

Solenoid Valve Type 157



Product description

Type 157 is a high-quality, direct-acting 2/2-way pivoted armature solenoid valve that can be used for opening or closing. The magnetic system and the media chamber are separated from one another by a separating diaphragm system. The valve is especially suitable for aggressive media.

Function

A solenoid valve is a valve which is actuated by an electromagnet. Their tasks are to release, shut off, dose, distribute or mix gases and liquids. The solenoid valves can switch very fast, and guarantee high reliability and a long lifetime at a low actuator power. Solenoid valves with position measuring can be operated as servo valves.

Applications

- Water treatment
- Process/chemical engineering
- Plant/mechanical engineering
- Semiconductor industry
- Environmental engineering
- Medical engineering
- Apparatus engineering
- Analytical technology

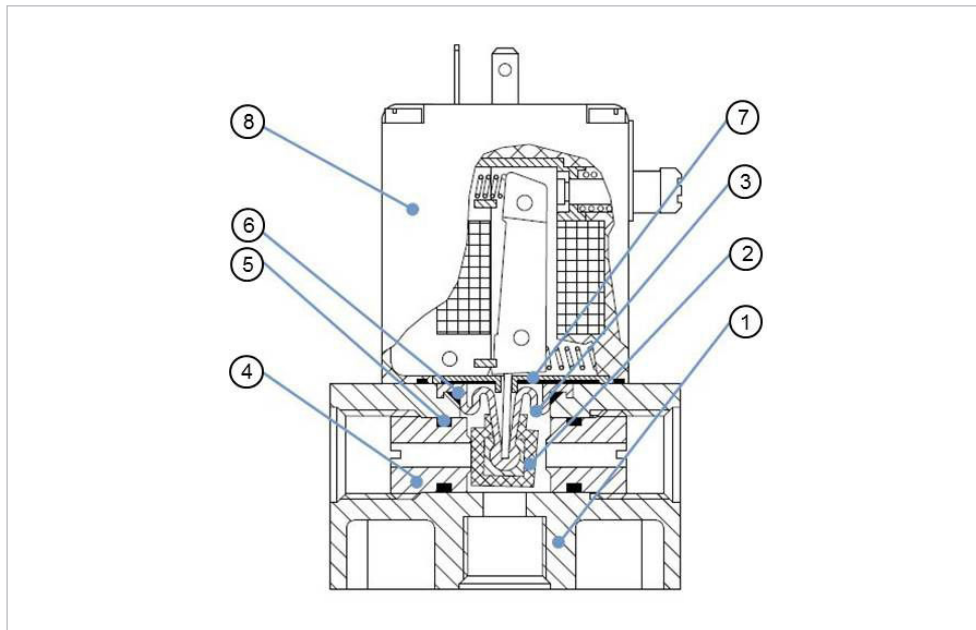
Benefits/features

- PVC-U material: threaded socket with cylindrical female pipe thread Rp
- Modes of operation: A, B
- Handle with ratchet setting
- Electrical connection with cable plug
- Protection rating IP65
- Pivoted armature valve with emergency manual override
- Direct-acting with isolating diaphragm
- Gasket materials are highly media-resistant

Flow media

Suited for aggressive media

Technical data



- ① Valve housing
- ② Gasket
- ③ Rotating stem
- ④ Seat
- ⑤ O-ring
- ⑥ PTFE
- ⑦ Isolating membrane
- ⑧ Epoxy

| Specification | | |
|--|--|--|
| Nominal diameter | DN2 – DN8 | |
| Valve housing | PVC (resistant according to DIN 8062, 8061) | |
| Seal material media | FKM/EPDM | Oxidizing acids and substances, oils and saline solutions, exhaust gases, technical vacuum |
| Media temperatures | PVC + FKM | -10 to +50 °C |
| Housing + gasket (combination of materials) | | |
| Ambient temperature | Max. +50 °C | |
| Viscosity | Max. 37 mm ² /s | |
| Voltage tolerance | ±10% | |
| Switching frequency | Max. 100/min with AC Max. 10/min with UC | |
| Rated duty | Continuous duty | VA housing 100 % ED and with universal current (UC) |
| | Intermittent operation | With PVC 10 % ED (10 min) |
| Electrical connection with AC and DC | Appliance plug for cable Ø 6 – 7 mm (in scope of delivery) or cable connection | |
| Protection rating | IP65 with appliance socket | |
| Mounting position | As desired, preferably with actuator on top | |

Electrical power consumption

| Nominal diameter (mm) | Mechanism | Kv value ¹⁾ water (l/min) | Pressure range ²⁾ | | Power consumption Inrush (electrical) | | Power consumption Operation(electrical) | | Weight (kg) |
|-----------------------|-----------|--------------------------------------|------------------------------|----------|---------------------------------------|--------|---|--------|-------------|
| | | | A (bar) | DC (bar) | AC (VA) | DC (W) | AC (VA/W) | DC (W) | |
| 4 | A | 5 | 0-2 | 0-4 | 30 | 40 | 15/8 | 8-12 | 0.5 |
| 6 | A | 10 | 0-1 | 0-2 | 30 | 40 | 15/8 | 8-12 | 0.5 |
| 8 | A | 16.7 | 0-1 | 0-1 | 30 | 40 | 15/8 | 8-12 | 0.5 |

1) Kv value (l/min) at +20 °C, 1 bar pressure at valve inlet and free outlet

2) Pressure data (bar) excess pressure to atmospheric pressure

Switching time

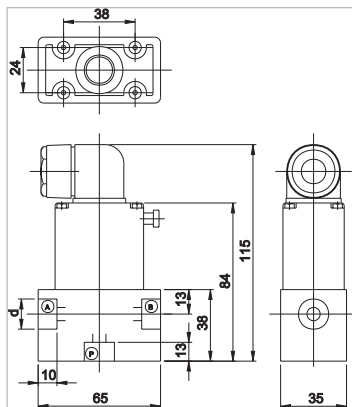
| Switching time ¹⁾ | Open | Close |
|------------------------------|---------|---------|
| Mode of operation | (ms) | (ms) |
| A, B | 15 - 20 | 15 - 20 |

1) Switching time (ms)
measured at valve outlet
at 6 bar and +20 °C

Open Pressure buildup 0 % to
90 %

Close Pressure buildup 100 %
to 10 %

Dimensions



| Housing material | Inch (inch) | B (mm) | E (mm) | F (mm) |
|------------------|-------------|--------|--------|--------|
| PVC | G 3/8 | 91 | 35 | 65 |

Possible connections

| Mode of operation | Port 1 | Port 2 | Port 3 |
|-------------------|--------|--------|--------|
| A | P | A | - |
| B | P | B | - |



For further information on accessories, refer to the online product catalog at www.gfps.com.

The information and technical data (altogether "Data") herein are not binding, unless explicitly confirmed in writing. The Data neither constitutes any expressed, implied or warranted characteristics, nor guaranteed properties or a guaranteed durability. All Data is subject to modification. The General Terms and Conditions of Sale of Georg Fischer Piping Systems apply.

09/2020-A

© Georg Fischer Piping Systems Ltd, 8201 Schaffhausen/Switzerland

Tel. +41 52 631 11 11 • www.gfps.com • E-Mail: info.ps@georgfischer.com