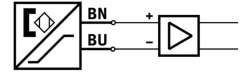
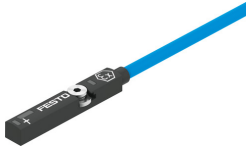


# Proximity switch SDBT-MS-20NL-ZN-E-2.5-LE-EX6

Part number: 8185110

FESTO



[PDF](#) General operating condition

## Data sheet

| Feature   | Value  |
|---|--|
| Design  | for T-slot   |
| Based on norm                                     | EN 60947-5-6   |
| Symbol  | 00991433   |
| Certification                                     | RCM compliance mark  |
| CE marking (see declaration of conformity)        | As per EU EMC directive<br>as per EU explosion protection directive (ATEX)<br>As per EU RoHS directive   |
| UKCA marking (see declaration of conformity)      | To UK instructions for EMC<br>acc. to UK EX instructions<br>To UK RoHS instructions  |
| Explosion prevention and protection               | Zone 0 (ATEX)<br>Zone 0 (BR)<br>Zone 0 (CN)<br>Zone 0 (IEC-EX)<br>Zone 0 (KR)<br>Zone 0 (UKEX)<br>Zone 1 (ATEX)<br>Zone 2 (ATEX)<br>Zone 20 (ATEX)<br>Zone 20 (BR)<br>Zone 20 (CN)<br>Zone 20 (IEC-EX)<br>Zone 20 (KR)<br>Zone 20 (UKEX)<br>Zone 21 (ATEX)<br>Zone 22 (ATEX) |
| ATEX category gas                                 | II 1G  |
| Type of ignition protection for gas               | Ex ia IIC T4...T6 Ga   |
| ATEX category for dust                            | II 1D  |
| Type of (ignition) protection for dust            | Ex ia IIIC T135°C Da   |
| Explosion protection certification outside the EU | EPL Da (BR)<br>EPL Da (CN)<br>EPL Da (GB)<br>EPL Da (IEC-EX)<br>EPL Da (KR)<br>EPL Ga (BR)<br>EPL Ga (CN)<br>EPL Ga (GB)<br>EPL Ga (IEC-EX)<br>EPL Ga (KR)   |
| Explosive ambient temperature                     | T4, with fixed cable routing: $-40\text{ °C} \leq T_a \leq +85\text{ °C}$<br>T4: $-20\text{ °C} \leq T_a \leq +85\text{ °C}$<br>T6, with fixed cable routing: $-40\text{ °C} \leq T_a \leq +45\text{ °C}$<br>T6: $-20\text{ °C} \leq T_a \leq +45\text{ °C}$                 |

| Feature  | Value  |
|--|--|
| Max. input voltage $V_i$                             | 28 V   |
| Max. input current $I_i$                             | 0.25 A   |
| Max. input power $P_i$                               | T4: 350 mW<br>T6: 72 mW  |
| Effective internal inductance $L_i$                  | 30 $\mu$ H   |
| Effective internal capacitance $C_i$                 | 79 nF  |
| Certificate issuing authority                        | 21-AV4BO-0130X<br>21-AV4BO-0131X<br>CSAE 22UKEX1322X<br>DNV 17.0027 X<br>GYJ20.1106X<br>IECEX PTZ 18.0008X<br>PTZ 16 ATEX 0010 X |
| Special features                                     | Oil-resistant  |
| Note on materials                                    | RoHS-compliant<br>Halogen-free   |
| Application note                                     | Support / actuator-sensor overview "The right sensor for the actuator"   |
| Measured variable                                    | Position   |
| Measuring principle                                  | Magneto-resistive  |
| Ambient temperature                                  | -40 °C ... 85 °C   |
| Repetition accuracy                                  | 0.2 mm   |
| Switching output                                     | NAMUR  |
| Switching element function                           | NAMUR  |
| On time  | <1 ms  |
| Switch-off time                                      | <1 ms  |
| Max. switching frequency                             | 330 Hz   |
| Residual current                                     | 0.4 mA ... 1 mA  |
| Rated operating voltage DC                           | 8.2 V  |
| DC operating voltage range                           | 7.5 V ... 18 V   |
| Residual ripple                                      | 10 %   |
| Reverse polarity protection                          | for all electrical connections   |
| Electrical connection 1, connection type             | Cable  |
| Electrical connection 1, connection technology       | Open end   |
| Electrical connection 1, number of pins/wires        | 2  |
| Connection outlet orientation                        | Longitudinal   |
| Connector cable test conditions                      | Flexural strength: as per Festo standard<br>Test conditions on request   |
| Cable length   | 2.5 m  |
| Cable characteristic                                 | Suitable for energy chains<br>Suitable for robot applications  |
| Color cable sheath                                   | Blue   |
| Material of cable sheath                             | TPE-U(PUR)   |
| Insulating sheath material                           | PP   |
| Wire ends  | Cable end sleeve   |
| Type of mounting                                     | Screwed tightly<br>Can be inserted in slot from above  |
| Tightening torque                                    | 0.1 Nm ... 0.6 Nm  |
| Max. tightening torque                               | 0.6 Nm   |
| Mounting position                                    | Any  |
| Product weight                                       | 28 g   |
| Housing colour                                       | Black  |
| Housing material                                     | PA-reinforced<br>High-alloy stainless steel  |
| Switching status indication                          | LED yellow   |
| Ambient temperature with flexible cable installation | -20 °C ... 85 °C   |

| Feature                | Value          |
|------------------------|----------------|
| Degree of protection   | IP65<br>IP68   |
| LABS (PWIS) conformity | VDMA24364-B2-L |