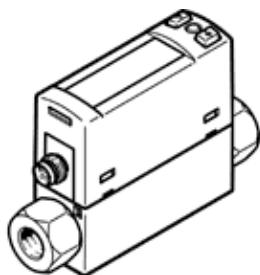


# Flow sensor SFAH-5U-G18FS-PNLK-PNVBA-M8

Part number: 8158425

FESTO



## Data sheet

| Feature  | Value   |
|--|---|
| Authorization                                    | RCM Mark<br>c UL us - Listed (OL)   |
| CE symbol (see declaration of conformity)        | according to EU-EMV guideline<br>in accordance with EU RoHS directive         |
| UKCA marking (see declaration of conformity)     | To UK instructions for EMC<br>To UK RoHS instructions                         |
| Certificate issuing department                   | UL E322346  |
| Materials note                                   | Conforms to RoHS  |
| Measured variable                                | Mass flow rate<br>Volumetric flow rate  |
| Direction of flow                                | Unidirectional  |
| Measuring principle                              | Thermal   |
| Measurement method                               | Heat Transfer   |
| Flow measurement range initial value             | 0.1 l/min   |
| Flow measurement range final value               | 5 l/min   |
| Working pressure                                 | -0.9 ... 10 bar   |
| Operating medium                                 | Argon<br>Compressed air in accordance with ISO8573-1:2010 [6:4:4]<br>Nitrogen |
| Medium temperature                               | 0 ... 50 °C   |
| Ambient temperature                              | 0 ... 50 °C   |
| Nominal temperature                              | 23 °C   |
| Accuracy of flow rate                            | ± (2% o.m.v. + 1% FS)   |
| Repetition accuracy zero point 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 dependency margin in ± %FS/bar          | 1 %FS/b.  |
| Switch 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 or N/O contact, switchable  |
| Max. output current                              | 100 mA  |
| Analog output                                    | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V  |
| Characteristic curve for flow rate initial value | 0 l/min   |
| Characteristic curve for flow rate final value   | 5 l/min   |
| Max. load resistance, current output             | 500 Ohm   |
| Min. load resistance, voltage output             | 20 kOhm   |
| Short circuit strength                           | Yes   |
| Overload withstand capability                    | Available   |
| Protocol   | IO-Link   |
| IO-Link, protocol                                | Device V 1.1  |
| IO-Link, profile                                 | Smart sensor profile  |
| IO-Link, function classes                        | Binary Data Channels (BDC)  |

| Feature  | Value  |
|--|--|
|  | Process Data Variable (PDV)<br>Identification<br>diagnosis<br>Teach channel  |
| IO-Link, communication mode                    | COM2 (38,4 kBaud)  |
| IO-Link, SIO mode support                      | Yes  |
| IO-Link, port type                             | 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 measured value)<br>2 bit BDC (flow monitoring)   |
| IO-Link, Service data contents IN              | 32 bit volume / mass measured value  |
| IO-Link, minimum cycle time                    | 4 ms   |
| IO-Link, data memory required                  | < 500 Byte   |
| Operating voltage range DC                     | 22 ... 26 V  |
| Idle current                                   | ≤ 25 mA  |
| Polarity protected                             | for all electrical connections   |
| Electrical connection 1, connection type       | Plug   |
| Electrical connection 1, connection technology | M8x1, A-coded to EN 61076-2-104  |
| Electrical connection 1, number of pins/wires  | 4  |
| Mounting type                                  | with accessories   |
| Assembly position                              | Any  |
| Pneumatic connection                           | Female thread G1/8   |
| Pneumatic connection, outlet direction         | Straight   |
| Product weight                                 | 90 g   |
| Material housing                               | PA-reinforced  |
| Materials in contact with media                | Anodised wrought aluminium alloy<br>Epoxy resin<br>NBR<br>PA-reinforced<br>Silicon<br>Silicon nitride<br>High alloy steel, non-corrosive |
| Type of display                                | Illuminated LCD, multicolored  |
| Unit(s) that can be displayed                  | 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 buttons   |
| Protection against manipulation                | IO-Link<br>PIN-Code  |
| Protection class                               | IP40   |
| Pressure drop                                  | < 5 mbar   |
| Safety class                                   | III  |
| Corrosion resistance classification CRC        | 2 - Moderate corrosion stress  |
| PWIS conformity                                | VDMA24364-B2-L   |