## Proximity sensor SMT-10M-PS-24V-E-2,5-Q-OE Part number: 551374



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	PNP	BU	_

General operating condition

Conforms to standardEN 60947-5-2Symbol00991152CertificationRCM compliance markCE marking (see declaration of conformity)As per EU RMC directive As per EU RMS directiveUKCA marking (see declaration of conformity)To UK instructions for EMC To UK instructionsSpecial featuresOil-resistantNote on materialsROH5-compliant Halogen-freeApplication notehttps://www.festo.com/Drive-Sensor-OverviewMeasured variablePositionMeasured variablePositionMeasured variableAppleMeasured variableQ. mmSwitching pincipleMagneto-resistiveAmbient temperature40 °C 70 °CRepetition accuracy0.2 mmSwitching lement functionN/O contactOn time41.3 msSwitching requery130 HzMax. suitching frequency130 HzMax. suitching capacity DC in mounting kits50 mAMax. switching capacity DC in mounting kits1.5 WVoltage drop4.7 VShort-Circuit protectionAvailableReader opreating voltage range5 V 30 VReverse polarity protection62 HReverse polarity protectionCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Feature	Value
ConstantConstantCertificationRCM compliance markCE marking (see declaration of conformity)As per EU RMC directiveAs per EU RMC directiveAs per EU RMC directiveUKCA marking (see declaration of conformity)To UK notS directiveUK Anarking (see declaration of conformity)To UK NotS directiveSpecial featuresOil-resistantNote on materialsRoHS-compliantHalogen-freeHttps://www.festo.com/Drive-Sensor-OverviewMeasured variableMagneto-resistiveMeasured variableMagneto-resistiveMeasuring principleMagneto-resistiveAmbient temperature40 °C 70 °CSwitching outputPNPSwitching outputN/O contactOn time4.1 3 msSwitching frequency130 HzMax. output current100 mAMax. switching requency DC2.8 WMax. switching capacity DC2.8 WMax. switching capacity DC2.4 VSolor-dordetionAvailableRate operating voltage range5 V 30 VReverse polarity protectionKavilableRet operating voltage range5 V 30 VReverse polarity protection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Design	for round slot
Certification RCM compliance mark   CE marking (see declaration of conformity) As per EU EMC directive   XKCA marking (see declaration of conformity) To UK Instructions for EMC   To UK Instructions for EMC To UK Instructions for EMC   Special features Oil-resistant   Note on materials RoHS-compliant   Application note https://www.festo.com/Drive-Sensor-Overview   Measured variable Position   Measuring principle Magneto-resistive   Ambient temperature 40 °C 70 °C   Repetition accuracy 0.2 mm   Switching output PNP   Switching output N/0 contact   On time s1.3 ms   Switching frequency 130 Hz   Max. output current 100 mA   Max. output current mounting kits 1.5 W   Voortad protection Vasilable   Readed operating voltage range SV 30 V   Reverse polarity protection for all electrical connections   Electrical connection 1, connection technology Open end	Conforms to standard	EN 60947-5-2
CE marking (see declaration of conformity) As per EU ENC directive   UKCA marking (see declaration of conformity) To UK host instructions   Special features Oil-resistant   Note on materials RoHS-compliant   Alogen-free Alogen-free   Application note https://www.festo.com/Drive-Sensor-Overview   Measured variable Position   Measuring principle Magneto-resistive   Ambient temperature -40 °C 70 °C   Repetition accuracy 0.2 mm   Switching output PNP   Switching output PNP   Switching requency 130 Hz   Max. output current 100 mA   Max. output current in mounting kits 50 mA   Max. switching capacity DC 2.8 W   Max. switching capacity DC in mounting kits 1.5 W   Voltage drop \$1.7 V   Short-circuit protection yes   Overload protection Available   Reter polarity protection \$2.4 V   DC operating voltage ange \$V 30 V   Reverse polarity protection 1, connection type Cable   Electrical connection 1, connection technology <td>Symbol</td> <td>00991152</td>	Symbol	00991152
As per EU RoHS directiveUKCA marking (see declaration of conformity)To UK instructions for EMC to UK RoHS instructionsSpecial featuresOil-resistantNote on materialsRoHS-compliant Halogen freeApplication notehttps://www.festo.com/Drive-Sensor-OverviewMeasured variablePositionMeasured variableMagneto-resistiveAmbient temperature-40 °C 70 °CRepetition accuracy0.2 mmSwitching outputPNPSwitching outputN/O contactOn time<1.3 ms	Certification	RCM compliance mark
To UK RoHS instructions     Special features   Oil-resistant     Note on materials   RoHS-compliant Halogen-free     Application note   https://www.festo.com/Drive-Sensor-Overview     Measured variable   Position     Measuring principle   Magneto-resistive     Ambient temperature   -40 °C 70 °C     Repetition accuracy   0.2 mm     Switching output   PNP     Switching output   N/O contact     On time   <1.3 ms	CE marking (see declaration of conformity)	
Note on materials   RoHS-compliant Halogen-free     Application note   https://www.festo.com/Drive-Sensor-Overview     Measured variable   Position     Measuring principle   Magneto-resistive     Ambient temperature   -40 °C 70 °C     Repetition accuracy   0.2 mm     Switching output   PNP     Switching element function   N/0 contact     On time   <1.3 ms	UKCA marking (see declaration of conformity)	
Halogen-freeApplication notehttps://www.festo.com/Drive-Sensor-OverviewMeasured variablePositionMeasuring principleMagneto-resistiveAmbient temperature-40 ° C 70 ° CRepetition accuracy0.2 mmSwitching outputPNPSwitching element functionN/0 contactOn time<1.3 ms	Special features	Oil-resistant
