

Check Valve, Poppet-Type, Pilot to Open, Modular

**VJR2-10/M**

Size 10 (D 05) •  $Q_{max}$  100 l/min (26 GPM) •  $p_{max}$  320 bar (4600 PSI)



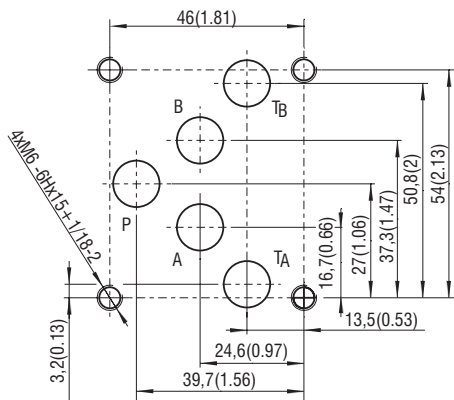
**Technical Features**

- › Pilot to open check valve, poppet-type with subplate mounting interface acc. to ISO 4401, DIN 24340 (CETOP 05)
- › 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
- › In the standard version, the valve housing is phosphated and steel parts are zinc-coated for 240 h protection acc. to ISO 9227

**Functional Description**

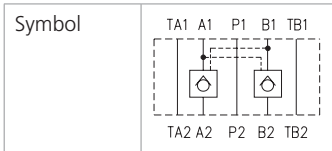
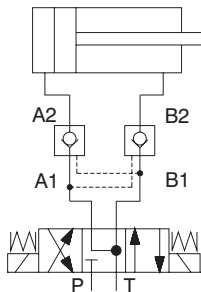
The valve allows flow to pass from port A(B)1 to A(B)2 while normally under load inhibiting flow from A(B)2 to A(B)1. When pressure is applied at the pilot port, the valve is opened and flow passes from port 2 to 1. The valve has a pilot ratio of 5.6:1, meaning that at least 18% of the load pressure must 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

ISO 4401-05-04-0-05



Ports P, A, B, T  
max  $\varnothing$  11.2 mm (0.44 in)

**Typical circuit with pilot operated check valve**



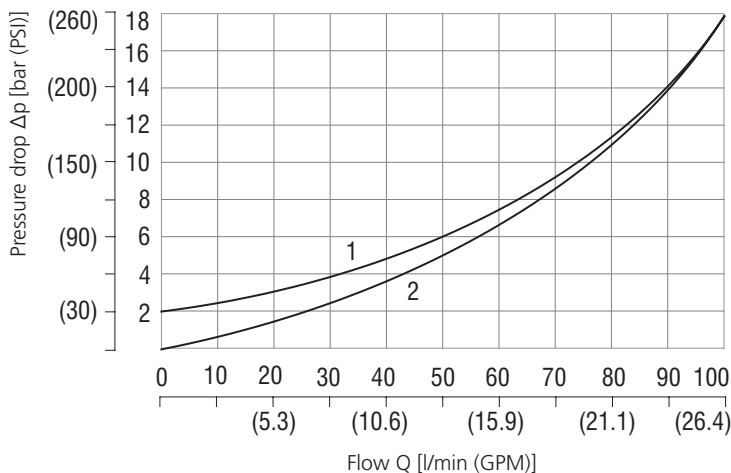
**Technical Data**

Valve size		10 (D 05)
Max. flow	l/min (GPM)	100 (26.4)
Max. operating pressure	bar (PSI)	320 (4640)
Cracking pressure	bar (PSI)	2 (29)
Fluid temperature range (NBR)	°C (°F)	-30 .... +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 .... +120 (-4 ... +248)
Pilot ratio		5.67:1      8.16:1
Mass	kg (lbs)	3 (6.61)

	Datasheet	Type
General information	GI_0060	Products and operating conditions
Mounting interface / tolerances	SMT_0019	Size 10
Spare parts	SP_8010	

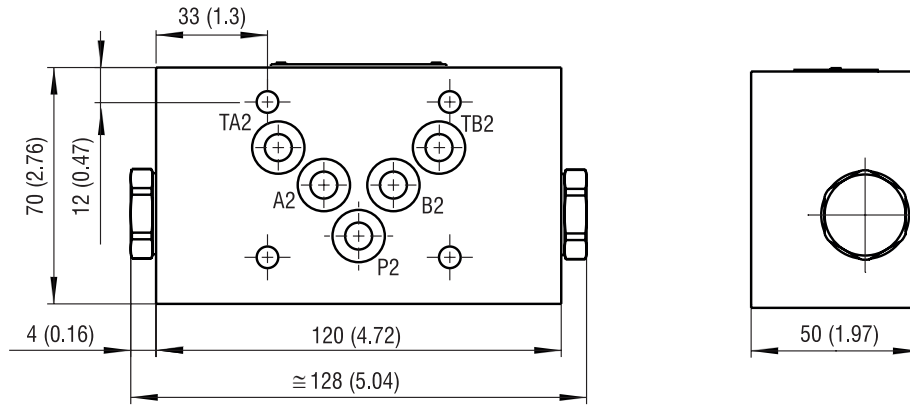
**Characteristics** measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

**Pressure drop related to flow rate**



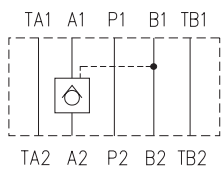
	Flow direction
1	A1→A2 (B1→B2)
2	A2→A1 (B2→B1)

**Dimensions** in millimeters (inches)

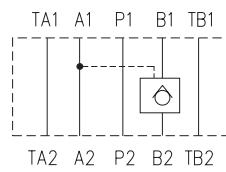


**Functional symbols**

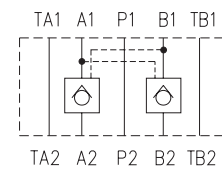
**VJR2-10/MA**



**VJR2-10/MB**



**VJR2-10/MC**



① valve side

② subplate or manifold side

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

**Ordering Code**

**VJR2-10 / M**   -   -

Check valve, pilot to open, poppet-type, modular

Valve size

Modular sandwich plate design

**Functional symbols**

check valve in line A  
check valve in line B  
check valve in line A and B

A  
B  
C

**Pilot ratio**

5.67:1  
8.16:1

6  
8

**No designation**

A  
B

**Surface treatment**

body phosphated, steel parts  
zinc-coated (ZnCr-3), ISO9227 (240 h)  
zinc-coated (ZnCr-3), ISO 9227 (240 h)  
zinc-coated (ZnNi), ISO 9227 (520 h)

**No designation**

V

**Seals**

NBR  
FPM (Viton)

**Cracking pressure**

2.0 bar (29 PSI)

020