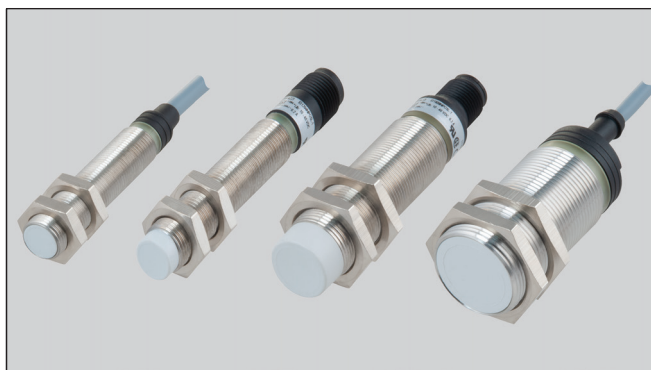


Proximity Sensors Inductive Stainless Steel Housing Types EI, DC, M12, M18, M30



- Stainless steel housing, cylindrical
- Diameter: M12, M18, M30
- Short or long versions
- Sensing distance: 2 to 15 mm
- Power supply: 10 to 32 VDC
- Output: Transistor NPN/PNP, normally open or normally closed
- Protection: Short-circuit and reverse polarity
- LED-indication for output ON
- 2 m cable or plug M12

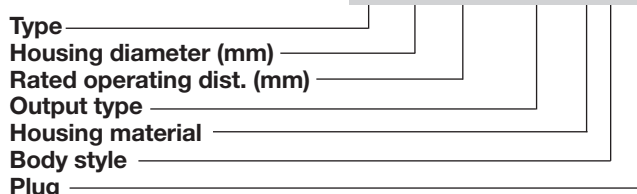
Product Description

Proximity switch in housings ranging from M12 to M30. Short or long versions in standard stainless steel housing.

Made after EN 60947-5-2.

Ordering Key

EI 1202 NPOSS-1



Type Selection DC Types, Cable and M12 Plug

| Housing diameter | Body style | Connec-tion | Rated operating dist. (S _n) | Ordering no. Transistor NPN Normally open | Ordering no. Transistor NPN Normally closed | Ordering no. Transistor PNP Normally open | Ordering no. Transistor PNP Normally closed |
|------------------|------------|-------------|---|---|---|---|---|
| M12 | Short | Cable | 2 mm ¹⁾ | EI 1202 NPOSS | EI 1202 NPCSS | EI 1202 PPOSS | EI 1202 PPCSS |
| M12 | Short | Plug | 2 mm ¹⁾ | EI 1202 NPOSS-1 | EI 1202 NPCSS-1 | EI 1202 PPOSS-1 | EI 1202 PPCSS-1 |
| M12 | Long | Cable | 2 mm ¹⁾ | EI 1202 NPOSL | | EI 1202 PPOSL | EI 1202 PPCSL |
| M12 | Long | Plug | 2 mm ¹⁾ | EI 1202 NPOSL-1 | | EI 1202 PPOSL-1 | EI 1202 PPCSL-1 |
| M12 | Short | Cable | 4 mm ²⁾ | EI 1204 NPOSS | EI 1204 NPCSS | EI 1204 PPOSS | EI 1204 PPCSS |
| M12 | Short | Plug | 4 mm ²⁾ | EI 1204 NPOSS-1 | | EI 1204 PPOSS-1 | EI 1204 PPCSS-1 |
| M12 | Long | Cable | 4 mm ²⁾ | EI 1204 NPOSL | | EI 1204 PPOSL | EI 1204 PPCSL |
| M12 | Long | Plug | 4 mm ²⁾ | EI 1204 NPOSL-1 | | EI 1204 PPOSL-1 | EI 1204 PPCSL-1 |
| M18 | Short | Cable | 5 mm ¹⁾ | EI 1805 NPOSS | EI 1805 NPCSS | EI 1805 PPOSS | EI 1805 PPCSS |
| M18 | Short | Plug | 5 mm ¹⁾ | EI 1805 NPOSS-1 | EI 1805 NPCSS-1 | EI 1805 PPOSS-1 | EI 1805 PPCSS-1 |
| M18 | Long | Cable | 5 mm ¹⁾ | EI 1805 NPOSL | | EI 1805 PPOSL | EI 1805 PPCSL |
| M18 | Long | Plug | 5 mm ¹⁾ | EI 1805 NPOSL-1 | | EI 1805 PPOSL-1 | EI 1805 PPCSL-1 |
| M18 | Short | Cable | 8 mm ²⁾ | EI 1808 NPOSS | EI 1808 NPCSS | EI 1808 PPOSS | EI 1808 PPCSS |
| M18 | Short | Plug | 8 mm ²⁾ | EI 1808 NPOSS-1 | | EI 1808 PPOSS-1 | EI 1808 PPCSS-1 |
| M18 | Long | Cable | 8 mm ²⁾ | EI 1808 NPOSL | | EI 1808 PPOSL | EI 1808 PPCSL |
| M18 | Long | Plug | 8 mm ²⁾ | EI 1808 NPOSL-1 | | EI 1808 PPOSL-1 | EI 1808 PPCSL-1 |
| M30 | Short | Cable | 10 mm ¹⁾ | EI 3010 NPOSS | EI 3010 NPCSS | EI 3010 PPOSS | EI 3010 PPCSS |
| M30 | Short | Plug | 10 mm ¹⁾ | | | EI 3010 PPOSS-1 | |
| M30 | Long | Cable | 10 mm ¹⁾ | EI 3010 NPOSL | | EI 3010 PPOSL | EI 3010 PPCSL |
| M30 | Long | Plug | 10 mm ¹⁾ | | | EI 3010 PPOSL-1 | |
| M30 | Short | Cable | 15 mm ²⁾ | EI 3015 NPOSS | EI 3015 NPCSS | EI 3015 PPOSS | EI 3015 PPCSS |
| M30 | Short | Plug | 15 mm ²⁾ | EI 3015 NPOSS-1 | | EI 3015 PPOSS-1 | |
| M30 | Long | Cable | 15 mm ²⁾ | EI 3015 NPOSL | EI 3015 NPCSL | EI 3015 PPOSL | |
| M30 | Long | Plug | 15 mm ²⁾ | | | EI 3015 PPOSL-1 | |

