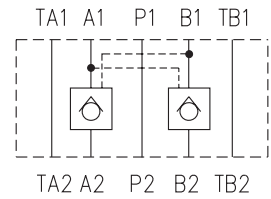


- Pilot operated check valve sandwich plate for use in stacking assemblies
- 3 models
  - double valve with check valves in lines A and B
  - single valve with check valve in line A
  - single valve with check valve in line B
- Installation dimensions to SO 4401  
CETOP - RP 121H and NFPA T3.5.1 - D 02



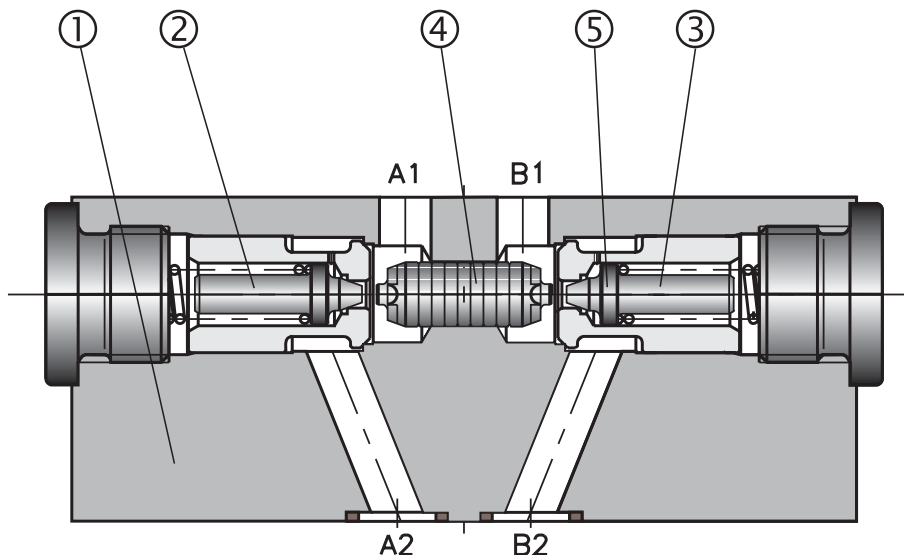
## Functional Description

A pilot operated check valve closes tightly the hydraulic circuit between the valve and the actuator. The valve consists of the housing (1), one or two check valves (2), (3) and the pilot piston (4). The main poppets of the check valves are provided with pilot poppets (5) which enable opening the check valve under pressure. When fluid flows from A1 to A2 it opens the check valve (2) and at the same time shifts the pilot piston (4) which opens by means of the pilot poppet (5) the check valve (3). When the pressure in channels A1 and B1 drops, the

springs push the poppets onto the seats and the circuit between the check valve and the actuator is closed under pressure.

To ensure that the check valves close tightly, a directional valve with functional symbol Y is to be used, which connects in its middle position the ports A1 and B1 with tank T (see the typical circuit diagram).

The valve housing (1) is phosphate coated, the surfaces of the other parts are zinc coated.



# Ordering Code

**VJR2-10/M**

**Pilot Operated Check Valve  
Sandwich Plate**

no designation  
V

**Seals**  
NBR  
Viton

**Valve size** **10 (D 05)**

**A**  
**B**  
**C**

**Functional Symbols**

Check valve in line A\*

Check valve in line B\*

Check valves in lines A and B\*

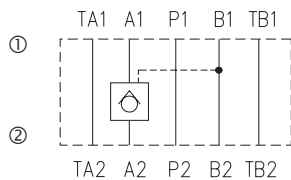
\* see the table Functional symbols

**Modular design**

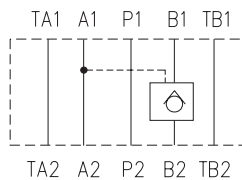
# Functional Symbols

**Arrangement of the check valves in the valve body**

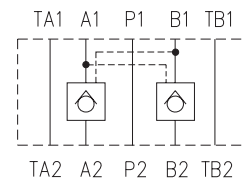
VJR2-10/MA



VJR2-10/MB



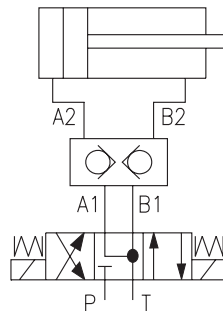
VJR2-10/MC



① valve side

② subplate side

**Typical circuit with pilot operated check valve**



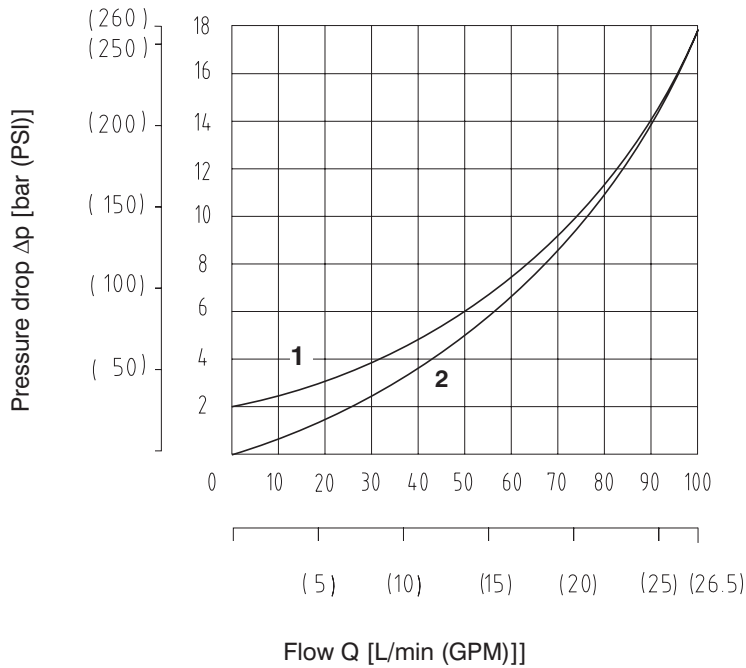
# Technical Data

Valve size	mm (US)	10 (D 05)
Maximum flow	L/min (GPM)	100(26.42 )
Maximum operating pressure	bar (PSI)	350 (5076)
Cracking pressure	bar (PSI)	2 (29)
Hydraulic fluid	Hydraulic oils of power classes (HL, HLP) to DIN 51524	
Fluid temperature range (NBR)	°C (°F )	-30...+100 (-22 ... +212)
Fluid temperature range (Viton)	°C (°F )	-20...+120 (-4 ... +248)
Viscosity range	mm <sup>2</sup> /s (SUS)	20...400 (98 ... 1840)
Maximum degree of fluid contamination	Class 21/18/15 to ISO 4406	
Area ration (pilot piston / seat)	5,6 : 1	
Mounting position	unrestricted	
Weight	kg (lbs)	3 (6.61)

# Δp-Q Characteristics

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

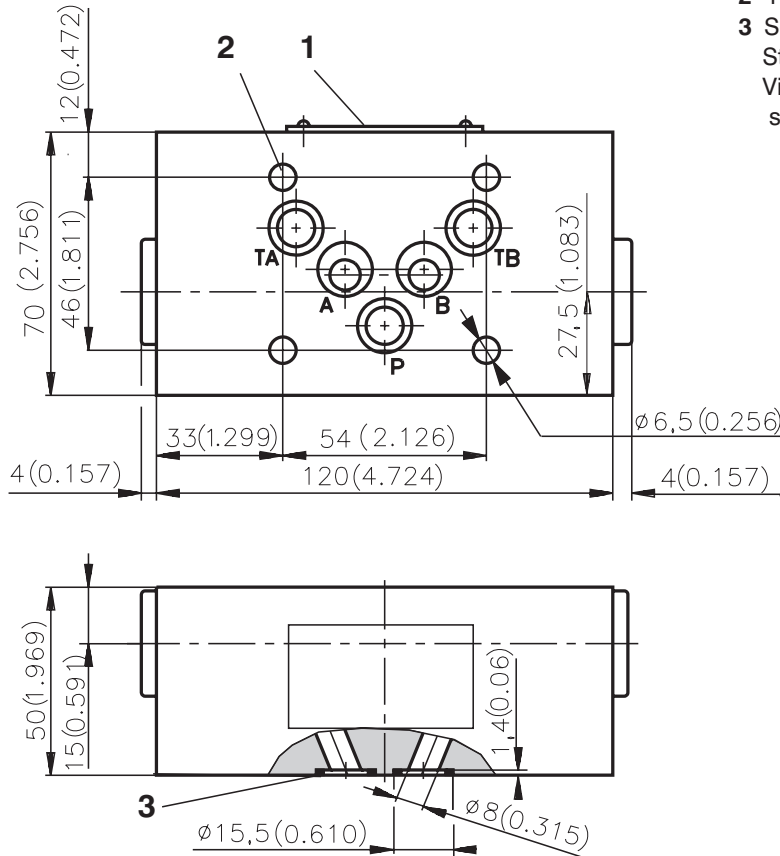
Pressure drop  $\Delta p$  related to flow rate.



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

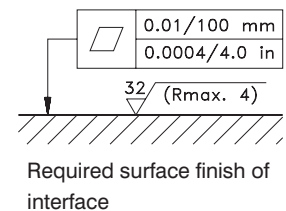
# Valve Dimensions

Dimensions in millimeters and inches



Dimensions in millimeters:

- 1 Name plate
- 2 4 mounting holes
- 3 Seal ring (5 pcs.):  
Standard (NBR) - ring NBR 70 12.42 x 1.68  
Viton (FPM) - ring 12.42 x 1.78  
supplied with valve



**Spare Parts**

Dimensions in millimeters

**Seal kit**

Type	Dimensions, quantity		Ordering number
	O-ring	Square ring	
Standard NBR70	-	12.42x1.68 (5 pcs.)	15991600
Viton	12.42x1.68 (5 pcs.)	-	22943800

**Caution!**

- The plastic packaging is recyclable.
- Mounting studs must be ordered separately. For stud kits see HU 0040.
- Certified documents are available per request.

ARGO-HYTOS s.r.o. CZ - 543 15 Vrchlaví  
 Tel.: +420-499-403111, Fax: +420-499-403421  
 E-mail: sales.cz@argo-hytos.com  
 www.argo-hytos.com