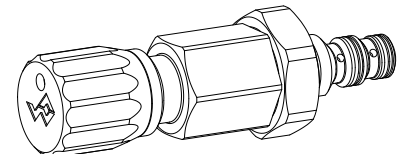


Pressure reducing valve
Screw-in cartridge

- Direct operated
- $Q_{max} = 6 \text{ l/min}$
- $p_{max} = 210 \text{ bar (350 bar)}$
- $p_{N \text{ red max}} = 50 \text{ bar}$

M16x1,5
Wandfluh standard


DESCRIPTION

Direct operated pressure reducing valve as a screw-in cartridge with a thread M16x1,5. The valve reduces the inlet pressure to an adjustable outlet pressure. The integrated pressure relief function prevents the reduced pressure, a result of external pressures, from being exceeded. The valve is available with 2 types of adjustment. For the key adjustment, in addition a cover is available, see data sheet 2.0-50. The special surface treatment protects the external parts against corrosion and improves the slide properties of the control spool. The housing is made of stainless steel.

FUNCTION

The pressure reducing valve controls the pressure in port A (1). By increasing the spring tension, the pressure in port A (1) increases. The valve works practically independent of the pressure in port P (2). A pressure increase in port A (1) above the adjusted pressure, e.g. by an active oil consumer, is prevented by relieving excess oil to tank T (3).

APPLICATION

Pressure reducing valves are used to keep the pressure in the consumer constant independent of pressure fluctuations on the supply side. In the case of several consumers, the pressure of the individual consumers can be adjusted individually by the pressure reducing valve. By the integrated pressure relief, an additional pressure relief valve is not necessary in the consumer line. Installation of the screw-in cartridge in control blocks.

TYPE CODE

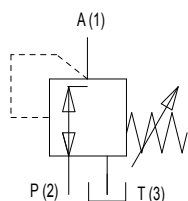
Pressure reducing valve	M D <input type="checkbox"/> PM16 - <input type="checkbox"/> - <input type="checkbox"/> # <input type="checkbox"/>	
Direct operated		
Type of adjustment	Key <input type="checkbox"/> S	(see data sheet 2.0-50)
	Turning knob <input type="checkbox"/> D	
	Cover <input type="checkbox"/> A	
Screw-in cartridge M16x1,5		
Nominal pressure range $p_{N \text{ red}}$	18 bar <input type="checkbox"/> 18	
	32 bar <input type="checkbox"/> 32	
	50 bar <input type="checkbox"/> 50	
Sealing material	NBR <input type="checkbox"/>	
	FKM (Viton) <input type="checkbox"/> D1	
	System pressure max. 210 bar <input type="checkbox"/>	
	System pressure max. 350 bar <input type="checkbox"/> Z406	
Design-Index (Subject to change)		

GENERAL SPECIFICATIONS

Description	Direct operated pressure reducing valve
Construction	Screw-in cartridge for cavity according to Wandfluh standard
Mounting	Screw thread M16x1,5
Ambient temperature	-25...+70°C
Mounting position	any
Fastening torque	$M_D = 30 \text{ Nm}$
Weight:	$m = 0,11 \text{ kg}$ (Key) $m = 0,12 \text{ kg}$ (Control knob)

