



Proximity switch, E57 Premium+ Series, 1 NC, 3-wire, 6 - 48 V DC, M12 x 1 mm, S<sub>n</sub>= 10 mm, Semi-shielded, NPN, Stainless steel, Plug-in connection M12 x 1



Powering Business Worldwide™

**Part no.** E57-12LE10-C1D  
**Catalog No.** 135910  
**Alternate Catalog No.** E57-12LE10-C1D

### Delivery program

|                           |                |    |                            |
|---------------------------|----------------|----|----------------------------|
| Basic function            |                |    | Inductive Sensors          |
| Product range             |                |    | E57 Premium+ Series        |
| Connection                |                |    | 3-wire                     |
| Design (outer dimensions) |                | mm | M12 x 1                    |
| Rated operational voltage | U <sub>e</sub> |    | 6 - 48 V DC                |
| Rated switching distance  | S <sub>n</sub> | mm | 10                         |
| Type of mounting          |                |    | Semi-shielded              |
| Switching type            |                |    | NPN                        |
| For connection of:        |                |    | Plug-in connection M12 x 1 |
| <b>Contacts</b>           |                |    |                            |
| 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

|  |                |     |                            |
|--|----------------|-----|----------------------------|
| Rated switching distance   |                |     |                            |
| Rated switching distance   | S <sub>n</sub> | mm  | 10                         |
| Repetition accuracy of S <sub>n</sub>  |                | %   | 3                          |
| Temperature drift of S <sub>n</sub>  |                | %   | 10                         |
| Switching hysteresis of S <sub>n</sub>   |                | %   | 15                         |
| Rated operational voltage  | U <sub>e</sub> |     | 6 - 48 V DC                |
| 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 (6 - 30 V DC)        |
| Voltage drop at I <sub>e</sub>   | U <sub>d</sub> | V   | 2.5                        |
| Switching Frequency  |                | Hz  | 800                        |
| 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   |                |     | 3-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 ETIM 7.0

Sensors (EG000026) / Inductive proximity switch (EC002714)

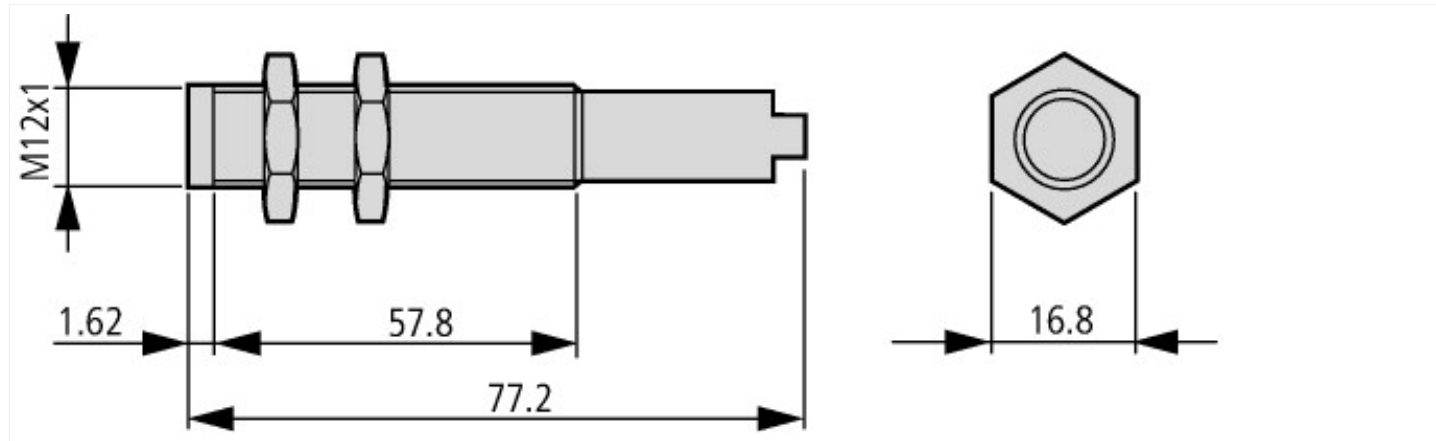
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Inductive proximity switch (ec@ss10.0.1-27-27-01-01 [AGZ376015])

|  |    |                        |
|--|----|------------------------|
| Width sensor   | mm | 0                      |
| Height of sensor   | mm | 0                      |
| Length of sensor   | mm | 77.7                   |
| Diameter sensor  | mm | 12                     |
| Mechanical mounting condition for sensor                     |    | Not flat               |
| Switching distance   | mm | 10                     |
| Suitable for safety functions                                |    | No                     |
| Type of switch function                                      |    | Breaker contact        |
| Type of switching output                                     |    | NPN                    |
| 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                               |    | B                      |
| 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  | 6 - 48                 |
| Rated control supply voltage Us at AC 50HZ                   | V  | 0 - 0                  |
| Rated control supply voltage Us at AC 60HZ                   | V  | 0 - 0                  |
| Rated control supply voltage Us at DC                        | V  | 6 - 48                 |
| Voltage type   |    | DC                     |
| Switching frequency  | Hz | 800                    |
| With monitoring function downstream switching devices        |    | No                     |
| Material housing   |    | Metal                  |
| Compression-resistant  |    | No                     |
| Explosion safety category for gas                            |    | None                   |
| Explosion safety category for dust                           |    | None                   |
| Interference resistance to magnetic fields                   |    |                        |

## Approvals

|                      |  |   |
|----------------------|--|---|
| Product Standards    |  | none  |
| CSA File No.         |  | none  |
| CSA Class No.        |  | none  |
| Max. Voltage Rating  |  | 48 V DC   |
| Degree of Protection |  | IEC: IP67, IP69K; UL/CSA Type: 4, 4x, 6, 6P, 12, 13 |

## 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](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05301003Z2018_05.pdf)