SI5000

Flow monitor
SID10ABBFPKG/US-100

1 LED bar display
2 setting pushbutton
3 Tightening torque 25 Nm

Product characteristics

<table>
<thead>
<tr>
<th>Number of inputs and outputs</th>
<th>Number of digital outputs: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process connection</td>
<td>M18 x 1.5 internal thread</td>
</tr>
</tbody>
</table>

Application

<table>
<thead>
<tr>
<th>Media</th>
<th>Liquids; Gases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium temperature [°C]</td>
<td>-25...80</td>
</tr>
<tr>
<td>Pressure rating [bar]</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liquids</th>
<th></th>
</tr>
</thead>
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<td>Medium temperature [°C]</td>
<td>-25...80</td>
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<table>
<thead>
<tr>
<th>Gases</th>
<th></th>
</tr>
</thead>
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<tr>
<td>Medium temperature [°C]</td>
<td>-25...80</td>
</tr>
</tbody>
</table>

Electrical data

<table>
<thead>
<tr>
<th>Operating voltage [V]</th>
<th>19...36 DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current consumption [mA]</td>
<td>&lt; 60</td>
</tr>
<tr>
<td>Protection class</td>
<td>III</td>
</tr>
<tr>
<td>Reverse polarity protection</td>
<td>yes</td>
</tr>
<tr>
<td>Power-on delay time [s]</td>
<td>10</td>
</tr>
</tbody>
</table>
## Inputs / outputs

| Number of inputs and outputs | Number of digital outputs: 1 |

## Outputs

<table>
<thead>
<tr>
<th>Total number of outputs</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output signal</td>
<td>switching signal</td>
</tr>
<tr>
<td>Electrical design</td>
<td>PNP</td>
</tr>
<tr>
<td>Number of digital outputs</td>
<td>1</td>
</tr>
<tr>
<td>Output function</td>
<td>normally open / normally closed; (parameterisable)</td>
</tr>
<tr>
<td>Max. voltage drop switching output DC [V]</td>
<td>2.5</td>
</tr>
<tr>
<td>Permanent current rating of switching output DC [mA]</td>
<td>250</td>
</tr>
<tr>
<td>Short-circuit protection</td>
<td>yes</td>
</tr>
<tr>
<td>Type of short-circuit protection</td>
<td>pulsed</td>
</tr>
<tr>
<td>Overload protection</td>
<td>yes</td>
</tr>
</tbody>
</table>

## Measuring/setting range

### Liquids

<table>
<thead>
<tr>
<th>Probe length L [mm]</th>
<th>45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting range [cm/s]</td>
<td>3...300</td>
</tr>
<tr>
<td>Greatest sensitivity [cm/s]</td>
<td>3...100</td>
</tr>
</tbody>
</table>

### Gases

<table>
<thead>
<tr>
<th>Setting range [cm/s]</th>
<th>200...3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greatest sensitivity [cm/s]</td>
<td>200...800</td>
</tr>
</tbody>
</table>

## Accuracy / deviations

### Repeatability [cm/s] 1...5

Note on repeatability for water 5...100 cm/s; 25 °C

Temperature drift [cm/s x 1/K] 0.1; (for water 5...100 cm/s; 10...70 °C)

Temperature gradient [K/min] 300

Switch point accuracy [cm/s] ± 2...± 10; (for water 5...100 cm/s; 25 °C; Factory setting)

Hysteresis [cm/s] 2...5; (for water 5...100 cm/s; 25 °C; Factory setting)

### Response times [s]

<table>
<thead>
<tr>
<th>Response time</th>
<th>1...10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquids</td>
<td></td>
</tr>
<tr>
<td>Response time</td>
<td>1...10</td>
</tr>
<tr>
<td>Gases</td>
<td></td>
</tr>
<tr>
<td>Response time</td>
<td>1...10</td>
</tr>
</tbody>
</table>

## Software / programming

Adjustment of the switch point pushbutton
### Operating conditions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature</td>
<td>-25...80°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-25...100°C</td>
</tr>
<tr>
<td>Protection</td>
<td>IP 67</td>
</tr>
</tbody>
</table>

### Tests / approvals

<table>
<thead>
<tr>
<th>Standard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMC</strong></td>
<td></td>
</tr>
<tr>
<td>EN 61000-4-2 ESD</td>
<td>4 kV CD / 8 kV AD</td>
</tr>
<tr>
<td>EN 61000-4-3 HF radiated</td>
<td></td>
</tr>
<tr>
<td>EN 61000-4-4 Burst</td>
<td>2 kV</td>
</tr>
<tr>
<td>EN 61000-4-6 HF conducted</td>
<td>10 V</td>
</tr>
<tr>
<td><strong>Shock resistance</strong></td>
<td></td>
</tr>
<tr>
<td>DIN IEC 68-2-27</td>
<td>50 g (11 ms)</td>
</tr>
<tr>
<td><strong>Vibration resistance</strong></td>
<td></td>
</tr>
<tr>
<td>DIN EN 60068-2-6</td>
<td>20 g (55...2000 Hz)</td>
</tr>
<tr>
<td><strong>MTTF</strong></td>
<td></td>
</tr>
<tr>
<td>[years]</td>
<td>298</td>
</tr>
</tbody>
</table>

### Mechanical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>246 [g]</td>
</tr>
<tr>
<td>Dimensions</td>
<td>M18 x 1.5</td>
</tr>
<tr>
<td>Thread designation</td>
<td>M18 x 1.5</td>
</tr>
<tr>
<td>Materials</td>
<td>stainless steel (1.4404 / 316L); stainless steel (1.4310 / 301); PC; PBT-GF20; EPDM/X</td>
</tr>
<tr>
<td>Materials (wetted parts)</td>
<td>stainless steel (1.4404 / 316L); O-ring: FKM 80 Shore A</td>
</tr>
<tr>
<td>Process connection</td>
<td>M18 x 1.5 internal thread</td>
</tr>
</tbody>
</table>

### Displays / operating elements

| Display function      | 10 x LED, three-colour |

### Remarks

| Pack quantity         | 1 pcs. |

### Electrical connection

| Connector             | 1 x M12 |

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Connection