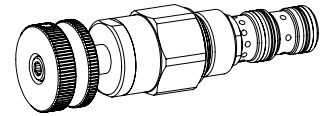


Pressure reducing cartridge

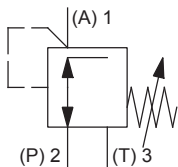
- ◆ direct operated
- ◆ $p_{max} = 350 \text{ bar}$
- ◆ $p_{N \text{ red max}} = 200 \text{ bar}$
- ◆ $Q_{max} = 20 \text{ l/min}$

7/8"-14 UNF
Wandfluh standard

DESCRIPTION

Direct operated pressure reducing valve in screw-in cartridge construction for cavity according to Wandfluh standard. The valve reduces the input pressure to an adjustable output pressure. Through the integrated pressure relief function, exceeding the reduced pressure as a result of external forces is avoided. The pressure reducing valve controls the pressure in port A (1). Through increasing the spring tension, the pressure in port A(1) rises. The valve operates practically independently of the pressure in port P (2). Pressure increase in port A (1) to above the adjusted value, e.g. through an active consumer, is avoided by discharging excess oil to the tank (3).

APPLICATION

The integrated pressure relief makes an additional pressure relief valve in the consumer line superfluous. In the case of several consumers, the pressure of the specific consumers can be individually adjusted by the pressure reducing valve. Pressure reducing valves are used to maintain the pressure in a consumer constant independent of pressure fluctuations on the supply side. The screw-in cartridge is perfectly suitable for installation in control blocks. For machining the cartridge cavity in steel and aluminum blocks, cavity tools are available (hire or purchase). Please refer to the data sheets in register 2.13.

SYMBOL

ACTUATION

Actuation

S = lockable key adjustment

D = lockable control knob adjustment

TYPE CODE

Pressure reducing valve				M	D	<input type="checkbox"/>	PU10	-	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
Direct operated													
Type of adjustment	Key	<input type="checkbox"/>	S										
	Control knob	<input type="checkbox"/>	D										
Screw-in cartridge 7/8" - 14 UNF													
Nominal pressure range p_N	80 bar	<input type="checkbox"/>	80										
	200 bar	<input type="checkbox"/>	200										
Sealing material	NBR	<input type="checkbox"/>											
	FKM (Viton)	<input type="checkbox"/>	D1										
Design index (subject to change)													

2.2-550

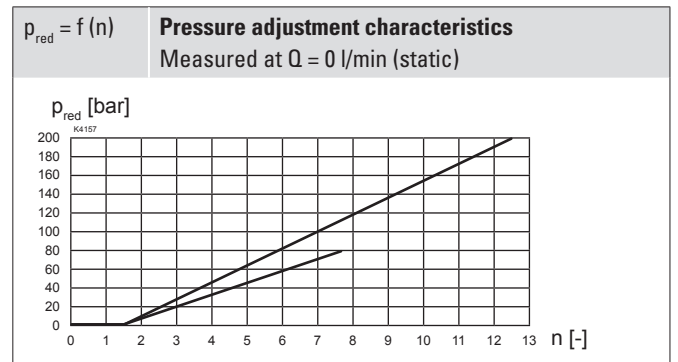
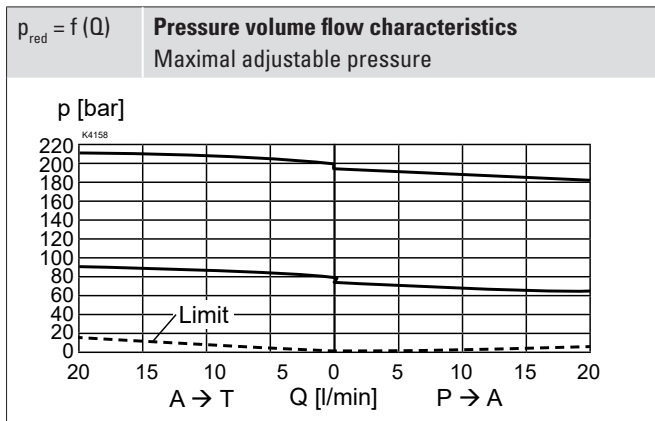
GENERAL SPECIFICATIONS

Designation	Pressure reducing valve
Construction	Direct operated
Mounting	Screw-in cartridge construction
Nominal size	7/8"-14 UNF according to Wandfluh standard
Actuation	Manually
Ambient temperature	-25...+90 °C (NBR) -20...+90 °C (FKM)
Weight	0,22 kg (80 bar) 0,32 kg (200 bar)
MTTFd	150 years

