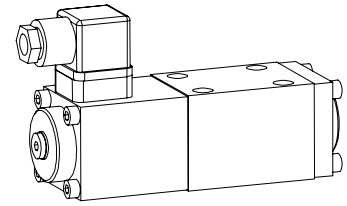


**Solenoid poppet valve**

- 2/2-, 3/2- and 3/4-way construction
- $Q_{max} = 40 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$

**NG6**  
ISO 4401-03


**DESCRIPTION**

Poppet valve, flanged design NG6, available as a 2/2 or 3/2-way valve (normally open or closed) and as a 3/4-way valve (normally closed). The central functioning element of all directly controlled poppet valves in the NG6 series is the poppet valve cartridge NG6. See data sheet 1.11-2030. The solenoids correspond to VDE standard 0580.

**Important:** When commissioning, the valve must be vented under pressure (max. 2 revolutions of screw E).

**FUNCTION**

The valve is direct operated by a wet pin push type solenoid which in turn either opens or closes the poppet. The design of the poppet spool, which is equal in surface area on both sides and thus pressure balanced, means there are no undue opening and closing hydraulic forces. Due to this the oil flow through the poppet valve is possible in both directions. The valve is tight in both flow directions.

**APPLICATION**

Wandfluh poppet valves can be used anywhere absolutely leak tight closing functions are important. Completely sealed loading, gripping and clamping operations are all important functions which Wandfluh poppet valves can perform. Cartridge type poppet valves can be neatly accommodated in valve blocks. From a mechanical and functional point of view, poppet valves can replace slide valves at any time.

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**TYPE CODE**

2/2- or 3/2-way construction	A	<input type="checkbox"/>	<input type="checkbox"/>	2	06	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
3/4-way construction	A	<input type="checkbox"/>	3	4	06	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
International mounting interface ISO										
Medium	M	<input type="checkbox"/>								
Super	S	<input type="checkbox"/>								
2-way (connections)	2	<input type="checkbox"/>								
3-way (connections)	3	<input type="checkbox"/>								
2 position										
4 position										
Nominal size 6										
Normally closed, solenoid on A-side								1a		
Normally open, solenoid on B-side								0b		
Standard nominal voltage $U_N$ : 12 VDC	G12	<input type="checkbox"/>				110 VAC	R110			
24 VDC	G24	<input type="checkbox"/>				115 VAC	R115			
						230 VAC	R230			

Design-Index (Subject to change)

**GENERAL SPECIFICATIONS**

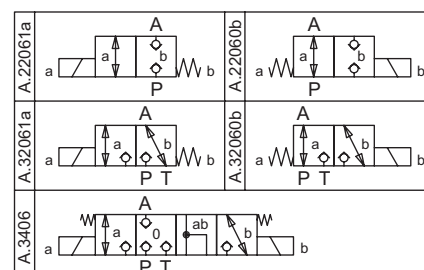
Description	2/2-, 3/2- and 3/4-way poppet valve
Nominal size	NG6 acc. to ISO 4401-03
Construction	Direct operated poppet valve
Operations	Solenoid
Mounting	Flange, 4 holes for socket cap screws M5x45
Connections	Threaded connection plates Multi-flange subplates Longitudinal stacking system
Ambient temperature	-20...+50°C
Mounting position	any, preferable horizontal
Fastening torque	$M_D = 5,5 \text{ Nm}$ (quality 8.8)
Weight 2/2-, 3/2-way	$m = 1,8 \text{ kg}$
3/4-way	$m = 2,8 \text{ kg}$
Volume flow direction	any (see characteristics)

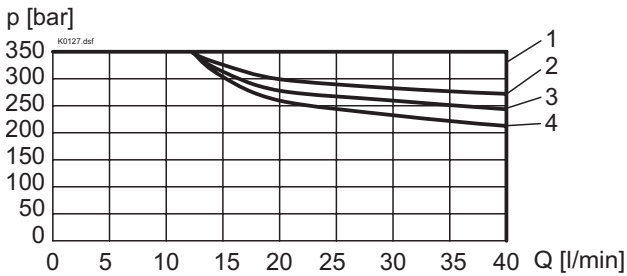
**ELECTRICAL CONTROL**

Construction	Solenoid, wet pin push type, pressure high
Standard-nominal voltage	$U_N = 12 \text{ VDC}, 24 \text{ VDC}$ $U_N = 110 \text{ VAC}^*, 115 \text{ VAC}^*, 230 \text{ VAC}^*$ AC = 50 to 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 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)

