

Flow sensor SFAB-1000U-HQ10-PNLK-PNVBA-M12

Part number: 8162834

FESTO



General operating condition

Data sheet

| Feature | Value |
|--|---|
| Symbol | 00995566 |
| Approval | RCM c UL us - Listed (Oil) |
| CE mark (see declaration of conformity) | To EU EMC Directive In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity) | To UK RoHS instructions |
| Certificate issuing authority | UL E322346 |
| Note on materials | RoHS compliant |
| Measured variable | Mass flow rate Temperature Volume Volumetric flow rate |
| Flow direction | Unidirectional P1 -> P2 |
| Measuring principle | thermal |
| Measurement method | Heat loss |
| Start value for flow rate measuring range | 10 l/min |
| End value for flow rate measuring range | 1000 l/min |
| Temperature measurement start value | 0 °C |
| Temperature measurement end value | 50 °C |
| Operating pressure | 0 MPa ... 1 MPa |
| Operating pressure | 0 bar ... 10 bar |
| Operating pressure | 0 psi ... 145 psi |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] Carbon dioxide Nitrogen |
| Media temperature | 0 °C ... 50 °C |
| Ambient temperature | 0 °C ... 50 °C |
| Nominal temperature | 23 °C |
| Accuracy of flow rate | ± (3% o.m.v. + 0.3% FS) |
| Accuracy temperature in ± °C | 5 °C |
| Repetition accuracy offset in ± %FS | 0.2 %FS |
| Repetition accuracy span in ± %FS | 0.8 %FS |
| Temperature coefficient span in ± %FS/K | typ. 0.1%FS/K |
| Pressure influence span in ± %FS/bar | 0.5 %FS/b. |
| Switching output | 2 x PNP or 2 x NPN, switchable |
| Switching function | Window comparator Threshold value comparator |

| Feature | Value |
|--|--|
| Switching element function | NC or NO, switchable |
| Switch-on time | 10 ms |
| Switch-off time | 10 ms |
| Max. output current | 100 mA |
| Analogue output | 0 - 10 V 4 - 20 mA 1 - 5 V |
| Flow characteristic curve start value | 0 l/min |
| Flow characteristic curve end value | 1000 l/min |
| Temperature characteristic curve start value | 0 °C |
| Temperature characteristic curve end value | 100 °C |
| Output characteristic curve start value | 0 V |
| Output characteristic curve end value | 10 V |
| Output characteristic curve starting value | 4 mA |
| Output characteristic curve end value | 20 mA |
| Max. load resistance current output | 500 Ohm |
| Min. load resistance voltage output | 20 kOhm |
| Short circuit current rating | Yes |
| Overload protection | Available |
| Protocol | IO-Link® |
| IO-Link, revision ID | V1.1 |
| IO-Link, device profile | Function Extended identification Function Measurement data, standard resolution Function Multiple switching signal Firmware update Function locator Function Product URI Function Teach single value Identification and diagnostics Smart Sensor - SSP 4.1.2 |
| IO-Link, transmission rate | COM3 |
| IO-Link, SIO-Mode support | Yes |
| IO-Link, port type | Class A |
| IO-Link, process data length output | 0 bit |
| IO-Link, process data length input | 64 bit |
| IO-Link, Process data content IN | Flow rate measurement 16 bit MDC Flow rate monitoring 2-bit SSC Measured temperature value 16 bit MDC Temperature monitoring 2-bit SSC Volume / mass pulse 1 bit SSC |
| IO-Link, Service data IN | Volume/mass measured value 32 bit |
| IO-Link, minimum cycle time | 1.2 ms |
| IO-Link, Data storage required | 500 Byte |
| Operational voltage range DC | 15 V ... 30 V |
| No-load supply current | 90 mA |
| Reverse polarity protection | For all electrical connections |
| Electrical connection 1, connection type | Plug |
| 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 |
| Type of mounting | With through-hole via DIN rail |
| Mounting position | Any |
| Pneumatic connection | For tubing outside diameter of 10 mm |
| Product weight | 160 g |

| Feature | Value |
|--------------------------------|--|
| Material housing | Reinforced PA |
| Display type | Illuminated LCD, multi-colour |
| Displayable units | g g/min l l/min m ³ m ³ /h scf scfm |
| Setting options | IO-Link® Teach-in Via display and buttons |
| Protection against tampering | IO-Link® PIN code |
| Degree of protection | IP65 |
| Pressure drop | <100 mbar |
| Protection class | III |
| Corrosion resistance class CRC | 2 - Moderate corrosion stress |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |