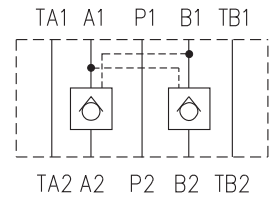


- Pilot operated check valve sandwich plate for use in stacking assemblies
- 3 models
 - double valve with check valves in lines A and B
 - single valve with check valve in line A
 - single valve with check valve in line B
- Installation dimensions to ISO 4401-05-04-0-94 and DIN 24 340-A10



Functional Description

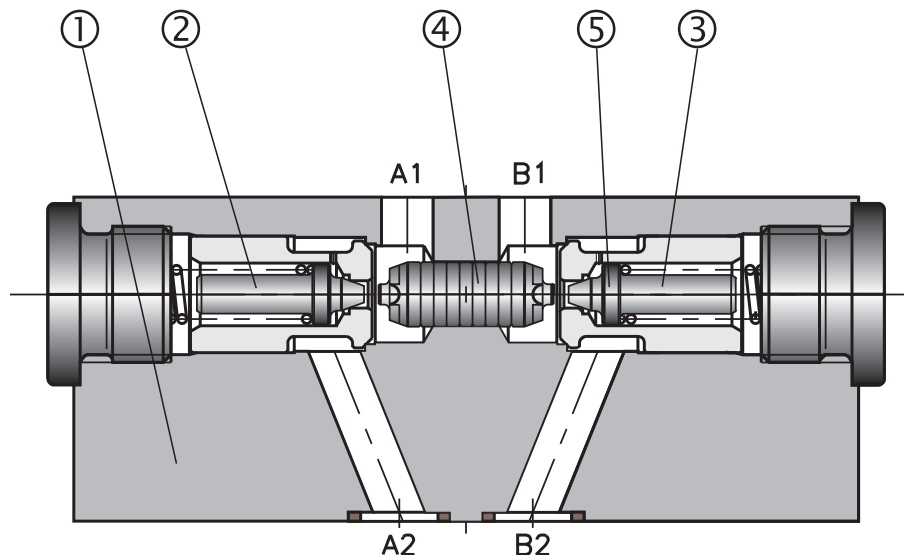
A pilot operated check valve closes tightly the hydraulic circuit between the valve and the actuator. The valve consists of the housing (1), one or two check valves (2), (3) and the pilot piston (4). The main poppets of the check valves are provided with pilot poppets (5) which enable opening the check 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

