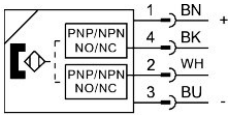
Position sensor
SRBS-Q12-40-E270-EP-1-S-M8

Part number: 2393550





General operating condition

Data sheet

Feature	Value
Design	Round
Based on standard	EN 60947-5-2
Symbol	00995400
Approval	RCM trademark c UL us listed (OL)
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
Special characteristics	Oil resistant
Note on materials	RoHS-compliant Free of halogen
Measured variable	Rotation angle
Measuring principle	Magnetic Hall
Sensing range	>270 deg
Ambient temperature	-20 °C ... 70 °C
Typical sampling interval	3 ms
Switching output	2 x PNP or 2 x NPN, switchable
Switching element function	N/C or N/O contact, switchable
Repetition accuracy of switching point	<= 1°
Switch-on time	<4 ms
Switch-off time	<4 ms
Max. switching frequency	125 Hz
Max. output current	50 mA
Max. switching capacity DC	1.5 W
Voltage drop	<1 V
Off-state current	<0.05 mA
Short circuit current rating	yes
Overload protection	Available
Rated operational voltage DC	24 V
Operational voltage range DC	10 V ... 30 V
Residual ripple	10 %
No-load supply current	≤20 mA
Reverse polarity protection	For all electrical connections
Electrical connection 1, connection type	Cable with plug
Electrical connection 1, connector system	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	4

Feature	Value
Electrical connection 1, type of mounting	Screw-type lock
Electrical connection 1, connection pattern	00991171
Connection outlet orientation	In-line
Material electrical contact	Gold-plated copper alloy
Test conditions cable	Bending strength: to Festo standard Torsional strength: › 300,000 cycles, ±270°/0.1 m Energy chain: › 5 million cycles, bending radius 28 mm
Cable length	0.3 m
Cable characteristic	Suitable for energy chains/robot applications
Cable sheath colour	Grey
Material cable sheath	TPE-U(PUR)
Cable diameter	2.9 mm
Type of mounting	Screw-clamped
Mounting position	optional
Product weight	120 g
Housing colour	Black
Material housing	Polyester
Material union nut	Nickel-plated brass
Material foil	Polyester
Switching status indication	Yellow LED
Setting options	Pushbutton
Storage temperature	-30 °C ... 70 °C
Ambient temperature with moving cable	-20 °C ... 70 °C
Degree of protection	IP65 IP68
Protection class	III
Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
Vibration resistance	Transport application test with severity level 3 in accordance with FN 942017-4 and EN 60068-2-6
Corrosion resistance class CRC	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L
Suitability for the production of Li-ion batteries	Metals with more than 1% by mass of copper are excluded from use. Exceptions are printed circuit boards, cables, electrical plug connectors and coils Metals with more than 1% of copper as an alloy component are excluded from use. Exceptions are printed ci
Cleanroom class	Class 4 according to ISO 14644-1