

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



- Stainless steel housing, cylindrical
- Diameter: M 12, M 18, M 30
- 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 FS-3

Type: Inductive proximity switch
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
M 12	2 mm ¹⁾	EI 1202 TBOFL-3	EI 1202 TBCFL-3
M 12	4 mm ²⁾	EI 1204 TBOFL-3	EI 1204 TBCFL-3
M 18	5 mm ¹⁾	EI 1805 TBOFS-3	EI 1805 TBCFS-3
M 18	8 mm ²⁾	EI 1808 TBOFS-3	EI 1808 TBCFS-3
M 30	10 mm ¹⁾	EI 3010 TBOFS-3	EI 3010 TBCFS-3
M 30	15 mm ²⁾	EI 3015 TBOFS-3	EI 3015 TBCFS-3

¹⁾ For flush mounting in metal

²⁾ For non-flush mounting in metal

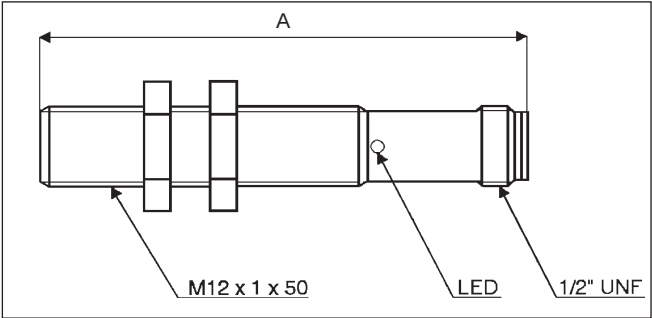
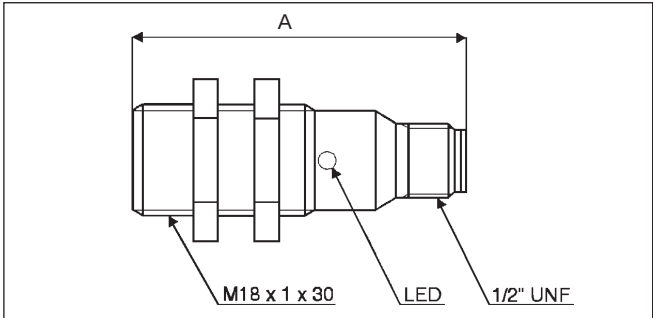
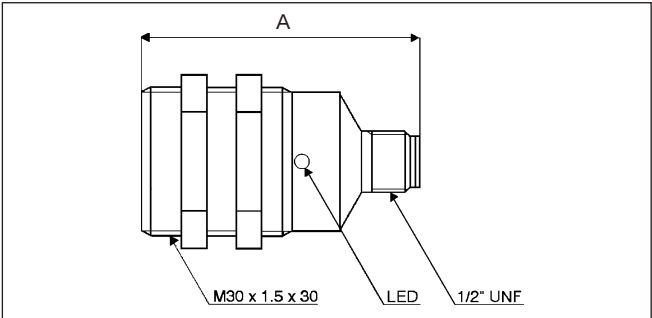
Specifications

Rated operational volt. (U _e) (U _B)	24 to 240 VAC, 45 to 65 Hz 20 to 250 VAC, 45 to 65 Hz	Assured operating dist. (S _a)	0 ≤ S _a ≤ 0.81 S _n
Rated operational current (I _e) Continuous Short-time	≤ 500 mA ≤ 2.5 A, max. 20 ms	Repeat accuracy (R)	≤ 5%
Min. operational current (I _m)	5 mA	Hysteresis (H) (Differential travel)	3 to 20% of sensing distance
Min. rated operational current (I _o)	10 mA	Drift of sensing distance due to temperature variation	≤ 10%
OFF-state current (I _r)	≤ 2 mA at 250 VAC, typ. 1.2mA typ. 0.8 mA @ 120 V	Ambient temperature Operating Storage	-25 to +70°C (-13 to +158°F) -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 Front Back	Stainless steel (1.4301) Blue polyester, oil proof 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		

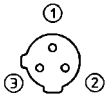
Specifications (cont.)

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

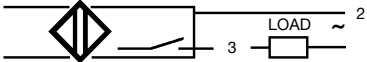
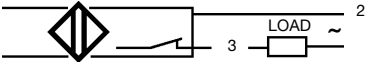
Dimensions

Type	A mm	
EI 1202 TB.FL-3 (flush)	74,5	
EI 1204 TB.FL-3 (non-flush)	78,5	
EI 1202 TB.SS-6 (flush)	74,5	
EI 1204 TB.SS-6 (non-flush)	78,5	
EI 1805 TB.FS-3 (flush)	55,5	
EI 1808 TB.FS-3 (non-flush)	63,5	
		

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

Size		Shape	Connection	Ordering no.
1/2"		straight	2 m cable	CONH3A-S2 (∅)
1/2"		straight	5 m cable	CONH3A-S5 (∅)
1/2"		90° angle	2 m cable	CONH3A-A2 (∅)
1/2"		90° angle	5 m cable	CONH3A-A5 (∅)

Wiring Diagrams

EI TB.F-3 Connector type: CONH3A-..	
Make switching	
Break switching	
Numbers refer to corresponding plugs.	

Installation Hints

For further information refer to "Installation Hints".