Pressure sensor
SPAE-P10R-S4-PNLK-2.5K

Part number: 8001445
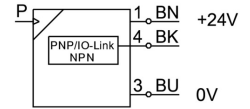
General operating condition

Data sheet

Feature	Value
Symbol	00995430
Certification	RCM compliance mark c UL us - Recognized (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
Certificate issuing authority	UL E322346
Note on materials	RoHS-compliant
Measured variable	Relative pressure
Method of measurement	Piezoresistive pressure sensor with display
Pressure measuring range initial value	0 MPa
Pressure measuring range initial value	0 bar
Pressure measuring range initial value	0 psi
Pressure measuring range end value	1 MPa
Pressure measuring range end value	10 bar
Pressure measuring range end value	145 psi
Overload pressure	1.5 MPa
Overload pressure	15 bar
Overload pressure	217.5 psi
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication possible
Temperature of medium	0 °C ... 50 °C
Ambient temperature	0 °C ... 50 °C
ADC resolution	10 bit
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	Freely programmable
Switching element function	N/C contact N/O contact Switchable
On time	1 ms
Switch-off time	1 ms
Max. output current	100 mA
Display range start value	0 %FS

Feature	Value
Display range end value	99 %FS
Short-circuit protection	yes
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 OUT	0 Byte
IO-Link®, process data width IN	2 Byte
IO-Link®, process data content IN	14 bit PDV (pressure measurement) 2 bit BDC (pressure monitoring)
IO-Link®, minimum cycle time	3 ms
IO-Link®, data memory required	500 byte
DC operating voltage range	18 V … 30 V
Reverse polarity protection	for all electrical connections
Electrical connection	3-wire Cable Open end
Cable length	2.5 m
Type of mounting	Plug-in
Mounting position	Any
Pneumatic connection	Push-in sleeve QS-4
Product weight	40 g
Housing material	PA-reinforced
Sealing ring material	FPM
Display type	LED display 2-digit
Displayable unit(s)	%FS
Switching status indication	LED yellow
Setting options	IO-Link® Teach-in Via display and pushbuttons
Protection against tampering	PIN code
Setting range threshold value	1 % … 98 %
Degree of protection	IP40
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L
Suitability for the production of Li-ion batteries	Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils
Cleanroom class	Class 4 according to ISO 14644-1