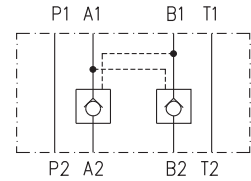


- Sandwich plate design for use in vertical stacking assemblies
- 3 models:
 - leakfree closure of both sides with check valves in lines A and B
 - leakfree closure with check valve in line A
 - leakfree closure in line B
- Installation dimensions according to ISO 4401 / DIN 24 340



Functional Description

A pilot operated check valve is used to provide leakfree closure of a hydraulic circuit under pressure. It protects the load against dropping should a line break occur and ensures a stable position of a hydraulic actuator under pressure, even during long idle periods.

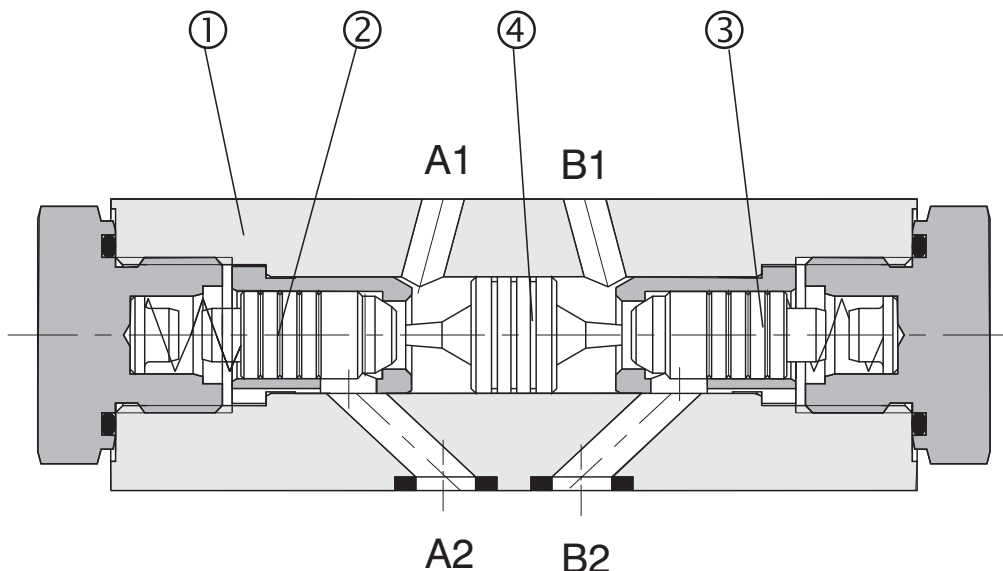
The valve basically consists of housing (1), one or two check valves (2), (3) and pilot piston (4).

When fluid flows from A1 (B1) to A2 (B2) it opens the check valve (2), (3) and at the same time shifts the pilot piston (4) to the right (left), thus opening the way B2→B1 (A2→A1). When the pressure drops (e.g. after shifting

the directional valve into its middle position), the springs push the balls onto the seats and the circuit between the check valve and the actuator is closed under pressure.

To ensure that the ball valves seat properly and that they perfectly close ports A2 and B2, a directional valve with functional symbol Y is to be used, which connects in its neutral position both sides of the pilot piston (4) with tank.

The valve housing surface is phosphated, the surfaces of the other parts are zinc coated.



