

Proximity Sensors Inductive Stainless Steel Housing Types EI, AC, M 12, M 18, M 30



- Stainless steel housing, cylindrical
- Diameter: M 12, M 18, M 30
- Sensing distance: 2 to 15 mm
- Power supply: 20 to 250 VAC
- Output: SCR, make or break switching
- Protection: Overvoltage
- LED-indication for output ON
- Long or short housing
- 2 m cable or plug M 12 (double keyed)

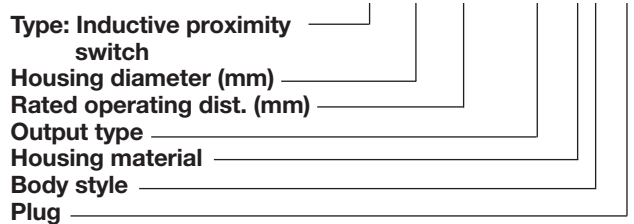
Product Description

AC proximity switches constructed in stainless steel (1.4301) housings. Sizes available are M 12, M18 and M 30. Length of housing is selectable with 30 mm thread or 50

mm thread. Bright LED ring utilizing a yellow LED clearly gives indication of output status. Protection rating IP 67 ensures environmental compatibility.

Ordering Key

EI 1202 TBOSL-6



Type Selection AC Types, Cable and M 12 Plug

| Housing diameter | Body style | Connection | Rated operating dist. (S _n) | Ordering no. SCR Make switching | Ordering no. SCR Break switching |
|------------------|------------|------------|---|---------------------------------|----------------------------------|
| M 12 | Long | Cable | 2 mm ¹⁾ | EI 1202 TBOSL | EI 1202 TBCSL |
| M 12 | Long | Plug | 2 mm ¹⁾ | EI 1202 TBOSL-6 | EI 1202 TBCSL-6 |
| M 12 | Long | Cable | 4 mm ²⁾ | EI 1204 TBOSL | EI 1204 TBCSL |
| M 12 | Long | Plug | 4 mm ²⁾ | EI 1204 TBOSL-6 | EI 1204 TBCSL-6 |
| M 18 | Short | Cable | 5 mm ¹⁾ | EI 1805 TBOSS | EI 1805 TBCSS |
| M 18 | Short | Plug | 5 mm ¹⁾ | EI 1805 TBOSS-6 | EI 1805 TBCSS-6 |
| M 18 | Long | Cable | 5 mm ¹⁾ | EI 1805 TBOSL | EI 1805 TBCSL |
| M 18 | Long | Plug | 5 mm ¹⁾ | EI 1805 TBOSL-6 | EI 1805 TBCSL-6 |
| M 18 | Short | Cable | 8 mm ²⁾ | EI 1808 TBOSS | EI 1808 TBCSS |
| M 18 | Short | Plug | 8 mm ²⁾ | EI 1808 TBOSS-6 | EI 1808 TBCSS-6 |
| M 18 | Long | Cable | 8 mm ²⁾ | EI 1808 TBOSL | EI 1808 TBCSL |
| M 18 | Long | Plug | 8 mm ²⁾ | EI 1808 TBOSL-6 | EI 1808 TBCSL-6 |
| M 30 | Short | Cable | 10 mm ¹⁾ | EI 3010 TBOSS | EI 3010 TBCSS |
| M 30 | Short | Plug | 10 mm ¹⁾ | EI 3010 TBOSS-6 | EI 3010 TBCSS-6 |
| M 30 | Long | Cable | 10 mm ¹⁾ | EI 3010 TBOSL | EI 3010 TBCSL |
| M 30 | Long | Plug | 10 mm ¹⁾ | EI 3010 TBOSL-6 | EI 3010 TBCSL-6 |
| M 30 | Short | Cable | 15 mm ²⁾ | EI 3015 TBOSS | EI 3015 TBCSS |
| M 30 | Short | Plug | 15 mm ²⁾ | EI 3015 TBOSS-6 | EI 3015 TBCSS-6 |
| M 30 | Long | Cable | 15 mm ²⁾ | EI 3015 TBOSL | EI 3015 TBCSL |
| M 30 | Long | Plug | 15 mm ²⁾ | EI 3015 TBOSL-6 | EI 3015 TBCSL-6 |

Short = 30 mm thread
 Long = 50 mm thread
 Make switching = Normally Open (NO)
 Break switching = Normally Closed (NC)

