



Proximity switch, capacitive, $S_n=15\text{mm}$, 1N/O, 2L, 20-250VAC, M18, insulated material, M12

Part no. E53KAL18A2EA
Catalog No. 134519
Alternate Catalog No. E53KAL18A2EA

Delivery program

| | | | |
|---------------------------|-------|----|----------------------------|
| Basic function | | | Capacitive sensors |
| Product range | | | E53 Capacitive Series |
| Connection | | | 2-wire |
| Design (outer dimensions) | | mm | M18 x 1 |
| Rated operational voltage | U_e | | 20 - 250 V AC |
| Rated switching distance | S_n | mm | 15 |
| Type of mounting | | | Non-flush |
| For connection of: | | | Plug-in connection M12 x 1 |
| Contacts | | | |
| N/O = Normally open | | | 1 N/O |
| Material | | | Insulated material |
| Degree of Protection | | | IP65 |

Technical data

General

| | | | |
|-----------------------------|--|---|----------------------------|
| Standards | | | IEC/EN 60947-5-2-EMC |
| Ambient temperature | | | -25 - +70 |
| Mechanical shock resistance | | g | 30 Shock duration 11 ms |
| Degree of Protection | | | IP65 |

Characteristics

| | | | |
|--|-------|-----|----------------------------|
| Rated switching distance | | | |
| Rated switching distance | S_n | mm | 15 |
| Repetition accuracy of S_n | | % | 10 |
| Temperature drift of S_n | | % | 10 |
| Switching hysteresis of S_n | | % | 20 |
| Rated operational voltage | U_e | | 20 - 250 V AC |
| Supply frequency | | | 50 - 60 |
| Residual ripple of U_e | | % | 10 |
| Maximum load current | I_e | mA | < 300 |
| Operating current in the switched state at 24 V DC | I_b | mA | 2.5 |
| Voltage drop at I_e | U_d | V | 9 |
| Switching Frequency | | Hz | 15 |
| Min. load current | I_e | mA | 5 |
| Short-time current (10 ms, 5 Hz) | | A | 5 |
| Residual current through the load in the blocked state at 230 V AC and 24 V DC | I_r | mA | 2.5 |
| Switching state display | | LED | Red |
| Connection | | | 2-wire |
| Contacts | | | |
| N/O = Normally open | | | 1 N/O |
| Style | | | |
| Design (outer dimensions) | | mm | M18 x 1 |
| For connection of: | | | Plug-in connection M12 x 1 |
| Material | | | Insulated material |

Design verification as per IEC/EN 61439

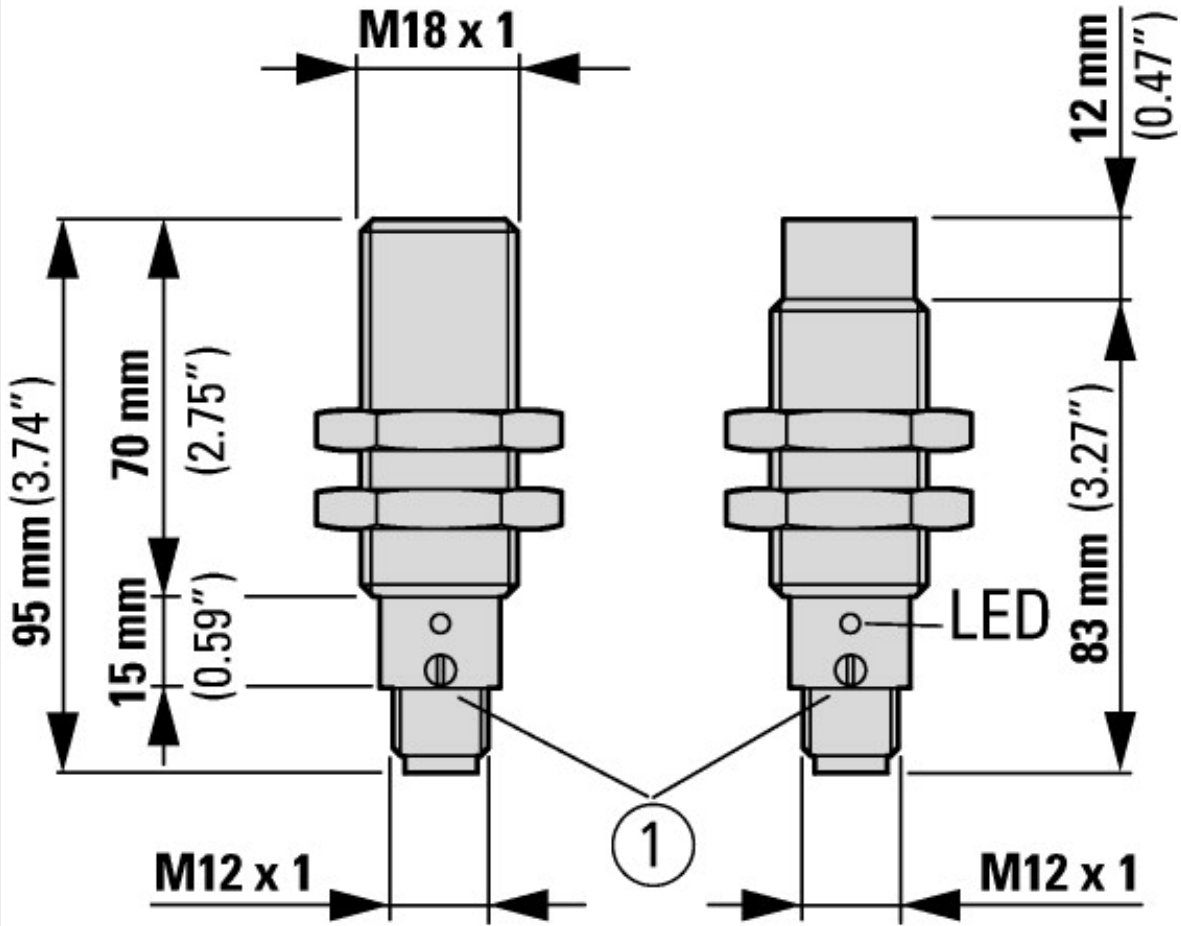
| | | |
|--|----|-----|
| Technical data for design verification | | |
| Operating ambient temperature min. | °C | -25 |
| Operating ambient temperature max. | °C | 70 |

