



Proximity switch, E57 Premium+ Series, 1 N/O, 2-wire, 20 - 250 V AC, M12 x 1 mm, S_n= 4 mm, Non-flush, Stainless steel, Plug-in connection M12 x 1



Powering Business Worldwide™

Part no. E57LAL12A2EA
Catalog No. 135997
Alternate Catalog No. E57LAL12A2EA

Delivery program

| | | | |
|---------------------------|----------------|----|----------------------------|
| Basic function | | | Inductive Sensors |
| Product range | | | E57 Premium+ Series |
| Connection | | | 2-wire |
| Design (outer dimensions) | | mm | M12 x 1 |
| Rated operational voltage | U _e | | 20 - 250 V AC |
| Rated switching distance | S _n | mm | 4 |
| Type of mounting | | | Non-flush |
| For connection of: | | | Plug-in connection M12 x 1 |
| Contacts | | | |
| N/O = Normally open | | | 1 N/O |
| 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 Shock duration 11 ms |
| 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 _e | | 20 - 250 V AC |
| Operating current in the switched state at 24 V DC | I _b | mA | 10 |
| Maximum load current | I _e | mA | < 500 (25 °C) / 250 (70 °C) |
| Voltage drop at I _e | U _d | V | 2.5 |
| Switching Frequency | | Hz | 20 |
| Min. load current | I _e | mA | 1 |
| Residual current through the load in the blocked state at 230 V AC and 24 V DC | I _r | mA | 0.1 |
| Switching state display | | LED | Red |
| Connection | | | 2-wire |
| Contacts | | | |
| N/O = Normally open | | | 1 N/O |
| 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 (ecl@ss10.0.1-27-27-01-01 [AGZ376015])

| | | |
|--|----|------------------------|
| Width sensor | mm | 0 |
| Height of sensor | mm | 0 |
| Length of sensor | mm | 78 |
| Diameter sensor | mm | 12 |
| Mechanical mounting condition for sensor | | Not flat |
| Switching distance | mm | 4 |
| Suitable for safety functions | | No |
| Type of switch function | | Normally open 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 | | 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 | 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 |
| Explosion safety category for gas | | None |
| Explosion safety category for dust | | None |
| Interference resistance to magnetic fields | | |

Approvals

| | | |
|-----------------------------|--|---|
| Product Standards | | UL 508; CSA-C22.2 No. 14; IEC60947-5-2; CE marking |
| UL File No. | | E166051 |
| UL Category Control No. | | NRKH, NRKH7 |
| CSA File No. | | 50513 |
| CSA Class No. | | 3211-03 |
| North America Certification | | UL listed, CSA certified |
| Max. Voltage Rating | | 250 V AC |
| 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

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|--|---|
| IL05301003Z Premium Plus Series Inductive Sensors +Short, +Miniature | ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05301003Z2018_05.pdf |
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