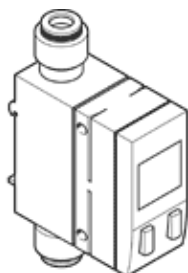


Flow sensor

SFAB-1000U-HQ10-PNLK-PNVBA-M12

Part number: 8162834

FESTO



Data sheet

Feature	Value
Authorization	RCM Mark
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
Materials note	Conforms to RoHS
Measured variable	Mass flow rate Temperature Volume Volumetric flow rate
Direction of flow	Unidirectional P1 -> P2
Measuring principle	Thermal
Measurement method	Heat Loss
Flow measurement range initial value	10 l/min
Flow measurement range final value	1,000 l/min
Temperature measuring range starting value	0 °C
Temperature measuring range end value	50 °C
Operating pressure MPa	0 ... 1 MPa
Working pressure	0 ... 10 bar
Operating medium	Argon Compressed air in accordance with ISO8573-1:2010 [7:4:4] Carbon dioxide 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
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. 0,1%FS/K
Pressure dependency margin in ± %FS/bar	0.5 %FS/b.
Switch output	2 x PNP or 2 x NPN switchable
Switching function	Window comparator Threshold value comparator
Switching element function	N/C or N/O contact, switchable
Switch-on time	10 ms
Switch-off time	10 ms
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	1,000 l/min
Temperature characteristic curve starting value	0 °C

Feature	Value
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	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	64 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
IO-Link, Service data contents IN	Volume/mass measured value 32-bit MDC
IO-Link®, minimum cycle time	1.2 ms
IO-Link, data memory required	0.5 Kilobyte
Operating voltage range DC	15 ... 30 V
Idle current	90 mA
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
Mounting type	with through hole with top-hat rail
Assembly position	Any
Pneumatic connection	For tubing outside diameter 10 mm
Product weight	160 g
Material housing	PA-reinforced
Type of display	Illuminated LCD, multicolored
Unit(s) that can be displayed	g g/min l l/min m3 m3/h scf scfm
Setting options	IO-Link Teach-In Via display and buttons
Protection against manipulation	IO-Link PIN-Code
Protection class	IP65
Pressure drop	< 100 mbar

Feature	Value
Safety class	III
Corrosion resistance classification CRC	2 - Moderate corrosion stress
PWIS conformity	VDMA24364-B1/B2-L