Nominal size

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

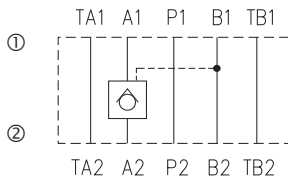
Modular design

**FOR PREFERRED TYPES SEE BOLD TYPING IN ORDERING CODE
AND TABLE OF PREFERRED TYPES ON PAGE 4**

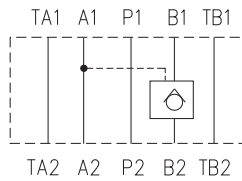
Functional Symbols

Arrangement of the check valves in the valve body

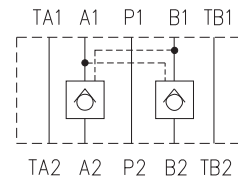
VJR2-10/MA



VJR2-10/MB

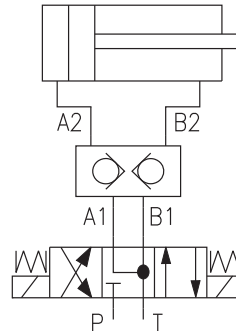


VJR2-10/MC



- ① valve side
- ② subplate side

Typical circuit with pilot operated check valve



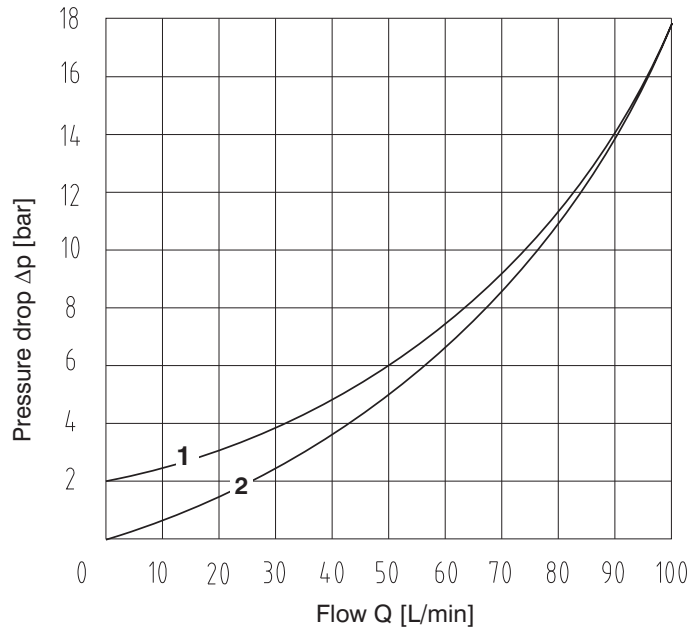
Technical Data

Nominal size	mm	10
Maximum flow	L/min	100
Maximum operating pressure	bar	350
Cracking pressure	bar	2
Hydraulic fluid	Hydraulic oils of power classes (HL, HLP) to DIN 51524	
Fluid temperature range (NBR)	°C	-30 ... +100
Fluid temperature range (Viton)	°C	-20 ... +120
Viscosity range	mm ² /s	20 ... 400
Maximum degree of fluid contamination	Class 21/18/15 to ISO 4406 (1999).	
Area ration (pilot piston / seat)	5.6 : 1	
Mounting position	optional	
Weight	kg	3

Δp-Q Characteristics

Measured at $v = 32 \text{ mm}^2/\text{s}$

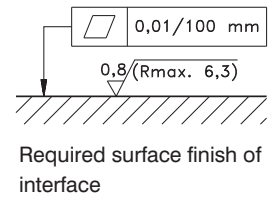
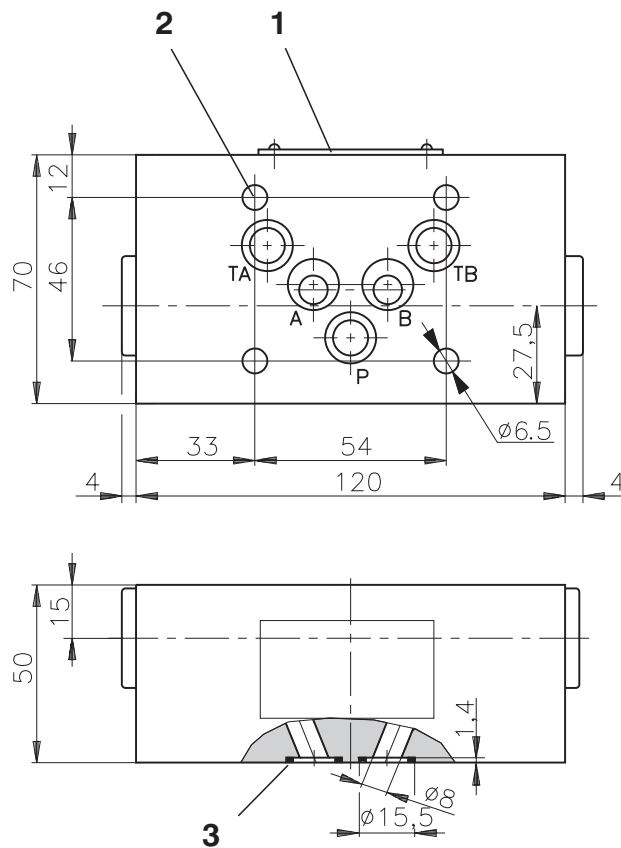
Pressure drop Δp related to flow rate.



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

Valve Dimensions

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

Seal kit

Type	Dimensions, quantity		Ordering number
	Square ring	O-ring	
Standard NBR 70	12.42 x 1.68 (5 pcs.)	-	535-0124
Viton	-	12.42 x 1.78 (5 pcs.)	535-0095

Preferred Types of Valves

Type	Ordering Number
VJR2-10/MC	535-0053

Caution!

- The packing foil is recyclable.
- The protective plate can be returned to manufacturer.
- Tightening torque of the screws is 15 Nm.
- The technical information regarding the product presented in this catalogue is for descriptive purposes only. It should not be construed in any case as a guaranteed representation of the product properties in the sense of the law.

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