Description:
- 2/2-way valve in flange version
- piston seat valve
- servo operated
- duty cycle 100% (VDE0580)
- installation position: optional, preferable with standing magnets
- grooves EN1092-1: version gray iron: PN16 version cast steel and VA: PN40
- adjustable close muting from DN32
- overall length EN558-1, line 1
- version in gray iron and cast steel have a thick-coat passivation as corrosion protection on
- connector plug EN 175301-803 respectively
terminal box (depending on magnet type)

Application area:
- viscosity 22mm²/s
- media temperature -10°C to +80°C
- ambient temperature -10°C to +35°C
- working pressure
  - PN16: 1 - 16bar
  - from DN125: 2 - 16bar
  - PN40: 1 - 40bar
  - from DN125: 2 - 40bar
- minimum pressure has to be there as differential pressure
- IP65 (with correct installed connector plug)
- DIN40050
- for hot and cold water, oil and air

Explanation:
**Voltage tolerance +10% / -10%** at maximal pressure and ambient temperature. Please note the flow pattern (arrow mark on body).

The setting of a defined minimum or maximum flow rate is possible via the basic quantity setting available on request.

Other tensions and coil power as well as sealings on request. You find these in the catalog under “Spare parts and accessories”. The connector plug EN175301-803 is included in the scope of supply. You find more connector plugs under accessories and spare parts in the catalog. On request a higher protection class than IP65 is possible, with special coils and connector plugs.

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Component</th>
<th>Cast iron</th>
<th>Cast steel</th>
<th>Stainless steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>EN-GJL-250 (thick layer)</td>
<td>L</td>
<td>K</td>
</tr>
<tr>
<td>2+10</td>
<td>Seat with sealing</td>
<td>NBR (version PN16)</td>
<td>FKM</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PTFE (version PN40)</td>
<td>T</td>
<td>E</td>
</tr>
<tr>
<td>3</td>
<td>Cover</td>
<td>up to DN50: Messing</td>
<td>EPDM</td>
<td>EPDM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>from DN65: EN-GJL-250</td>
<td>PTFE</td>
<td>EPDM + PTFE</td>
</tr>
<tr>
<td>4</td>
<td>Sealing (servo bore)</td>
<td>NBR</td>
<td>GP240GH (thick layer)</td>
<td>1.4581</td>
</tr>
<tr>
<td>9,10</td>
<td>O-rings</td>
<td>NBR</td>
<td>1.4104</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plunger</td>
<td>1.4104</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wear parts:
- Piston
- Sealing
- Disk
- Countersunk screw
- Groove ring
- O-ring
- Spring
- Tube
- Coil
- Connector plugs
FMV2500
2/2-WAY SOLENOID VALVE, PILOT OPERATED IN PISTON DESIGN, FLANGE VERSION

Function NC (normally closed valve)

Function NO (normally opened valve)

**Power coil AC**: Declared are the power suit and the holding power.

**CV-Value**: The nominal pressure of \( K_v \) to VDI / VDE 2173 indicates the water amount in \( \text{m}^3 / \text{h} \), found out at a pressure difference \( \Delta p = 1 \text{bar} \) and a media temperature from +5°C to 30°C. With the largest possible magnet system (PN40). The information refers to the value with the largest possible magnet system (PN40).

Appointment details:

1. Type: FMV2500
2. Connection size: 57-65 (see chart) with pressure stage
   - PN16: 1
   - PN40: 3
3. Material:
   - 1. Body material
     - L=gray iron
     - K=cast steel
     - O=stainless steel
   - 2. Sealing
     - B=NBR

Demands on your application conditions that are not listed on the data sheet, can be requested!

The guide book and the maintenance guidelines, particularly the given safety instructions have to be paid attention to before the installation!

Options:
- NO: opened in rest position
- HA: manual override
- TH: temperature version upto 180°C
- OF: free of oil and grease
- BU: non-ferrous metals
- PS: position indication
- EX: Ex II 2G Ex m II T4
  - Ex II 2G Ex em II T4
  - Ex II 2G Ex md IIC T4
- GM: basic quantity setting
- AA: sealed plunger spot
- RS: adjustable close muting up to DN25 (from DN32 standard)

Power of the coils:

<table>
<thead>
<tr>
<th>Type</th>
<th>AC*</th>
<th>DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>G03</td>
<td>24VA / 15VA</td>
<td>11W</td>
</tr>
<tr>
<td>G04</td>
<td>43VA / 24VA</td>
<td>18,5W</td>
</tr>
<tr>
<td>G07</td>
<td>with separate rectifier</td>
<td>25W</td>
</tr>
<tr>
<td>G08</td>
<td></td>
<td>30W</td>
</tr>
<tr>
<td>G09</td>
<td></td>
<td>46W</td>
</tr>
<tr>
<td>G10</td>
<td></td>
<td>100W</td>
</tr>
</tbody>
</table>

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Strong Basis. Individual Solutions.
**Heating and power of solenoid coils**

default solenoid valves are designed for continuous operation (100% ED = power-on time) under normal operating conditions. The pulling force of a solenoid coil is basically influenced by three elements:

- the self-heating of the magnet coil
- the medium temperature
- the ambient temperature

Solenoid coils are by default designed for a maximum ambient temperature of +35 °C. This specification applies for the maximum allowable operating pressure specified in the data sheet of the corresponding valve, 100% duty cycle and a medium temperature of +80 °C.

A higher ambient temperature is possible, when lower values are applied for the other influencing parameters. When the max. operation pressure and max. ambient temperature of +50 °C is given the medium temperature is not allowed to be higher than max. +50 °C. In addition to that, deviations from the default design temperature range are possible, e.g. when temperature coils or other constructive measures are used. Please contact the MIT headquarters to discuss the specific application.

More precise specifications and technical data with regard to the operating conditions can be found in the data sheets of the solenoid coils and the solenoid valve regarded. Please observe that the surface temperature of a permanently loaded coil can amount up to +120 °C, solely by the self-heating of the coil. The power consumption of our default solenoid valves was calculated to DIN VDE 05820 for a coil temperature of +20 °C.