Check Valve, Poppet Type, Pilot to Open, Modular

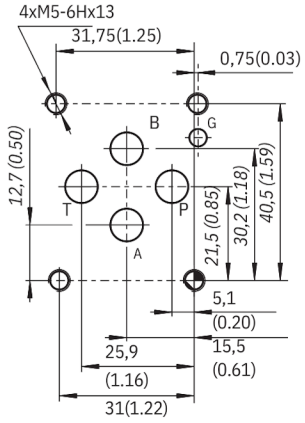
2RJV1-06/M

Size 06 (D03) Q_{max} 60 l/min (16 GPM) p_{max} 320 bar (4600 PSI)

Technical Features

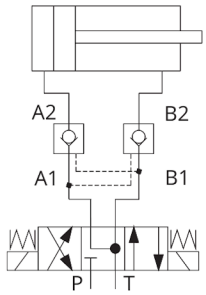
› Pilot to open check valve, poppet type with subplate mounting interface acc. to ISO 4401, DIN 24340 (CETOP 03)
› Sandwich plate design for use in vertical stacking assemblies
› Sharp-edged steel seats for dirt-tolerant performance
› Leak-free closing, suitable for fast cycling with long life
› High flow capacity
› Optional bias spring ranges for back-pressure control
› Three pilot ratios available
› In the standard version, the valve housing is phosphated and steel parts are zinc-coated for 240 h protection acc. to ISO 9227

ISO 4401-03-02-0-05



Ports P, A, B, T max. ∅7.5 mm (0.29 in)

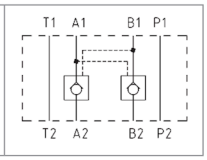
Typical circuit with pilot operated check valve



Functional Description

The valve allows flow to pass from port A(B)1 to A(B)2 while normally closing flow from A(B)2 to A(B)1 with load. When pressure is applied at pilot port. The flow passes from port 2 to 1. The valve has three pilot ratios option. This requires at least one-third (ratio 3:1), one-sixth (ratio 6:1) or one-ninth (ratio 9:1) of the load pressure to be applied at the opposite port to open the valve. The check valve is spring closed to secure the holding position in static conditions and without load. The valve is offered with optional bias spring ranges for back-pressure control.

Symbol



Technical Data

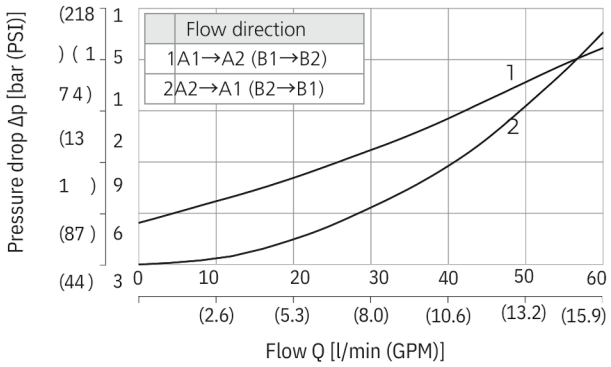
Valve size		06 (D03)
Max. flow	l/min (GPM)	60 (15.9)
Max. operating pressure	bar (PSI)	320 (4640)
Cracking pressure	bar (PSI)	3 (43.5) 4 (58) 5 (72.5) 8 (116) 12 (174) -30
Fluid temperature range	°C (°F)	.... +100 (-22 ... +212)
(NBR) Fluid temperature	°C (°F)	-20 .... +120 (-4 ... +248)
range (FPM) Pilot ratio		3:1 / 6:1 / 9:1
Weight	kg (lbs)	0.8 (1.76)

	Datasheet	Type
General information	GI_0060	Products and operating conditions
Mounting interface	SMT_0019	Size 06
Spare parts	SP_8010	

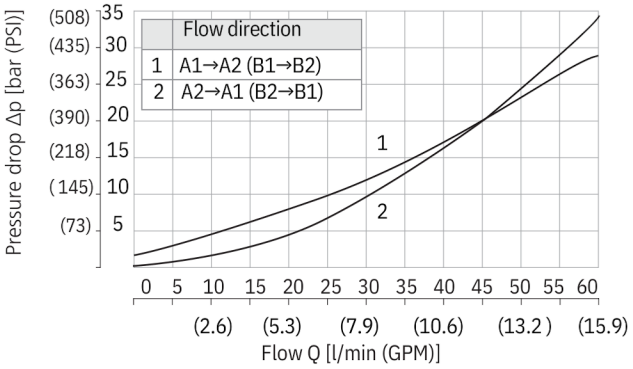
Characteristics measured at ν = 32 mm2/s (156 SUS)

