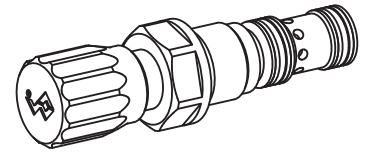


Pressure sequence valve
Screw-in cartridge

- Pilot operated
- $Q_{max} = 100$ l/min
- $p_{max} = 400$ bar
- $p_{Nmax} = 350$ bar

M22x1,5
 ISO 7789

DESCRIPTION

Pilot operated pressure sequence valve in screw cartridge construction with M22x1,5 thread for cavity acc. to ISO 7789. The valve is available with 2 different types of adjustment: key adjustment „S“ and control knob adjustment „D“ both of which are fixed, and a lockable version „K“. Key adjustment „S“ is also available with cover see data sheet 2.0-50. Three pressure ranges are available as standard: 63, 160 and 350 bar. The steel cartridge body is zinc coated and thus protected against rust.

FUNCTION

The pressure sequence valve connects consumers in hydraulic circuits. Its separate leakage line means that the valve can be used as a pressure relief valve that is not sensitive to ram pressure. When the set pressure has been reached, the pilot operation opens to the tank, thereby opening the main spool to the next consumer. Pilot operated pressure sequence valves can be very finely adjusted and are suitable for high volume flows and pressures. There is very little play in the hardened spool, thus leakage is kept to a minimum.

APPLICATION

For sequence control of operating sequences, whereby a consumer is switched on when a specific pressure is reached. Operates as a pressure relief valve for controls where ram pressure in the secondary line may not affect the pressure setting. The screw cartridges are very well suited for use in control blocks and are installed as functional parts in the Wandfluh-Hydraulik NG4, NG6 and NG10 sandwich plates (vertical stacking). Please see separate data sheets in register 2.1). Step tools are available (for hire or purchase) for the manufacture of the cartridge cavities in steel or aluminium blocks. See data sheets in register 2.13

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TYPE CODE

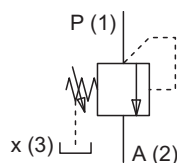
	F V <input type="checkbox"/> PM22 - <input type="checkbox"/> # <input type="checkbox"/>
Pressure sequence valve	
Pilot operated	
Types of adjustment:	
Key <input type="checkbox"/> S	
Control knob <input type="checkbox"/> D	
Cover <input type="checkbox"/> A (see data sheet 2.0-50)	
Screw cartridge M22x1,5	
Rated pressure ranges:	
$p_N = 63$ bar <input type="checkbox"/> 63	
$p_N = 160$ bar <input type="checkbox"/> 160	
$p_N = 350$ bar <input type="checkbox"/> 350	
Design-Index (Subject to change)	

GENERAL CHARACTERISTICS

Description	Pilot operated pressure sequence valve
Construction	Screw cartridge for cavity acc. to ISO 7789
Type of fixture	M22x1,5 screw thread
Ambient temperature	-20...+50°C
Installation position	any
Tightening torque	$M_D = 50$ Nm
Weight	$m = 0,17$ kg (key) $m = 0,18$ kg (control knob)

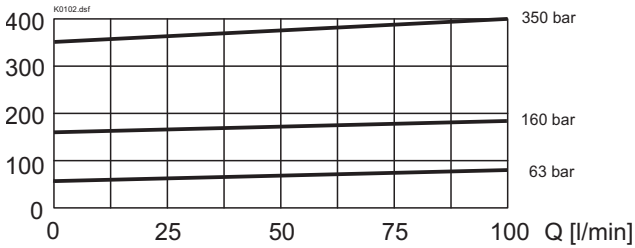
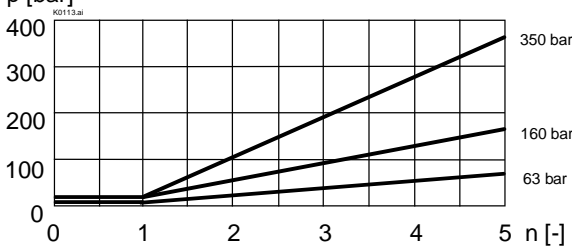
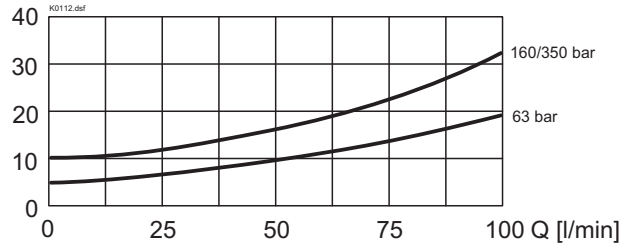
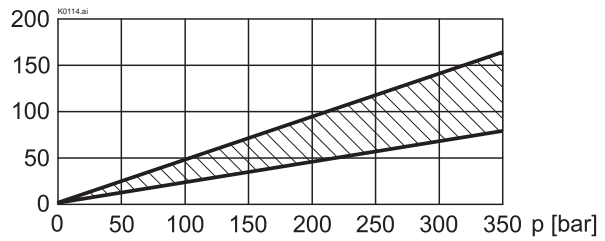
HYDRAULIC CHARACTERISTICS