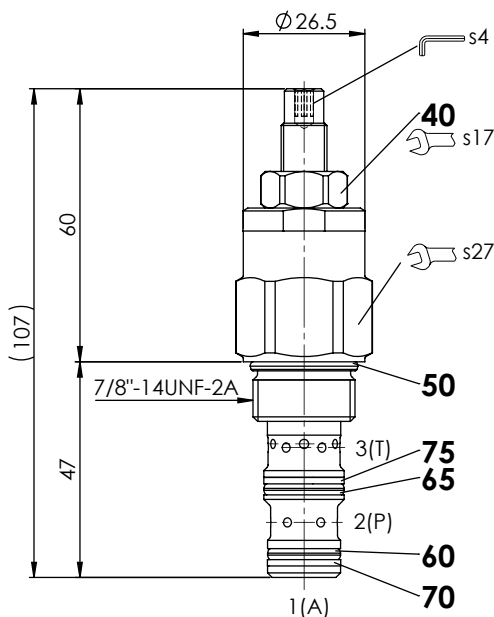
HYDRAULIC SPECIFICATIONS

Working pressure	$p_{max} = 350$ bar
Nominal pressure range	$p_{N red} = 80$ bar, 200 bar
Volume flow range	$Q = 0 \dots 20$ l/min
Leakage oil	< 40 ml/min @ $p_{red} = 200$ bar, $p_{sys} = 315$ bar < 10 ml/min @ $p_{red} = 100$ bar, $p_{sys} = 160$ bar
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm ² /s...320 mm ² /s
Temperature range fluid	-25...+70 °C
Contamination efficiency	Class 18 / 16 / 13
Filtration	Required filtration grade $\beta_{6 \dots 10} \geq 75$, see data sheet 1.0-50

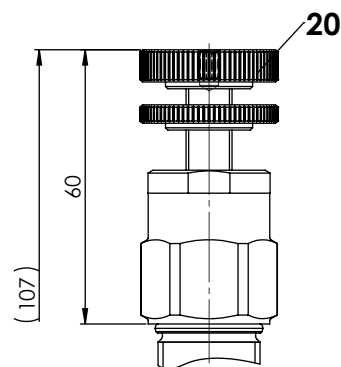
PERFORMANCE SPECIFICATIONS

 Oil viscosity $\nu = 30$ mm²/s

DIMENSIONS

Key adjustment „S” 80 bar version

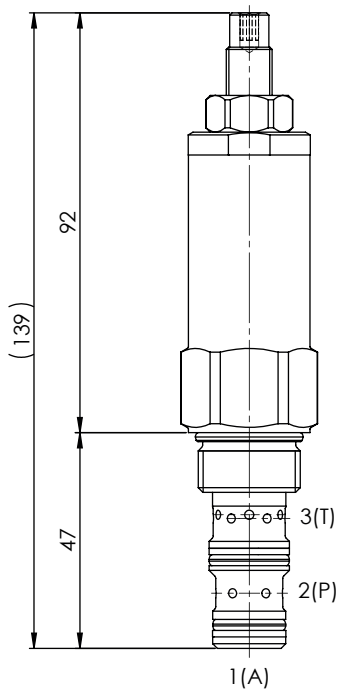


Control knob adjustment „D” 80 bar version

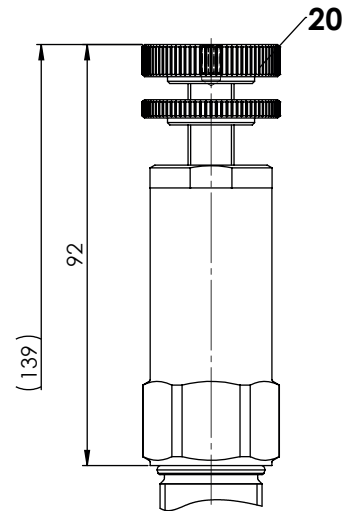


DIMENSIONS

Key adjustment „S“ 200 bar version

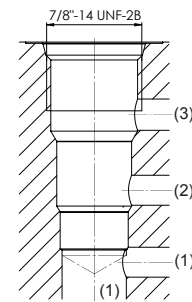


Control knob adjustment „D“ 200 bar version



HYDRAULIC CONNECTION

Cavity drawing according to Wandfluh standard



PARTS LIST

Position	Article	Description
20	113.1049	Standard knob incl. counter nut
40	153.1505	Hexagon nut 0,8d A4 M10 x 1
50	160.2188	O-ring ID 18,77 x 1,78 (NBR)
	160.6188	O-ring ID 18,77 x 1,78 (FKM)
60	160.2120	O-ring ID 12,42 x 1,78 (NBR)
	160.6124	O-ring ID 12,42 x 1,78 (FKM)
65	160.2140	O-ring ID 14,00 x 1,78 (NBR)
	160.6141	O-ring ID 14,00 x 1,78 (FKM)
70	049.8166	Backup ring PTSM rd 10,8 x 13,7 x 1,4
75	049.8177	Back-up ring PTSM rd 12,4 x 15,3 x 1,4

SURFACE TREATMENT

- ◆ The housing and the spindle are made of stainless steel
- ◆ The control knob is made of aluminium

STANDARDS

Cartridge cavity	Wandfluh standard
Contamination efficiency	ISO 4406

Attention! For detailed cavity drawing and cavity tools see data sheet 2.13-1045



ACCESSORIES

Technical explanations	Data sheet 1.0-100
Hydraulic fluids	Data sheet 1.0-50
Filtration	Data sheet 1.0-50

SEALING MATERIAL

NBR or FKM (Viton) as standard, choice in the type code

INSTALLATION NOTES

Mounting type	Screw-in cartridge 7/8" - 14 UNF
Tightening torque	M _D = 50 Nm Screw-in cartridge