THROTTLE / CHECK VALVE TYPE Z2FS16

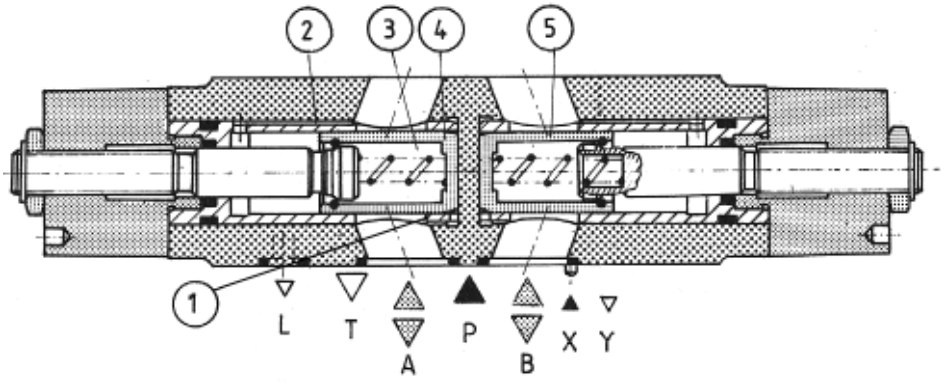
Size 16	up to 31.5 MPa	

WK 450 235

04.1999r.

Double throttle/check valves serve to control the main flow or pilot flow rate in one direction and give free flow in the opposite direction.
Valve type Z2FS16 is a double throttle/check adopted for vertical stack mounting (sandwich plate design).
Two symmetrically fitted in one block throttle/check valves limit the flow rate in one direction by means of an adjustable throttle pin and allow free flow through the check valve in the opposite direction.
The valve Z2FS16 is generally mounted between a subplate and direct operated directional valve of corresponding size and serves here to limit the main flow rate (to influence the speed of a user).

DESCRIPTION OF OPERATION



Hydraulic fluid in line A flows to a user through the throttle position 1. At the same time, the fluid being under operating pressure reaches the spring loaded side 3 of the spool 4 via the line 2. The spool 4 is thus hold in the throttle position by both spring and pressure force.

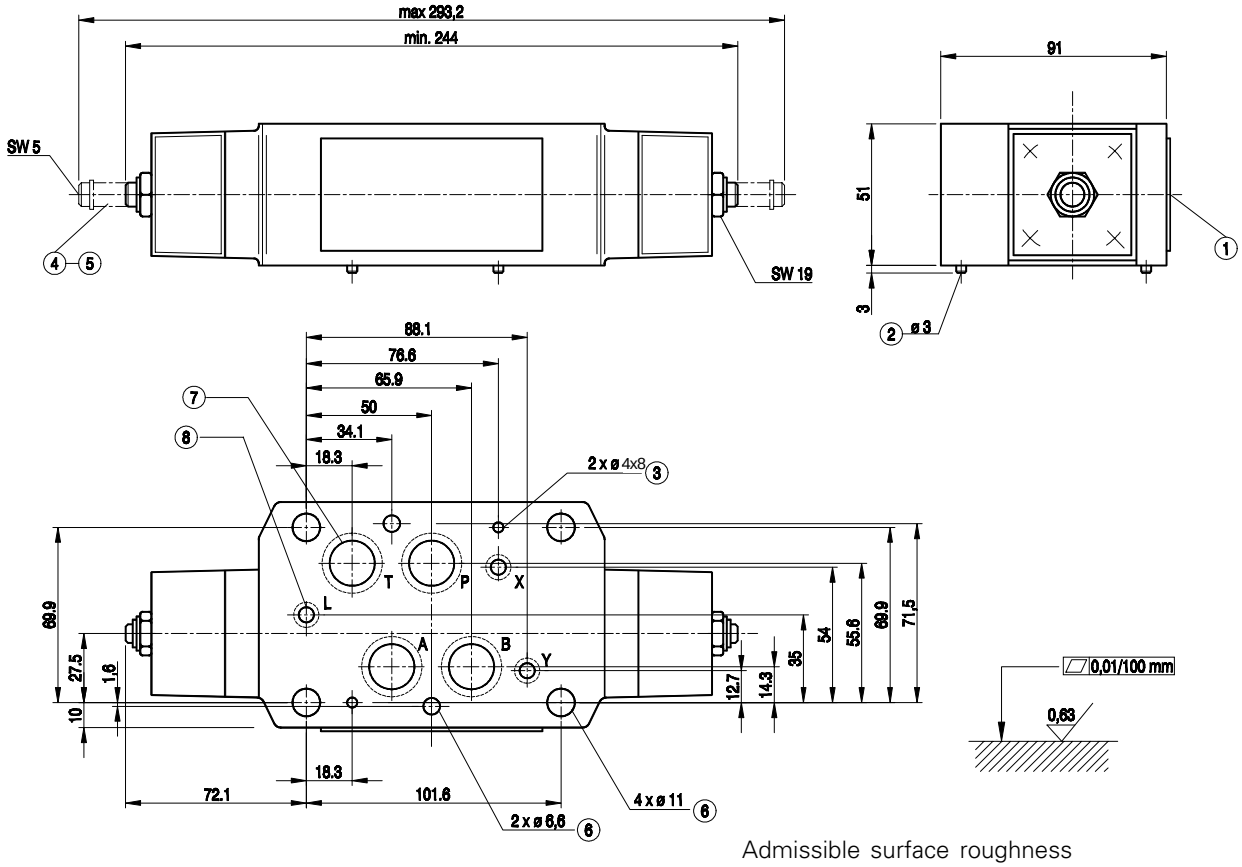
Fluid returning from the user shifts the spool 5 to the right and permits the fluid to flow freely through the valve cartridge now acting as a check valve.

