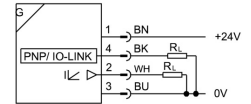


# Position transmitter SDAT-MHS-M80-1L-SA-E-0.3-M8

Part number: 1531266

**FESTO**



## Data sheet

| Feature                                      | Value  |
|--|--|
| Design                                       | for T-slot                                   |
| Symbol                                       | 00995389                                     |
| Certification                                | RCM compliance mark<br>c UL us - Listed (OL) |
| CE marking (see declaration of conformity)   | As per EU EMC directive                      |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC                   |
| KC characters                                | KC EMC                                       |
| Note on materials                            | RoHS-compliant<br>Halogen-free               |
| Measured variable                            | Position                                     |
| Measuring principle                          | Magnetic Hall                                |
| Sensing range                                | 0 µm ... 80000 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                   | N/C contact/N/O contact switchable           |
| 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  |
| Analog output                                | 4 - 20 mA                                    |
| Sensitivity                                  | 0.2 mA/mm                                    |
| Typical linearity error in ± mm              | ±0.25 mm                                     |
| Max. load resistance of current output       | 500 Ohm                                      |
| Short-circuit protection                     | yes  |
| Overload protection                          | Available                                    |
| Protocol                                     | I-Port<br>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)<br>Process data variable (PDV)<br>Identification<br>Diagnostics<br>Teach channel   |
| IO-Link®, communication mode                          | COM3 (230.4 kBd)   |
| IO-Link®, SIO mode support                            | Yes  |
| IO-Link®, port class                                  | A  |
| IO-Link®, process data width IN                       | 2 Byte   |
| IO-Link®, process data content IN                     | 12 bit PDV (position measurement)<br>4 bit BDC (position monitoring)   |
| IO-Link®, minimum cycle time                          | 1 ms   |
| DC operating voltage range                            | 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, 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  |
| Electrical connection for input 1, connection pattern | 00991171   |
| Connection outlet orientation                         | Longitudinal   |
| Material of pin contacts                              | Copper alloy<br>Gold-plated  |
| Connector cable test conditions                       | Flexural strength: as per Festo standard<br>Torsional 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 tightly<br>Can be inserted in slot from above  |
| Mounting position                                     | Any  |
| Product weight  | 23 g   |
| Housing material                                      | Brass, nickel-plated<br>PA-reinforced<br>Polyester<br>High-alloy stainless steel   |
| Material of union nut                                 | Brass, nickel-plated   |
| Film material   | Polyester  |
| Ready status indication                               | LED green  |
| Switching status indication                           | LED yellow   |
| Status indicator                                      | LED red  |
| Setting options                                       | IO-Link®<br>Pushbutton   |
| Ambient temperature with flexible cable installation  | -20 °C ... 70 °C   |
| Degree of protection                                  | IP65<br>IP68   |
| LABS (PWIS) conformity                                | VDMA24364-B2-L   |