Pressure sensor SPAN-B2R-M5F-PN-PN-L1

Part number: 8035551



P PNP NPN PNP NPN 4 0V

FESTO

Data sheet

General operating condition

Cartification RCM compliance mark Certification CLU us - Listed (OL) CE marking (see declaration of conformity) As per EU BMC directive As per EU BMC directive As per EU BMC directive UKCA marking (see declaration of conformity) To UK Instructions for EMC To UK Marking (see declaration of conformity) To UK Instructions for EMC Certificate issuing authority UL E322346 Note on materials RoHS-compliant Meesured variable Relative pressure sensor Pressure measuring range initial value -0.1 MPa Pressure measuring range initial value -14.5 psi Pressure measuring range end value 1 bar Overload pressure 5 bar Overload pressure 5 bar Overload pressure 5 bar Overload pressure 0 0.5 MPa Overload pressure 0 0.5 MC Operation with oil lubrication possible 1 mert gas Information on operating and pilot media Operation with oil lubrication possible	Feature	Value
c UL us - Listed (OL) CE marking (see declaration of conformity) 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 Pressure measuring range initial value -1 bar Pressure measuring range initial value 14.5 psi Pressure measuring range end value 1.0 ar Pressure measuring range end value 1.0 ar Pressure measuring range end value 1.5 psi Pressure measuring range end value 1.4.5 psi Overload pressure 0.5 MPa Overload pressure 7.2.5 psi Overload pressure 7.2.5 psi Operating medium 0.9 C· 50 °C Accuracy in ±% FS 0.3 %FS Temperature or efficient in ±%FS/K 0.0 %FS/K Switching element function 9 %FS Switching function Window comparator Auto difference monitoring Switching function	Symbol	00995686
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Note on materialsRoHS-compliantMeasured variableRelative pressureMethod of measurementPiezoresistive pressure sensorPressure measuring range initial value-0.1 MPaPressure measuring range initial value14.5 psiPressure measuring range end value0.1 MPaPressure measuring range end value1 barPressure measuring range end value1 barPressure measuring range end value14.5 psiPressure measuring range end value14.5 psiOverload pressure5 barOverload pressure0.5 MPaOverload pressure5 barOverload pressure5 barOverload pressure5 barOverload pressure0.5 MPaOverload pressure0.5 MPaOverload pressure0.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAccuracy in ± % FS1.5 %FSRepetition accuracy in ± %FS/K0.3 %FSSwitching output2 x PNP or 2 x NPN switchableSwitching functionN/C contact/N/O contact switchableSwitching functionN/C contact/N/O contact switchableMax. output current100 mA	UKCA marking (see declaration of conformity)	
Measured variableRelative pressureMethod of measurementPiezoresistive pressure sensorPressure measuring range initial value-0.1 MPaPressure measuring range initial value-1 barPressure measuring range initial value-10.7 SpiPressure measuring range end value0.1 MPaPressure measuring range end value1.5 psiPressure measuring range end value1.4.5 psiPressure measuring range end value1.4.5 psiPressure measuring range end value1.4.5 psiMax. overload pressure0.5 MPaOverload pressure0.5 MPaOverload pressure5 barOverload pressureCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAccuracy in ± %FS0.3 %FSRepetition accuracy in ± %FS/K0.3 %FSSwitching function2 x PNP or 2 x NPN switchableSwitching functionN/C contact /N/O contact switchableMax. output Current100 mA	Certificate issuing authority	UL E322346
Method of measurementPiezoresistive pressure sensorPressure measuring range initial value-0.1 MPaPressure measuring range initial value-1 barPressure measuring range initial value-14.5 psiPressure measuring range end value0.1 MPaPressure measuring range end value1 barPressure measuring range end value5 barOverload pressure0.5 MPaOverload pressure5 barOverload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAccuracy in ± % FS1.5 %FSRepetition accuracy in ± %FS0.3 %FSTemperature co-efficient in ± %FS/K0.3 %FS KSwitching output2 x PNP or 2 x NPN switchableSwitching functionN/C contact/N/O contact switchableMuich wordparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mA	Note on materials	RoHS-compliant