Ordering Code

VJR1-04/M

**Pilot Operated Check Valve
Sandwich Plate**

no designation
V

Seals
(NBR)
FPM (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

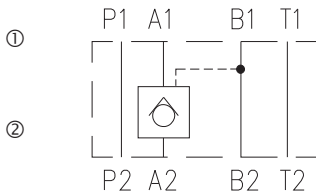
Modular design

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

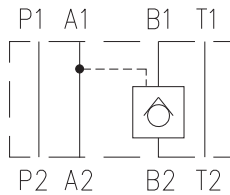
Functional Symbols

Arrangement of the check valves in the valve body

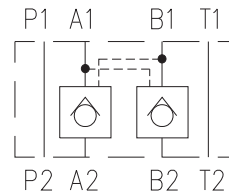
VJR1-04/MA



VJR1-04/MB

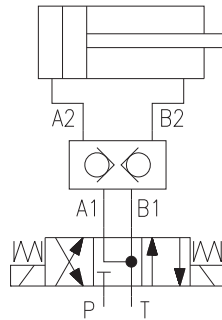


VJR1-04/MC



- ① valve side
- ② subplate side

Typical circuit with pilot operated check valve



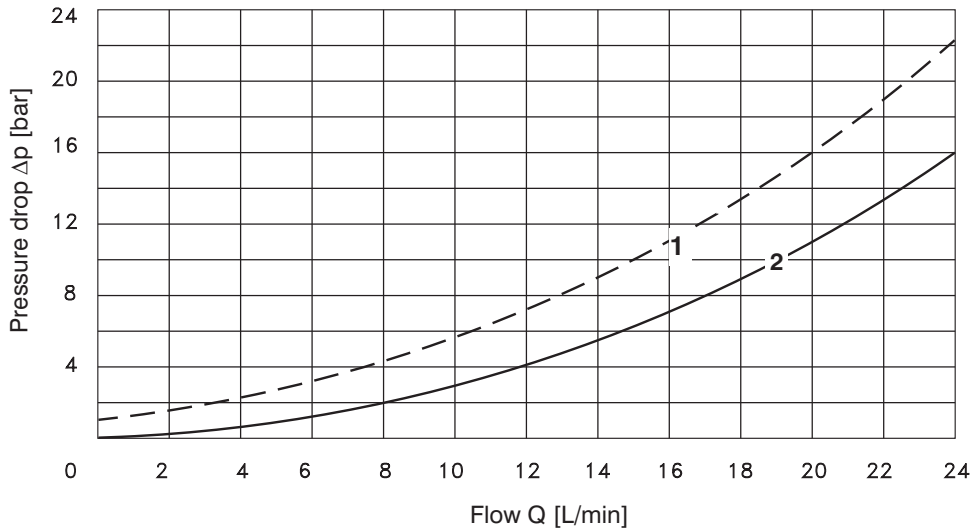
Technical Data

Nominal size	mm	04
Maximum flow	L/min	20
Maximum operating pressure	bar	320
Cracking pressure	bar	1
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 ratio (pilot piston / poppet)	3 : 1	
Mounting position	optional	
Weight	kg	0.7

Δp-Q Characteristics

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

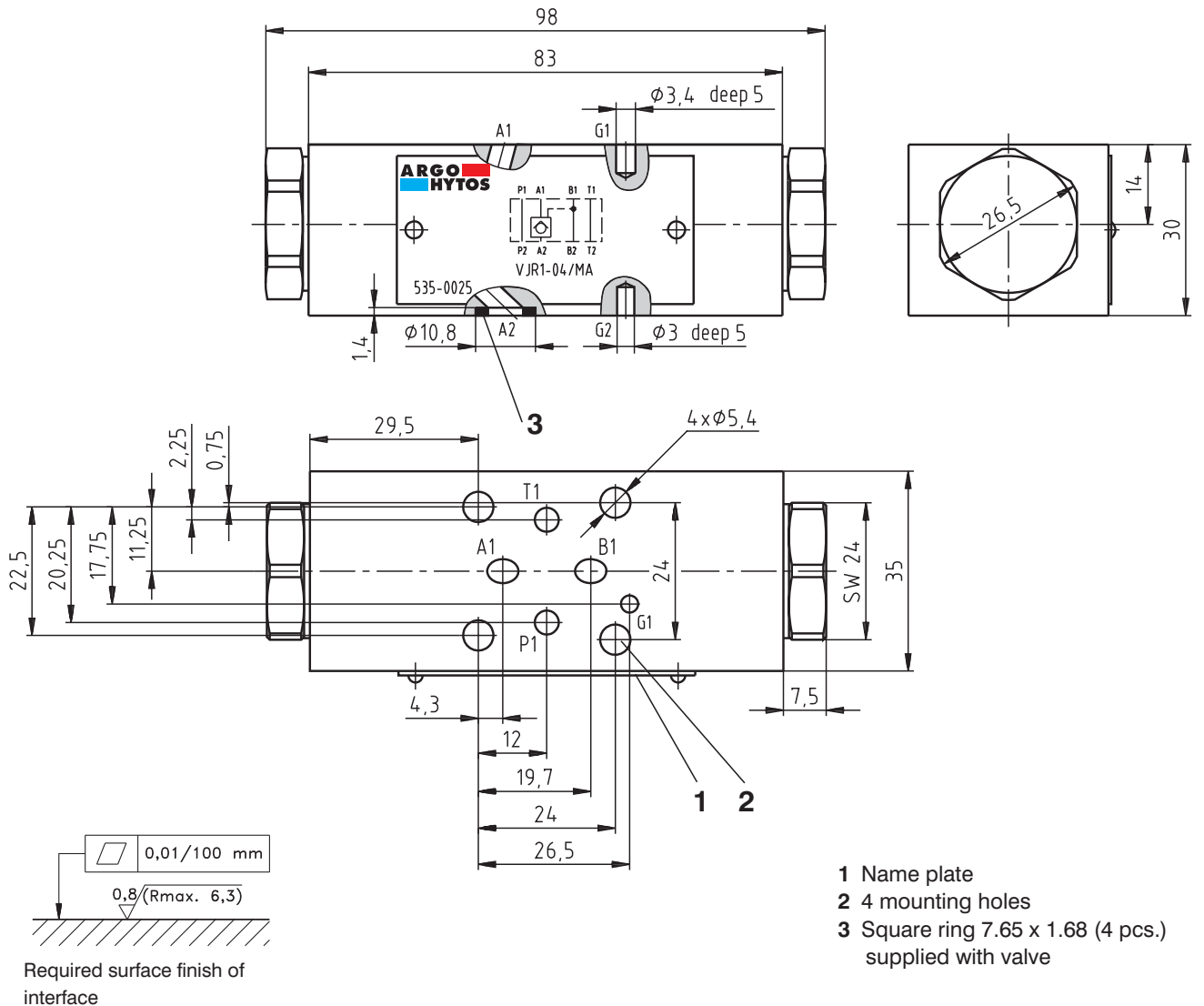
Pressure drop Δp related to flow rate.



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

Valve Dimensions

Dimensions in millimeters



Spare Parts

Seal kit

Type	Dimensions, quantity		Ordering number
	Square ring	O-ring	
Standard NBR70	7.65 x 1.68 (4 pcs.)	17 x 1.8 (2 pcs.)	535-0098
Viton	-	7.65 x 1.78 (4 pcs.)	535-0123
		17.17 x 1.78 (2 pcs.)	

Preferred Types of Valves

Type	Ordering Number
VJR1-04/MC	535-0024

Caution!

- The packing foil is recyclable.
- The transport plate is to be returned to the supplier.
- Mounting bolts M5 x 55 DIN 912-10.9 or studs must be ordered separately.
Tightening torque is 5 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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