¹⁾ For flush mounting in metal

²⁾ For non-flush mounting in metal

Specifications

| | | | |
|---|--|-----------------------------------|--|
| Rated operational volt. (U_B) | 10 to 32 VDC (ripple included) | Usable operating dist. (S) | $0.9 \times S_r \leq S_u \leq 1.1 \times S_r$ |
| Ripple | $\leq 10\%$ | Ambient temperature | Operating Storage |
| Rated operational current (I_a) Continuous | ≤ 200 mA | | -25° to +70°C (-13° to +158°F) -30° to +80°C (-22° to +176°F) |
| No-load supply current (I_o) | Output ON: < 6.5 mA Output OFF: < 2.7 mA | Degree of protection | IP 67 |
| Voltage drop (U_d) | ≤ 2 VDC at max. load | Housing material | |
| Protection | Reverse polarity, short-circuit, transients | Body | Stainless steel (1.4301) |
| Transient voltage | ≤ 700 V/0.5 J | Front | Grey thermoplastic polyester |
| EMC | Approved according to EN 60947-5-2 | Back | Black polyester |
| Power ON delay | < 10 ms | Connection | |
| Frequency of operating cycles (f) | | Cable | 2 m, 3 x 0.3 mm ² , grey PVC, oil proof M12 x 1 |
| EI 1202 | 800 Hz | Plug | CONx... series to be pur- chased separately |
| EI 1204 | 500 Hz | Cables for plug (-1) | |
| EI 1805 | 500 Hz | | |
| EI 1808 | 400 Hz | | |
| EI 3010 | 300 Hz | | |
| EI 3015 | 100 Hz | | |
| Indication for output ON | LED, yellow | Weight (cable excluded) | |
| Assured operating dist. (S_a) | $0 \leq S_a \leq 0.81 S_n$ | EI 12 | 10 g |
| Repeatability (R) | $\leq 5\%$ | EI 1805 | 18 g |
| Hysteresis (H) (Differential travel) | 1 to 15% of sensing distance | EI 1808 | 20 g |
| Effective operating dist. (S_r) | $0.9 \times S_n \leq S_r \leq 1.1 \times S_n$ | EI 3010 | 50 g |
| | | EI 3015 | 70 g |
| | | Tightening torque | |
| | | EI 12 | 7.5 Nm (x) 17.5 Nm (y) |
| | | EI 18 | 27.5 Nm |
| | | EI 30 | 100.0 Nm |
| | | Approvals | UL, CSA |
| | | CE-marking | Yes |

