

Solenoid operated poppet valve

Installation in pipes

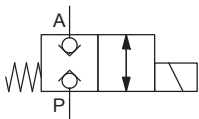
- ◆ 2/2-way
- ◆ normally open and normally closed
- ◆ threaded connection 3/8"
- ◆ $Q_{max} = 40 \text{ l/min}$
- ◆ $p_{max} = 350 \text{ bar}$

DESCRIPTION

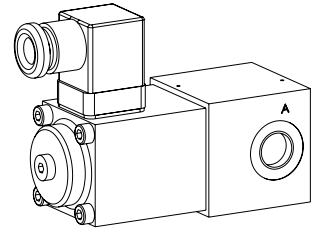
Direct operated 2/2-way solenoid poppet valve for installation in pipes. By means of the pressure tight switching solenoid, the poppet valve spool is opened or closed acting against the spring. Due to the poppet spool construction with pressure compensation on both sides, the flow through the valve is 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.

SYMBOL

G.22061



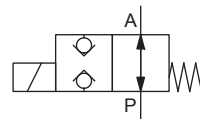
NG6



APPLICATION

Poppet valves are used where tight closing functions of the valve are essential like leakage-free load holding, clamping or gripping.

G.22060



TYPE CODE

| | | | | | |
|----------------------------------|---|------------------------------|---------|-------------------------------|--|
| Threaded connection | G <input type="checkbox"/> 2 <input type="checkbox"/> 2 <input type="checkbox"/> 06 <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> # <input type="checkbox"/> | | | | |
| Solenoid, Medium | <input type="checkbox"/> M | | | | |
| Solenoid, Super | <input type="checkbox"/> S | | | | |
| 2 way (connections) | <input type="checkbox"/> | | | | |
| 2 switching positions | <input type="checkbox"/> | | | | |
| Nominal size 6 | <input type="checkbox"/> | | | | |
| Normally closed | <input type="checkbox"/> 1 | | | | |
| Normally open | <input type="checkbox"/> 0 | | | | |
| Nominal voltage U_N | 12 VDC | <input type="checkbox"/> G12 | 115 VAC | <input type="checkbox"/> R115 | |
| | 24 VDC | <input type="checkbox"/> G24 | 230 VAC | <input type="checkbox"/> R230 | |
| Sealing material | NBR | <input type="checkbox"/> | | | |
| | FKM (Viton) | <input type="checkbox"/> D1 | | | |
| Design index (subject to change) | <input type="checkbox"/> | | | | |

1.11-2840

COMMISSIONING

Attention! When commissioning, the valve must be vented under pressure (max. 2 rotations of screw E).



ACTUATION

| | |
|------------|---|
| Actuation | Switching solenoid, wet pin push type, pressure tight |
| Execution | Medium: SIN45V (Data sheet 1.1-120) Super: SIS45V (Data sheet 1.1-125) |
| Connection | Connector socket EN 175301 – 803 |

GENERAL SPECIFICATIONS

| | |
|---------------------|--|
| Designation | 2/2-way poppet valve |
| Construction | Direct operated |
| Mounting | Installation in pipes |
| Nominal size | NG6 |
| Connection | Threaded connection G3/8" |
| Actuation | Switching solenoid |
| Ambient temperature | -25...+70 °C (NBR) -20...+70 °C (FKM) |
| Weight | ≤ 1,7 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 1.1-120 (Medium) and 1.1-125 (Super)

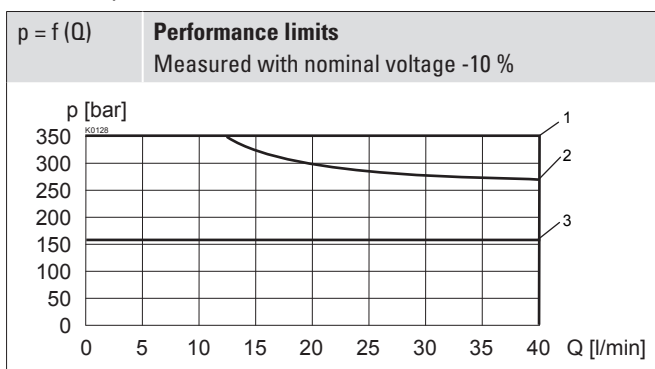


SEALING MATERIAL

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

PERFORMANCE SPECIFICATIONS

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



| Type | Flow direction | |
|---------|----------------|-------|
| | P → A | A → P |
| GM2206. | 3 | 3 |
| GS2206. | 1 | 2 |