TECHNICAL DATA

Hydraulic fluid	Mineral oil or phosphate ester
Nominal fluid viscosity	37 mm^2/s at the temperature of 328 K
Viscosity range	2.8 to 380 mm^2/s
Optimum working temperature (fluid in a tank)	313 - 328 K
Fluid temperature range	243 - 343 K
Filtration	up to 16 µm
Maximum operating pressure	31.5 MPa

OVERALL DIMENSIONS

Weight - 4.7 kg

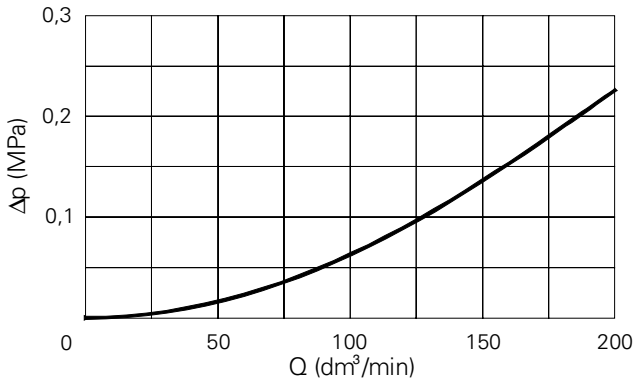


Admissible surface roughness
and flatness deviation for a subplate face.

