

# Flow sensor SFAH-

Part number: 8035300

**FESTO**



## Data sheet

Feature	Value
Approval	RCM trademark c UL us listed (OL)
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Note on materials	RoHS-compliant
Measured variable	Mass flow rate Volumetric flow rate
Flow direction	Bidirectional Unidirectional
Measuring principle	Thermal
Measurement method	Heat transfer
Start value for flow rate measuring range	0.002 l/min...4 l/min
End value for flow rate measuring range	0.1 l/min...200 l/min
Operating pressure	-0.9 bar...10 bar
Operating medium	Argon Compressed air to ISO 8573-1:2010 [6:4:4] Nitrogen
Media temperature	0 °C...50 °C
Ambient temperature	0 °C...50 °C
Nominal temperature	23 °C
Accuracy of flow rate	± (2% o.m.v. + 1% FS)
Repetition accuracy offset in ± %FS	0.2 %FS
Repetition accuracy span in ± %FS	0.8 %FS
Temperature coefficient span in ± %FS/K	Typ. 0.15%FS/K
Pressure influence span 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 or N/O contact, switchable
Max. output current	100 mA

Feature	Value
Analogue output	0 - 10 V 4 - 20 mA 1 - 5 V
Flow characteristic curve start value	-200 l/min
Flow characteristic curve end value	200 l/min
Max. load resistance current output	500 Ohm
Min. load resistance voltage output	20 kOhm
Short circuit current rating	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 kBaud)
IO-Link, SIO-Mode support	Yes
IO-Link, Port class	A
IO-Link, Process data length IN	3 bytes
IO-Link, Process data content IN	1 bit BDC (volume monitoring) 14 bit PDV (measured flow value) 2 bit BDC (flow monitoring)
IO-Link, Service data IN	32-bit volume/mass measurement
IO-Link, Min. cycle time	4 ms
IO-Link, Data storage required	0.5 KB
Operational voltage range DC	22 V...26 V
Reverse polarity protection	For all electrical connections
Electrical connection 1, connection type	Plugs
Electrical connection 1, connector system	Connection pattern L1J M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	4
Type of mounting	With accessories
Mounting position	optional
Pneumatic connection	Female thread G1/8 Female thread G1/4 For tubing O.D. 4 mm For tubing O.D. 6 mm For tubing O.D. 8 mm
Pneumatic connection, outlet direction	Straight Angled, adjustable
Product weight	60 g...90 g
Material housing	PA-reinforced
Material in contact with the medium	Anodised wrought aluminium alloy Epoxy NBR PA-reinforced Silicon Silicon nitride High-alloy stainless steel
Display type	Illuminated LCD, multi-colour
Displayable units	g g/min l l/h l/min scft scft/h scft/min

Feature	Value
Protection against tampering	IO-Link
Degree of protection	IP40
Pressure drop	5 mbar...56 mbar
Corrosion resistance class CRC	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L
Suitability for the production of Li-ion batteries	Product corresponds to the internal product definition from Festo for use in battery production:Metals with more than 1% by mass of copper, zinc or nickel are excluded from use.The exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils
Cleanroom class	Class 4 according to ISO 14644-1