

Pressure sensor SPAF-

Part number: 8181300

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	Relative pressure
Method of measurement	Piezoresistive pressure sensor
Pressure measuring range initial value	-0.1 MPa -1 bar -14.5 psi
Pressure measuring range end value	1 MPa 10 bar 145 psi
Overload pressure	1.5 MPa 15 bar 217.5 psi
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gases
Information on operating and pilot media	Ester oil < 0.1mg/m ³ , according to ISO 8573-1:2010 [:-:2] Lubricated operation possible
Temperature of medium	0 °C...50 °C
Ambient temperature	0 °C...50 °C
Accuracy in ± % FS	1.5 %FS
Repetition accuracy in ± %FS	0.3 %FS
Temperature co-efficient in ± %FS/K	0.05 %FS/K
Switching output	PNP/NPN switchable
Switching function	Window comparator Threshold value comparator Threshold value with variable hysteresis
Switching element function	N/C contact/N/O contact, switchable
On time	3 ms
Switch-off time	3 ms
Max. output current	100 mA
Voltage drop	1.6 V

Feature	Value
Analog output	0 - 10 V 1 - 5 V
Output characteristic curve initial value	0 V
End value output characteristic curve	10 V
Linearity error in $\pm$ % FS	0.3 %FS
Rise time	6 ms
Min. load resistance of voltage output	20 kOhm
Display range start value	0 %FS
Display range end value	100 %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 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	Pressure measured value 16 bit MDC Flow rate monitoring 2-bit SSC
IO-Link®, service data contents IN	Temperature 16 bit
IO-Link®, minimum cycle time	0.9 ms
IO-Link®, data memory required	0.5 KB
DC operating voltage range	15 V...30 V
Reverse polarity protection	for all electrical connections
Electrical connection 1, connection type	Plug
Electrical connection 1, connection technology	M12x1 A-coded as per EN 61076-2-101 M8x1 A-coded as per EN 61076-2-104
Electrical connection 1, number of pins/wires	3 ...4
Electrical connection 1, type of mounting	Snap-locking Screw-type lock not rotatable Compatible with snap-locking Compatible with rotatable screw-type lock
Material of plug housing	Brass, nickel-plated
Type of mounting	Alternatively: With external thread With accessories
Mounting position	Any
Pneumatic connection	External thread G1/8 QS-4 QS-6
Product weight	30 g...45 g
Housing material	PA-reinforced
Materials in contact with the media	High-grade steel NBR PA-reinforced
Display type	Backlit blue LCD LED indicator
Degree of protection	IP65
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Feature	Value
Suitability for the production of Li-ion batteries	Metals with more than 1% by mass of copper are excluded from use. Circuit boards, lines, electrical push-in connectors and coils are excluded
Cleanroom suitability, measured according to ISO 14644-14	Class 4 according to ISO 14644-1