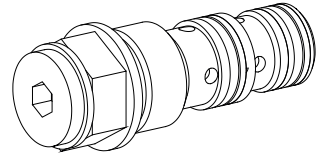


**Non-return valve
hydraulic pilot
Screw-in cartridge**

- $Q_{max} = 25 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$

M20x1,5
Wandfluh standard


DESCRIPTION

Hydraulic pilot operated check valve as a screw-in cartridge with a thread M20x1,5 for cavity in accordance with Wandfluh standard. The valve allows free flow in one direction (1→2) and blocks in the other direction (2→1), by means of a metal-to metal seal. The one-piece cartridge body is made from steel with oil blackened surface.

FUNCTION

In the free flow direction, the volume flow opens the seat cone against a spring. In the reverse direction, the spring holds the valve closed. If pressure builds up in connection x, this shifts the pilot control piston and opens the check valve. The required pilot control pressure is dependent on the pilot ratio.

APPLICATION

Pilot operated check valve are used to hold pressurised hydraulic cylinders, in for example lifting or tensioning devices, without any leakage. The hydraulic cylinder can only be moved into the closed direction if the valve has been opened via connection x. The directional valves required for cylinder control should have both service ports connected to the tank, to ensure operational safety when idle.

CONTENT

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TYPE CODE

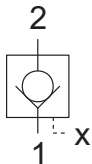
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Non-return valve piloted	
Design-Index (Subject to change)	

GENERAL SPECIFICATIONS

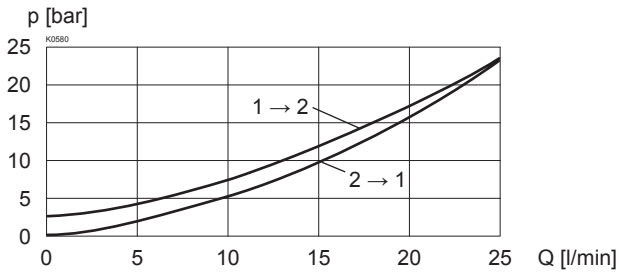
Description	Non-return valve hydraulic pilot
Construction	Screw-in cartridge for cavity according to Wandfluh standard
Mounting	Screw-in thread M20x1,5
Ambient temperature	-20...+50 °C
Mounting position	any
Fastening torque	$M_D = 40 \text{ Nm}$
Weight	$m = 0,09 \text{ kg}$

HYDRAULIC SPECIFICATIONS

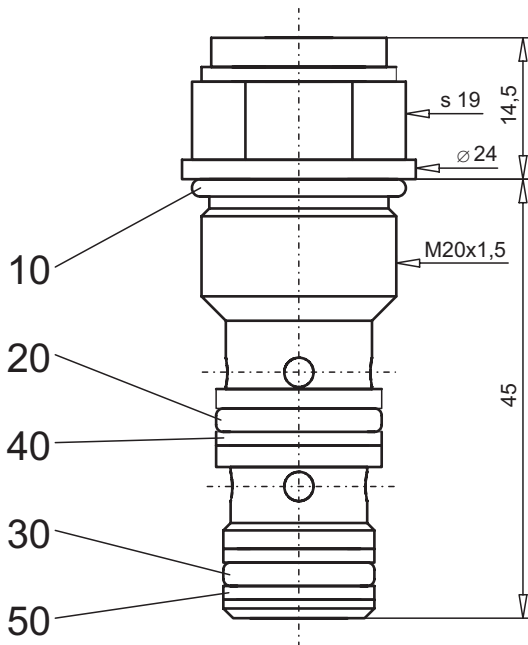
Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10...16} \geq 75$) refer to data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+70 °C
Peak pressure	$p_{max} = 350 \text{ bar}$
Opening pressure	$p_o = 2,3 \text{ bar}$
Pilot ratio	$i = 1:4$
Max. volume flow	$Q_{max} = 25 \text{ l/min}$

SYMBOL


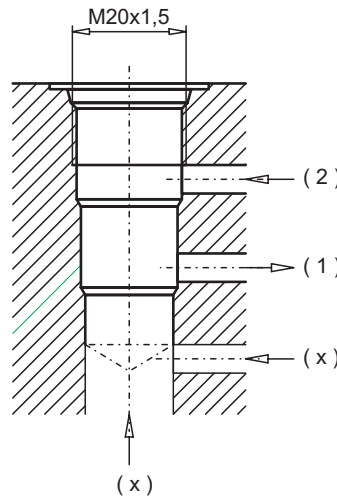
CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $\Delta p = f(Q)$ Pressure loss - volume flow - curve



DIMENSIONS



Cavity drawing to Wandfluh-Norm



For detailed cavity drawing see data sheet no. 2.13-1039.

PARTS LIST

Position	Article	Description
10	160.2170	O-ring ID 17,17x1,78
20	160.2120	O-ring ID 12,42x1,78
30	160.2120	O-ring ID 12,42x1,78
40	049.3176	Back-up ring RD 14,1x17x1,4
50	049.3157	Back-up ring RD 12,6x15,5x1,4

Technical explanation see data sheet 1.0-100