#### **DATASHEET - E57SBL12A4EA**



Proximity switch, E57 Premium+ Short-Series, 1 NC, 2-wire, 40 - 250 V AC, M12 x 1 mm, Sn= 4 mm, Non-flush, Stainless steel, Plug-in connection M12 x 1



Part no. E57SBL12A4EA Catalog No. 136144 Alternate Catalog E57SBL12A4EA No.

**Delivery program** 

| 71 0                      |                |    |                            |
|---------------------------|----------------|----|----------------------------|
| Basic function            |                |    | Inductive Sensors          |
| Product range             |                |    | E57 Premium+ Short-Series  |
| Connection                |                |    | 2-wire                     |
| Design (outer dimensions) |                | mm | M12 x 1                    |
| Rated operational voltage | U <sub>e</sub> |    | 40 - 250 V AC              |
| Rated switching distance  | S <sub>n</sub> | mm | 4                          |
| Type of mounting          |                |    | Non-flush                  |
| For connection of:        |                |    | Plug-in connection M12 x 1 |
| Contacts                  |                |    |                            |
| N/C = Normally closed     |                |    | 1 NC                       |
| Material                  |                |    | Stainless steel            |
| Degree of Protection      |                |    | IP67                       |
|                           |                |    |                            |

### **Technical data**

General

| Standards                   |   | IEC/EN 60947-5-2           |
|-----------------------------|---|----------------------------|
| Ambient temperature         |   | -25 - +70                  |
| Mechanical shock resistance | g | 30<br>Shock duration 11 ms |
| Degree of Protection        |   | IP67                       |
| Characteristics             |   |                            |
| Decide Service Pro-         |   |                            |

| Degree of Protection  |                |     | IP67                        |
|---|----------------|-----|-----------------------------|
| Characteristics   |                |     |                             |
| Rated switching distance  |                |     |                             |
| Rated switching distance  | $S_{n}$        | mm  | 4                           |
| Repetition accuracy of $S_n$  |                | %   | 3                           |
| Temperature drift of $S_n$  |                | %   | 10                          |
| Switching hysteresis of $S_n$   |                | %   | 20                          |
| Rated operational voltage   | U <sub>e</sub> |     | 40 - 250 V AC               |
| Operating current in the switched state at 24 V DC                                | I <sub>b</sub> | mA  | 10                          |
| Maximum load current  | I <sub>e</sub> | mA  | < 500 (25 °C) / 250 (70 °C) |
| Voltage drop at I <sub>e</sub>  | $U_{\text{d}}$ | V   | 2.5                         |
| Switching Frequency   |                | Hz  | 20                          |
| Min. load current   | I <sub>e</sub> | mA  | 1                           |
| Residual current through the load in the blocked state at 230 V AC and 24 V DC $$ | I <sub>r</sub> | mA  | 0.1                         |
| Switching state display   |                | LED | Red                         |
| Connection  |                |     | 2-wire                      |
| Contacts  |                |     |                             |
| N/C = Normally closed   |                |     | 1 NC                        |
| Style   |                |     |                             |
| Design (outer dimensions)   |                | mm  | M12 x 1                     |
| For connection of:  |                |     | Plug-in connection M12 x 1  |
| Material  |                |     | Stainless steel             |

# Design verification as per IEC/EN 61439

| Technical data for design verification |  |  |  |
|--|--|--|--|
|--|--|--|--|

| Operating ambient temperature min. | °C | -25 |
|------------------------------------|----|-----|
| Operating ambient temperature max. | °C | 70  |

#### Technical data FTIM 7 0

| Technical data ETIM 7.0   |    |                        |  |
|---|----|------------------------|--|
| Sensors (EG000026) / Inductive proximity switch (EC002714)  |    |                        |  |
| Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Inductive proximity switch (ecl@ss10.0.1-27-27-01-01 [AGZ376015]) |    |                        |  |
| Width sensor  | mm | 0                      |  |
| Height of sensor  | mm | 0                      |  |
| Length of sensor  | mm | 68                     |  |
| Diameter sensor   | mm | 12                     |  |
| Mechanical mounting condition for sensor  |    | Not flat               |  |
| Switching distance  | mm | 4                      |  |
| Suitable for safety functions   |    | No                     |  |
| Type of switch function   |    | Breaker contact        |  |
| Type of switching output  |    | Two-wire               |  |
| Type of electric connection   |    | Connector M12          |  |
| Number of semiconductor outputs with signalling function  |    | 1                      |  |
| Number of contact energized outputs with signalling function  |    | 0                      |  |
| Number of protected semiconductor outputs   |    | 0                      |  |
| Number of protected contact energized outputs   |    | 0                      |  |
| Type of actuation   |    | Metallic Target        |  |
| Type of interface   |    | None                   |  |
| Type of interface for safety communication  |    | None                   |  |
| Construction type housing   |    | Cylinder, screw-thread |  |
| Coating housing   |    | Other                  |  |
| Cascadable  |    | No                     |  |
| Category according to EN 954-1  |    | В                      |  |
| SIL according to IEC 61508  |    | None                   |  |
| Performance level acc. EN ISO 13849-1   |    | None                   |  |
| Max. output current at protected output   | mA | 0                      |  |
| Supply voltage  | V  | 20 - 250               |  |
| Rated control supply voltage Us at AC 50HZ  | V  | 20 - 250               |  |
| Rated control supply voltage Us at AC 60HZ  | V  | 20 - 250               |  |
| Rated control supply voltage Us at DC   | V  | 0 - 0                  |  |
| Voltage type  |    | AC                     |  |
| Switching frequency   | Hz | 20                     |  |
| With monitoring function downstream switching devices   |    | No                     |  |
| Material housing  |    | Metal                  |  |
| Compression-resistant   |    | No                     |  |

#### **Approvals**

Explosion safety category for gas

Explosion safety category for dust

Interference resistance to magnetic fields

| UL 508; CSA-C22.2 No. 14; IEC60947-5-2; CE marking |
|--|
| E166051  |
| NRKH, NRKH7  |
| 50513  |
| 3211-03  |
| UL listed, CSA certified                           |
| 250 V AC, 250 V DC                                 |
| IEC: IP67; UL/CSA Type: 4, 4x, 6, 6P, 12, 13       |
|  |

None

None

#### **Dimensions**

① Sensor surface

## **Assets (links)**

**Declaration of CE Conformity** 00003158

**Instruction Leaflets** 

IL05301003Z2018\_05

# **Additional product information (links)**

IL05301003Z Premium Plus Series Inductive Sensors +Short, +Miniature

IL05301003Z Premium Plus Series Inductive Sensors +Short, +Miniature

 $ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL05301003Z2018\_05.pdf$