

Flow sensor SFAH-100U-Q8S-PNLK-PNVBA-M8

Part number: 8058475

FESTO



Data sheet

[PDF General operating condition](#)

| Feature | Value |
|--|---|
| Symbol | 00995794 |
| Certification | RCM compliance mark c UL us - Listed (OL) |
| CE marking (see declaration of conformity) | As per EU EMC directive As per 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 Volumetric flow rate |
| Flow direction | Unidirectional |
| Measuring principle | Thermal |
| Method of measurement | Heat transfer |
| Flow measuring range start value | 2 l/min |
| Flow measuring range end value | 100 l/min |
| Operating pressure | -0.9 bar ... 10 bar |
| Operating medium | Compressed air as per ISO 8573-1:2010 [6:4:4] Nitrogen |
| Temperature of medium | 0 °C ... 50 °C |
| Ambient temperature | 0 °C ... 50 °C |
| Nominal temperature | 23 °C |
| Accuracy of flow rate | ± (2% o.m.v. + 1% FS) |
| Zero point repetition accuracy in ± %FS | 0.2 %FS |
| Repetition accuracy margin in ± %FS | 0.8 %FS |
| Temperature co-efficient margin in ± %FS/K | typ. 0.15% FS/K |
| Pressure influence of margin in ±%FS/bar | 1 %FS/b. |
| Switching output | 2 x PNP or 2 x NPN switchable |
| Switching function | Window comparator Threshold value comparator Auto difference monitoring |
| Switching element function | N/C contact/N/O contact switchable |
| Max. output current | 100 mA |
| Analog output | 0 - 10 V 4 - 20 mA 1 - 5 V |
| Flow characteristic curve, start value | 0 l/min |
| Flow characteristic curve, end value | 100 l/min |

| Feature | Value |
|---|--|
| Max. load resistance of current output | 500 Ohm |
| Min. load resistance of voltage output | 20 kOhm |
| Short-circuit protection | 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) Process data variable (PDV) Identification Diagnostics Teach channel |
| IO-Link®, communication mode | COM2 (38,4 kBd) |
| IO-Link®, SIO mode support | Yes |
| IO-Link®, port class | A |
| IO-Link®, process data width IN | 3 Byte |
| IO-Link®, process data content IN | 1 bit BDC (volume monitoring) 14 bit PDV (flow measurement) 2 bit BDC (flow monitoring) |
| IO-Link®, service data contents IN | 32 bit volume/mass measurement |
| IO-Link®, minimum cycle time | 4 ms |
| IO-Link®, data memory required | <500 byte |
| DC operating voltage range | 22 V ... 26 V |
| Idle current | ≤25 mA |
| Reverse polarity protection | for all electrical connections |
| Electrical connection 1, connection type | Plug |
| Electrical connection 1, connection technology | M8x1 A-coded as per EN 61076-2-104 |
| Electrical connection 1, number of pins/wires | 4 |
| Electrical connection 1, type of mounting | not rotatable |
| Electrical connection 1, type of mounting | Compatible with snap-locking Compatible with rotatable screw-type lock |
| Electrical connection for input 1, connection pattern | 00991171 |
| Type of mounting | With accessories |
| Mounting position | Any |
| Pneumatic connection | For pneumatic tubing outside diameter 8 mm |
| Pneumatic connection, outlet direction | Straight |
| Product weight | 60 g |
| Housing material | PA-reinforced |
| Materials in contact with the media | Silicon Silicon nitride High-alloy stainless steel |
| Display type | Illuminated LCD, multi-color |
| Displayable unit(s) | g g/min l l/min scft scft/h scft/min |
| Setting options | IO-Link® Teach-in Via display and pushbuttons |
| Protection against tampering | IO-Link® PIN code |
| Degree of protection | IP40 |
| Pressure drop | 15 mbar |
| Protection class | III |
| Corrosion resistance class (CRC) | 2 - Moderate corrosion stress |

| Feature | Value |
|---|----------------------------------|
| LABS (PWIS) conformity | VDMA24364-B2-L |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 4 according to ISO 14644-1 |
| Contamination level | 3 |