Pressure drop related to flow rate

Pilot ratio 3 : 1

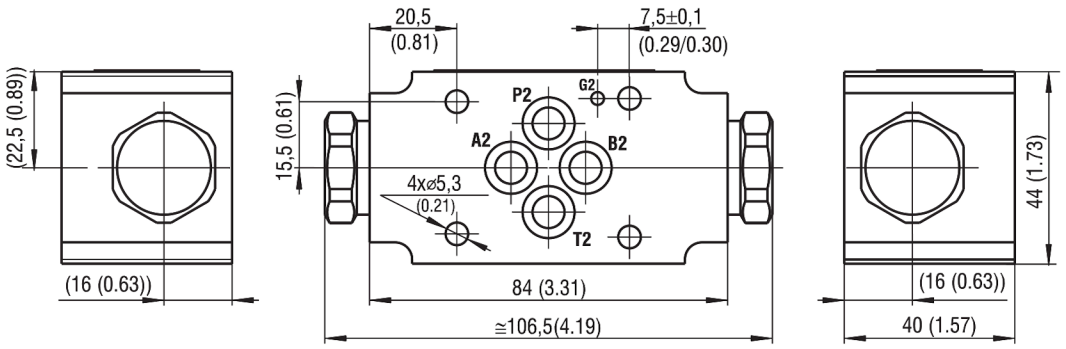


Pilot ratio 6 : 1

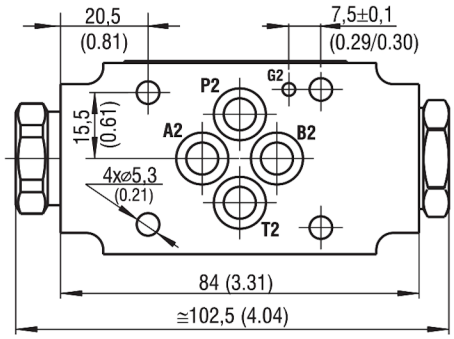


Dimensions in millimeters (inches)

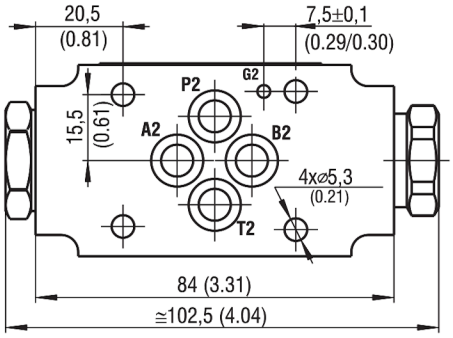
Model MC



Model MA

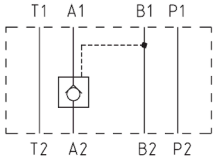


Model MB

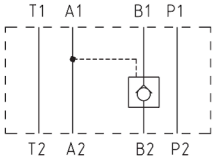


Functional symbols

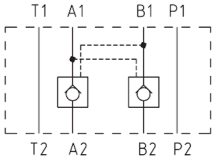
2RJV1-06/MA



2RJV1-06/MB



2RJV1-06/MC



valve side

subplate or manifold side

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

Ordering Code

2RJV1 - 06 / M ☐ ☐ - ☐ ☐ - ☐

Check valve, pilot to open, poppet type, modular

Valve size

Modular sandwich plate design

Functional symbols

check valve in line A	**A**
check valve in line B	**B**
check valve in line A and B	**C**

Pilot ratio

3 : 1 (for all cracking pressures except 2 bar)	**3**
6 : 1 (only for cracking pressure 2 bar)	**6**
9 : 1 (only for cracking pressure 0 bar and 3 bar)	**9**

Surface treatment

No designationbody phosphated, steel parts
zinc-coated (ZnCr-3), ISO9227 (240 h)
Azinc-coated (ZnCr-3), ISO 9227 (240 h)
Bzinc-coated (ZnNi), ISO 9227 (520 h)

Seals

No designationNBR
VFPM (Viton)

Cracking pressure

000 (for all pilot ratios)no spring
020 (for pilot ratio 6 : 1)2 bar (29.0 PSI)
030* (for pilot ratio 3 : 1 and 9 : 1)**3 bar (43.5 PSI)**
040 (for pilot ratio 3 : 1) 4 bar (58.0 PSI)
050 (for pilot ratio 3 : 1) 5 bar (72.5 PSI)
080 (for pilot ratio 3 : 1)8 bar (116 PSI)
120 (for pilot ratio 3 : 1)12 bar (174 PSI)

*Preferred type for pilot ratio 3 :1 respective 9 :1