



Proximity switch, capacitive, S<sub>n</sub>=15mm, 1 N/C, 3L, NPN, M18, insulated material, line 2m



Powering Business Worldwide™

**Part no.** E53KBL18T110E  
**Catalog No.** 134796  
**Alternate Catalog No.** E53KBL18T110E

## Delivery program

|                           |                |    |                       |
|---------------------------|----------------|----|-----------------------|
| Basic function            |                |    | Capacitive sensors    |
| Product range             |                |    | E53 Capacitive Series |
| Connection                |                |    | 3-wire                |
| Design (outer dimensions) |                | mm | M18 x 1               |
| Rated operational voltage | U <sub>e</sub> |    | 10 - 30 V DC          |
| Rated switching distance  | S <sub>n</sub> | mm | 15                    |
| Type of mounting          |                |    | Non-flush             |
| Switching type            |                |    | NPN                   |
| For connection of:        |                |    | 2 m connection cable  |
| <b>Contacts</b>           |                |    |                       |
| N/C = Normally closed     |                |    | 1 NC                  |
| 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<br>Shock duration 11 ms |
| Degree of Protection        |  |   | IP65                       |

### Characteristics

|  |                |     |   |
|--|----------------|-----|---|
| Rated switching distance   |                |     |   |
| Rated switching distance   | S <sub>n</sub> | mm  | 15  |
| Repetition accuracy of S <sub>n</sub>  |                | %   | 10  |
| Temperature drift of S <sub>n</sub>  |                | %   | 10  |
| Switching hysteresis of S <sub>n</sub>   |                | %   | 20  |
| Rated operational voltage  | U <sub>e</sub> |     | 10 - 30 V DC  |
| Residual ripple of U <sub>e</sub>  |                | %   | 10  |
| Maximum load current   | I <sub>e</sub> | mA  | < 300   |
| Operating current in the switched state at 24 V DC                             | I <sub>b</sub> | mA  | 10  |
| Voltage drop at I <sub>e</sub>   | U <sub>d</sub> | V   | 2   |
| Switching Frequency  |                | Hz  | 250   |
| 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   |
| Protective functions   |                |     | Short-circuit protective device<br>Protection against polarity reversal<br>Protection against wire breakage |
| Connection   |                |     | 3-wire  |
| Contacts   |                |     |   |
| N/C = Normally closed  |                |     | 1 NC  |
| Style  |                |     |   |
| Design (outer dimensions)  |                | mm  | M18 x 1   |
| For connection of:   |                |     | 2 m connection cable  |
| 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

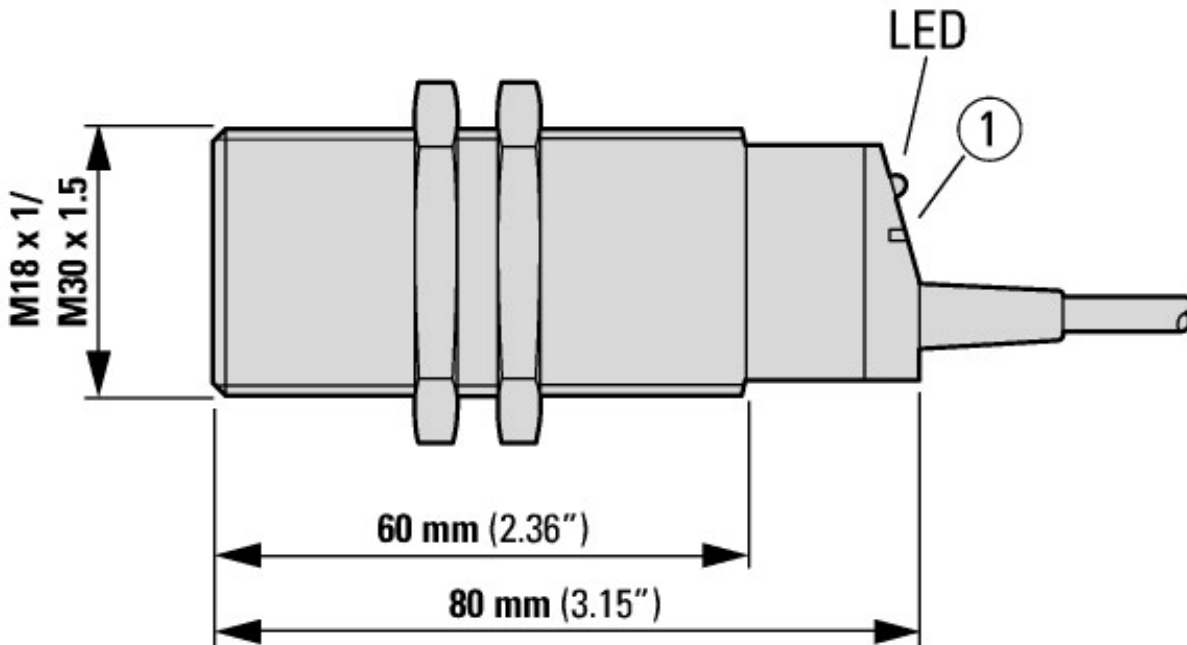
|  |    |                        |
|--|----|------------------------|
| Sensors (EG000026) / Capacitive proximity switch (EC002715)  |    |                        |
| Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity 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  |    | Breaker contact        |
| Type of switching output   |    | NPN                    |
| Type of electric connection  |    | Cable                  |
| 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  | 10 - 30                |
| 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  | 10 - 30                |
| Voltage type   |    | DC                     |
| Switching frequency  | Hz | 250                    |
| 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](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05307002Z2018_05.pdf)