



## Direct-acting 2/2 way plunger valve

- Gas valve with DVGW approval acc. to EN 161, Group B
- Compact design
- Up to DN25 and 150 mbar
- Body in brass
- Dirt filter in the inlet



Product variants described in the data sheet may differ from the product presentation and description.

### Type description

Type 293 switches without pressure difference from zero bar. The valve is especially good for switching low-pressure combustible gases. The direct-acting solenoid valve is delivered with circuit function A. It is normally closed. Upon switching, the magnetic core is tightened against the spring and the valve opens. A filter is built-in to the inlet. A dirt trap  $\leq 500 \mu\text{m}$  (example our type TFU001) needs to be installed before the valve when using DN 25. This dirt trap needs to be accessible for maintenance.

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## 1. General technical data

| Product properties  |   |
|---|---|
| <b>Materials</b>  |   |
| Body material   | Brass   |
| Inner part valve  | Stainless steel   |
| Seal material   | NBR   |
| Duty cycle  | 100 % continuous rating   |
| Flow rate: $K_v$ value water  | Measured at +20 °C, 1 bar pressure at valve inlet and free outlet (flow rate values see table below)  |
| Pressure values   | Overpressure with respect to atmospheric pressure (pressure values see table below)   |
| <b>Switching times</b>  |   |
| Measured at valve outlet at 150 mbar and +20 °C (switching times see table below) |   |
| Opening   | Pressure rise 0...90 %  |
| Closing   | Pressure relief 100...10 %  |
| Special features  | Sieve in inlet, for DN25 it is necessary to install a dirt filter, (max. 500 µm) upstream of the valve, which is accessible during maintenance work, e.g. Type TFU001 |
| <b>Electrical data</b>  |   |
| Operating voltages  | 230 V/50 Hz / 230 V/UC  |
| Voltage tolerance   | ± 10 %  |
| <b>Medium data</b>  |   |
| Medium (for NBR)  | Fuel gases of the 1st, 2nd and 3rd gas families   |
| Medium temperature (for NBR)  | - 15 °C...+60 °C  |
| <b>Approvals and Certificates</b>   |   |
| DVGW  | Group 2, class B  |
| Fulfilled standards   | DIN EN 161  |
| Protection class  | IP65 with cable plug acc. DIN EN 175301 - 803   |
| <b>Product connections</b>  |   |
| Orifice   | DN20...DN25 mm  |
| Port connection   | Threaded ports G 3/4 and G 1  |
| Electrical connection   | Cable plug for Ø 7 mm cable (included in delivery)  |
| <b>Environment and installation</b>   |   |
| Ambient temperature   | - 15 °C...+60 °C  |
| Ambient   | Also open air (open cover recommended)  |
| Installation  | As required, preferably with actuator upright   |
| <b>Accessories</b>  |   |
| Strainer  | Brass body<br>Detailed information can be found in chapter "4.4. Ordering chart accessories" on page 5.   |

| Orifice | Port connection | $K_v$ value water | Pressure range | Response times <sup>1.)</sup> |           | Closing |     |        |     | Weight |
|---------|-----------------|-------------------|----------------|-------------------------------|-----------|---------|-----|--------|-----|--------|
|         |                 |                   |                | Opening                       | Closing   | Inrush  |     | Hold   |     |        |
|         |                 |                   |                |                               |           | AC      | UC  | AC     | UC  |        |
| [mm]    |                 | [m³/h]            | [mbar]         | [ms]                          | [ms]      | [VA]    | [W] | [VA/W] | [W] | [kg]   |
| 20      | G 3/4           | 5.0               | 0...150        | 130...250                     | 120...150 | 100-120 | 100 | 25/16  | 9   | 1.3    |
| 25      | G 1             | 10.0              | 0...150        | 130...250                     | 120...150 | 100-120 | 100 | 25/16  | 9   | 1.7    |

1.) With UC coil, depending on duty cycle and ambient temperature max. 15 switchings/min.

## 2. Circuit functions

| Circuit Function  | Description   |
|---|---|
|  | <b>Type: A, solenoid valve</b><br>2/2 way<br>Direct-acting<br>Normally closed |