Technical data ETIM 7.0

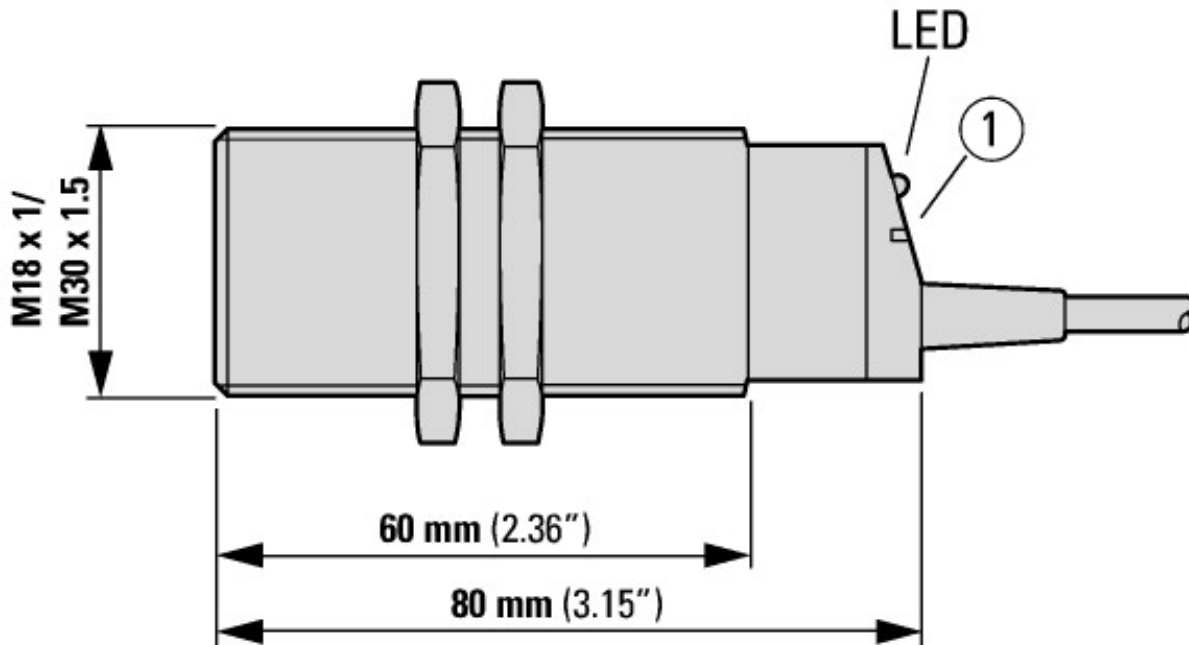
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|--|----|------------------------|
| Sensors (EG000026) / Capacitive proximity switch (EC002715) | | |
| Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Capacitive proximity switch (ecl@ss10.0.1-27-27-01-02 [AGZ377015]) | | |
| Width sensor | mm | 0 |
| Height of sensor | mm | 0 |
| Length of sensor | mm | 80 |
| Diameter sensor | mm | 18 |
| Mechanical mounting condition for sensor | | Not flat |
| Switching distance | mm | 15 |
| 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 | | Other |
| 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 | 15 |
| With monitoring function downstream switching devices | | No |
| With status indication | | Yes |
| Material housing | | Plastic |
| Compression-resistant | | No |
| Explosion safety category for gas | | None |
| Explosion safety category for dust | | None |

Approvals

| | | |
|----------------------|--|-----------------------------------|
| Product Standards | | CE marking |
| Max. Voltage Rating | | 250 V AC, 30 V DC |
| Degree of Protection | | IEC: IP65; UL/CSA: NEMA 4, 12, 13 |



① Sensitivity setting



Assets (links)

Declaration of CE Conformity

00003141

Instruction Leaflets

IL05307002Z2018_05

Additional product information (links)

IL05307002Z E53 Series Capacitive Sensors

IL05307002Z E53 Series Capacitive Sensors ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05307002Z2018_05.pdf