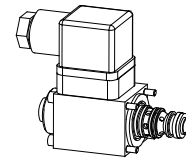


Solenoid poppet valve cartridge

- normally open
- $Q_{max} = 6 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$

NG3

DESCRIPTION

This 2/2-way poppet valve in slip-in cartridge design is mainly used in blocs for hydraulic integrated circuits. Poppet cartridge and spring will be supplied as separate items, if ordered, together with solenoid (VDE standard 0580) and fastening screws.

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

FUNCTION

If energised, the pressure proof solenoid presses the poppet onto the seat, acting against a spring. In deenergised state the poppet is lifted off its seat by the spring. One to the pressure balanced design of the poppet-spool no undesired opening as closing forces arise. 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 | 03 | 0-S1265 | # | <input type="checkbox"/> |
| Poppet valve cartridge with solenoid | | | <input type="checkbox"/> | 2 | 2 | 03 | 0-S1265 - | # <input type="checkbox"/> |
| Medium-solenoid | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | |
| Super-solenoid | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | |
| 2-way (Connections) | | | | | | | | |
| 2 Position | | | | | | | | |
| Nominal size 3 | | | | | | | | |
| Normally open | | | | | | | | |
| Nominal voltage U_N | 12 VDC | <input type="checkbox"/> | G12 | 110 VAC | <input type="checkbox"/> | R110 | | |
| | 24 VDC | <input type="checkbox"/> | G24 | 115 VAC | <input type="checkbox"/> | R115 | | |
| | | | | 230 VAC | <input type="checkbox"/> | R230 | | |
| Design-Index (Subject to change) | | | | | | | | |

GENERAL SPECIFICATIONS

| | |
|-----------------------|--------------------------------------|
| Description | 2/2-way poppet valve |
| Nominal size | NG3 |
| Construction | Direct operated poppet valve |
| Operations | Solenoid |
| Mounting | cartridge form |
| | 4 solenoid fixing screws M3 |
| Ambient temperature | -20... +50 °C |
| Mounting position | any |
| Fastening torque | $M_D = 1,2 \text{ Nm}$ (quality 8.8) |
| Weight: 22030-S1265 | $m = 0,02 \text{ kg}$ |
| 22030-S1265- . . . | $m = 0,23 \text{ kg}$ |
| Volume flow direction | any |

HYDRAULIC SPECIFICATIONS

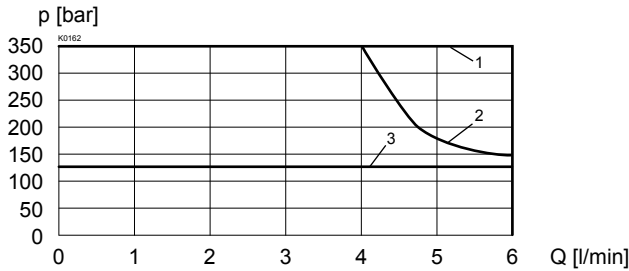
| | |
|--------------------------|---|
| Fluid | Mineral oil, other fluid on request |
| Contamination efficiency | ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10} \dots 16 \geq 75$) refer to data sheet 1.0-50/2 |
| Viscosity range | 12 mm ² /s...320 mm ² /s |
| Fluid temperature | -20...+70 °C |
| Working pressure | Medium: $p_{max} = 125 \text{ bar}$ Super: $p_{max} = 350 \text{ bar}$ |
| Max. volume flow | $Q_{max} = 6 \text{ l/min}$, see characteristics |

ELECTRICAL CONTROL

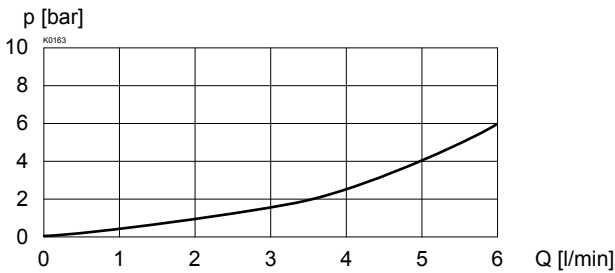
| | |
|----------------------------|---|
| Construction | Solenoid, wet pin push type, pressure tight |
| Standard-nominal flow | $U_N = 12 \text{ VDC}, 24 \text{ VDC}$ $U_N = 110 \text{ VAC}^*, 115 \text{ VAC}^*, 230 \text{ VAC}^*$ AC = 50 to 60 Hz * Rectifier integrated in the plug |
| Voltage tolerance | Other nominal voltages and nominal performances on request |
| Protection class | $\pm 10\%$ of nominal voltage |
| Relative duty factor | IP 65 to EN 60529 |
| 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 SIN29V (data sheet 1.1-80) |
| | - Super SIS29V (data sheet 1.1-85) |

