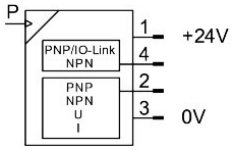
Pressure sensor
SPAU-P12R-H-G18FD-L-PNLK-PNVBA-M12U

Part number: 8182149





Data sheet

Feature	Value
Approval	RCM c UL us - Listed (Oil)
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
KC mark	KC-EMV
Note on materials	RoHS compliant
Measured variable	Relative pressure
Measurement method	Piezoresistive pressure sensor
Start value for pressure measuring range	0 MPa 0 bar 0 psi
End value for pressure measuring range	1.2 MPa 12 bar 174 psi
Overload pressure	1.5 MPa 15 bar 217.5 psi
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4] Inert gas
Note on operating and pilot medium	Lubricated operation possible
Media temperature	0 °C...50 °C
Ambient temperature	0 °C...50 °C
Resolution ADC	12 bit
Accuracy in ± % FS	1.5 %FS
Repetition accuracy in ± %FS	0.3 %FS
Temperature coefficient in ± %FS/K	0.05 %FS/K
Switching output	2 x PNP or 2 x NPN, switchable 2xPNP
Switching function	Freely programmable
Switching element function	NC or NO, switchable
Max. output current	100 mA
Analogue output	0 - 10 V 4 - 20 mA

Feature	Value
	1 - 5 V
Rise time	3 ms
Max. load resistance current output	500 Ohm
Min. load resistance voltage output	10 kOhm
Short circuit current rating	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 kBaud)
IO-Link, SIO-Mode support	Yes
IO-Link, Port class	A
IO-Link, Process data length OUT	0 bytes
IO-Link, Process data length IN	2 bytes
IO-Link, Process data content IN	14 bit PDV (pressure measurement value) 2 bit BDC (pressure monitoring)
IO-Link, Min. cycle time	3 ms
IO-Link, Data storage required	0.5 KB
Operational voltage range DC	20 V...30 V
Reverse polarity protection	For all electrical connections
Electrical connection 1, connection type	Plug
Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, number of connections/cores	4
Electrical connection 1, type of mounting	Not rotatable
Electrical connection 1, compatible type of mounting	Compatible with rotatable screw-type lock
Type of mounting	via DIN rail
Mounting position	Any
Pneumatic connection	G1/8
Product weight	70 g
Material in contact with the medium	Fluoro rubber Reinforced PA High-alloy stainless steel
Display type	Illuminated LCD LED
Displayable units	MPa bar inH2O inHg kPa kgf/cm² mmHg psi
Setting options	IO-Link® Teach-in Via display and buttons
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