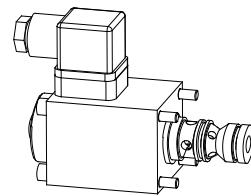


Solenoid poppet valve cartridge

- **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
Poppet valve cartridge with solenoid

2 2 06
2 2 06 - # #

Medium-solenoid **M**
Super-solenoid **S**

2-way (Connections)

2 Positions

Nominal size 6

Nominal voltage U_N	12 VDC 24 VDC	G12 G24	110 VAC 115 VAC 230 VAC	R110 R115 R230
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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
Ambient temperature	4 solenoid fixing screws M5 -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

ELECTRICAL CONTROL

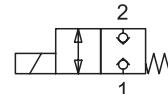
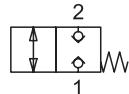
Construction	Solenoid, wet pin push, pressure tight
Standard-nominal flow	$U_N = 12 \text{ VDC}, 24 \text{ VDC}$
	$U_N = 110 \text{ VAC}^*, 115 \text{ VAC}^*, 230 \text{ VAC}^*$
	AC = 50 to 60 Hz
	* Rectifier integrated in the plug
Voltage tolerance	Other nominal voltages and nominal performances on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

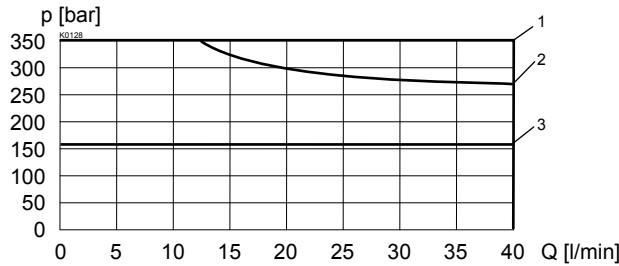
HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10} \dots \beta_{16} \geq 75$) refer to data sheet 1.0-50/2
Viscosity range	12 $\text{mm}^2/\text{s} \dots 320 \text{ mm}^2/\text{s}$
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

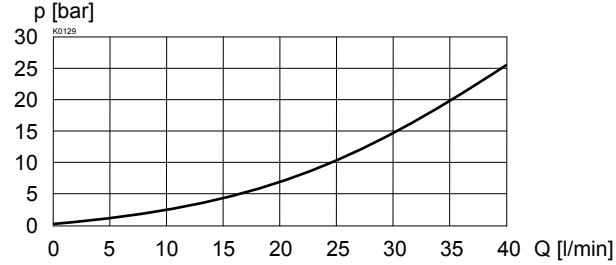
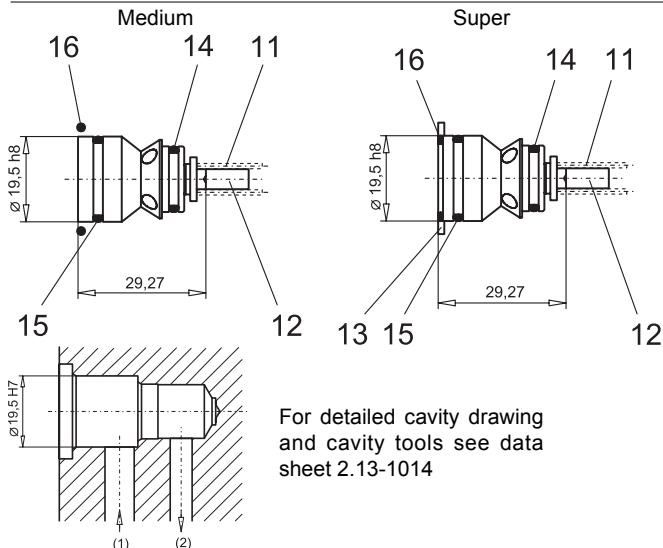
SYMBOLS

2206 . 2206 - .



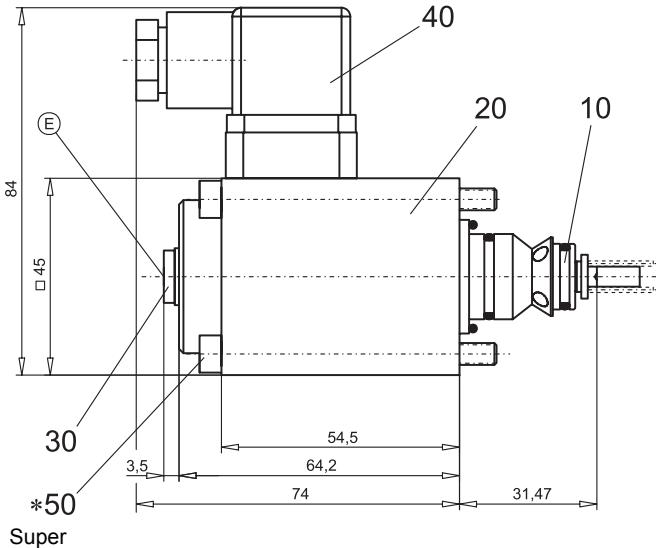
CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $p = f(Q)$ Performance limit at -10%


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

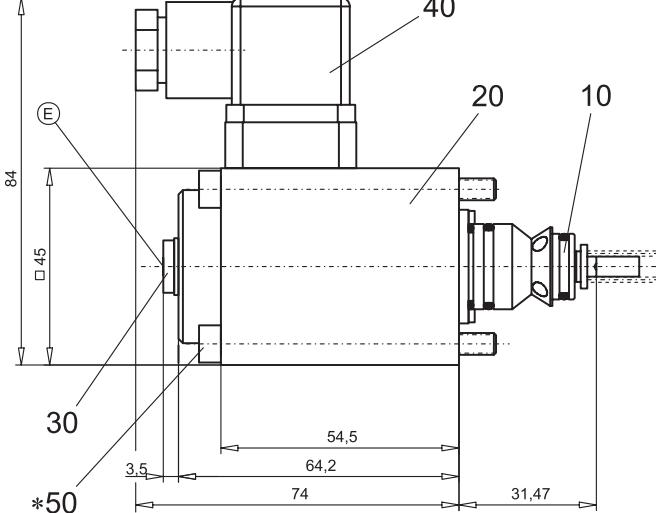
 $\Delta p = f(Q)$ Pressure loss / flow characteristics

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
	052.2605	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 (incl. seal) HB0
40	219.2002	Plug
50	249.2001	Socket head cap screw M5x63

Medium



Super



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