HYDRAULIC SPECIFICATIONS

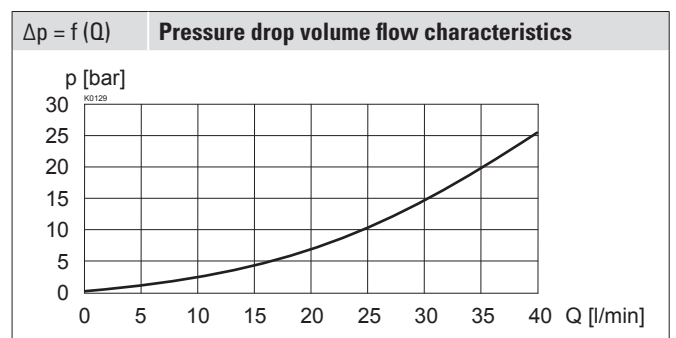
| | |
|--------------------------|---|
| Working pressure | Medium: $p_{\text{max}} = 160 \text{ bar}$ Super: $p_{\text{max}} = 350 \text{ bar}$ |
| Maximum volume flow | $Q_{\text{max}} = 40 \text{ l/min}$, see characteristic |
| Volume flow direction | Any (see characteristic) |
| Leakage oil | Seat tight, 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 | -20...+70 °C |
| Contamination efficiency | Class 20 / 18 / 14 |
| Filtration | Required filtration grade $\beta_{10...16} \geq 75$, see data sheet 1.0-50 |

STANDARDS

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

SURFACE TREATMENT

- ◆ The valve body, the solenoid, the cover and the socket head screws are zinc coated

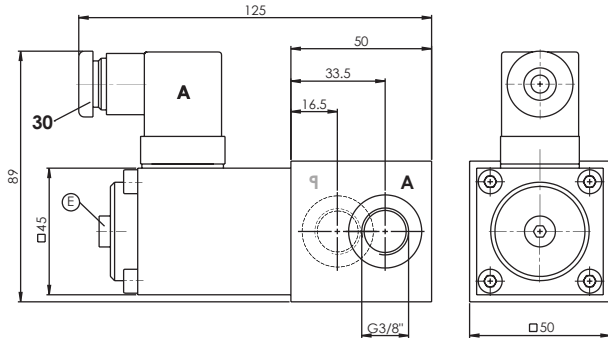


VALVES INSTALLED

The central functioning element is the poppet valve cartridge NG6, data sheet 1.11-2030.

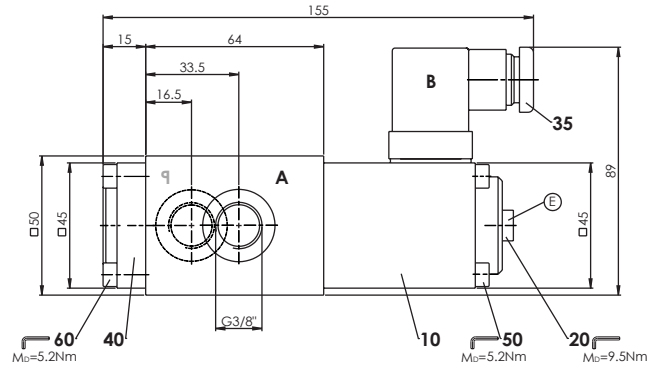
DIMENSIONS

G.22061



E = Air bleed screw

G.22060


PARTS LIST

| Position | Article | Description |
|----------|----------|-----------------------------------|
| 10 | 260.6... | Solenoid SIN45V |
| | 260.7... | Solenoid SIS45V |
| 20 | 239.2033 | Screw plug HB0 (incl. seal) |
| 30 | 219.2001 | Electric plug A (grey) |
| 35 | 219.2002 | Electric plug B (black) |
| 40 | 058.4215 | Cover |
| 50 | 246.2160 | Socket head screw M5 x 60 DIN 912 |
| 80 | 246.2117 | Socket head screw M5 x 16 DIN 912 |

MANUAL OVERRIDE

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

INSTALLATION NOTES

Mounting position : Any, preferably horizontal

ACCESSORIES

| | |
|------------------------|--------------------|
| Technical explanations | Data sheet 1.0-100 |
| Filtration | Data sheet 1.0-50 |
| Relative duty factor | Data sheet 1.1-430 |