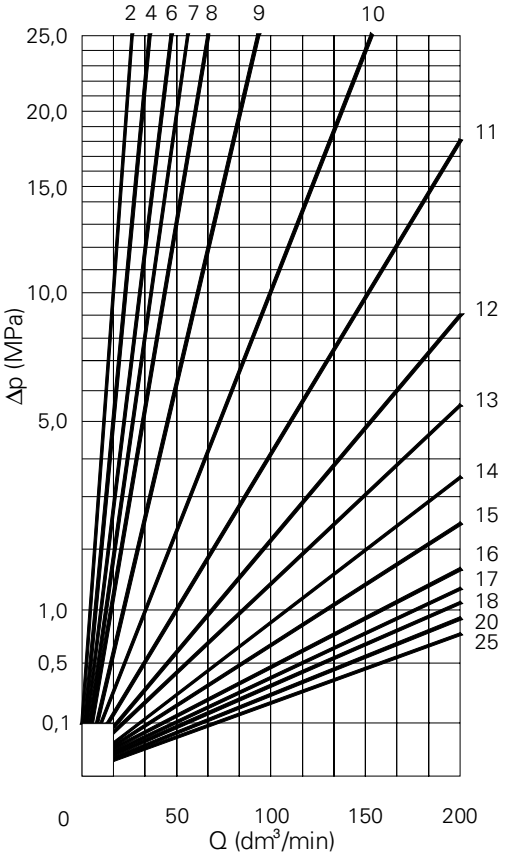
1 - Name plate with scale
2 - Two locating pins
3 - Two holes for locating pins
4 - Set screw to change flow section
5 - Rotation to the left - decreasing switching time
Rotation to the right - increasing switching time
6 - Six holes for valve mounting
7 - O-rings -22.3 × 2.4 - 4 pcs
8 - O-rings -10 × 2 - 3 pcs

PERFORMANCE CURVES, measured at ν = 41 mm²/s and T = 323 K

Pressure drop Δ p in relation to flow rate Q over check/throttle valve



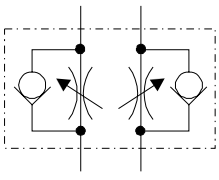
Pressure drop Δ p in relation to flow rate Q with constant throttling



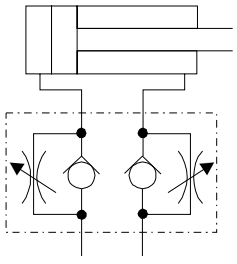
SCHEMES

Graphical symbols and the examples of application of the valve with throttling in the supply and drain

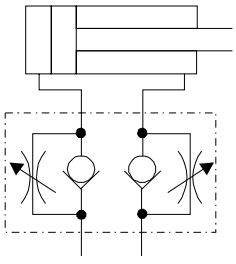
Graphical symbol



Throttling in supply

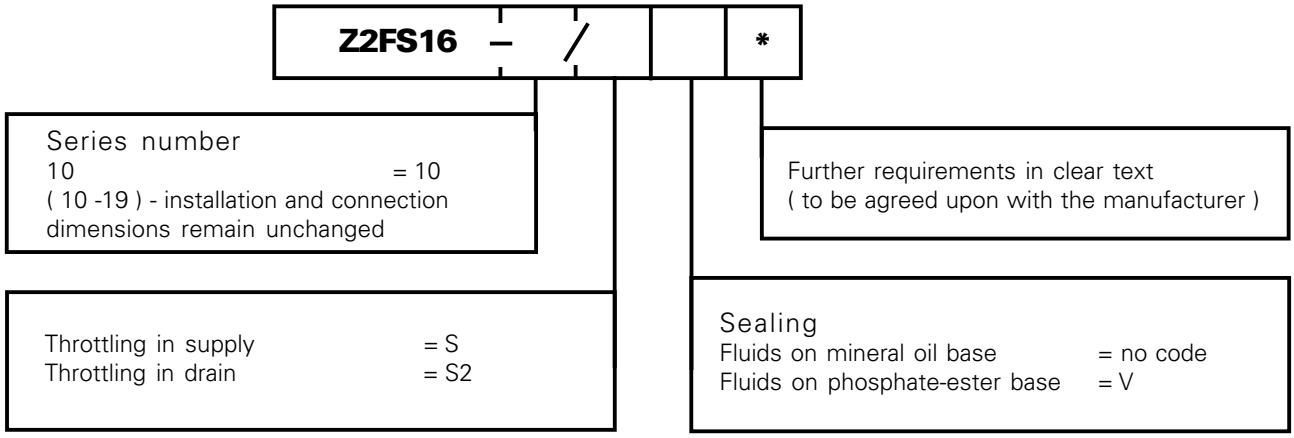


Throttling in drain



HOW TO ORDER

Orders coded in the way showed below should be forwarded to the manufacturer.



Coding example : Z2FS16-10/S2

NOTES :

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