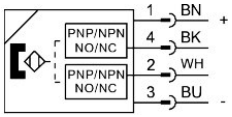
# Position sensor
# SRBS-Q12-8-E270-EP-1-S-M8

Part number: 2619972






## Data sheet

| Feature | Value |
|---|---|
| Design | Round |
| Based on norm | EN 60947-5-2 |
| Certification | RCM compliance mark<br>c UL us - Listed (OL) |
| CE marking (see declaration of conformity) | As per EU EMC directive<br>As per EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions |
| Special features | Oil-resistant |
| Note on materials | RoHS compliant<br>Halogen-free |
| 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 contact/N/O contact, switchable |
| Switching point reproducibility | <= 1° |
| 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 |
| Residual current | 0.05 mA |
| Short-circuit protection | Yes |
| Overload protection | Yes |
| Rated operating voltage DC | 24 V |
| DC operating voltage range | 10 V...30 V |
| Residual ripple | 10% |
| Idle current | 20 mA |

| Feature | Value |
|---|---|
| Reverse polarity protection | for all electrical connections |
| Electrical connection 1, connection type | Cable with plug |
| Electrical connection 1, connection technology | M8x1 A-coded as per EN 61076-2-104 |
| Electrical connection 1, number of pins/wires | 4 |
| Electrical connection 1, type of mounting | Screw-type lock<br>Rotatable<br>Compatible with rotatable/non-rotatable screw-type lock |
| Connection outlet orientation | Longitudinal |
| Material of pin contacts | Gold-plated copper alloy |
| Connector cable test conditions | Flexural strength: as per Festo standard<br>Torsion resistance: > 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 |
| Color cable sheath | Gray |
| Material of cable sheath | TPE-U(PUR) |
| Cable diameter | 2.9 mm |
| Type of mounting | Screwed on |
| Mounting position | Any |
| Product weight | 30 g |
| Housing colour | Black |
| Housing material | PA-reinforced<br>Polyester |
| Film material | Polyester |
| Switching status indication | Yellow LED |
| Setting options | Key |
| Storage temperature | -30 °C...70 °C |
| Ambient temperature with flexible cable installation | -20 °C...70 °C |
| Degree of protection | IP65<br>IP68 |
| Protection class | III |
| Shock resistance | Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27 |
| Vibration resistance | Transport application test with severity level 3 according to 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. The 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 |