# 2/2 and 3/2-way flipper solenoid valve for analytical applications

- Only 4.5 mm wide
- Medium isolation, for aggressive fluids
- Direct-acting
- Short response times

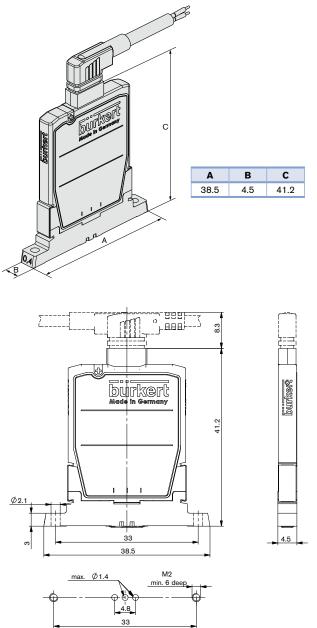


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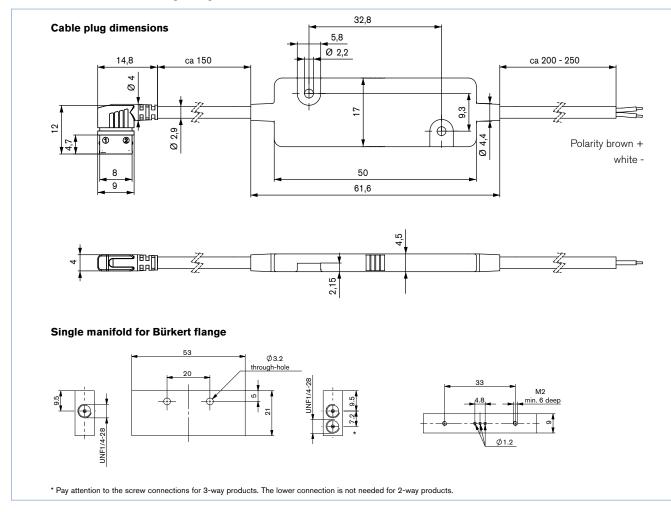
With a width of only 4.5 mm, Type 6650 sets a new standard in medium isolation miniature solenoid valves. The optimized design enables reproducible and precise dosing, good rinsing capability and is suitable for the application of aggressive chemicals owing to the high quality of the materials used. With the two nominal sizes of 0.4 and 0.8 mm, as well as the selection between 2/2-way and 3/2-way function, it is ideal for applications where the highest fluid performances are required in the smallest space. Type 6650 opens up new possibilities, owing to the 4.5 mm station width, in particular in connection with dosing in 384-well microtiter plates.

### Technical Data

| Orifice               | DN0.4 and 0.8 mm  |  |  |  |  |
|-----------------------|---|--|--|--|--|
| Body material         | PEEK  |  |  |  |  |
| Seal material         | FFKM (Simriz)   |  |  |  |  |
| Medium                | Resistant to neutral and aggressive fluids and gases; see Bürkert resistance table  |  |  |  |  |
| Medium temperature    | +15 °C to +50 °C  |  |  |  |  |
| Ambient temperature   | +10 °C to +50 °C  |  |  |  |  |
| Internal volume       | approx. 30 μl   |  |  |  |  |
| Port connection       | Flange  |  |  |  |  |
| Electrical connection | Plug Bürkert Type 2504 (not included)   |  |  |  |  |
| Operating voltages    | 24V (12V on request)  |  |  |  |  |
| Voltage tolerance     | ±10%  |  |  |  |  |
| Nominal power         | 5.7 W<br>For 100% duty cycle power has to be reduced<br>externally.   |  |  |  |  |
| Duty cycle            | 100% continuous operation only with external power reduction  |  |  |  |  |
| Installation          | As required; with side by side connection standard<br>polarity is adhered to  |  |  |  |  |
| Protection class      | IP65  |  |  |  |  |
| Switching frequency   | 80Hz (for mechanical limit observe maximum tem-<br>perature)<br>15Hz (continuous with external power reduction, for<br>more information see manual) |  |  |  |  |
| Response times        | <5 ms (acc. to ISO 12238)   |  |  |  |  |
|                       |   |  |  |  |  |



Envelope Dimensions [mm] (see datasheet for details)



## Ordering Chart

| Circuit function                     | Orifice<br>[mm] | Kv value water<br>[m/h] <sup>1)</sup> | Pressure range<br>[bar] <sup>2)</sup> | Max. pressure<br>difference<br>[bar] | Voltage<br>[V] | Nominal power [W]<br>(Inrush-/nominal<br>holding power) | Item no. |
|--------------------------------------|-----------------|---------------------------------------|---------------------------------------|--------------------------------------|----------------|---|----------|
| A 2/2-way valve normally closed      | 0.4 3)          | 0.004                                 | Vac7                                  | 7                                    | 24             | 5.7 / 0.7   | 182 284  |
|                                      | 0.8 4)          | 0.01                                  | Vac3                                  | 3                                    | 24             | 5.7 / 0.7   | 226 664  |
| T 3/2-way valve<br>universal version | 0.8             | 0.01                                  | Vac1                                  | 1                                    | 24             | 5.7 / 0.7   | 189 292  |
| F 3/2-way valve<br>distributor valve | 0.8             | 0.01                                  | Vac3                                  | 3                                    | 24             | 5.7 / 0.7   | 227 020  |

<sup>1)</sup> Measured at +20 °C, 1 bar pressure at valve inlet and free outlet

<sup>2)</sup> Measured as overpressure to the atmospheric pressure
<sup>3)</sup> With orifice 0.4 mm flow permitted in both directions
<sup>4)</sup> With orifice 0.8 mm flow direction according to label

#### Accessories

| Description   | Item no. |
|---|----------|
| Cable plug type 2504 with integrated hit and hold electronic, 024V/DC, 500 mm long, Power reduction to 0.7 W after 5 ms | 670 178  |
| Cable plug type 2504, single cable, 500 mm long <sup>1)</sup>   | 670 164  |
| Cable plug type 2504, single cable, 5000 mm long <sup>1)</sup>  | 680 840  |
| Single manifold material Peek   | 670 181  |

<sup>1)</sup> The valve must be operated with external power reduction. Please refer to the manual for further details.