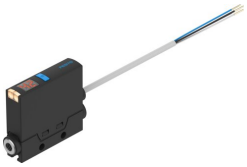
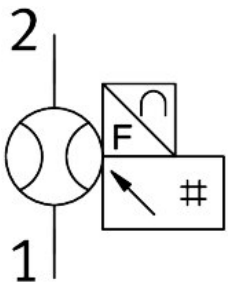
Flow sensor
SFAE-1U-M5F-PNLK-PNVB-2.5K

Part number: 8058503





Data sheet

Feature	Value
Approval	RCM
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
Flow direction	Unidirectional
Start value for flow rate measuring range	0 l/min
End value for flow rate measuring range	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	Argon Compressed air to ISO 8573-1:2010 [7:4:4] Carbon dioxide Nitrogen
Note on operating and pilot medium	Ester oil < 0.1mg/m³, according to ISO 8573-1:2010 [-:-:2]
Media temperature	0 °C...50 °C
Ambient temperature	0 °C...50 °C
Nominal temperature	23 °C
Resolution ADC	12 bit
Accuracy of flow rate	± (5% o.m.v. + 2% FS)
Repetition accuracy offset in ± %FS	0.5 %FS
Repetition accuracy span in ± %FS	1 %FS
Temperature coefficient span in ± %FS/K	Type ±0.3% FS/K
Switching output	2 x PNP or 2 x NPN, switchable
Switching function	Window comparator Threshold value comparator

Feature	Value
	Threshold value with variable hysteresis
Switching element function	NC or NO, switchable
Switch-on time	10 ms
Switch-off time	10 ms
Max. output current	100 mA
Analogue 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 start value	0 V
Output characteristic curve end value	10 V
Rise time	10 ms
Min. load resistance voltage output	10 kOhm
Display range start value	0 %FS
Display range end value	99 %FS
Short circuit current rating	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 diagnostics 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 measurement 16 bit MDC Flow rate monitoring 2-bit SSC Volume pulse 1 bit SSC
IO-Link, Service data IN	Device temperature 16 bit Volume measurement 32 bit Temperature of medium 16 bit
IO-Link, minimum cycle time	0.7 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	Cable
Electrical connection 1, connector system	Open end
Electrical connection 1, number of connections/cores	4
Cable length	2.5 m
Max. cable length	20 m with IO-Link® operation 30 M
Type of mounting	Inline installation With through-hole With accessories
Mounting position	Any
Pneumatic connection	Female thread M5
Pneumatic connection, outlet direction	Straight
Product weight	38.3 g
Material housing	Reinforced PA
Material in contact with the medium	Anodised wrought aluminium alloy Epoxy NBR

Feature	Value
	Reinforced PA Process instruction High-alloy stainless steel
Display type	LED indicator 2 digits
Degree of protection	IP40
Corrosion resistance class CRC	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Cleanroom suitability, measured according to ISO 14644-14	Class 4 according to ISO 14644-1