SYMBOLS

| | |
|--|---|
| 22030-S1265 | 22030-S1265- . . . |
|  |  |

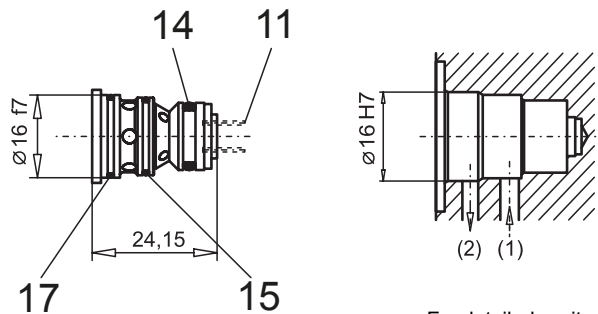
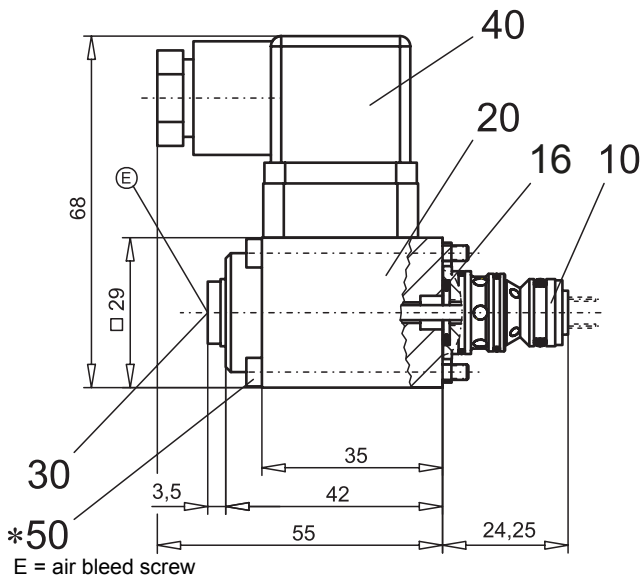
CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $p = f(Q)$ Performance limit at -10%


| Type | Flow direction | |
|--------------|----------------|-------|
| | 1 → 2 | 2 → 1 |
| M22030-S1265 | 3 | 3 |
| S22030-S1265 | 1 | 2 |

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

DIMENSIONS

22030-S1265-...

22030-S1265



For detailed cavity drawing and cavity tools see data sheet 2.13-1016

PARTS LIST

| Position | Article | Description |
|----------|----------|-------------------------------------|
| 10 | 500.0001 | Poppet valve cartridge 22030-S1265 |
| 11 | 052.1607 | Spring 0,8x6x8 |
| 14 | 160.2093 | O-ring ID 9,25x1,78 |
| 15 | 160.1131 | O-ring ID 13,00x1,00 |
| 16 | 160.1095 | O-ring ID 9,50x1,6 |
| 17 | 160.1142 | O-ring ID 14,00x1,00 |
| 20 | 260.2... | Medium-solenoid SIN29V |
| | 260.3... | Super-solenoid SIS29V |
| 30 | 239.2033 | Plug (incl. seal) HB0 |
| 40 | 219.2002 | Plug |
| 50 | 246.0141 | Socket head cap screw M3x40 DIN 912 |

* Cartridge supplied with fastening screw M3x40 for steel bodies/blocs. For aluminium bodies/blocs longer screws are recommended (min. 2 screw diameter).

ACCESSORIES

 Cartridge built-in sandwich body:
 Sandwich

Register 1.11

Special tool 983.2007 to poppet valve cartridge 22030-S1265

Technical explanation see data sheet 1.0-100