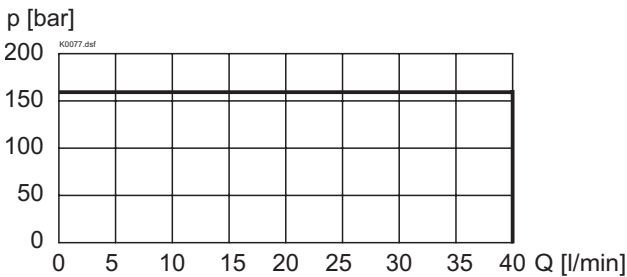
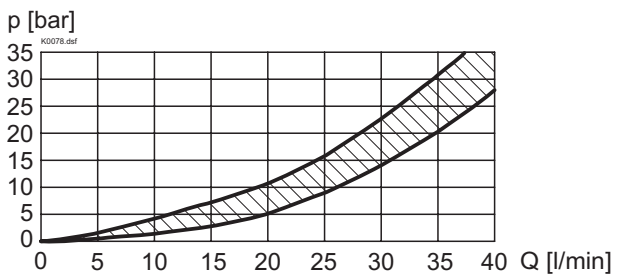
**HYDRAULIC SPECIFICATIONS**

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10} \dots 16 \geq 75$ ) refer to data sheet 1.0-50/2
Viscosity range	12 mm <sup>2</sup> /s...320 mm <sup>2</sup> /s
Fluid temperature	-20...+70°C
Working pressure	Medium: $p_{max} = 160 \text{ bar}$ Super: $p_{max} = 350 \text{ bar}$
Max. volume flow	$Q_{max} = 40 \text{ l/min}$ see characteristics

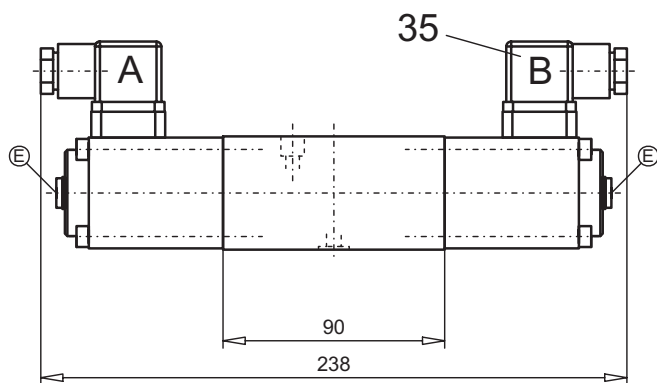
**SYMBOLS**


**CHARACTERISTICS** Oilviscosity  $\nu = 30 \text{ mm}^2/\text{s}$ 
 $p = f(Q)$  Performance limit by standard voltage at -10 % Super


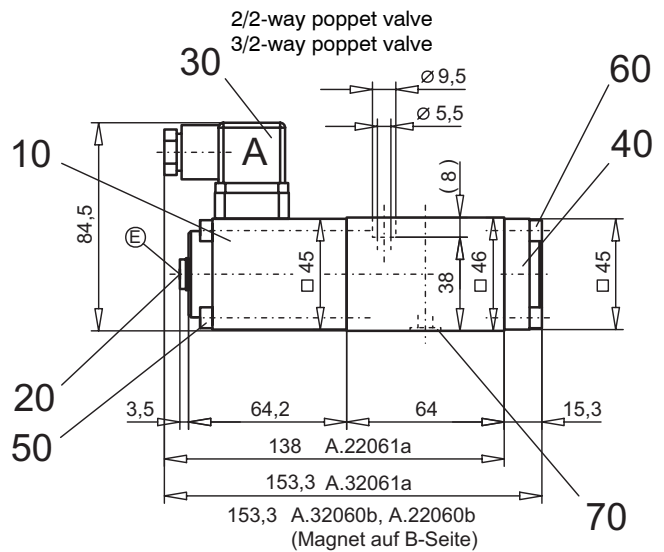
Type	Flow direction			
	P - A	A - T	A - P	T - A
AS22061a	1	-	2	-
AS22060b	1	-	4	-
AS32061a	1	2	3	1
AS32060b	1	2	3	1
AS3406	1	1	2	2

 $p = f(Q)$  Performance limit by standard voltage at -10 % Medium

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

**DIMENSIONS**

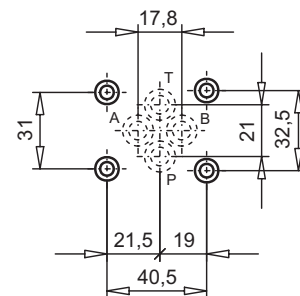
3/4-way poppet valve



E = air bleed screw


**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	Plug A (grey)
35	219.2002	Plug B (black)
40	058.4215	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

Technical explanation see data sheet 1.0-100E