

Proximity Sensors Inductive Stainless Steel Housing, Full Metal Body Types EI, AC, M12, M18, M30, Plug

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- Stainless steel housing, cylindrical
- Diameter: M12, M18, M30
- Short versions
- Sensing distance: 2 to 15 mm
- Rated operational voltage: 20 to 250 VAC
- Output: SCR, make or break switching
- LED-indication for output ON
- Plug versions M12 or 1/2" UNF

Product Description

Proximity switch in stainless steel housings ranging from 12 to 30 mm. SCR, 500 mA output. Normally open or closed output types. Plug versions M12 or 1/2" UNF.

Ordering Key

EI 12 02 TBO FL-3

Type _____
Housing diameter (mm) _____
Rated operating dist. (mm) _____
Output type _____
Housing material _____
Connection type _____

Type Selection, AC Types

Housing diameter	Rated operating dist. (S_n)	Ordering no. SCR output Make switching	Ordering no. SCR output Break switching
M12	2 mm ¹⁾	EI 1202 TBOFL-3	EI 1202 TBCFL-3
M12	4 mm ²⁾	EI 1204 TBOFL-3	EI 1204 TBCFL-3
M18	5 mm ¹⁾	EI 1805 TBOFS-3	EI 1805 TBCFS-3
M18	8 mm ²⁾	EI 1808 TBOFS-3	EI 1808 TBCFS-3
M30	10 mm ¹⁾	EI 3010 TBOFS-3	EI 3010 TBCFS-3
M30	15 mm ²⁾	EI 3015 TBOFS-3	EI 3015 TBCFS-3

¹⁾ For flush mounting in metal

²⁾ For non-flush mounting in metal

Specifications

Rated operational volt. (U_a) (U_B)	24 to 240 VAC, 45 to 65 Hz 20 to 250 VAC, 45 to 65 Hz	Assured operating dist. (S_a)	$0 \leq S_a \leq 0.81 S_n$
Rated operational current (I_e) Continuous	≤ 500 mA	Repeat accuracy (R)	$\leq 5\%$
Short-time	≤ 2.5 A, max. 20 ms	Hysteresis (H) (Differential travel)	3 to 20% of sensing distance
Min. operational current (I_m)	5 mA	Drift of sensing distance due to temperature variation	$\leq 10\%$
Min. rated operational current (I_o)	10 mA	Ambient temperature Operating	-25 to +70°C (-13 to +158°F)
OFF-state current (I_r)	≤ 2 mA at 250 VAC, typ. 1.2mA typ. 0.8 mA @ 120 V	Storage	-30 to +80°C (-22 to +176°F)
Voltage drop (U_d)	≤ 8 VAC, typ. 5 V	Degree of protection	IP 67 (Nema 1, 2, 3, 4, 4x, 12, 13)
Protection	Transient	Housing material	Body Stainless steel (1.4301) Front Blue polyester, oil proof Back Black polyester, oil proof
Transient voltage	2.5 kV/0.5 J/500 Ω	Approvals	UL (only M18 and M30 types)
Power ON delay (t_v)	≤ 100 ms, typ. 50 ms	CE-marking	Yes
Frequency of operating cycles (f)	5 Hz		
Indication for output ON	LED, yellow		

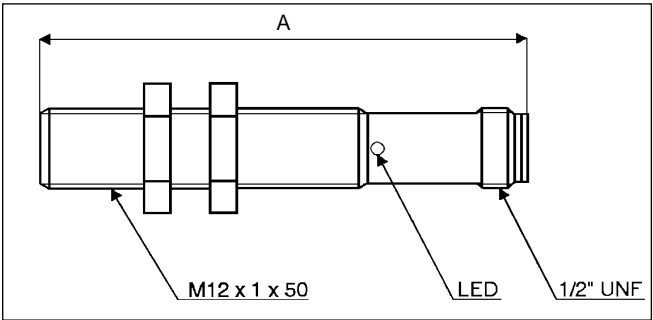


Specifications (cont.)

