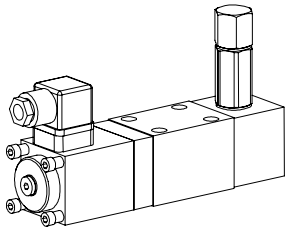
Spool valve with integral pressure reversal
- **4/2-way**
- **Impulse start type**
- **Q_{max}= 30 l/min**
- **p_{max} = 315 bar**

NG6

ISO 4401-03



DESCRIPTION

Spool valve with impulse start by solenoid and integral pressure reversal. Subplate mounted, interface NG6 according to ISO 4401-03. Direct operated spool valve in 5 chamber design. Main spool with coaxial pilot spool. End cover with relief valve to set the shifting pressure and integrated manual override. Precise spool fit for low leak and long service life. The spools are made from hardened steel and the valve body from high grade hydraulic cast iron. The valve body is painted and the cover and the solenoid are zinc coated.

FUNCTION

With the solenoid the cylinder movement gets started. If the load pressure rises to the shifting pressure which is set with the relief valve a pressure pulse shifts the valve automatically into the oposite shifting position and the cylinder moves back into starting position. There it stays until the solenoid is shifted again. As an option a damped spool may be supplied for a smooth change over.

APPLICATION

Valves with integral pressure reversal are intended to operate oscillating movements of a cylinder. Fields of application are press controls, assembly robots, feeding systems for wood heating or other systems with pressure dependent resetting.

CONTENT

TYPE CODE

A	Q	M	4	Z	6	0	□	□	□	#	□

International mounting interface ISO		
Integral pressure reversal		
Solenoid operated		
Number of control ports		
2 spool positions		
Nominal size 6		
Spool type		
Solenoid on:	a-side	a
	b-side	b
Option for damped shifting	W	□
Standard-nominal voltage U_N:	12 VDC	G12
	24 VDC	G24
	110 VAC	R110
	115 VAC	R115
	230 VAC	R230
Design-Index (Subject to change)		

GENERAL SPECIFICATIONS

Designation	4/2-way spool valve
Nominal size	NG6 according to ISO 4401-03
Construction	Direct operated spool valve
Operations	Integral pressure reversal Solenoid operated
Mounting	Flange construction 4 holes for socket cap screws M5x45
Connection	Threaded connection plates Multi-flange subplate Longitudial stacking system
Ambient temperature	-20…+50°C
Mounting position	any, preferably horizontal
Fastening torque	M_D= 5,5 Nm (screw quality 8.8)
Weight	m = 2,7 kg

HYDRAULIC SPECIFICATIONS

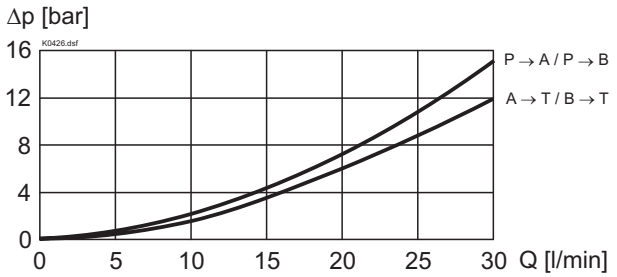
Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade ß 10...16≥75) see data sheet 1.0-50/2
Viscosity range	12 mm²/s...320 mm²/s
Fluid temperature	-20...+70°C
Working pressure on port A and B	p_{max} = 315 bar
System pressure	p = 25 ...315 bar
Reversal pressure	max 90 % of the system pressure
Tank pressure in port T	p_{max} = 160 bar
Max. volume flow	Q_{max} = 30 l/min, see characteristics
Min. volume flow	Q_{min} = 2 l/min

ELECTRICAL OPERATION

Construction	Solenoid, wet pin push type, pressure tight
Standard-nominal voltage	U_N = 12 VDC U_N = 24 VDC U_N = 110 VAC∗ U_N = 115 VAC∗ U_N = 230 VAC∗ AC = 50 bis 60 Hz ∗ Rectifier integrated in the plug. Other nominal voltages and nominal performances on request.
Voltage tolerance	±10% of nominal voltage
Protection class	IP 65 to EN 60 529
Relative duty factor	100% DF (see data sheet 1.1-430)
Switching cycles	15'000/h
Operating life	10^7 (number of switching cycles, theoretically)
Connection/Power supply	Over device pulg connection to ISO 4400/DIN 43650, (2P+E), other connections on request

