

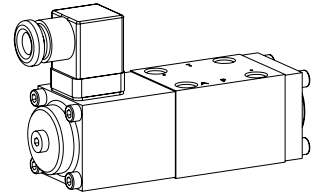
Solenoid operated poppet valve

Flange construction

- ◆ 3/2-way
- ◆ normally open and normally closed
- ◆ positive switching overlap
- ◆ $Q_{max} = 15 \text{ l/min}$
- ◆ $p_{max} = 300 \text{ bar}$

NG6

ISO 4401-03



DESCRIPTION

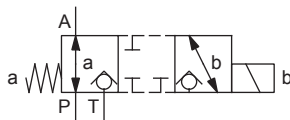
Direct operated 3/2-way solenoid poppet valve in sandwich construction. By means of the pressure tight switching solenoid, the poppet valve spool is opened or closed acting against the spring. Due to the poppet spool construction with pressure compensation on both sides, the flow through the valve is possible in both directions. The seat spool guide is sealed by means of an O-ring. The metallic sealing seat closes the valve virtually leak free. The spool has been designed to create a positive switching overlap.

APPLICATION

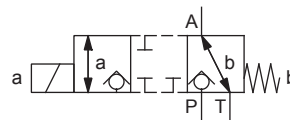
Poppet valves with positive switching overlap are used where oil losses are not allowed to occur neither in the static state nor in the dynamic state of the valve. In the use in accumulator loading systems, a rapid draining of the accumulator is avoided. Used as a pilot valve, no uncontrolled switching connections occur.

SYMBOL

A.32060b-S1779



A.32061a-S1779



TYPE CODE

International standard interface ISO				A	S	3	2	06		-		-		S1779#	
Solenoid, Super															
3 way (connections)															
2 switching positions															
Nominal size 6															
Normally closed	Solenoid on A-side						1a								
Normally open	Solenoid on B-side						0b								
Nominal voltage U _N	12 VDC	G12		115 VAC	R115										
	24 VDC	G24		230 VAC	R230										
Sealing material	NBR														
	FKM (Viton)	D1													
Positive switching overlap															
Design index (subject to change)															
1.11-10010															

GENERAL SPECIFICATIONS

Designation	3/2-way poppet valve
Construction	Direct operated
Mounting	Flange construction
Nominal size	NG6 according to ISO 4401-03
Actuation	Switching solenoid
Ambient temperature	-25...+70 °C (NBR) -20...+70 °C (FKM)
Weight	1,8 kg
MTTFd	150 years

ELECTRICAL SPECIFICATIONS

Protection class	IP65
Relative duty factor	100 % DF
Switching frequency	15'000 / h
Service life time	10 ⁷ (number of switching cycles, theoretically)
Voltage tolerance	± 10 % with regard to nominal voltage
Standard nominal voltage	12 VDC, 24VDC, 115 VAC, 230 VAC AC = 50 to 60 Hz, rectifier integrated in the connector socket

Note! Other electrical specifications see data sheet 1.1-125



ACTUATION

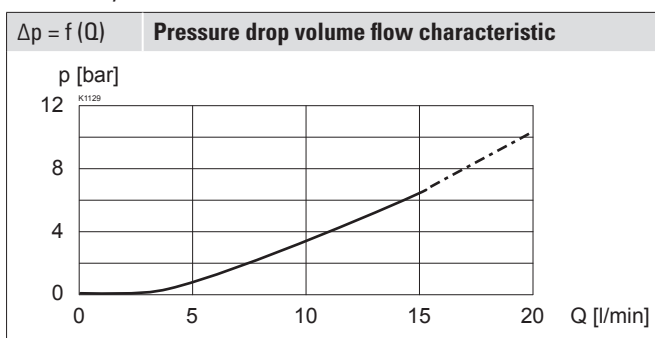
Actuation	Switching solenoid, wet pin push type, pressure tight
Execution	SIS45V (Data sheet 1.1-125)
Connection	Connector socket DIN EN 175301 – 803

HYDRAULIC SPECIFICATIONS

Working pressure	$p_{max} = 300 \text{ bar}$
Maximum volume flow	$Q_{max} = 15 \text{ l/min}$, see characteristic
Volume flow direction	Any
Leakage oil	Poppet type, max. 0,05 ml / min (approx. 1 drop / min) at 30 cSt
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm ² /s...320 mm ² /s
Temperature range fluid	-25...+70 °C (NBR) -20...+70 °C (FKM)
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade $\beta_{10...16} \geq 75$, see data sheet 1.0-50

PERFORMANCE SPECIFICATIONS

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

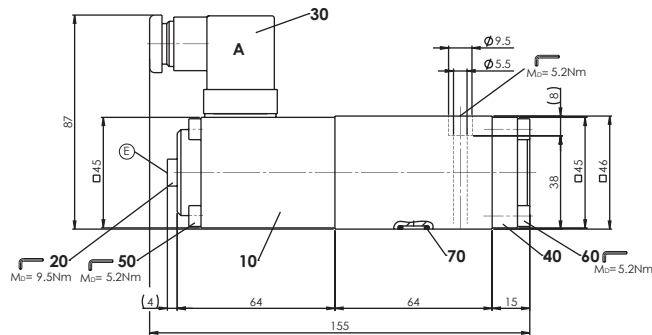


VALVES INSTALLED

The central functioning element is the poppet valve cartridge listed below

Article	Description	Data sheet no.
2206	Solenoid poppet valve cartridge normally closed NG6	1.11-2030

DIMENSIONS



E = Air bleed screw

PARTS LIST

Position	Article	Description
10	260.7...	Solenoid SIS45V
20	239.2033	Screw plug HB0 (incl. seal)
30	219.2001	Mating connector DIN EN 175301-803 grey
35	219.2002	Mating connector DIN EN 175301-803 black
40	058.4215	Cover
50	246.2160	Socket head screw M5 x 60 DIN 912
60	246.2117	Socket head screw M5 x 16 DIN 912
70	160.2093	O-ring ID 9,25 x 1,78 (NBR)
	160.6092	O-ring ID 9,25 x 1,78 (FKM)

SEALING MATERIAL

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

SURFACE TREATMENT

- ◆ The valve body is painted with a two component paint
- ◆ The solenoid and the cover are zinc coated
- ◆ The socket head screws are zinc coated

INSTALLATION NOTES

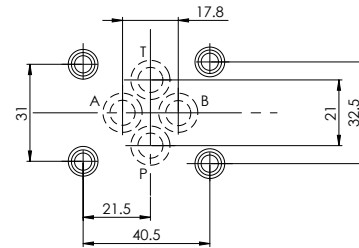
Mounting type	Flange mounting 4 fixing holes for socket head screws M5 x 45
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws M ₀ = 5,2 Nm (screw quality 8.8, zinc coated)

Note!



The length of the fixing screw depends on the base material of the connection element.

HYDRAULIC CONNECTION



MANUAL OVERRIDE

Screw plug (HB0), no actuation possible
 Optionally: See data sheet 1.1-300 and 1.1-311.

STANDARDS

Mounting interface	ISO 4401-03
Solenoids	DIN VDE 0580
Connection execution D	DIN EN 175301 – 803
Protection class	EN 60 529
Contamination efficiency	ISO 4406

ACCESSORIES

Fixing screws	Data sheet 1.0-60
Threaded subplates	Data sheet 2.9-05
Multi-station subplates	Data sheet 2.9-45
Horizontal mounting blocks	Data sheet 2.9-85
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50
Relative duty factor	Data sheet 1.1-430

COMMISSIONING

Attention! When commissioning, the valve must be vented under pressure (max. two rotations of screw E).

