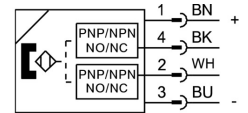


# Position sensor SRBS-Q12-25-E270-EP-1-S-M8

Part number: 2393548

**FESTO**



[PDF](#) 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 |
| CE marking (see declaration of conformity)           | To UK instructions for EMC<br>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                                  | 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<br>Torsional resistance: > 300,000 cycles, $\pm 270^\circ/0.1$ 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                                     | 60 g                                                                                                                                                                                                                   |
| Housing colour                                     | Black                                                                                                                                                                                                                  |
| Material housing                                   | PA-reinforced 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<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% 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                                                                                                                                                                                       |