

# Flow sensor SFAW-32-TG12-E-PNLK-PNVBA-M12

Part number: 8036871

FESTO



General operating condition

## Data sheet

| Feature                                      | Value   |
|--|---|
| Symbol                                       | 00995566  |
| Approval                                     | RCM trademark<br>c UL us listed (OL)  |
| CE mark (see declaration of conformity)      | To EU EMC Directive<br>In accordance with EU RoHS Directive   |
| UKCA marking (see declaration of conformity) | To UK RoHS instructions   |
| Note on materials                            | RoHS-compliant  |
| Measured variable                            | Flow rate<br>Temperature  |
| Flow direction                               | Unidirectional<br>P1 -> P2  |
| Measurement method                           | Flow: Vortex<br>Temperature: PT1000   |
| Start value for flow rate measuring range    | 1.8 l/min   |
| End value for flow rate measuring range      | 32 l/min  |
| Operating pressure                           | 0 MPa ... 1.2 MPa   |
| Operating pressure                           | 0 bar ... 12 bar  |
| Operating pressure                           | 0 psi ... 174 psi   |
| Note on operating pressure                   | Max. 1.2 MPa (12 bar / 174 psi) at 40 °C<br>Max. 0.6 MPa (6 bar / 87 psi) at 90 °C  |
| Overload pressure                            | 4 MPa   |
| Overload pressure                            | 40 bar  |
| Overload pressure                            | 580 psi   |
| Operating medium                             | Liquid media<br>Water<br>Neutral fluids   |
| Note on operating and pilot medium           | Media with a kinematic viscosity = 1.8 mm <sup>2</sup> /sec. [cSt]. Compatibility of the media with the substances in contact with the media must be ensured. |
| Media temperature                            | 0 °C ... 90 °C  |
| Ambient temperature                          | 0 °C ... 50 °C  |
| Nominal temperature                          | 23 °C   |
| Accuracy of flow rate                        | ±2 %FS for flow ≤ 50 %FS<br>±3% of measured value for flow rate ≥ 50% FS  |
| Accuracy temperature in ± °C                 | 2 °C  |
| Repetition accuracy of flow rate             | < ±0.5% FS for flow rate ≤ 50 %FS<br>< ±1% of measured value for flow rate ≥ 50 %FS   |
| Temperature coefficient span in ± %FS/K      | Typ. ± 0.05%FS/K  |
| Switching output                             | 2 x PNP or 2 x NPN, switchable  |

| Feature  | Value  |
|--|--|
| Switching function                                   | Window comparator<br>Threshold value comparator<br>Freely programmable                                     |
| Switching element function                           | N/C or N/O contact, switchable   |
| Max. output current                                  | 100 mA   |
| Analogue output                                      | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V   |
| Flow characteristic curve start value                | 0 l/min  |
| Flow characteristic curve end value                  | 32 l/min   |
| Max. load resistance current output                  | 500 Ohm  |
| Min. load resistance voltage output                  | 15 kOhm  |
| Short circuit current rating                         | yes  |
| Overload protection                                  | Available  |
| Protocol   | IO-Link®   |
| IO-Link, Protocol version                            | Device V 1.1   |
| IO-Link, Profile                                     | Smart sensor profile   |
| IO-Link, Function classes                            | Binary data channel (BDC)<br>Process data variable (PDV)<br>Identification<br>Diagnostics<br>Teach channel |
| IO-Link, communication mode                          | COM2 (38.4 kBaud)  |
| IO-Link, SIO-Mode support                            | Yes  |
| IO-Link, Port class                                  | A  |
| IO-Link, Process data length OUT                     | 0 bytes  |
| IO-Link, Process data length IN                      | 3 bytes  |
| IO-Link, Process data content IN                     | 1 bit BDC (volume monitoring)<br>14 bit PDV (measured flow value)<br>2 bit BDC (flow monitoring)           |
| IO-Link, Service data IN                             | 32-bit volume measurement  |
| IO-Link, Min. cycle time                             | 5 ms   |
| IO-Link, Data storage required                       | 500 Byte   |
| Operational voltage range DC                         | 18 V ... 30 V  |
| Reverse polarity protection                          | For all electrical connections   |
| Electrical connection 1, connection type             | Plugs  |
| Electrical connection 1, connector system            | M12x1, A-coded to EN 61076-2-101   |
| Electrical connection 1, number of connections/cores | 5  |
| Electrical connection 1, type of mounting            | Not rotatable  |
| Electrical connection 1, compatible type of mounting | Compatible with rotatable screw-type lock  |
| Electrical connection 1, connection pattern          | 00995383   |
| Max. cable length                                    | 30 m   |
| Mounting position                                    | optional   |
| Fluid connection                                     | Female thread G1/2   |
| Product weight                                       | 400 g  |
| Material housing                                     | PA-reinforced  |
| Material in contact with the medium                  | PA6T/6I reinforced   |
| Displayable units                                    | US gal<br>US gal/min<br>cft<br>cft/min<br>l<br>l/h<br>l/min<br>m <sup>3</sup><br>°C<br>°F                  |
| Degree of protection                                 | IP65   |

| Feature                        | Value                     |
|--------------------------------|---------------------------|
| Corrosion resistance class CRC | 3 - high corrosion stress |
| LABS (PWIS) conformity         | VDMA24364-B2-L            |