

Flow sensor SFAE-1U-Q4-PNLK-PNVB-2.5K

Part number: 8058501

FESTO



Data sheet

Feature	Value
Certification	RCM compliance mark
CE marking (see declaration of conformity)	As per EU EMC directive As per 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	Volume Volumetric flow rate
Flow direction	Unidirectional
Measuring principle	Thermal
Flow measuring range start value	0 l/min
Flow measuring range end value	1 l/min
Operating pressure	-0.09 MPa...1 MPa -0.9 bar...10 bar -13.05 psi...145 psi
Overload pressure	1.6 MPa 16 bar 232 psi
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4] Nitrogen
Information on operating and pilot media	Ester oil < 0.1mg/m ³ , according to ISO 8573-1:2010 [---:2]
Temperature of medium	0 °C...50 °C
Ambient temperature	0 °C...50 °C
Nominal temperature	23 °C
ADC resolution	12 bit
Accuracy of flow rate	± (5% o.m.v. + 2% FS)
Zero point repetition accuracy in ± %FS	0.5 %FS
Repetition accuracy margin in ± %FS	1 %FS
Switching output	2 x PNP or 2 x NPN switchable

Feature	Value
Switching function	Window comparator Threshold value comparator Threshold value with variable hysteresis
Switching element function	N/C contact/N/O contact switchable
On time	10 ms
Switch-off time	10 ms
Max. output current	100 mA
Analog output	0 - 10 V 1 - 5 V
Flow characteristic curve, start value	0 l/min
Flow characteristic curve, end value	1 l/min
Output characteristic curve initial value	0 V
End value output characteristic curve	10 V
Rise time	10 ms
Min. load resistance of voltage output	10 kOhm
Display range start value	0 %FS
Display range end value	99 %FS
Short-circuit protection	yes
Overload protection	Available
Protocol	IO-Link®
IO-Link, revision ID	V1.1
IO-Link, device profile	Firmware update Function Locator Function Product URI Function Quantity detection Identification and diagnosis Smart Sensor - SSP 4.1.1
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	32 bit
IO-Link®, process data content IN	Flow rate measured value 16-bit MDC Flow rate monitoring 2-bit SSC Volume pulse 1 bit SSC
IO-Link®, service data contents IN	Device temperature 16 bit Volume measurement 32 bit Medium temperature 16 bit
IO-Link®, minimum cycle time	0.7 ms
IO-Link®, data memory required	0.5 KB
DC operating voltage range	22 V...26 V
Reverse polarity protection	for all electrical connections
Electrical connection 1, connection type	Cable
Electrical connection 1, connection technology	Open end
Electrical connection 1, number of pins/wires	4
Cable length	2.5 m
Max. cable length	20 m for IO-Link® operation 30 m
Type of mounting	Line installation With through-hole With accessories
Mounting position	Any
Pneumatic connection	For plug connection outside diameter 4 mm
Pneumatic connection, outlet direction	Straight
Product weight	41.2 g
Housing material	PA-reinforced

Feature	Value
Materials in contact with the media	Epoxy Brass, nickel-plated NBR PA-reinforced PI High-alloy stainless steel
Display type	LED display 2-digit
Degree of protection	IP40
Pressure drop	50 mbar
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Cleanroom suitability, measured according to ISO 14644-14	Class 4 according to ISO 14644-1