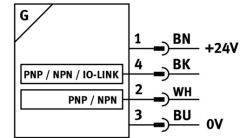


# Position transmitter SDAS-MHS-M40-1L-PNLK-PN-E-0.3-M8

Part number: 8063974

**FESTO**



## Data sheet

[General operating condition](#)

| Feature                                    | Value                                                                                                 |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Design                                     | For T-slot                                                                                            |
| Symbol                                     | 00995894                                                                                              |
| 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                                                 |
| Certificate issuing authority              | UL E232949                                                                                            |
| Note on materials                          | RoHS-compliant<br>Free of halogen                                                                     |
| Instructions on use                        | <a href="https://www.festo.com/Drive-Sensor-Overview">https://www.festo.com/Drive-Sensor-Overview</a> |
| Measured variable                          | Position                                                                                              |
| Measuring principle                        | Magnetic Hall                                                                                         |
| Sensing range                              | ≤52000 µm                                                                                             |
| Ambient temperature                        | -40 °C ... 80 °C                                                                                      |
| Typical sampling interval                  | 2 ms                                                                                                  |
| Max. travel speed                          | 3 m/s                                                                                                 |
| Displacement resolution                    | ≤0.02 mm                                                                                              |
| Repetition accuracy                        | 0.2 mm                                                                                                |
| Switching output                           | 2x PNP or 2x NPN adjustable                                                                           |
| Switching element function                 | N/C or N/O contact, switchable                                                                        |
| Switch-on time                             | <4 ms                                                                                                 |
| Switch-off time                            | <4 ms                                                                                                 |
| Max. switching frequency                   | 125 Hz                                                                                                |
| Max. switching output voltage DC           | 30 V                                                                                                  |
| Max. output current                        | 50 mA                                                                                                 |
| Max. switching capacity DC                 | 1.5 W                                                                                                 |
| Voltage drop                               | <0.5 V                                                                                                |
| Typical linearity error                    | ± 1 mm                                                                                                |
| Short circuit current rating               | 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                            | Process data variable (PDV)<br>Identification<br>Diagnostics<br>Teach channel<br>Switching signal channel (SSC)                                                                                                                   |
| IO-Link, communication mode                          | COM2 (38.4 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)<br>4 bit SSC (Switching Signal)                                                                                                                                                              |
| IO-Link, Min. cycle time                             | 2.5 ms                                                                                                                                                                                                                            |
| Operational voltage range DC                         | 10 V ... 30 V                                                                                                                                                                                                                     |
| Residual ripple                                      | 10 %                                                                                                                                                                                                                              |
| No-load supply current                               | <12 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                                                                                                                                                                                                                                 |
| 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, ± 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                                                                                                                                                                                     |
| Cable sheath colour                                  | grey                                                                                                                                                                                                                              |
| Material cable sheath                                | TPE-U(PUR)                                                                                                                                                                                                                        |
| Type of mounting                                     | Screw-clamped<br>Insertable in the slot from above                                                                                                                                                                                |
| Mounting position                                    | optional                                                                                                                                                                                                                          |
| Product weight                                       | 9.5 g                                                                                                                                                                                                                             |
| Material housing                                     | PA-reinforced<br>High-alloy stainless steel                                                                                                                                                                                       |
| Material union nut                                   | Nickel-plated brass                                                                                                                                                                                                               |
| Switching status indication                          | Yellow LED                                                                                                                                                                                                                        |
| Status indication                                    | Red LED                                                                                                                                                                                                                           |
| Setting options                                      | IO-Link®<br>Capacitive pushbutton                                                                                                                                                                                                 |
| Ambient temperature with moving cable                | -20 °C ... 70 °C                                                                                                                                                                                                                  |
| Degree of protection                                 | IP65<br>IP68                                                                                                                                                                                                                      |
| LABS (PWIS) conformity                               | VDMA24364-B2-L                                                                                                                                                                                                                    |
| Suitability for the production of Li-ion batteries   | Metals with more than 1% by mass of 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                                                                                                                                                                                                  |