



1.13

# Check valve pilot operated

## Type Z2S 16...L5X

Size 16  
Up to 315 bar  
Up to 300 L/min



### Contents

Function and configuration	02
Symbols	02
Ordering code	03
Technical data	03
Characteristic curves	03
Unit dimensions	04

### Features

- Porting pattern to DIN 24 340
- Leakage-free closure for one or two ports
- Sandwich plate valve,  
for use in vertical stacking assemblies
- 4 cracking pressures, optional

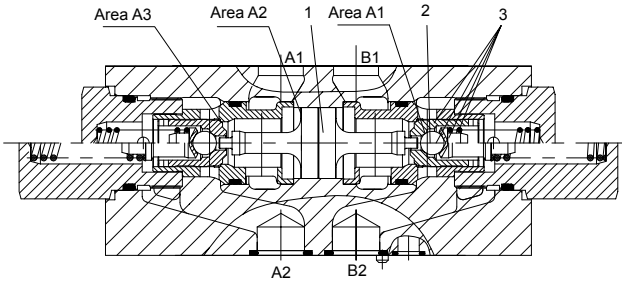
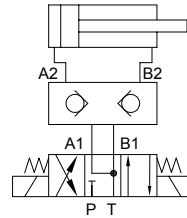
## Function and configuration

Hydraulic pilot operated check valves type Z2S16 are sandwich plate design. They are used for the leakage-free closure of one or two service ports, even for long periods of time. Free flow occurs from A1 to A2 or B1 to B2. Flow in the opposite direction is blocked.

When fluid flows from A1 to A2, the spool (1) is pressurised and is pushed to the right, thereby opening the ball poppet valve (2) which then opens the check valve (3).

In order to make reliable closure of the two check valves in the neutral position, the service ports A1 and B1 of the directional valve must be connected to returning line.

### Circuit example

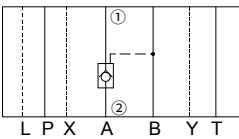


**Z2S16..L5X/...check valve, hydraulic pilot operated**

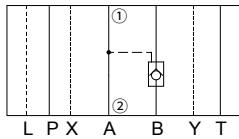
- 1 Spool
- 2 Ball poppet valve
- 3 Check valve

## Symbols ( ① =valve side, ② = sub-plate side)

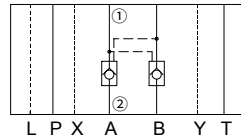
**Z2S16A..L5X/...**



**Z2S16B..L5X/...**



**Z2S16..L5X/...**



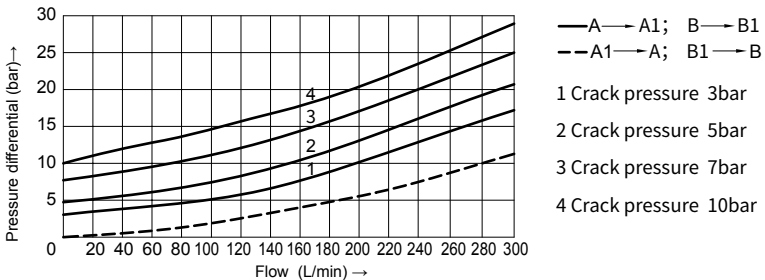
## Ordering code

	Z2S	16		-	L5X	/	*
Check valve, hydraulic pilot operated	Further details in clear text						
Size 16	No code = NBR seals V = FKM seals						
Leak-free closure in channels A and B = -	L5X= Series L50 to L59 (L50 to L59: unchanged installation and connection dimensions)						
Leak-free closure in channel A = A	1 = Crack pressure 3bar						
Leak-free closure in channel B = B	2 = Crack pressure 5bar						
	3 = Crack pressure 7.5bar						
	4 = Crack pressure 10bar						

## Technical data

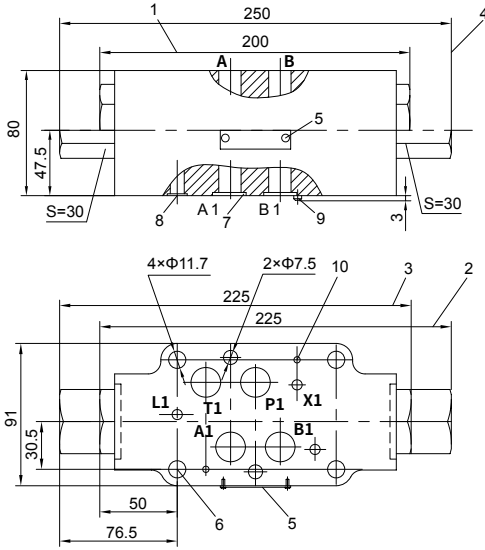
Fluid	Mineral oil suitable for NBR and FKM seal Phosphate ester for FKM seal
Degree of contamination	Maximum permissible degree of fluid contamination: Class 9. NAS 1638 or 20/18/15, ISO4406
Fluid temperature range	°C -30 to +80 (NBR seal) -20 to +80 (FKM seal)
Viscosity range	mm <sup>2</sup> /s 2.8 to 500
Operating pressure	bar 315
Max.flow-rate	L/min 300
Flow direction	See symbols
Crack pressure(free flow direction)	bar 3, 5, 7.5, 10
Area ratio	A1/A2=1/11.8 A3/A2=1/2.8 (Please refer to page "02/04" for section drawing )
Weight	kg 6.8

## Characteristic curves ( Measured at $\vartheta_{oil}=40^{\circ}C \pm 5^{\circ}C$ , using HLP46)



# Unit dimensions

(Dimensions in mm)



- 1 Valve with version 1 or 2 cracking pressure, check valve in port A and/or port B
- 2 Valve with version 3 or 4 cracking pressure, check valve in port B.
- 3 Valve with version 3 or 4 cracking pressure, check valve in port A.
- 4 Valve with version 3 or 4 cracking pressure, check valve in port A and B
- 5 Name plate
- 6 Mounting holes
- 7 O-rings  
22×2.5 for ports A, B, P, T
- 8 O-rings  
10×2 for ports X, Y, L
- 9 Locating pin
- 10 Locating holes

### Valve mounting screws:

Internal hexagon screw

4-M10 GB/T 70.1-2000

Tightening torque

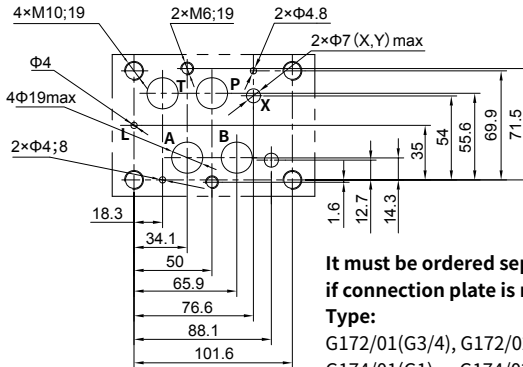
$M_t=75$  Nm

2-M6 GB/T 70.1-2000

Tightening torque

$M_t=15.5$  Nm

must be ordered separately



**It must be ordered separately if connection plate is needed.**

**Type:**

G172/01(G3/4), G172/02 (M27×2)

G174/01(G1), G174/02(M33×2)

