

APPLICATION

Mini throttle check valves type **ZFSG3**... are used to set flow rate of hydraulic oil in one direction and also to allow (open) free flow in the opposite direction.

The valves type **ZFSG3**... can be used in hydraulic systems with constant operating resistance or where change in flow speed is of no importance when the load is changed. Flow rate depends on temperature and differences in pressure at throttling point.

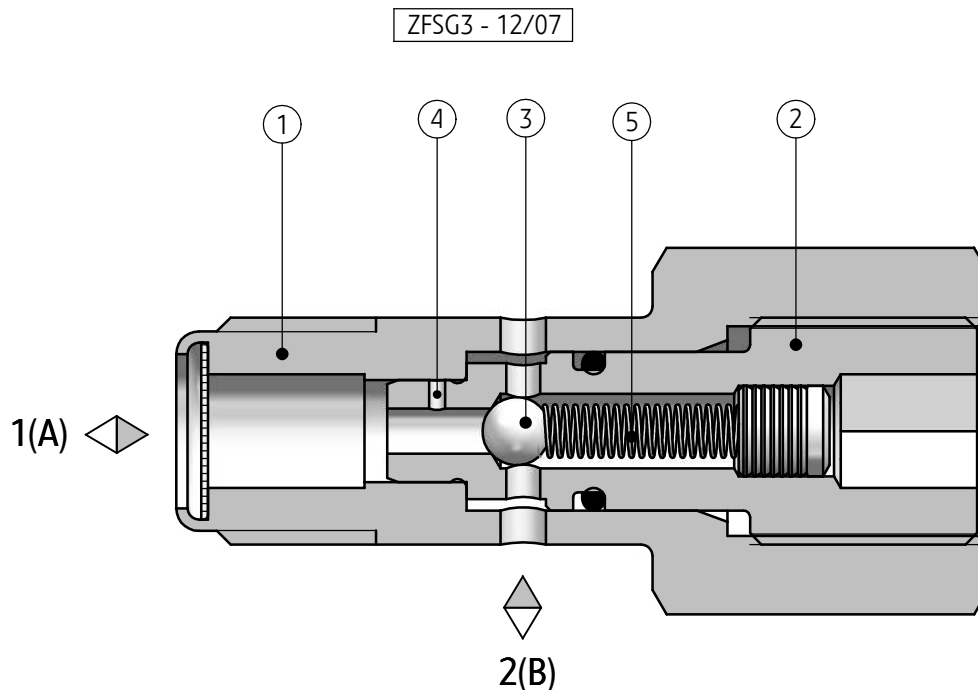
The valves type **ZFSG3**... are intended to be mounted into eyelet end connections of hydraulic hoses.



DESCRIPTION OF OPERATION

The fluid (oil) under pressure is provided into throttling hole (4) by means of side holes in the housing (1). Free flow is blocked (closed) by check valve composed of the ball (3). The ball is pushed to the cavity in the housing (1) via the spring (5). The flow is throttled via the hole (4) between the

housing (1) and screw plug (2). When the fluid flows in the opposite direction the oil pushes the ball from seat in the housing (1). When the spring force is overcome, then the fluid flows freely through the valve.

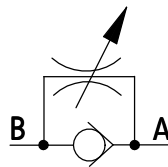


TECHNICAL DATA

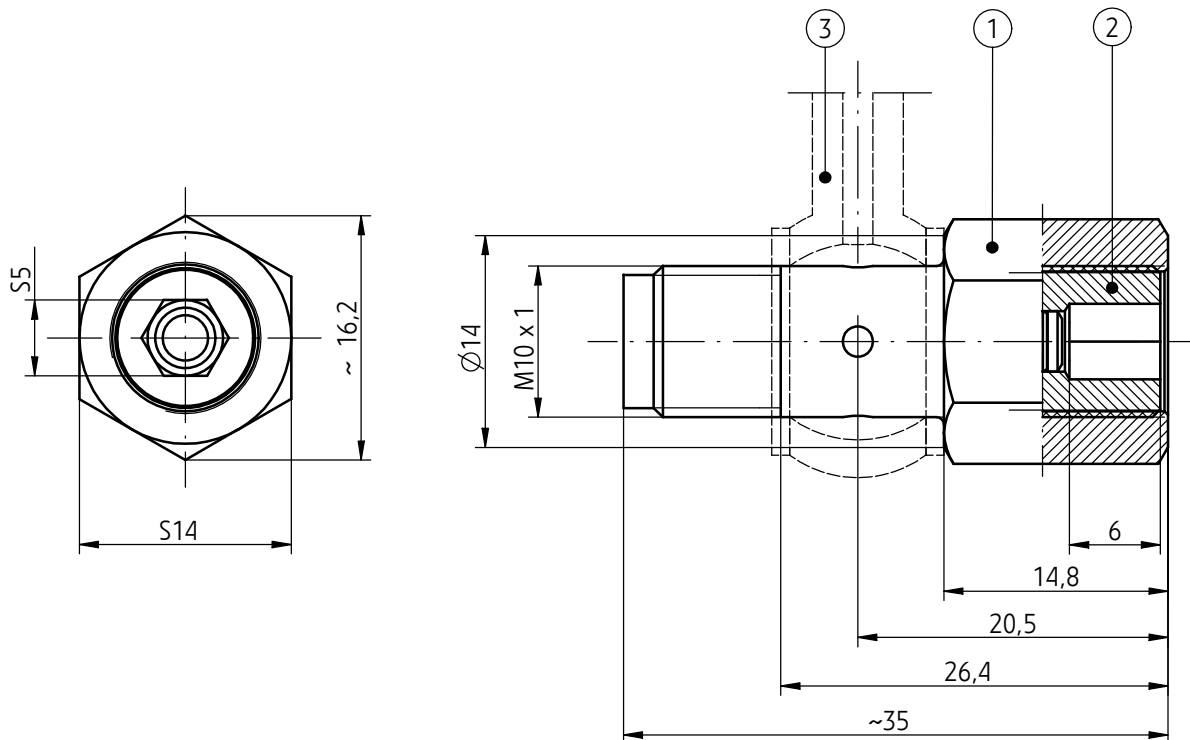
Hydraulic fluid	mineral oil	
Required filtration	up to 16 µm	
Recommended filtration	up to 10 µm	
Nominal fluid viscosity	37 mm ² /s at temperature 55 °C	
Viscosity range	2,8 up to 380 mm ² /s	
Fluid temperature range (in a tank)	recommended	40°C up to 55°C
	max	-20°C up to +70°C
Ambient temperature range	- 20°C up to +70°C	
Maximum operating pressure	21 MPa	
Maximum leakage rate from 2(B) to 1(A)	20 cm³/min	

SCHEMES

Graphic symbol of the valve type ZFSG3



OVERALL AND CONNECTION DIMENSIONS



- 1 - Housing
- 2 - Screw plug
- 3 - Connection of the valve - end of hydraulic hose*
eyelet end type1 (M10 x 1)
- (*) - the hose should be ordered separately

HOW TO ORDER

ZFSG	3	+	/		*
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Nominal size (NS) NS3 = 3	
Series number (10-19) - connection and installation dimensions unchanged = 1X series 12 = 12	
Diameter of throttling hole Ø 0,7 mm = 07	
Sealing NBR (for fluids on mineral oil base) = no designation FPM (for fluids on phosphate ester base) = V	
Further requirements in clear text (to be agreed with the manufacturer)	

NOTES:

The valve should be ordered according to the above coding.

The symbols in bold are preferred versions in short delivery time.

Coding example: ZFSG3 -12/07

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