

# Modular Check Valve

Model: Z1S6...3XJ



01

- ◆ Size 6
- ◆ Maximum working pressure 315 bar
- ◆ Maximum working flow 40 L/min

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## Features

- Modular type valve
- For vertical stacking installation

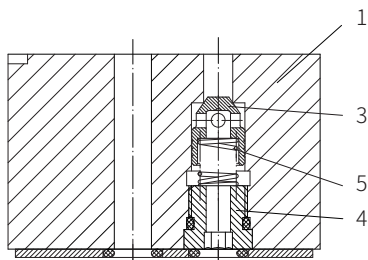
## Functional description, sectional drawing

The Z1S6 type valve is a direct operated check valve with a modular structure. This check valve is closed without leakage in one direction and allows free flow in the other direction.

The stroke of the conical spool (3) is limited by the spring seat (4). The spring (5) causes the conical spool (3) to close. When there is no fluid flows through the valve, the spring (5) holds the conical spool (3) in the closed position.

Model Z1S6...3X/V (metal-sealed)

This valve has a metallic seal between the conical spool (3) and the valve body (1). Therefore, it is particularly suitable for condition of working pressure higher than 100bar and the flow rate greater than 4m/s.



型号 Z1S6D...-3XJ/

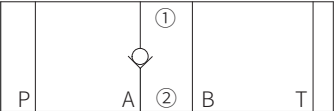
## Models and specifications

|                                                               | Z1S  | 6  |  | -3X | J |  | * |                                                              |
|---------------------------------------------------------------|------|----|--|-----|---|--|---|--------------------------------------------------------------|
| modular check valve                                           | =Z1S |    |  |     |   |  |   | more information in text                                     |
| size 6                                                        |      | =6 |  |     |   |  |   | sealing material                                             |
| oil port A leakage-free blocking in (A1→A2)                   | =A   |    |  |     |   |  |   | No code= NBR seals                                           |
| oil port B leakage-free blocking in (B1→B2)                   | =B   |    |  |     |   |  |   | V= FKM seals                                                 |
| oil port A leakage-free blocking in (A2→A1)                   | =C   |    |  |     |   |  |   | (consult for other seals)                                    |
| oil port B leakage-free blocking in (B2→B1)                   | =D   |    |  |     |   |  |   | J= Rekith                                                    |
| oil port A and B leakage-free blocking in (A2→A1) and (B2→B1) | =E   |    |  |     |   |  |   | 3X= 30 to 39 series                                          |
| oil port P and T leakage-free blocking in (P1→P2) and (T2→T1) | =F   |    |  |     |   |  |   | (30 to 39 series installation and connection size unchanged) |
| oil port P leakage-free blocking in (P1→P2)                   | =P   |    |  |     |   |  |   |                                                              |
| oil port T leakage-free blocking in (T2→T1)                   | =T   |    |  |     |   |  |   |                                                              |
| cracking pressure 0.5bar                                      |      | =1 |  |     |   |  |   |                                                              |
| cracking pressure 3.0bar                                      |      | =2 |  |     |   |  |   |                                                              |
| cracking pressure 5.0bar                                      |      | =3 |  |     |   |  |   |                                                              |