HYDRAULIC SPECIFICATIONS

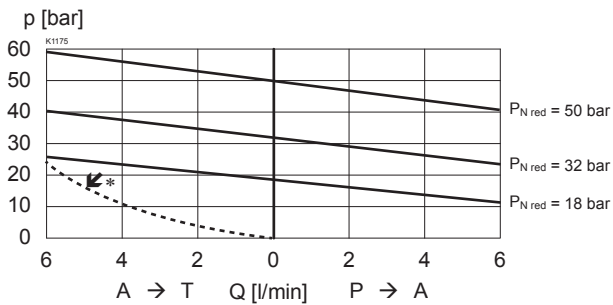
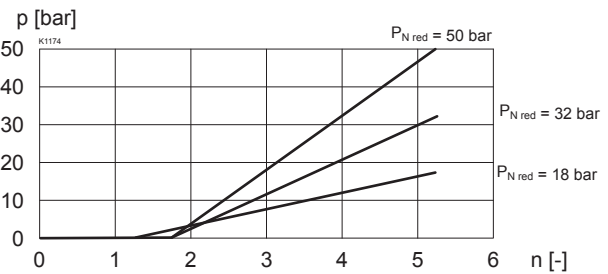
Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406: 1999, class 18/16/13 (Required filtration grade $\beta_{6...10} \geq 75$) refer to data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-25...+70°C
Peak pressure	$p_{max} = 210 \text{ bar}$
Minimum adjustable pressure	< 0,5 bar
Nominal pressure range	$p_{N \text{ red}} = 18 \text{ bar, } 32 \text{ bar, } 50 \text{ bar}$
Volume flow range	$Q = 0...6 \text{ l/min}$
Leakage volume flow	18/32 bar version $p_{red} = 0 \text{ bar: } < 10 \text{ ml/min.}$ 25 bar version $p_{red} = 25 \text{ bar: } < 50 \text{ ml/min.}$ 50 bar version $p_{red} = 0 \text{ bar: } < 10 \text{ ml/min.}$ $p_{red} = 40 \text{ bar: } < 40 \text{ ml/min.}$

SYMBOL

ACTUATION

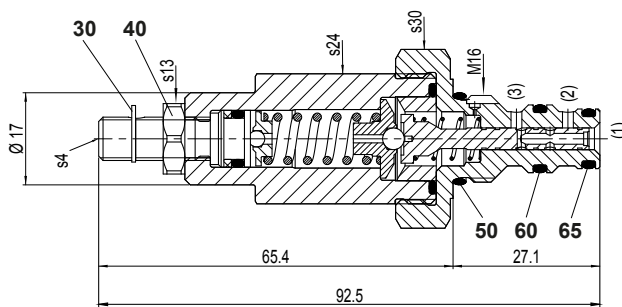
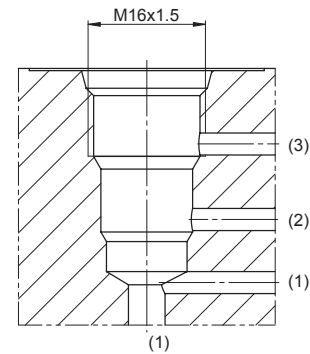
Mechanical types of actuation in 2 different executions:
 S = Key adjustment with fork wrench and Allen key
 D = Control knob adjustment, lockable
 Actuation stroke $S_b = 5,25 \text{ mm}$
 Actuation angle $\alpha_b = 1890^\circ$ (5,25 revolutions)

CHARACTERISTICS oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $p_{\text{red}} = f(Q)$ Pressure volume flow characteristics
 (Maximal adjustable pressure)

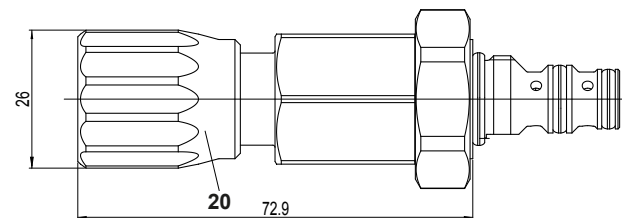
* Consumer resistance dependent on system


 $p_{\text{red}} = f(n)$ Pressure adjustment characteristics
 [at $Q = 0 \text{ l/min}$ (static)]

DIMENSIONS/SECTIONAL DRAWINGS

Key adjustment „S“


 Cavity drawing acc. to
 Wandfluh standard


Turning knob adjustment „D“


 For detailed cavity drawing
 see data sheet 2.13-1051

PARTS LIST

Position	Article	Description
20	114.2224	Knob
30	193.1061	Safety plate RD6 DIN 6799
40	153.1402	Hexagonal nut 0,5D M8x1
50	160.2140	O-ring ID 14,00x1,78 (NBR)
	160.8140	O-ring ID 14,00x1,78 (FKM)
60	160.2093	O-ring ID 9,25x1,78 (NBR)
	160.8092	O-ring ID 9,25x1,78 (FKM)
65	160.2076	O-ring ID 7,65x1,78 (NBR)
	160.8076	O-ring ID 7,65x1,78 (FKM)

Technical explanation see data sheet 1.0-100E