Pressure measuring range initial value-0.1 MPaPressure measuring range initial value-1 barPressure measuring range initial value-14.5 psiPressure measuring range end value0.1 MPaPressure measuring range end value1 barPressure measuring range end value14.5 psiMax. overload pressure5 barOverload pressure6 00 peration with oil lubrication possibleOperating medium0 operation with oil lubrication possibleInformation on operating and pilot media0 peration with oil lubrication possibleTemperature of medium0 °C 50 °CAccuracy in ± %FS0.3 %FSTemperature co-efficient in ± %FS/K0.05 %FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Measured variable	Relative pressure
Pressure measuring range initial value -1 bar Pressure measuring range initial value -14.5 psi Pressure measuring range end value 0.1 MPa Pressure measuring range end value 1 bar Pressure measuring range end value 14.5 psi Max. output current 5 bar Overload pressure 0.5 MPa Overload pressure 5 bar Overload pressure 5 bar Overload pressure 5 bar Overload pressure 5 bar Overload pressure 0.5 MPa Overload pressure 0.5 bar Overload pressure 0.5 psi Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas Information on operating and pilot media Operation with oil lubrication possible Temperature of medium 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 function Window comparator Threshold value comparator Auto difference monitoring Switching element function N/C contact/N/O contact switchable Max. output current	Method of measurement	Piezoresistive pressure sensor
Pressure measuring range initial value-14.5 psiPressure measuring range end value0.1 MPaPressure measuring range end value1 barPressure measuring range end value14.5 psiMax. overload pressure5 barOverload pressure0.5 MPaOverload pressure5 barOverload pressure5 barOverload pressure5 barOverload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAnbient temperature0.3 %FSRepetition accuracy in ± %FS0.3 %FSTemperature co-efficient in ± %FS/K0.05 %FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionN/C contact/N/O contact switchableMindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Pressure measuring range initial value	-0.1 MPa
Pressure measuring range end value0.1 MPaPressure measuring range end value1 barPressure measuring range end value14.5 psiMax. overload pressure5 barOverload pressure0.5 MPaOverload pressure5 barOverload pressure5 barOverload pressure72.5 psiOverload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAccuracy in ± % FS0.3 %FSRepetition accuracy in ± %FS/K0.05 %FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Pressure measuring range initial value	-1 bar
Pressure measuring range end value1 barPressure measuring range end value14.5 psiMax. overload pressure5 barOverload pressure0.5 MPaOverload pressure5 barOverload pressure72.5 psiOverload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAccuracy in ± % FS1.5 %FSRepetition accuracy in ± %FS0.3 %FSTemperature co-efficient in ± %FS/K0.05 %FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionN/C contact/N/O contact switchableSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Pressure measuring range initial value	-14.5 psi
Pressure measuring range end value14.5 psiMax. overload pressure5 barOverload pressure0.5 MPaOverload pressure5 barOverload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAmbient temperature0 °C 50 °CAccuracy in ± % FS1.5 %FSRepetition accuracy in ± %FS0.3 %FSTemperature co-efficient in ± %FS/K0.05 %FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Pressure measuring range end value	0.1 MPa
Max. overload pressure5 barOverload pressure0.5 MPaOverload pressure5 barOverload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAmbient temperature0 °C 50 °CAccuracy in ± % FS1.5 %FSRepetition accuracy in ± %FS0.3 %FSTemperature co-efficient in ± %FS/K0.05 %FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact /N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Pressure measuring range end value	1 bar
Overload pressure0.5 MPaOverload pressure5 barOverload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAmbient temperature0 °C 50 °CAccuracy in ± % FS1.5 %FSRepetition accuracy in ± %FS0.3 %FSTemperature co-efficient in ± %FS/K0.05 %FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Pressure measuring range end value	14.5 psi
Overload pressure5 barOverload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAmbient temperature0 °C 50 °CAccuracy in ± % FS1.5 %FSRepetition accuracy in ± %FS/K0.3 %FSTemperature co-efficient in ± %FS/K0.05 %FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Max. overload pressure	5 bar
