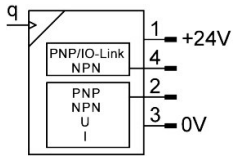
Flow sensor
SFAH-1B-Q4S-PNLK-PNVBA-M8

Part number: 8158413





Data sheet

Feature	Value
Certification	RCM compliance mark c UL us - Listed (OL)
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	Mass flow Volumetric flow rate
Flow direction	Bidirectional
Measuring principle	Thermal
Method of measurement	Heat transfer
Flow measuring range start value	0.02 l/min
Flow measuring range end value	1 l/min
Operating pressure	-0.9 bar...10 bar
Operating medium	Argon Compressed air as per ISO 8573-1:2010 [6:4:4] Nitrogen
Temperature of medium	0 °C...50 °C
Ambient temperature	0 °C...50 °C
Nominal temperature	23 °C
Accuracy of flow rate	± (2% o.m.v. + 1% FS)
Zero point repetition accuracy 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 influence range in ± %FS	typ. 1 %FS
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 contact/N/O contact, switchable
Max. output current	100 mA
Analog output	0 - 10 V 4 - 20 mA

Feature	Value
	1 - 5 V
Flow characteristic curve, start value	-1 l/min
Flow characteristic curve, end value	1 l/min
Max. load resistance of current output	500 Ohm
Min. load resistance of voltage output	20 kOhm
Short-circuit protection	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 kBd)
IO-Link®, SIO mode support	Yes
IO-Link®, port class	A
IO-Link®, process data width IN	3 Byte
IO-Link®, process data content IN	1 bit BDC (volume monitoring) 14 bit PDV (flow measurement) 2 bit BDC (flow monitoring)
IO-Link®, service data contents IN	32 bit volume/mass measurement
IO-Link®, minimum cycle time	4 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	Plug
Electrical connection 1, connection technology	M8x1 A-coded as per EN 61076-2-104
Electrical connection 1, number of pins/wires	4
Electrical connection 1, type of mounting	Snap-locking Screw-type lock not rotatable Compatible with snap-locking Compatible with rotatable screw-type lock
Type of mounting	With accessories
Mounting position	Any
Pneumatic connection	For pneumatic tubing outside diameter 4 mm
Pneumatic connection, outlet direction	Straight
Product weight	60 g
Housing material	PA-reinforced
Materials in contact with the media	Wrought aluminum alloy, anodized Epoxy NBR PA-reinforced Silicon Silicon nitride high-alloy stainless steel
Display type	Multi-color backlit LCD
Displayable unit(s)	g g/min l l/h l/min scft scft/h
Protection against tampering	IO-Link® PIN code
Degree of protection	IP40

Feature	Value
Pressure drop	5 mbar
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L
Cleanroom suitability, measured according to ISO 14644-14	Class 4 according to ISO 14644-1