

# Flow sensor SFAH-1U-Q6S-PNLK-PNVBA-M8

Part number: 8158418

FESTO



## Data sheet

Feature	Value
Authorization	RCM Mark c UL us - Listed (OL)
CE symbol (see declaration of conformity)	according to EU-EMV guideline in accordance with EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Certificate issuing department	UL E322346
Materials note	Conforms to RoHS
Measured variable	Mass flow rate Volumetric flow rate
Direction of flow	Unidirectional
Measuring principle	Thermal
Measurement method	Heat Transfer
Flow measurement range initial value	0.02 l/min
Flow measurement range final value	1 l/min
Working pressure	-0.9 ... 10 bar
Operating medium	Argon Compressed air in accordance with ISO8573-1:2010 [6:4:4] 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 Threshold value comparator Auto difference monitoring
Switching element function	N/C or N/O contact, switchable
Max. output current	100 mA
Analog output	0 - 10 V 4 - 20 mA 1 - 5 V
Characteristic curve for flow rate initial value	0 l/min
Characteristic curve for flow rate final value	1 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) Identification diagnosis 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) 14 bit PDV (flow measured value) 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	For tubing outside diameter 6 mm
Pneumatic connection, outlet direction	Straight
Product weight	60 g
Material housing	PA-reinforced
Materials in contact with media	Anodised wrought aluminium alloy Epoxy resin NBR PA-reinforced Silicon Silicon nitride High alloy steel, non-corrosive
Type of display	Illuminated LCD, multicolored
Unit(s) that can be displayed	g g/min l l/h l/min scft scft/h
Setting options	IO-Link Teach-In Via display and buttons
Protection against manipulation	IO-Link 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