¹⁾ For flush mounting in metal
²⁾ For non-flush mounting in metal



Specifications

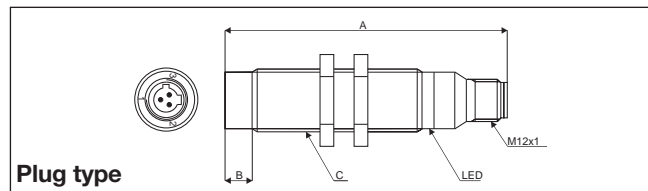
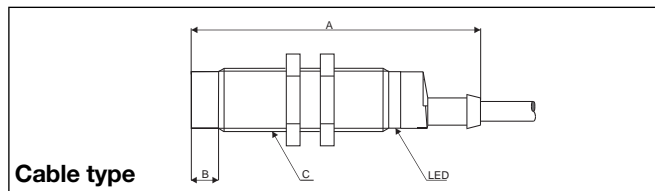
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|--|--|
| Rated operational volt. (U_e) | 24 to 240 VAC, (U _B) 20 to 265 VAC, 50 to 60 Hz |
| Rated operational current (I_e) | Continuous 10 - 500 mA Short-time ≤ 2.5 A, max. 20 ms |
| Minimum load current | 10 mA |
| OFF-state current (I_r) | ≤ 2 mA |
| Voltage drop (U_d) | ≤ 8 VAC at max. load |
| Protection | Transients |
| Transient voltage | Level 3, 2.5 kV, acc. to IEC 60255-5 (500 Ω, 0.5 J) (prepared) |
| Power ON delay | ≤ 100 ms |
| Frequency of operating cycles (f) | 25 Hz |
| Indication for output ON | LED, yellow |
| Assured operating dist. (S_a) | 0 ≤ S _a ≤ 0.81 S _n |
| Repeat accuracy (R) | ≤ 5% |
| Hysteresis (H) (Differential travel) | 3 to 20% of sensing distance |

| | |
|--|--|
| Effective operating dist. (S_r) | 0.9 x S _n ≤ S _r ≤ 1.1 x S _n |
| Usable operating dist. (S) | 0.9 x S _r ≤ S _u ≤ 1.1 x S _r |
| Ambient temperature | Operating -25° to +70°C (-13° to +158°F) Storage -30° to +80°C (-22° to +176°F) |
| Degree of protection | IP 67 (Nema 1, 3, 4, 6, 13) |
| Housing material | Body Stainless steel (1.4301) Front Grey thermoplastic polyester Back Black thermoplastic polyester |
| Connection | Cable 2 m, 2 x 0.50 mm ² , grey PVC, oil proof Plug M 12 x 1 (double keyed) Cables for plug (-6) CONH6A-xx |
| Weight (cable excluded) | EI 12 80 g EI 18 130 g EI 30 200 g |
| Tightening torque | EI 12 7.5 Nm (x) 17.5 Nm (y) EI 18 27.5 Nm EI 30 100.0 Nm |

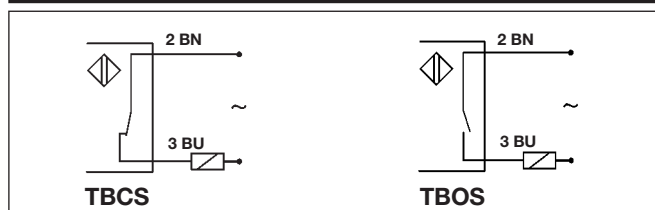
Dimensions

| Type | A | B mm | C mm |
|-----------------|------|------|---------------|
| EI 1202 TB..L | 66 | 0 | M 12 x 1 x 50 |
| EI 1202 TB..L-6 | 74.5 | 0 | M 12 x 1 x 50 |
| EI 1204 TB..L | 70 | 4 | M 12 x 1 x 50 |
| EI 1204 TB..L-6 | 78.5 | 4 | M 12 x 1 x 50 |
| EI 1805 TB..S | 57 | 0 | M 18 x 1 x 30 |
| EI 1805 TB..S-6 | 55 | 0 | M 18 x 1 x 30 |
| EI 1805 TB..L | 77 | 0 | M 18 x 1 x 50 |
| EI 1805 TB..L-6 | 75 | 0 | M 18 x 1 x 50 |
| EI 1808 TB..S | 65 | 8 | M 18 x 1 x 30 |
| EI 1808 TB..S-6 | 63 | 8 | M 18 x 1 x 30 |
| EI 1808 TB..L | 85 | 8 | M 18 x 1 x 50 |
| EI 1808 TB..L-6 | 83 | 8 | M 18 x 1 x 50 |

| Type | A | B mm | C mm |
|-----------------|------|------|-----------------|
| EI 3010 TB..S | 59 | 0 | M 30 x 1.5 x 30 |
| EI 3010 TB..S-6 | 55.5 | 0 | M 30 x 1.5 x 30 |
| EI 3010 TB..L | 79 | 0 | M 30 x 1.5 x 50 |
| EI 3010 TB..L-6 | 75.5 | 0 | M 30 x 1.5 x 50 |
| EI 3015 TB..S | 87.5 | 12 | M 30 x 1.5 x 30 |
| EI 3015 TB..S-6 | 67.5 | 12 | M 30 x 1.5 x 30 |
| EI 3015 TB..L | 91 | 12 | M 30 x 1.5 x 50 |
| EI 3015 TB..L-6 | 71 | 12 | M 30 x 1.5 x 50 |



Wiring Diagrams



Power Supplies

Power supplies VAC: > SS 110

Installation Hints

Refer to "Installation Hints", Technical information.