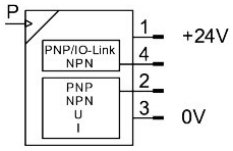
Pressure sensor
SPAU-P10R-W-G18FD-L-PNLK-PNVBA-M12U

Part number: 8001230





Data sheet

Feature	Value
Certification	RCM compliance mark c UL us - Listed (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
KC characters	KC-EMV
Note on materials	RoHS compliant
Measured variable	Relative pressure
Method of measurement	Piezoresistive pressure sensor
Pressure measuring range initial value	0 MPa 0 bar 0 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	Lubricated operation possible
Temperature of medium	0 °C...50 °C
Ambient temperature	0 °C...50 °C
ADC resolution	12 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	2 x PNP or 2 x NPN switchable
Switching function	Freely programmable
Switching element function	N/C contact/N/O contact, switchable
Max. output current	100 mA
Analog output	0 - 10 V 4 - 20 mA 1 - 5 V

Feature	Value
Rise time	3 ms
Max. load resistance of current output	500 Ohm
Min. load resistance of voltage output	10 kOhm
Short-circuit protection	Yes
Overload 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 bytes
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	0.5 KB
DC operating voltage range	20 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
Electrical connection 1, number of pins/wires	4
Electrical connection 1, type of mounting	not rotatable Compatible with rotatable screw-type lock
Type of mounting	With wall/surface bracket
Mounting position	Any
Pneumatic connection	G1/8
Product weight	80 g
Materials in contact with the media	FPM PA-reinforced high-alloy stainless steel
Display type	Illuminated LCD
Displayable unit(s)	MPa bar In H2O In Hg KPa kgf/cm² mmHg psi
Setting options	IO-Link® Teach-in Via display and keys
Protection against tampering	IO-Link® PIN code
Setting range threshold value	0 %...100 %
Setting range hysteresis	0 %...90 %
Degree of protection	IP65 IP67
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L