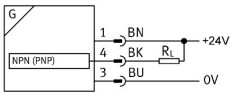
# Proximity sensors
# SDBT-MSX-1L-NU-E-0.3-N-M8

Part number: 8059123






## Data sheet

| Feature | Value |
|---|---|
| Design | For T-slot |
| 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 |
| Certificate issuing authority | UL E232949 |
| Note on materials | RoHS compliant<br>Halogen-free |
| Application note | https://www.festo.com/Drive-Sensor-Overview |
| Measured variable | Position |
| Measuring principle | Magnetic Hall |
| Ambient temperature | -40 °C...85 °C |
| Max. travel speed | 3 m/s |
| Repetition accuracy | 0.1 mm |
| Switching output | PNP/NPN switchable |
| Switching element function | N/O-N/C contact, switchable |
| Hysteresis | 0.2 mm |
| On time | 2 ms |
| Switch-off time | 2 ms |
| Max. switching frequency | 200 Hz |
| Max. output current | 100 mA |
| Max. output current in mounting kits | 100 mA |
| Max. switching capacity DC | 2.8 W |
| Max. switching capacity DC in mounting kits | 2.8 W |
| Voltage drop | 1.5 V |
| Minimum load current | 0.15 mA |
| Residual current | 0.2 mA |
| Short-circuit protection | Yes |
| Overload protection | Yes |

| Feature | Value |
|---|---|
| Rated operating voltage DC | 24 V |
| DC operating voltage range | 10 V...30 V |
| 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 | 3 |
| 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 screw-type lock | Brass, nickel-plated |
| Connector cable test conditions | Flexural strength: as per Festo standard<br>Test conditions on request<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) |
| Type of mounting | Screwed on<br>Can be inserted in slot from above |
| Max. tightening torque | 0.6 Nm |
| Mounting position | Any |
| Product weight | 10 g |
| Housing colour | Black |
| Housing material | PA-reinforced<br>high-alloy stainless steel |
| Switching status indication | Yellow LED |
| Status indicator | Green LED |
| Setting options | Auto teach-in<br>Capacitive key |
| Ambient temperature with flexible cable installation | -20 °C...85 °C |
| Degree of protection | IP65<br>IP68<br>IP69K |
| LABS (PWIS) conformity | VDMA24364-B2-L |
| Suitability for the production of Li-ion batteries | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | Statically installed element, no meaningful evaluation possible according to ISO 14644-1 |