Flow sensor
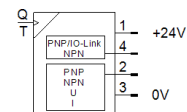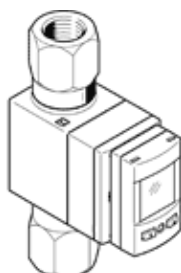# SFAW-100T-TG1-E-PNLK-PNVBA-M12
Part number: 8036878

For measuring and monitoring flow rate, volume and temperature of liquid media, flow measuring range 100l/min.

Data sheet

Feature	Value
Authorization	RCM Mark
	c UL us - Listed (OL)
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	Flow rate
	Temperature
Direction of flow	Unidirectional
	P1 -> P2
Measurement method	Flow: vortex
	Temperature: PT1000
Flow measurement range initial value	5 l/min
Flow measurement range final value	100 l/min
Temperature measuring range starting value	0 °C
Temperature measuring range end value	90 °C
Operating pressure MPa	0 ... 1.2 MPa
Working pressure	0 ... 12 bar
Note on working pressure	Max. 1.2 MPa (12 bar / 174 psi) at 40 °C
	Max. 0.6 MPa (6 bar / 87 psi) at 90 °C
Overload pressure	4 MPa
	40 bar
Overload pressure (psi)	580 psi
Operating medium	Fluid media
	Water
	Neutral fluids
Note on operating and pilot medium	It must be ensured that the operating medium is compatible with the materials with which it is in contact.
Medium temperature	0 ... 90 °C
Ambient temperature	0 ... 50 °C
Nominal temperature	23 °C
Accuracy of flow rate	±2% FS for flow rate <= 50% FS
	±3% of measured value for flow rate >= 50% FS
Accuracy of temperature in ± °C	2 °C
Repetition accuracy of flow rate value	‹ ±0.5% FS for flow rate <= 50% FS
	‹ ±1% of measured value for flow rate >= 50% FS
Temperature co-efficient margin in ± %FS/K	typ. ±0,05%FS/K
Switch output	2 x PNP or 2 x NPN switchable
Switching function	Window comparator
	Threshold value comparator
	Freely programmable
Switching element function	N/C or N/O contact, switchable

Feature	Value
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	100 l/min
Temperature characteristic curve starting value	0 °C
Temperature characteristic curve end value	100 °C
Max. load resistance, current output	500 Ohm
Min. load resistance, voltage output	15 kOhm
Short circuit strength	Yes
Overload withstand capability	Available
Protocol	IO-Link
IO-Link, protocol	Device V 1.1
IO-Link, profile	Smart sensor profile
IO-Link, function classes	Binary Data Channels (BDC)
	Process Data Variable (PDV)
	Identification
	diagnosis
	Teach channel
IO-Link, communication mode	COM2 (38,4 kBaud)
IO-Link, SIO mode support	Yes
IO-Link, port type	A
IO-Link, process data width OUT	0 Byte
IO-Link, process data width IN	5 Byte
IO-Link, process data content IN	1 bit BDC (temperature monitoring)
	1 bit BDC (volume monitoring)
	14 bit PDV (flow measured value)
	14 bit PDV (temperature measured value)
	2 bit BDC (flow monitoring)
IO-Link, Service data contents IN	32 bit measured volume value
IO-Link, minimum cycle time	5 ms
IO-Link, data memory required	0.5 Kilobyte
Operating voltage range DC	18 … 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
Assembly position	Any
Fluid connection	Female thread G1
Product weight	400 g
Material housing	PA-reinforced
Materials in contact with media	EPDM (perox.)
	ETFE
	Stainless steel
	PA6T/6I reinforced
Unit(s) that can be displayed	US gal
	US gal/min
	cft
	cft/min
	l
	l/h
	l/min
	m3
	°C
	°F
Protection class	IP65
Corrosion resistance classification CRC	3 - High corrosion stress

Feature	Value
PWIS conformity	VDMA24364-B2-L