Pressure sensor SPAW-P16R-G14F-2PV-M12 Part number: 8022799



Data sheet

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PNP	0V 111 0V

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General operating condition

Tertification RCM compliance mark cult us-Listed (OL) EE marking (see declaration of conformity) As per EU EMC directive As per EU EMC directive JKCA marking (see declaration of conformity) To UK Instructions for EMC To UK RMS instructions Note on materials RoHS-compliant Weasured variable Relative pressure Method of measurement Metal thin-film pressure sensor Pressure measuring range initial value O MPa Pressure measuring range initial value O bar Pressure measuring range end value 1.6 MPa Pressure measuring range end value 16 bar Pressure measuring range end value 23 pai Overload pressure 32 pai Overload pressure 32 pai Overload pressure 464 psi Operating medium Compressed air as per ISO 8573-1:2010 [-:-:] Uquid media Gaseous media Gaseous media 32 par Deveload pressure 0 °C< 80 °C Accuracy in ± % FS 0.5 % FS Switching output 22 NPI Switching volupt 22 NPI Switching element function Switchable Max. output current	Feature	Value
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Method of measurement Metal thin-film pressure sensor 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 1.6 MPa Pressure measuring range end value 1.6 MPa Pressure measuring range end value 232 psi Pressure measuring range end value 3.2 MPa Overload pressure 3.2 MPa Overload pressure 644 psi Overload pressure 664 psi Overload pressure 664 psi Overload pressure 0 °C 85 °C Ambient temperature of medium 20 °C 85 °C Accuracy in ± % FS 0.15 % FS Switching output 2xPNP Switching output 2xPNP Switching output 250 mA Analog output 0.10 V Switching output 3 ms Switching output 3 ms Solor - Cruciut protection yes Congressing solor - Cruciut protection 9 % S	Note on materials	RoHS-compliant
Pressure measuring range initial valueO MPaPressure measuring range initial valueO barPressure measuring range initial valueO psiPressure measuring range end value1.6 MPaPressure measuring range end value1.6 barPressure measuring range end value2.32 psiOverload pressure3.2 MPaOverload pressure3.2 MPaOverload pressure3.2 MPaOverload pressure464 psiOverload pressure20 °C 85 °COverload presture of medium20 °C 85 °CAccuracy in ± %FS0.15 %FSSwitching output2xPNPSwitching output2xPNPSwitching functionFreely programmableSwitching output250 mAAnalog output0 nO VRise time3 msShort-circuit protectionyesOc operating voltage range15 V 35 VReverse polarity protectionFreely programing placeReverse polarity protectionPressDecomposition of place15 V 35 VReverse polarity protectionPlacePressing voltage range15 V 35 VReverse polarity protection 1, connection typePlace	Measured variable	Relative pressure
Pressure measuring range initial valueO barPressure measuring range initial valueO psiPressure measuring range end value1.6 MPaPressure measuring range end value16 barPressure measuring range end value232 psiOverload pressure3.2 MPaOverload pressure3.2 barOverload pressure32 barOverload pressure464 psiOperating mediumCompressed air as per ISO 8573-1:2010[-:]Liquid media Gaseous mediaGaseous mediaFemperature of medium20° C 85 °CAmbient temperature0° C 85 °CAmbient temperature0° C 85 °CSwitching output2xPNPSwitching functionFreely programmableSwitching output2xPNPSwitching functionSwitchableManalog output0 - 10 VRise time3 msShort-circuit protectionyesOC operating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Method of measurement	Metal thin-film pressure sensor
Pressure measuring range initial valueO psiPressure measuring range end value1.6 MPaPressure measuring range end value16 barPressure measuring range end value232 psiDiverload pressure3.2 MPaDiverload pressure32 barOverload pressure2464 psiOperating mediumCompressed air as per ISO 8573-1:2010 [:-]Liquid media Gaseous mediaPeresture of medium-20 °C 85 °CAmbient temperature0 °C 80 °CAccuracy in ± % FS1 % FSOutput2xPNPSwitching output2xPNPSwitching functionFreely programmableSwitchable3 msSwitchable3 msShort-circuit protectionyesOutput10 VReserve polarity protection15 V 35 VReverse polarity protection 1, connection typePlug	Pressure measuring range initial value	0 MPa
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bressure measuring range end value16 bar2ressure measuring range end value232 psiOverload pressure3.2 MPaOverload pressure32 barOverload pressure464 psiOverload pressure464 psiOperating mediumCompressed air as per ISO 8573-1:2010 [-::-]Liquid media Gaseous mediaEmperature of medium	Pressure measuring range initial value	0 psi
peressure measuring range end value232 psiOverload pressure3.2 MPaOverload pressure32 barOverload pressure464 psiOverload pressure464 psiOperating mediumCompressed air as per ISO 8573-1:2010 [-:-:-] Liquid media Gaseous mediaDemetature of medium20 °C 85 °CAmbient temperature0 °C 85 °CAmbient temperature0 °C 85 °CAccuracy in ± % FS1 % FSSepetition accuracy in ± % FS0.15 % FSSwitching output2x NPSwitching functionFreely programmableSwitchable3 msSalo output current250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesOC operating voltage range15 V 35 VReverse polarity protectionFreugePlugPlug	Pressure measuring range end value	1.6 MPa
Duerload pressure3.2 MPaOverload pressure32 barOverload pressure464 psiOperating mediumCompressed air as per ISO 8573-1:2010 [-:] Liquid media Gaseous mediaCaseous media-20 °C 85 °CAmbient temperature0 °C 80 °CAccuracy in ± % FS1 %FSRepetition accuracy in ± %FS0.15 %FSSwitching output2xPNPSwitching functionFreely programmableSwitching element functionSwitchableMax. output current250 mAAnalog output0 - 10 VSise time3 msShort-circuit protectionyesCoperating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Pressure measuring range end value	16 bar
