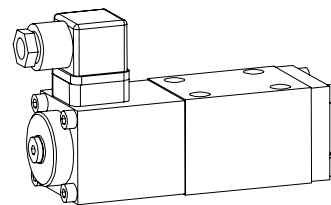


Solenoid poppet valve

- 3/2-way flange construction
- positive switching overlap
- $Q_{max} = 15 \text{ l/min}$
- $p_{max} = 300 \text{ bar}$

NG6
ISO 4401-03


DESCRIPTION

The design of this valve is based on the tried and tested standard seat valve (1.11-2140). However, the poppet spool has been designed to provide a positive switching overlap. The spool part of the poppet spool is sealed by a O-ring. The seat itself has a metal seal which does not allow any fluid to leak from the valve. Available in flange for 2 switching positions and 3 ports. Each individual poppet cartridge is proof tested prior to assembly.

FUNCTION

The ports P, A and T are closed during the switching process from "a" to "b" or "b" to "a" (positive switching overlap). A direct acting pressure proof solenoid operates two pressure compensated 2/2 way poppets. The maximum System pressure is allowed on all valve ports and the oil flow is possible in both directions through the valve.

APPLICATION

Wandfluh seat valves with positive switching overlap are used anywhere where there must be no fluid loss, neither in the static state or in the dynamic state. Seat valves with positive switching overlap are used as pilot valves for 2/2 way slip in cartridges so that no uncontrolled switching process. In the case of accumulator systems, seat valves with positive switching overlap are used to prevent fluid loss when switching, as this would cause rapid draining of the accumulator.

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TYPE CODE

International mounting interface ISO		A	☐	3	2	06	☐	- S1779	-	☐	#	☐
Medium	☐ M											
Super	☐ S											
3-way (connections)												
2 position												
Nominal size 6												
Normally closed,	solenoid on A-Side	☐ 1a										
Normally open,	solenoid on B-Side	☐ 0b										
positive switching overlap												
Standard nominal voltage U_N :		12 VDC	☐ G12	110 VAC	☐ R110							
		24 VDC	☐ G24	115 VAC	☐ R115							
				230 VAC	☐ R230							
Design-Index (Subject to change)												

GENERAL SPECIFICATIONS

Description	3/2-way poppet valve
Nominal size	NG6 acc. to ISO 4401
Construction	Direct operated poppet valve
Operations	Solenoid
Mounting	Flange, 4 mounting socket head cap screws M5x45
Connections	Threaded connection plates Multi-flange subplates Longitudinal stacking system
Ambient temperature	-20...+50°C
Mounting position	any, preverable horizontal
Fastening torque	$M_D = 5,5 \text{ Nm}$ (Quality 8.8)
Weight	$m = 1,8 \text{ kg}$
Volume flow direction	any (see characteristics)

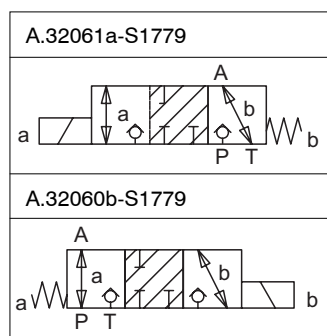
HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14
Verschmutzungsgrad	(Required filtration grade $\beta_{10...16} \geq 75$) refer to data sheet no. 1.0-50/2
Viscosity range	12 mm ² /s ... 320 mm ² /s
Fluid temperature	-20 ... +70°C
Working pressure	Medium: $p_{max} = 160 \text{ bar}$ Super: $p_{max} = 300 \text{ bar}$
Max. volume flow	$Q_{max} = 15 \text{ l/min}$ see characteristics

ELECTRICAL CONTROL

Construction	Solenoid, wet pin push type, pressure tight
Standard-nominal voltage	$U_N = 12 \text{ VDC}, 24 \text{ VDC}$ $U_N = 110 \text{ VAC}^*, 115 \text{ VAC}^*, 230 \text{ VAC}^*$ $AC = 50 \text{ bis } 60 \text{ Hz}$ * 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% FD (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 plug connection to ISO 4400/DIN 43 650, (2P+E), other connections on request
Solenoid:	- Medium SIN45V (1.1-120) - Super SIS45V (1.1-125)

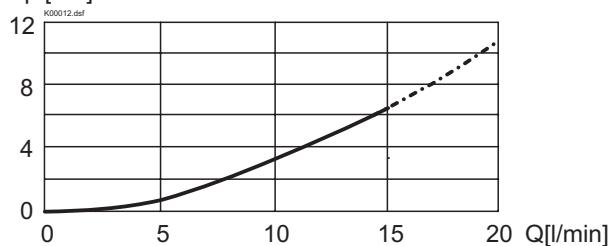
SYMBOLS



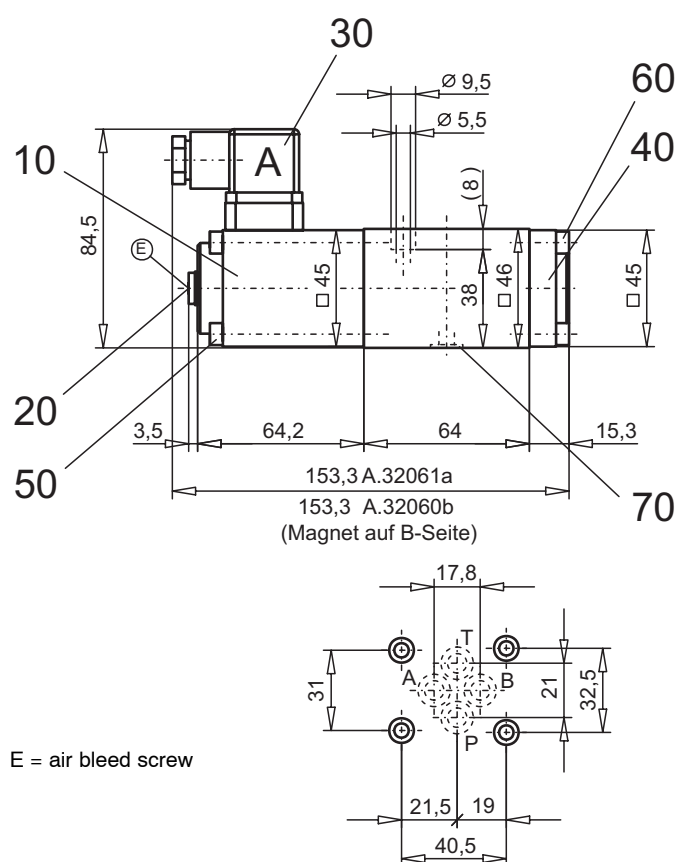
CHARACTERISTICS oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$

$\Delta p = f(Q)$ Pressure loss/flow characteristics

Δp [bar]



DIMENSIONS



PARTS LIST

Position	Article	Description
10	260.6 . . . 260.7 . . .	Medium-solenoid SIN45V Super-solenoid SIS45V
20	239.2033	Plug (incl. seal) HB0
30	219.2001 219.2002	Plug A (grey) Plug B (black)
40	58.4215	Cover
50	246.2160	Socket head cap screw M5x60 DIN 912
60	246.2117	Socket head cap screw M5x16 DIN 912
70	160.2093	O-ring ID 9,25x1,78

ACCESSORIES

Threaded connection plates, Multi-flange subplates and
Longitudinal stacking system see Register 2.9
Special tool 983.2001 to poppet cartridge 2206

Technical explanation see data sheet 1.0-100E