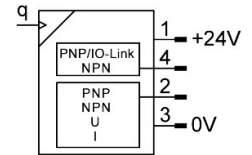


# Flow sensor SFAH-10B-Q6S-PNLK-PNVBA-M8

Part number: 610783

**FESTO**



[General operating condition](#)

## Data sheet

| Feature                                      | Value                                                                         |
|----------------------------------------------|-------------------------------------------------------------------------------|
| Symbol                                       | 00995794                                                                      |
| Certification                                | RCM compliance mark<br>c UL us - Listed (OL)                                  |
| CE marking (see declaration of conformity)   | As per EU EMC directive<br>As per EU RoHS directive                           |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions                         |
| Certificate issuing authority                | UL E322346                                                                    |
| Note on materials                            | RoHS-compliant                                                                |
| Measured variable                            | Mass flow rate<br>Volumetric flow rate                                        |
| Flow direction                               | bidirectional                                                                 |
| Measuring principle                          | Thermal                                                                       |
| Method of measurement                        | Heat transfer                                                                 |
| Flow measuring range start value             | 0.2 l/min                                                                     |
| Flow measuring range end value               | 10 l/min                                                                      |
| Operating pressure                           | -0.9 bar ... 10 bar                                                           |
| Operating medium                             | Compressed air as per ISO 8573-1:2010 [6:4:4]<br>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<br>Threshold value comparator<br>Auto difference monitoring |
| Switching element function                   | N/C contact/N/O contact switchable                                            |
| Max. output current                          | 100 mA                                                                        |
| Analog output                                | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V                                              |
| Flow characteristic curve, start value       | -10 l/min                                                                     |

| Feature                                               | Value                                                                                                      |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Flow characteristic curve, end value                  | 10 l/min                                                                                                   |
| 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)<br>Process data variable (PDV)<br>Identification<br>Diagnostics<br>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)<br>14 bit PDV (flow measurement)<br>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             | Snap-locking<br>Screw-type lock<br>not rotatable                                                           |
| Electrical connection 1, type of mounting             | Compatible with latching lock<br>Compatible with screw lock rotatable                                      |
| Electrical connection for input 1, connection pattern | 00995428                                                                                                   |
| Type of mounting                                      | With accessories                                                                                           |
| Mounting position                                     | Any                                                                                                        |
| Pneumatic connection                                  | For pneumatic tubing outside diameter 6 mm                                                                 |
| Pneumatic connection, outlet direction                | Straight                                                                                                   |
| Product weight                                        | 60 g                                                                                                       |
| Housing material                                      | PA-reinforced                                                                                              |
| Materials in contact with the media                   | NBR<br>PA-reinforced<br>Silicon<br>Silicon nitride<br>High-alloy stainless steel                           |
| Display type                                          | Illuminated LCD, multi-color                                                                               |
| Displayable unit(s)                                   | g<br>g/min<br>l<br>l/h<br>l/min<br>scft<br>scft/h<br>scft/min                                              |
| Setting options                                       | IO-Link®<br>Teach-in<br>Via display and pushbuttons                                                        |

| Feature                          | Value                            |
|----------------------------------|----------------------------------|
| Protection against tampering     | IO-Link®<br>PIN code             |
| Degree of protection             | IP40                             |
| Pressure drop                    | <5 mbar                          |
| Protection class                 | III                              |
| Corrosion resistance class (CRC) | 2 - Moderate corrosion stress    |
| LABS (PWIS) conformity           | VDMA24364-B2-L                   |
| Cleanroom class                  | Class 4 according to ISO 14644-1 |
| Contamination level              | 3                                |