

Position transmitter SDAT-MHS-M160-1L-SA-E-0.3-M8

Part number: 1531269

FESTO



[General operating condition](#)

Data sheet

| Feature | Value |
|--|---|
| Design | For T-slot |
| Symbol | 00995389 |
| Approval | RCM c UL us - Listed (Oil) |
| CE mark (see declaration of conformity) | To EU EMC Directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC |
| Note on materials | RoHS compliant Free of halogen |
| Instructions on use | https://www.festo.com/Drive-Sensor-Overview |
| Measured variable | Position |
| Measuring principle | Magnetic Hall |
| Sensing range | 0 µm ... 160000 µm |
| Ambient temperature | -25 °C ... 70 °C |
| Typical sampling interval | 1 ms |
| Max. travel speed | 3 m/s |
| Displacement resolution | 0.05 mm |
| Repetition accuracy | 0.1 mm |
| Switching output | PNP |
| Switching element function | NC or NO, switchable |
| Switch-on time | <2 ms |
| Switch-off time | <2 ms |
| Max. switching frequency | 1000 Hz |
| Max. output current | 100 mA |
| Max. switching capacity DC | 2.7 W |
| Voltage drop | 2.5 V |
| Analogue output | 4 - 20 mA |
| Sensitivity | 0.1 mA/mm |
| Typical linearity error | ±0.25 mm |
| Max. load resistance current output | 500 Ohm |
| Short circuit current rating | Yes |
| Overload protection | Available |
| Protocol | I-Port IO-Link® |
| IO-Link, Protocol version | Device V 1.1 |
| IO-Link, Profile | Smart sensor profile |

| Feature | Value |
|---|--|
| IO-Link, Function classes | Binary data channel (BDC) Process data variable (PDV) Identification Diagnostics Teach channel |
| IO-Link, communication mode | COM3 (230.4 kBaud) |
| IO-Link, SIO-Mode support | Yes |
| IO-Link, Port class | A |
| IO-Link, Process data length IN | 2 bytes |
| IO-Link, Process data content IN | 12 bit PDV (measured position value) 4 bit BDC (position monitoring) |
| IO-Link, Min. cycle time | 1 ms |
| Operational voltage range DC | 15 V ... 30 V |
| Residual ripple | 10% |
| 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 |
| Electrical connection 1, type of mounting | Screw-type lock |
| Electrical connection 1, connection pattern | 00991171 |
| Connection outlet orientation | In-line |
| Material electrical contact | Copper alloy Gold-plated |
| Test conditions cable | Bending strength: to Festo standard Torsional strength: > 300,000 cycles, ±270°/0.1 m 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) |
| Type of mounting | Screw-clamped Insertable in the slot from above |
| Mounting position | Any |
| Product weight | 35 g |
| Material housing | Polyester High-alloy stainless steel |
| Material union nut | Nickel-plated brass |
| Material foil | Polyester |
| Ready status indication | Green LED |
| Switching status indication | Yellow LED |
| Status indication | LED red |
| Setting options | IO-Link® Key |
| Ambient temperature with moving cable | -20 °C ... 70 °C |
| Degree of protection | IP65 IP68 |
| 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 | Class 4 according to ISO 14644-1 |