Hydraulic fluid	Mineral oil, other media on request
Max. permissible contamination level	ISO 4406:1999, class 18/16/13 (recommended filter gauge $\beta_{6...10} \geq 75$) see also data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Hydraulic fluid temp.	-20...+70°C
Peak pressure	$p_{max} = 400$ bar $p_{Tmax} = p_p + 20$ bar
Rated pressure ranges	$p_N = 63$ bar, $p_N = 160$ bar, $p_N = 350$ bar
Minimum pressure	see curve
Volume flow	$Q = 0,2...100$ l/min
Leak volume flow	see curve
Control volume flow	$Q_{st} = 0,1...0,4$ l/min (dep. on pressure)

SYMBOL

MECHANICAL ACTUATION

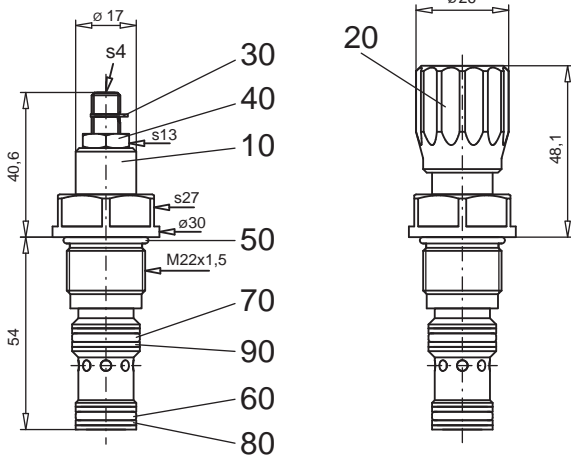
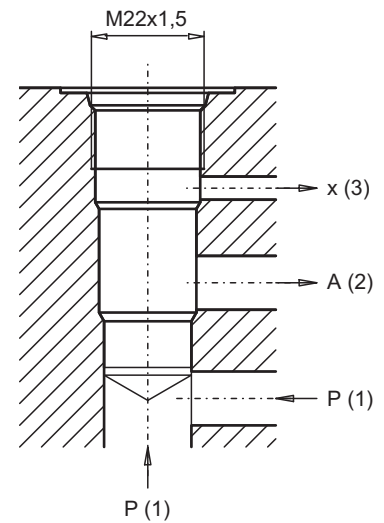
Mechanical types of operation in 2 different versions:

S	= Screw adjustment with fork wrench and Allen key
D	= Control knob
Actuation stroke S_b	= 5 mm
Actuation angle α_b	= 180° (5 turns)

CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $p = f(Q)$ Pressure volume flow characteristics
 p [bar] (Maximal adjustable pressure)

 $p = f(n)$ Pressure adjustment characteristics
 (at $Q = 5 \text{ l/min}$)

 $p = f(Q)$ Pressure volume flow characteristics
 p [bar] (Minimal adjustable pressure)

 $Q_L = f(p)$ Leakage volume flow characteristics
 Q [cm³/min] [P (1) → T (2)]

DIMENSIONS

Screw adjustment „S“

Knob adjustment „D“


 Cavity drawing acc. to
 ISO 7789-22-06-0-98

 For detailed cavity drawing and cavity
 tools see data sheet 2.13-1006.

PARTS LIST

Position	Article	Description
10	592.4320	FV.PM22-63 pre mounted
	592.4321	FV.PM22-160 pre mounted
	592.4322	FV.PM22-350 pre mounted
20	114.2224	Knob
30	193.1061	Safety plate RD6 DIN 6799
40	153.1402	Hexagonal nut 0,5D M8x1
50	160.2188	O-ring ID 18,77x1,78
60	160.2140	O-ring ID 14,00x1,78
70	160.2156	O-ring ID 15,60x1,78
80	049.3176	Back-up ring RD 14,1x17x1,4
90	049.3196	Back-up ring RD 16,1x19x1,4

ACCESSORIES

Cartridge built into sandwich plate:

Sandwich valve

Register 2.1

Technical explanation see data sheet 1.0-100E