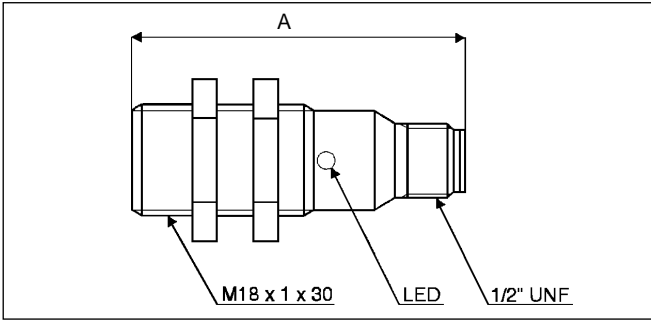
Weight	EI 12..-3	25 g	Tightening torque	EI 12	7.5 Nm (x)
	EI 18..-3	41 g			17.5 Nm (y)
	EI 30..-3	103 g		EI 18	27.5 Nm
				EI 30	100.0 Nm

Dimensions

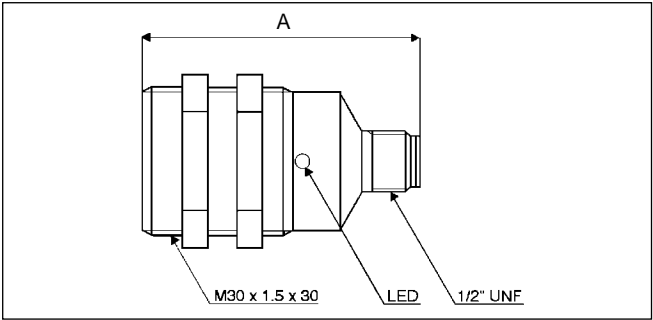
Type	A mm
EI 1202 TB.FL-3 (flush)	74.5
EI 1204 TB.FL-3 (non-flush)	78.5
EI 1805 TB.FS-3 (flush)	55.5
EI 1808 TB.FS-3 (non-flush)	63.5
EI 3010 TB.FS-3 (flush)	55.5
EI 3015 TB.FS-3 (non-flush)	67.5



EI 120. TB.FL-3



EI 180. TB.FS-3

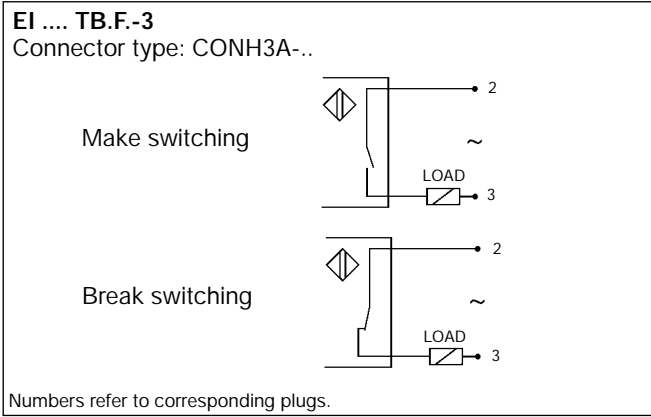


EI 301. TB.FS-3

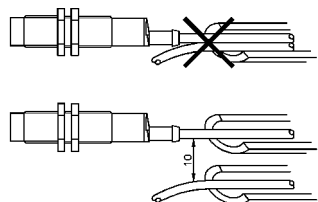
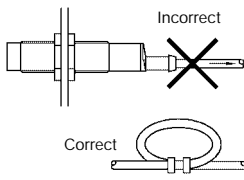
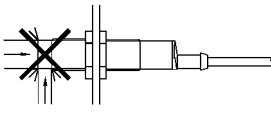
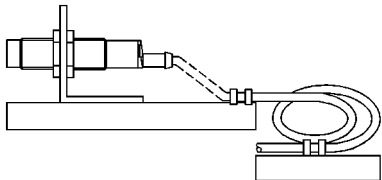
Connectors: Type Selection - AC Version (3-wire)

Size	Shape	Connection	Ordering no.
1/2"		2 m cable	CONH3A-S2 (Ø)
1/2"		5 m cable	CONH3A-S5 (Ø)
1/2"		2 m cable	CONH3A-A2 (Ø)
1/2"		5 m cable	CONH3A-A5 (Ø)

Wiring Diagrams



Installation Hints

<p><i>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</i></p> 	<p><i>Relief of cable strain</i></p>  <p>The cable should not be pulled</p>	<p><i>Protection of the sensing face</i></p>  <p>A proximity switch should not serve as mechanical stop</p>	<p><i>Switch mounted on mobile carrier</i></p>  <p>Any repetitive flexing of the cable should be avoided</p>
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