

# Flow sensor SFAM

Part number: 563796

FESTO



Exemplary representation

## Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Authorization	RCM Mark c UL us - Recognized (OL)
CE symbol (see declaration of conformity)	according to EU-EMV guideline according to EU-Ex protection guideline (ATEX) in accordance with EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
ATEX category Gas	II 3G
Explosion ignition protection type Gas	Ex nA IIC T5 X Gc
ATEX category Dust	II 3D
Explosion ignition protection type Dust	Ex tc IIIB T80°C X Dc IP54
Explosion-proof ambient temperature	0°C ≤ Ta ≤ +50°C
Certificate issuing department	UL E322346
Materials note	Conforms to RoHS
Measured variable	Mass flow rate Pressure Temperature Volume Volumetric flow rate
Direction of flow	Unidirectional From left to right From right to left
Measuring principle	Thermal
Measurement method	Heat Loss Heat Transfer
Pressure measuring range start value (MPa)	0 MPa
Pressure measuring range, initial value	0 bar
Pressure measuring range start value (psi)	0 psi
Pressure measuring range end value (MPa)	1.6 MPa
Pressure measuring range, final value	16 bar
Pressure measuring range end value (psi)	232 psi
Flow measurement range initial value	10 ... 150 l/min
Flow measurement range final value	1,000 ... 15,000 l/min
Temperature measuring range starting value	0 °C
Temperature measuring range end value	50 °C
Operating pressure MPa	1.6 MPa
Working pressure	16 bar
Operating medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4] Nitrogen
Medium temperature	0 ... 50 °C
Ambient temperature	0 ... 50 °C
Nominal temperature	23 °C
Accuracy of flow rate	± (3% o.m.v. + 0,3% FS)
Accuracy of temperature in ± °C	5 °C

<b>Feature</b>	<b>Value</b>
Repetition accuracy zero point in $\pm$ %FS	0.2 %FS
Repetition accuracy margin in $\pm$ %FS	0.8 %FS
Temperature co-efficient margin in $\pm$ %FS/K	typ. 0,1%FS/K
Pressure dependency margin in $\pm$ %FS/bar	0.5 %FS/b.
Switch output	2 x PNP or 2 x NPN switchable
Switching function	Window comparator or threshold value comparator, adjustable
Switching element function	N/C or N/O contact, switchable
Max. output current	100 mA
Analog output	0 - 10 V 1 - 5 V
Characteristic curve for flow rate initial value	0 l/min
Characteristic curve for flow rate final value	1,000 ... 15,000 l/min
Temperature characteristic curve starting value	0 °C
Temperature characteristic curve end value	100 °C
Output characteristic curve initial value	0 V
Output characteristic curve final value	10 V
Output characteristic curve initial value	4 mA
Output characteristic curve final value	20 mA
Max. load resistance, current output	500 Ohm
Min. load resistance, voltage output	10 ... 20 kOhm
Short circuit strength	Yes
Overload withstand capability	Available
Protocol	IO-Link
IO-Link®, revision ID	V1.1
IO-Link®, device profile	Identification and diagnostics F. Extended identification F. Measurement data, standard F. Multiple switching signal Firmware Update Function Locator Function Teach single value Function Product URI 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	96 Bit
IO-Link, process data content IN	Flow rate measured value 16-bit MDC Flow rate monitoring 2-bit SSC Temperature measured value 16-bit MDC Temperature monitoring 2-bit SSC Volume/mass pulse 1-bit SSC Pressure measured value 16 bit MDC Pressure monitoring 2 bit SSC
IO-Link, Service data contents IN	Volume/mass measured value 32-bit MDC
IO-Link®, minimum cycle time	1.5 ms
IO-Link, data memory required	0.5 Byte
Operating voltage range DC	15 ... 30 V
Polarity protected	for all electrical connections
Electrical connection 1, connection type	Plug
Electrical connection 1, connection technology	M12x1, A-coded in accordance with EN 61076-2-101
Electrical connection 1, number of pins/wires	5
Electrical connection 1, type of mounting	Screw lock
Max. line length	20 m with IO-Link operation 30 m
Mounting type	Line installation on service unit with wall/surface fixing
Assembly position	Horizontal
Pneumatic connection	Manifold module

<b>Feature</b>	<b>Value</b>
	G1/2 G1 G1 1/2 1/2 NPT 1 NPT 1 1/2 NPT
Product weight	600 ... 2,750 g
Material housing	Aluminum die cast PA-reinforced
Type of display	Illuminated LCD, multicolored
Unit(s) that can be displayed	MPa bar kPa kg kg/min l m <sup>3</sup> /h psi scft °C °F
Setting options	IO-Link Teach-In Via display and buttons
Protection against manipulation	IO-Link PIN-Code
Threshold value setting range	0 ... 100 %
Hysteresis setting range	0 ... 90 %
Protection class	IP65
Pressure drop	40 ... 200 mbar
Safety class	III
Corrosion resistance classification CRC	2 - Moderate corrosion stress
PWIS conformity	VDMA24364-B1/B2-L