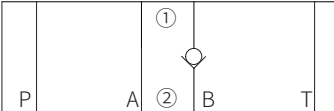
Functional symbols

(①= Valve side, ②= Subplate side)t

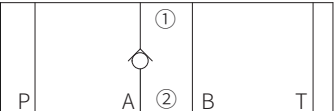
Model Z1S6A



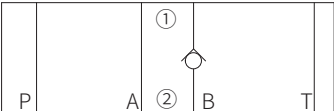
Model Z1S6B



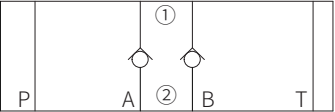
Model Z1S6C



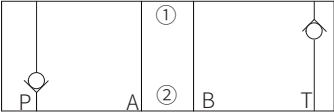
Model Z1S6D



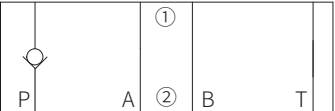
Model Z1S6E



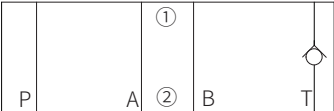
Model Z1S6F



Model Z1S6P



Model Z1S6T



## Technical Parameters

|                                  |                                                                                                                                                                                                                                                      |            |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Overview                         |                                                                                                                                                                                                                                                      |            |
| Weight                           | kg                                                                                                                                                                                                                                                   | 0.8        |
| Installation position            | Optional                                                                                                                                                                                                                                             |            |
| Environment temperature range°C  | -20 to +80                                                                                                                                                                                                                                           |            |
| Hydraulic                        |                                                                                                                                                                                                                                                      |            |
| Maximum working pressure         | bar                                                                                                                                                                                                                                                  | 315        |
| Cracking pressure -Metal-sealed  | 0.5; 3; 5                                                                                                                                                                                                                                            |            |
| Maximum flow                     | L/min                                                                                                                                                                                                                                                | 40         |
| Flow rate                        | m/s                                                                                                                                                                                                                                                  | >4         |
| Pressure medium                  | Mineral oil (HL, HLP) <sup>1)</sup> in accordance with DIN 51524;<br>Fast living organisms degraded oil according to VDMA 24568; HETG (Rapeseed oil) <sup>1)</sup> ; HEPG(Polyethyleneglycol) <sup>2)</sup> ;<br>HEES (Synthetic Fats) <sup>2)</sup> |            |
| Oil temperature range            | °C                                                                                                                                                                                                                                                   | -20 to +80 |
| Viscosity range                  | mm²/s                                                                                                                                                                                                                                                | 2.8 to 500 |
| Cleanliness of oil <sup>3)</sup> | The maximum allowable pollution level of oil is ISO4406 Class 20/18/15                                                                                                                                                                               |            |

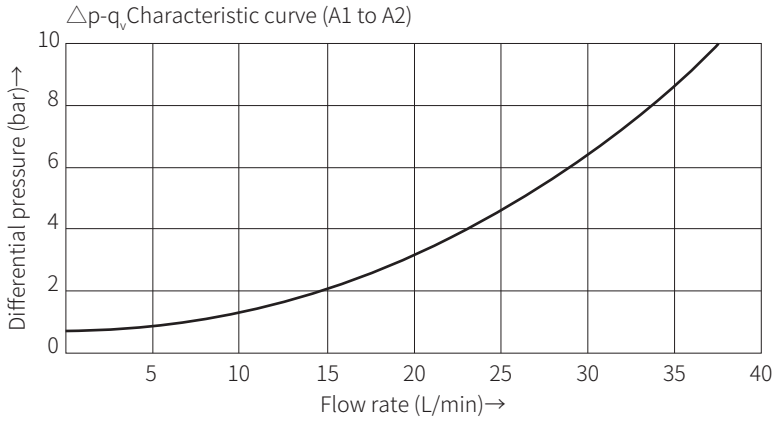
1) For NBR seal and FKM seal.

2) Only for FKM seal.

3) The oil must meet the cleanliness degree requested by the components in the hydraulic system.  
Effective oil filtration can prevent failure and increase the service life of the components.

## Characteristic curve

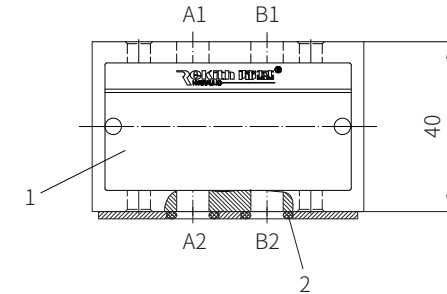
(Measured when using HLP46,  $\vartheta_{oil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ )



## Component size

Size unit: mm

Model Z1S6...-3XJ/...



- 1 Name plate
- 2 O-ring 9.25x1.78
- 3 The top surface with R groove

Valve fixing screw  
M5-10.9 grade GB/T70.1-2000  
Tightening torque  $M_A=7.8\text{Nm}$

