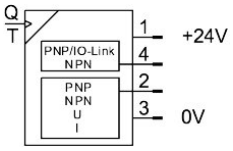
Flow sensor
SFAB-10U-WQ6-PNLK-PNVBA-M12

Part number: 8162825



General operating condition

Data sheet

Feature	Value
Symbol	00995566
Approval	RCM trademark c UL us listed (OL)
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
Certificate issuing authority	UL E322346
Note on materials	RoHS-compliant
Measured variable	Mass flow rate Temperature Volume Volumetric flow rate
Flow direction	Unidirectional P1 -> P2
Measuring principle	Thermal
Measurement method	Heat Loss
Start value for flow rate measuring range	0.1 l/min
End value for flow rate measuring range	10 l/min
Temperature measurement start value	0 °C
Temperature measurement end value	50 °C
Operating pressure	0 MPa ... 1 MPa
Operating pressure	0 bar ... 10 bar
Operating pressure	0 psi ... 145 psi
Operating medium	Compressed air to ISO 8573-1:2010 [6:4:4] Carbon dioxide Nitrogen
Media temperature	0 °C ... 50 °C
Ambient temperature	0 °C ... 50 °C
Nominal temperature	23 °C
Accuracy of flow rate	± (3% o.m.v. + 0.3% FS)
Accuracy temperature in ± °C	5 °C
Repetition accuracy offset in ± %FS	0.2 %FS
Repetition accuracy span in ± %FS	0.8 %FS
Temperature coefficient span in ± %FS/K	Typ. 0.1%FS/K
Pressure influence span in ± %FS/bar	0.5 %FS/b.
Switching output	2 x PNP or 2 x NPN, switchable
Switching function	Window comparator Threshold value comparator

Feature	Value
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
Analogue output	0 - 10 V 4 - 20 mA 1 - 5 V
Flow characteristic curve start value	0 l/min
Flow characteristic curve end value	10 l/min
Temperature characteristic curve start value	0 °C
Temperature characteristic curve end value	100 °C
Output characteristic curve start value	0 V
Output characteristic curve end value	10 V
Output characteristic curve starting value	4 mA
Output characteristic curve end value	20 mA
Max. load resistance current output	500 Ohm
Min. load resistance voltage output	20 kOhm
Short circuit current rating	yes
Overload protection	Available
Protocol	IO-Link®
IO-Link, revision ID	V1.1
IO-Link, device profile	Function Extended identification Function Measurement data, standard resolution Function Multiple switching signal Firmware update Function locator Function Product URI Function Teach single value Identification and diagnostics 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 IN	Volume/mass measured value 32 bit
IO-Link, minimum cycle time	1.2 ms
IO-Link, Data storage required	500 Byte
Operational voltage range DC	15 V ... 30 V
No-load supply current	90 mA
Reverse polarity protection	For all electrical connections
Electrical connection 1, connection type	Plugs
Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, number of connections/cores	5
Electrical connection 1, type of mounting	Not rotatable
Electrical connection 1, compatible type of mounting	Compatible with rotatable screw-type lock
Electrical connection 1, connection pattern	00995383
Type of mounting	With through-hole With H-rail Via wall/surface bracket
Mounting position	optional
Pneumatic connection	For tubing O.D. 6 mm

Feature	Value
Product weight	160 g
Material housing	PA-reinforced
Display type	Illuminated LCD, multi-colour
Displayable units	g g/min l l/min m3 m3/h scf scfm
Setting options	IO-Link® Teach-in Via display and keys
Protection against tampering	IO-Link PIN code
Degree of protection	IP65
Pressure drop	<100 mbar
Protection class	III
Corrosion resistance class CRC	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L