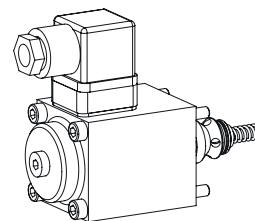


Solenoid poppet valve cartridge

- normally closed
- $Q_{max} = 40 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$

NG6


DESCRIPTION

The 2/2-way seating valve in slip-in cartridge form is the central control element of virtually all directly-controlled seating valves in nominal size 6. The seating valve cartridge, the stroke limiting piston, the spring, one O-ring and a washer are supplied separately. A solenoid (VDE standard 0580) is an optional addition.

Important: at the time the valve is taken into service, the valve must be vented under pressure (max. 2 revolutions of screw E).

FUNCTION

The seating valve piston is held against the spring by the pressure-tight control solenoid. Because the seat-piston design has equal surface areas on both sides and since the seat/piston construction is balanced in terms of pressure, no undesirable closing and opening forces are generated. As a result, oil can flow in both directions through the seating valve. The seat/piston guide is sealed with an O-ring. The seat with a metallic seal closes off the valve so that there is no leakage oil.

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. Cavity tools are available for hire or sale for machining aluminium or steel. See data sheet register no. 2.13.

TYPE CODE

Poppet valve cartridge				2	2	06	#	☐
Poppet valve cartridge with solenoid				2	2	06	-	☐
Medium-solenoid	☐	☐						
Super-solenoid	☐	☐						
2-way (Connections)								
2 Positions								
Nominal size 6								
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	2/2-way poppet valve cartridge
Nominal size	NG6
Construction	Direct operated poppet valve
Operations	Solenoid
Mounting	cartridge form
	4 solenoid fixing screws M5
Ambient temperature	-20...+50 °C
Mounting position	any
Fastening torque	$M_D = 5,2 \text{ Nm}$ (quality 8.8)
Weight: 2206	$m = 0,04 \text{ kg}$
. 2206- . .	$m = 0,8 \text{ kg}$
Volume flow direction	any

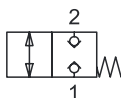
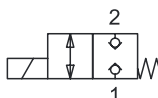
HYDRAULIC SPECIFICATIONS

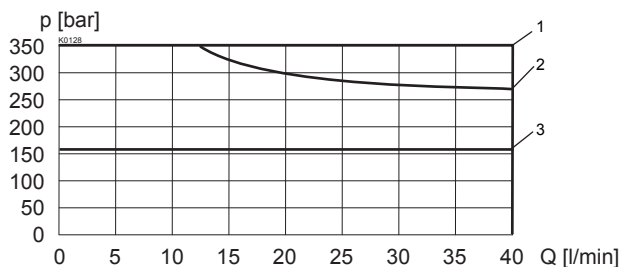
Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10} \dots 16 \geq 75$) refer to data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+70 °C
Working pressure	Medium: $p_{max} = 160 \text{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

ELECTRICAL CONTROL

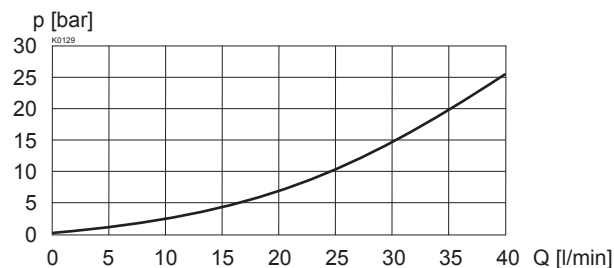
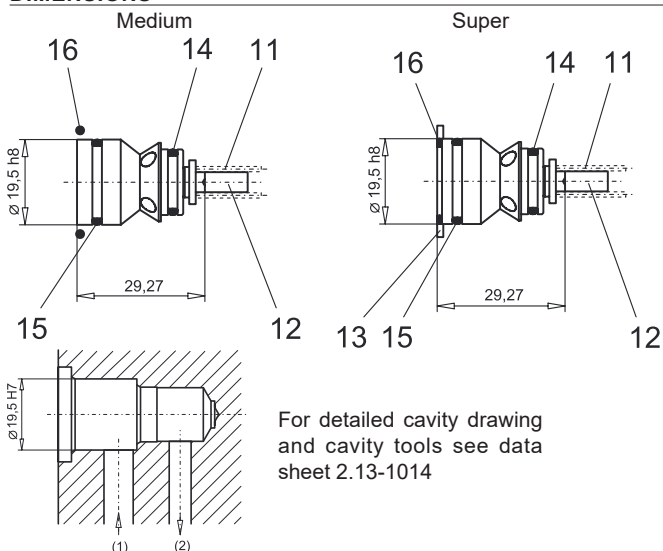
Construction	Solenoid, wet pin push, pressure tight
Standard-nominal flow	$U_N = 12 \text{ VDC}, 24 \text{ VDC}$ $U_N = 110 \text{ VAC}^*, 115 \text{ VAC}^*, 230 \text{ VAC}^*$ $AC = 50 \text{ to } 60 \text{ Hz}$ * Rectifier integrated in the plug
	Other nominal voltages and nominal performances on request
Voltage tolerance	±10% of nominal voltage
Protection class	IP 65 to EN 60 529
Relative duty factor	100% DF (see data sheet 1.1-430)
Switching cycles	15 000/h
Operating life	10^7 (number of switching cycles, theoretically)
Connections/Power supply	Over device plug connection to ISO 4400/DIN 43650, (2P+E), other connections on request
Solenoid:	- Medium SIN45V (1.1-120) - Super SIS45V (1.1-125)