Dimensions

| Type | A | B Ø mm | C mm | D mm | E mm | F mm | SW mm |
|-----------------|----------------|-----------|---------|---------|---------|---------|----------|
| EI 1202 xPxSS | M12 x 1 x 30 | 10.7 | 30 | 11 | 5.0 | 4 | 17 |
| EI 1202 xPxSL | M12 x 1 x 50 | 10.7 | 50 | 11 | 5.0 | 4 | 17 |
| EI 1202 xPxSS-1 | M12 x 1 x 30 | 10.7 | 30 | 12.6 | 11.9 | 4 | 17 |
| EI 1202 xPxSL-1 | M12 x 1 x 50 | 10.7 | 50 | 12.6 | 11.9 | 4 | 17 |
| EI 1204 xPxSS | M12 x 1 x 30 | 10.7 | 34 | 11 | 5.0 | 4 | 17 |
| EI 1204 xPxSL | M12 x 1 x 50 | 10.7 | 54 | 11 | 5.0 | 4 | 17 |
| EI 1204 xPxSS-1 | M12 x 1 x 30 | 10.7 | 34 | 12.6 | 11.9 | 4 | 17 |
| EI 1204 xPxSL-1 | M12 x 1 x 50 | 10.7 | 54 | 12.6 | 11.9 | 4 | 17 |
| EI 1805 xPxSS | M18 x 1 x 30 | 16.7 | 30 | 11.6 | 15.4 | 4 | 24 |
| EI 1805 xPxSL | M18 x 1 x 50 | 16.7 | 50 | 11.6 | 15.4 | 4 | 24 |
| EI 1805 xPxSS-1 | M18 x 1 x 30 | 16.7 | 30 | 13.1 | 11.9 | 4 | 24 |
| EI 1805 xPxSL-1 | M18 x 1 x 50 | 16.7 | 50 | 13.1 | 11.9 | 4 | 24 |
| EI 1808 xPxSS | M18 x 1 x 30 | 16.7 | 38 | 11.6 | 15.4 | 4 | 24 |
| EI 1808 xPxSL | M18 x 1 x 50 | 16.7 | 58 | 11.6 | 15.4 | 4 | 24 |
| EI 1808 xPxSS-1 | M18 x 1 x 30 | 16.7 | 38 | 13.1 | 11.9 | 4 | 24 |
| EI 1808 xPxSL-1 | M18 x 1 x 50 | 16.7 | 58 | 13.1 | 11.9 | 4 | 24 |
| EI 3010 xPxSS | M30 x 1.5 x 30 | 28 | 30 | 13.6 | 15.4 | 5 | 36 |
| EI 3010 xPxSL | M30 x 1.5 x 50 | 28 | 50 | 13.6 | 15.4 | 5 | 36 |
| EI 3010 xPxSS-1 | M30 x 1.5 x 30 | 28 | 30 | 13.6 | 11.9 | 5 | 36 |
| EI 3010 xPxSL-1 | M30 x 1.5 x 50 | 28 | 50 | 13.6 | 11.9 | 5 | 36 |
| EI 3015 xPxSS | M30 x 1.5 x 30 | 28 | 42 | 13.6 | 15.4 | 5 | 36 |
| EI 3015 xPxSL | M30 x 1.5 x 50 | 28 | 62 | 13.6 | 15.4 | 5 | 36 |
| EI 3015 xPxSS-1 | M30 x 1.5 x 30 | 28 | 42 | 13.6 | 11.9 | 5 | 36 |
| EI 3015 xPxSL-1 | M30 x 1.5 x 50 | 28 | 62 | 13.6 | 11.9 | 5 | 36 |