Deveload pressure32 barOverload pressure464 psiOperating mediumCompressed air as per ISO 8573-1:2010 [-:] Liquid media Gaseous mediaImperature of medium-20 °C 85 °CAmbient temperature0 °C 80 °CAccuracy in ± % FS1 %FSRepetition accuracy in ± %FS0.15 %FSSwitching output2xPNPSwitching functionFreely programmableSwitchable3 msAnalog output0 - 10 VRise time3 msShort-circuit protectionyesOC operating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Pressure measuring range end value	232 psi
Deveload pressure464 psiOperating mediumCompressed air as per ISO 8573-1:2010 [-::-] Liquid media Gaseous mediaFemperature of medium-20 °C 85 °CAmbient temperature0 °C 80 °CAccuracy in ± % FS1 % FSRepetition accuracy in ± % FS0.15 % FSSwitching output2x PNPSwitching functionFreely programmableSwitching element functionSwitchableMax. output current250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesCoperating voltage range15 V 35 VReverse polarity protectionFor operating voltageElectrical connection 1, connection typePlug	Overload pressure	3.2 MPa
Operating mediumCompressed air as per ISO 8573-1:2010 [-:-:-] Liquid media Gaseous mediaFemperature of medium-20 °C 85 °CAmbient temperature0 °C 80 °CAccuracy in ± % FS1 % FSRepetition accuracy in ± % FS0.15 % FSSwitching output2xPNPSwitching functionFreely programmableSwitching element functionSwitchableMax. output current250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesCoperating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Overload pressure	32 bar
Liquid media Gaseous mediaFemperature of medium-20 °C 85 °CAmbient temperature0 °C 80 °CAccuracy in ± % FS1 %FSRepetition accuracy in ± %FS0.15 %FSSwitching output2xPNPSwitching functionFreely programmableSwitching element functionSwitchableMax. output current250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesOC operating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Overload pressure	464 psi
Ambient temperature0 °C 80 °CAccuracy in ± % FS1 % FSRepetition accuracy in ± % FS0.15 % FSSwitching output2x PNPSwitching functionFreely programmableSwitching element functionSwitchableSwitching output250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesDC operating voltage range15 V 35 VReverse polarity protection typePlug	Operating medium	Liquid media
Accuracy in ± % FS1 %FSRepetition accuracy in ± %FS0.15 %FSSwitching output2xPNPSwitching functionFreely programmableSwitching element functionSwitchableMax. output current250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesDC operating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Temperature of medium	-20 °C 85 °C
Repetition accuracy in ± %FS0.15 %FSSwitching output2xPNPSwitching functionFreely programmableSwitching element functionSwitchableMax. output current250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesOC operating voltage range15 V 35 VReverse polarity protectionfor operating voltageElectrical connection 1, connection typePlug	Ambient temperature	0 °C 80 °C
Switching output2xPNPSwitching functionFreely programmableSwitching element functionSwitchableSwitchable250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesDC operating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Accuracy in ± % FS	1 %FS
Switching functionFreely programmableSwitching element functionSwitchableMax. output current250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesOC operating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Repetition accuracy in ± %FS	0.15 %FS
Switching element functionSwitchableMax. output current250 mAAnalog output0 - 10 VRise time3 msShort-circuit protectionyesOC operating voltage range15 V 35 VReverse polarity protection 1, connection typePlug	Switching output	2xPNP
Wax. output current 250 mA Analog output 0 - 10 V Rise time 3 ms Short-circuit protection yes OC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug	Switching function	Freely programmable
Analog output0 - 10 VRise time3 msShort-circuit protectionyesDC operating voltage range15 V 35 VReverse polarity protectionfor operating voltageElectrical connection 1, connection typePlug	Switching element function	Switchable
Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug	Max. output current	250 mA
Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug	Analog output	0 - 10 V
DC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug	Rise time	3 ms
Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug	Short-circuit protection	yes
Electrical connection 1, connection type Plug	DC operating voltage range	15 V 35 V
	Reverse polarity protection	for operating voltage
Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Electrical connection 1, connection type	Plug
	Electrical connection 1, connection technology	M12x1 A-coded as per EN 61076-2-101

Feature	Value
Electrical connection 1, number of pins/wires	5
Electrical connection 1, type of mounting	Screw-type lock
Electrical connection for input 1, connection pattern	00995383
Type of mounting	With internal thread With accessories
Mounting position	Any
Pneumatic connection	Internal thread G1/4
Product weight	230 g
Housing material	ABS High-alloy stainless steel
Materials in contact with the media	High-alloy stainless steel
Display type	4-character alphanumeric LED display
Displayable unit(s)	MPa bar kPa kg/cm² psi
Switching status indication	LED red
Setting options	Via display and pushbuttons
Protection against tampering	PIN code
Setting range threshold value	0.5 % 100 %
Setting range hysteresis	0.5 % 99.5 %
Degree of protection	IP65 IP67
Corrosion resistance class (CRC)	4 - Particularly high corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III