SYMBOLS

2206	. 2206- . .
	

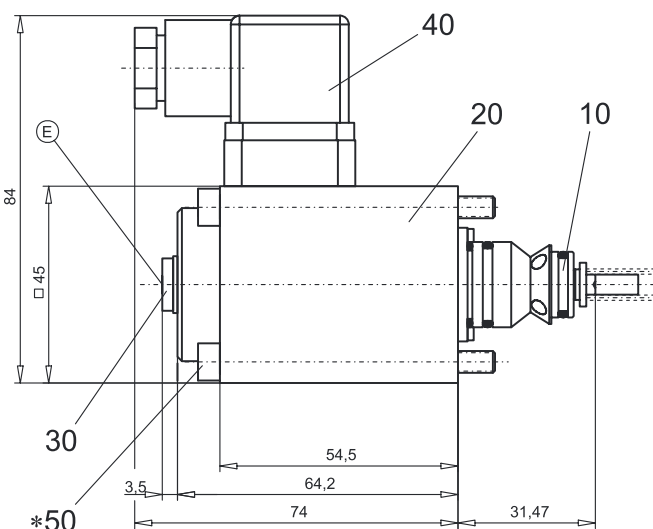
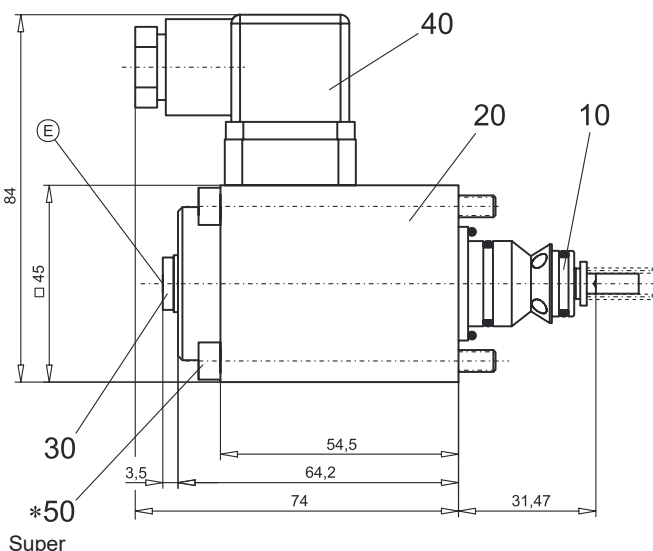
CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $p = f(Q)$ Performance limit at -10%


	Flow directions	
Type	1 → 2	2 → 1
M2206	3	3
S2206	1	2

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

DIMENSIONS

PARTS LIST

Position	Article	Description
10	500.3000	Poppet valve cartridge 2206 Medium
	500.3013	Poppet valve cartridge 2206 Super
11	053.2600	Spring 1,2x7,2x15 Medium
	053.2616	Spring 1,2x7,2x16 Super
12	222.0041	Pin
13	212.0502	Washer (only for Super)
14	160.2108	O-ring ID 10,82x1,78
15	160.2156	O-ring ID 15,60x1,78
16	160.2236	O-ring ID 23,52x1,78 Medium
	160.2161	O-ring ID 16,00x1,5 Super
20	260.6 . . .	Medium-solenoid SIN45V
	260.7 . . .	Super-solenoid SIS45V
30	239.2033	Plug HB0
40	219.2002	Plug
50	249.2001	Socket head cap screw M5x63

Medium



E = air bleed screw

* Cartridge supplied with fastening screw M5x63 for steel bodies/blocs. For aluminium bodies/blocs longer screws are recommended (min. 2 screw diameter).

ACCESSORIES

Cartridge built in flange- or sandwich body:

Flange Register 1.11

Sandwich Register 1.11

Special tool 983.2001 to poppet valve cartridge 2206.

Technical explanation see data sheet 1.0-100