Overload pressure72.5 psiOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4] Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAmbient temperature0 °C 50 °CAccuracy in ± % FS1.5 % FSRepetition accuracy in ± % FS0.3 % FSTemperature co-efficient in ± % FS/K0.05 % FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Overload pressure	0.5 MPa
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Inert gasInformation on operating and pilot mediaOperation with oil lubrication possibleTemperature of medium0 °C 50 °CAmbient temperature0 °C 50 °CAccuracy in ± % FS1.5 % FSRepetition accuracy in ± % FS0.3 % FSTemperature co-efficient in ± % FS/K0.05 % FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Overload pressure	72.5 psi
Temperature of medium0 °C 50 °CAmbient temperature0 °C 50 °CAccuracy in ± % FS1.5 % FSRepetition accuracy in ± % FS0.3 % FSTemperature co-efficient in ± % FS/K0.05 % FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Operating medium	
Ambient temperature0 °C 50 °CAccuracy in ± % FS1.5 % FSRepetition accuracy in ± % FS0.3 % FSTemperature co-efficient in ± % FS/K0.05 % FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Information on operating and pilot media	Operation with oil lubrication possible
Accuracy in ± % FS1.5 % FSRepetition accuracy in ± % FS0.3 % FSTemperature co-efficient in ± % FS/K0.05 % FS/KSwitching output2 x PNP or 2 x NPN switchableSwitching functionWindow comparator Threshold value comparator Auto difference monitoringSwitching element functionN/C contact/N/O contact switchableMax. output current100 mAShort-circuit protectionyes	Temperature of medium	0 °C 50 °C
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 Window comparator Threshold value comparator Auto difference monitoring Switching element function N/C contact/N/O contact switchable Max. output current 100 mA Short-circuit protection yes	Ambient temperature	0 °C 50 °C
Temperature co-efficient in ± %FS/K 0.05 %FS/K Switching output 2 x PNP or 2 x NPN switchable Switching function Window comparator Threshold value comparator Auto difference monitoring Switching element function N/C contact/N/O contact switchable Max. output current 100 mA Short-circuit protection yes	Accuracy in ± % FS	1.5 %FS
Switching output 2 x PNP or 2 x NPN switchable Switching function Window comparator Threshold value comparator Auto difference monitoring Switching element function N/C contact/N/O contact switchable Max. output current 100 mA Short-circuit protection yes	Repetition accuracy in ± %FS	0.3 %FS
Switching function Window comparator Threshold value comparator Auto difference monitoring Switching element function N/C contact/N/O contact switchable Max. output current 100 mA Short-circuit protection yes	Temperature co-efficient in ± %FS/K	0.05 %FS/K
Threshold value comparator Auto difference monitoring Switching element function Max. output current Short-circuit protection	Switching output	2 x PNP or 2 x NPN switchable
Max. output current 100 mA Short-circuit protection yes	Switching function	Threshold value comparator
Short-circuit protection yes	Switching element function	N/C contact/N/O contact switchable
	Max. output current	100 mA
DC operating voltage range 15 V 30 V	Short-circuit protection	yes
	DC operating voltage range	15 V 30 V

Feature	Value
Reverse polarity protection	for all electrical connections
Electrical connection 1, connection type	Plug
Electrical connection 1, connection technology	Connection diagram L1J
Electrical connection 1, number of pins/wires	4
Electrical connection for input 1, connection pattern	00995428
Type of mounting	Front panel mounting With wall/surface bracket
Mounting position	Any
Pneumatic connection	Internal thread M5
Product weight	34 g
Housing material	PA-reinforced
Materials in contact with the media	FPM High-alloy stainless steel
Display type	Illuminated LCD
Displayable unit(s)	MPa bar inH2O inHg kPa kgf/cm ² mbar mmHg psi
Setting options	Teach-in Via display and pushbuttons
Protection against tampering	PIN code
Setting range threshold value	0 % 100 %
Setting range hysteresis	0 % 90 %
Degree of protection	IP40
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/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