# Type code

| 001 | Series | |
|---|---|---|
| **SMT** | Proximity sensor | |

| 002 | Design type | |
|---|---|---|
| **8** | For T-slot | |

| 003 | Sensor version | |
|---|---|---|
| **M** | Inserted in the slot from above | |

| 004 | Design | |
|---|---|---|
| **A** | Short | |

| 005 | Switching output | |
|---|---|---|
| **NO** | 3-wire N/C contact NPN | |
| **NS** | 3-wire NPN N/O contact | |
| **PO** | 3-wire PNP N/C contact | |
| **PS** | 3-wire PNP N/O contact | |
| **ZS** | 2-wire PNP N/O contact | |

| 006 | Rated operating voltage | |
|---|---|---|
| **24V** | 24 V | |

| 007 | Cable characteristic | |
|---|---|---|
| **E** | Suitable for energy chains/robots | |

| 008 | Cable length [m] | |
|---|---|---|
| | 0.1 ... 30 m | |
| **0,3** | 0.3 m | |
| **2,5** | 2.5 m | |
| **5,0** | 5 m | |
| **7,5** | 7.5 m | |

| 009 | Cable identification | |
|---|---|---|
| | With label holder | |
| **N** | Without label holder | |

| 010 | Connection technology | |
|---|---|---|
| **OE** | Open end | |
| **M8** | M8, snap-on flange | |
| **M8D** | M8, rotatable thread | |
| **M12** | M12, rotatable thread | |

# Datasheet

| General technical data | | | | |
|---|---|---|---|---|
| Switching output | 3-wire N/C contact NPN | 3-wire PNP N/C contact | 3-wire PNP N/O contact | 2-wire PNP N/O contact |
| Connection technology | Open end | | Open end, M8, rotatable thread, M12, rotatable thread | Open end |
| Sensor version | Inserted in the slot from above | | | |
| Design | For T-slot | | | |
| Mounting position | optional | | | |
| Based on standard | EN 60947-5-2 | | | |
| 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 instructions for EMC, To UK RoHS instructions | | | |
| Instructions on use | https://www.festo.com/Drive-Sensor-Overview | | | |
| Note on materials | RoHS-compliant<br>Free of halogen | | | |
| LABS (PWIS) conformity | VDMA24364-B2-L | | | |
| Certificate issuing authority | UL E232949 | | | |
| Special characteristics | Oil resistant | | | |
| Suitability for the production of Li-ion batteries | Product corresponds to the internal product definition from Festo for use in battery production:Metals with more than 1% 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 class | Element installed statically, no meaningful evaluation possible according to ISO 14644-1 | | | |

| Input signal/measuring element | |
|---|---|
| Measured variable | Position |
| Measuring principle | Magneto-resistive |

| Switching output | | | | |
|---|---|---|---|---|
| Switching output | 3-wire N/C contact NPN | 3-wire PNP N/C contact | 3-wire PNP N/O contact | 2-wire PNP N/O contact |
| Switching element function | N/C contact | | N/O contact | |
| Repetition accuracy | 0.2 mm | | | |
| Switch-on time | ≤1.3 ms | | | ≤1 ms |
| Switch-off time | ≤7.3 ms | | | ≤1 ms |
| Max. output current | 100 mA | | | 80 mA |
| Max. output current using mounting kits | 100 mA | | | 80 mA |
| Max. switching capacity DC | 2.8 W | | | 1.9 W |
| Max. switching capacity DC using mounting kits | 2.8 W | | | 1.5 W |
| Max. switching frequency | 130 Hz | | | 180 Hz |
| Voltage drop | <1.5 V | | | <6 V |

| Output, additional data | |
|---|---|
| Short circuit current rating | yes |
| Overload protection | Available |

| Electronics | | | | |
|---|---|---|---|---|
| Switching output | 3-wire N/C contact NPN | 3-wire PNP N/C contact | 3-wire PNP N/O contact | 2-wire PNP N/O contact |
| Operational voltage range DC | 5 ... 30 V | | | 7 ... 30 V |
| Rated operational voltage DC | 24 V | | | |
| Reverse polarity protection | For all electrical connections | | | |

# Datasheet

| Electromechanics | | |
|---|---|---|
| Electrical connection 1, connection type | Cable | Cable with plug |
| Electrical connection 1, connector system | Open end | M12x1, A-coded to EN 61076-2-101, M8x1, A-coded, to EN 61076-2-104 |
| Electrical connection 1, number of connections/cores | 2, 3 | 3 |
| Electrical connection 1, type of mounting | – | Screw-type lock, Rotatable |
| Electrical connection 1, compatible type of mounting | – | Compatible with rotatable/non-rotatable screw-type lock |
| Connection outlet orientation | In-line | |
| Test conditions cable | Test conditions on request<br>Torsional strength: > 300,000 cycles, ±270°/0.1 m<br>Flexural strength: >50000 cycles, bending radius 5 mm<br>Energy chain: > 5 million cycles, bending radius 28 mm | |
| Wire ends | Wire ferrule | – |
| Cable characteristic | Suitable for energy chains/robot applications | |
| Material cable sheath | TPE-U(PUR) | |
| Cable sheath colour | Grey | |

| Mechanical system | | | |
|---|---|---|---|
| Electrical connection 1, connector system | M12x1, A-coded to EN 61076-2-101 | M8x1, A-coded, to EN 61076-2-104 | Open end |
| Type of mounting | Screw-clamped, Insertable in the slot from above | | |
| Max. tightening torque | 0.6 Nm | | |
| Material housing | PA-reinforced<br>High-alloy stainless steel | | |
| Material connector housing | TPE-U(PU) | | – |
| Material electrical contact | Gold-plated copper alloy | | – |
| Material insulating sheath | PP | | |
| Material screw-type lock | Nickel-plated brass | | – |
| Material union nut | – | Nickel-plated brass | – |
| Housing colour | Black | | |

| Display/operation | |
|---|---|
| Switching status indication | Yellow LED |
| Function reserve indication | Orange LED |

| Immission/emission | |
|---|---|
| Ambient temperature | -40 ... 85°C |
| Ambient temperature with moving cable | -20 ... 85°C |
| Degree of protection | IP65, IP68, IP69K |