Measured variablePositionMeasuring principleMagneto-resistiveAmbient temperature-40 °C 70 °CRepetition accuracy0.2 mmSwitching outputPNPSwitching element functionN/O contactOn time\$1.3 msSwitch-off time4.2 ms 7.3 msMax. switching frequency130 HzMax. output current100 mAMax. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VStort-circuit protectionyesOverload protectionAvailableReted operating voltage DC24 VDC operating voltage Tange5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Note on materials	
Masure resistiveMagneto-resistiveAmbient temperature-40 °C 70 °CRepetition accuracy0.2 mmSwitching outputPNPSwitching element functionN/O contactOn time<1.3 ms	Application note	https://www.festo.com/Drive-Sensor-Overview
Ambient temperature-40 °C 70 °CRepetition accuracy0.2 mmSwitching outputPNPSwitching element functionN/O contactOn time<1.3 ms	Measured variable	Position
Repetition accuracy0.2 mmSwitching outputPNPSwitching element functionN/O contactOn time\$1.3 msSwitch-off time4.2 ms 7.3 msMax. switching frequency130 HzMax. output current100 mAMax. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop<1.7 V	Measuring principle	Magneto-resistive
Switching outputPNPSwitching element functionN/O contactOn time\$1.3 msSwitch-off time4.2 ms 7.3 msMax. switching frequency130 HzMax. output current100 mAMax. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Ambient temperature	-40 °C 70 °C
Switching element functionN/O contactOn time\$1.3 msSwitch-off time4.2 ms 7.3 msMax. switching frequency130 HzMax. output current100 mAMax. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage ange5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection typeCableElectrical connection 1, number of pins/wires3	Repetition accuracy	0.2 mm
On time\$1.3 msSwitch-off time4.2 ms 7.3 msMax. switching frequency130 HzMax. output current100 mAMax. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Switching output	PNP
Switch-off time4.2 ms 7.3 msMax. switching frequency130 HzMax. output current100 mAMax. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protection 1, connection typeCableElectrical connection 1, connection technology0pen endElectrical connection 1, number of pins/wires3	Switching element function	N/O contact
Max. switching frequency130 HzMax. output current100 mAMax. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	On time	≤1.3 ms
Max. output current100 mAMax. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Switch-off time	4.2 ms 7.3 ms
Max. output current in mounting kits50 mAMax. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protection 1, connection typeCableElectrical connection 1, connection technology0pen endElectrical connection 1, number of pins/wires3	Max. switching frequency	130 Hz
Max. switching capacity DC2.8 WMax. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Max. output current	100 mA
Max. switching capacity DC in mounting kits1.5 WVoltage drop\$1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection typeCableElectrical connection 1, number of pins/wires3	Max. output current in mounting kits	50 mA
Voltage drop<1.7 VShort-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Max. switching capacity DC	2.8 W
Short-circuit protectionyesOverload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Max. switching capacity DC in mounting kits	1.5 W
Overload protectionAvailableRated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Voltage drop	≤1.7 V
Rated operating voltage DC24 VDC operating voltage range5 V 30 VReverse polarity protectionfor all electrical connectionsElectrical connection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Short-circuit protection	yes
DC operating voltage range 5 V 30 V   Reverse polarity protection for all electrical connections   Electrical connection 1, connection type Cable   Electrical connection 1, connection technology Open end   Electrical connection 1, number of pins/wires 3	Overload protection	Available
Reverse polarity protectionfor all electrical connectionsElectrical connection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	Rated operating voltage DC	24 V
Electrical connection 1, connection typeCableElectrical connection 1, connection technologyOpen endElectrical connection 1, number of pins/wires3	DC operating voltage range	5 V 30 V
Electrical connection 1, connection technology Open end   Electrical connection 1, number of pins/wires 3	Reverse polarity protection	for all electrical connections
Electrical connection 1, number of pins/wires 3	Electrical connection 1, connection type	Cable
	Electrical connection 1, connection technology	Open end
Connection outlet orientation Transverse	Electrical connection 1, number of pins/wires	3
	Connection outlet orientation	Transverse

## **FESTO**

Feature	Value
Connector cable test conditions	Flexural strength: as per Festo standard Test conditions on request Torsional resistance: > 300 000 cycles, ±270°/0.1 m Energy chain > 5 million cycles, bending radius 28 mm
Cable length	2.5 m
Cable characteristic	Suitable for energy chains/robot applications
Material of cable sheath	TPE-U(PUR)
Type of mounting	Screwed tightly Can be inserted in slot from above
Max. tightening torque	0.4 Nm
Mounting position	Any
Product weight	16.8 g
Housing material	PA-reinforced High-alloy stainless steel
Switching status indication	LED yellow
Ambient temperature with flexible cable installation	-20 °C 70 °C
Degree of protection	IP65 IP68
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