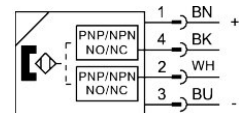


# Position sensor SRBS-Q12-16-E270-EP-1-S-M8

Part number: 2393547

FESTO



General operating condition

## Data sheet

| Feature  | Value   |
|--|---|
| Design   | Round   |
| Based on standard                                    | EN 60947-5-2  |
| Symbol   | 00995400  |
| Approval   | RCM trademark<br>c UL us listed (OL)                        |
| CE mark (see declaration of conformity)              | To EU EMC Directive<br>In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity)         | To UK RoHS instructions                                     |
| Special characteristics                              | Oil resistant   |
| Note on materials                                    | RoHS-compliant<br>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                                  | Yes   |
| 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                 | Rotatable  |
| Electrical connection 1, compatible type of mounting      | Compatible with rotatable/non-rotatable 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<br>Torsional strength: > 300,000 cycles, ±270°/0.1 m<br>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  | 55 g   |
| Housing colour  | Black  |
| Material housing  | Polyester  |
| 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<br>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 5% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils. |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 4 according to ISO 14644-1   |