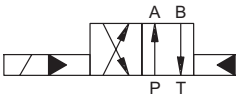
CHARACTERISTICS Oil viscosityt υ = 30mm²/s

Δp = f (Q) Pressure drop volume flow characteristics

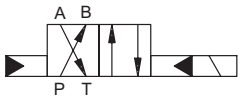


SYMBOLS

operation A-side

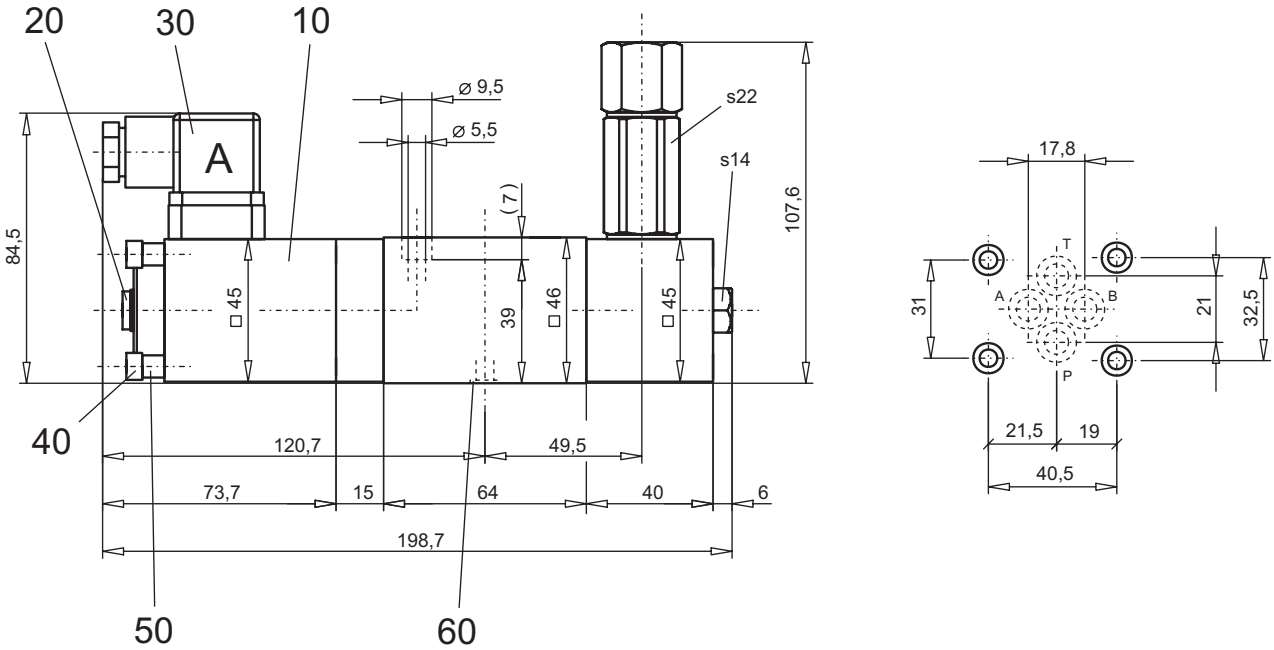


operation B-side



DIMENSIONS

4/2-way valve



PARTS LIST

Position	Articlel	Description
10	260.6 …	Medium-solenoid SIN45V-…-M44
20	239.2033	Plug HB0 (incl. seal)
30	219.2001	Plug A (grey)
40	246.2181	Cylinder screw M5x80 DIN 912
50	032.2420	Guiding bush RD 7/4,2x7
60	160.2093	O-ring ID 9,25x1,78

ACCESSORIES

Threaded connection plates, Multi-flange plates and longitudinal stacking system register 2.9

Technical explanation see data sheet 1.0-100E