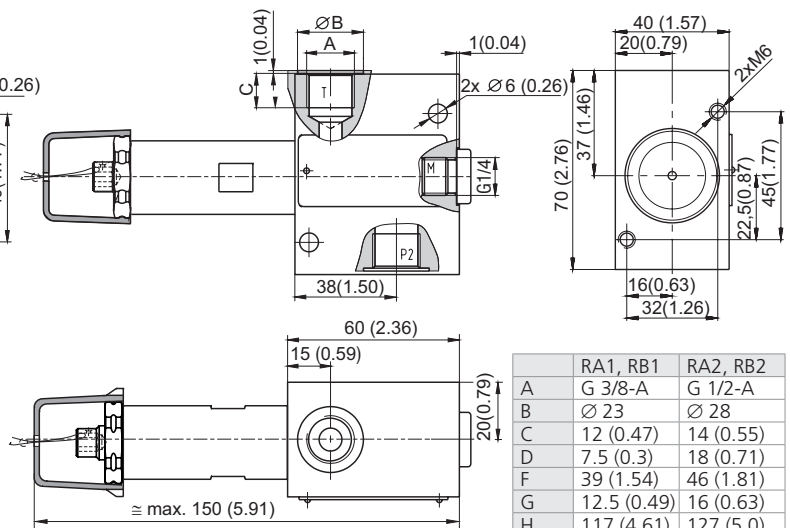


**Model RA1, RA2**



Size	RA1	RA2
E	60 (2.36)	70 (2.76)

**Model RB1, RB2**



	RA1, RB1	RA2, RB2
A	G 3/8-A	G 1/2-A
B	Ø 23	Ø 28
C	12 (0.47)	14 (0.55)
D	7.5 (0.3)	18 (0.71)
F	39 (1.54)	46 (1.81)
G	12.5 (0.49)	16 (0.63)
H	117 (4.61)	127 (5.0)

**Ordering Code**

VPN1-06 / [ ] - [ ] - [ ] - [ ] - [ ]

Pressure relief valve, spool type, pilot operated, modular

**Model**

modular, valve from A to T **MA**  
 modular, valve from B to T **MB**  
 modular, valve from P to T **MP**  
 modular, valve from A to B and B to A **MC**  
 modular, valve from A to T and B to T **MD**  
 in-line valve, three ports, thread G 3/8 (P1, P2, T) **RA1**  
 in-line valve, three ports, thread G 1/2 (P1, P2, T) **RA2**  
 in-line valve, two ports, thread G 3/8 (P, T) **RB1**  
 in-line valve, two ports, thread G 1/2 (P, T) **RB2**

**Modular plate size**

ISO 4401-02-01-0-05, DIN 24340 (CETOP 02), size 04\* **04**  
 ISO 4401-03-02-0-05, DIN 24340 (CETOP 03), size 06 **06**

\* For the modular design Dn 04, only the MP type is available.  
 If you are interested in other types, please contact the manufacturer's technical department.

**No designation**

Surface treatment  
 standard  
**A** zinc-coated (ZnCr-3), ISO 9227 (240 h)  
**B** zinc-coated (ZnNi, ISO 9227 (520 h))

**No designation**

Seals  
 NBR  
**V** FPM (Viton)

**S**  
**RS**  
**RP**  
**L**

**Adjustment option\***

allen key (hex. 6), without protective cap  
 hand screw, metal  
 hand screw, plastic  
 allen key (hex. 6), with protective cap, sealable (lockwire holes)

**Model with two pressure relief cartridges**

A side, allen key (hex. 6), without protective cap  
 B side, hand screw, metal

\*for dimensions of adjustment options see datasheet No.5161

**6**  
**10**  
**16**  
**21**  
**32**

**Pressure range**

up to 63 bar (910 PSI)  
 up to 100 bar (1450 PSI)  
 up to 160 bar (2320 PSI)  
 up to 210 bar (3050 PSI)  
 up to 320 bar (4600 PSI)