

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

SENSOTRONIK



- 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: Inductive proximity switch

Housing diameter (mm)

Rated operating dist. (mm)

Output type

Housing material

Body style

Plug

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

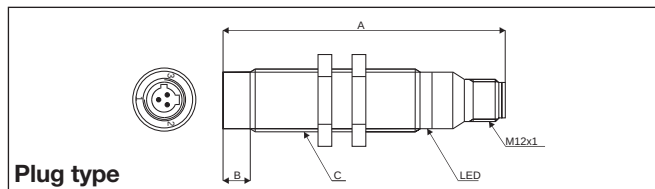
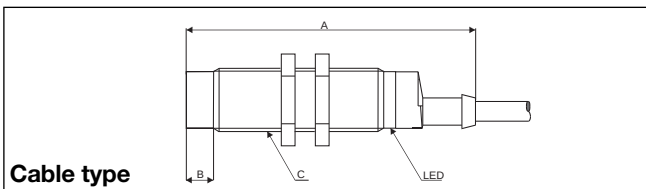
Specifications

Rated operational volt. (U_e) (U_B)	24 to 240 VAC, 20 to 265 VAC, 50 to 60 Hz	Usable operating dist. (S)	$0.9 \times S_r \leq S_u \leq 1.1 \times S_r$
Rated operational current (I_e) Continuous Short-time	10 - 500 mA ≤ 2.5 A, max. 20 ms	Ambient temperature Operating Storage	-25° to +70°C (-13° to +158°F) -30° to +80°C (-22° to +176°F)
Minimum load current	10 mA	Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)
OFF-state current (I_o)	≤ 2 mA	Housing material Body Front Back	Stainless steel (1.4301) Grey thermoplastic polyester Black thermoplastic polyester
Voltage drop (U_d)	≤ 8 VAC at max. load	Connection Cable Plug Cables for plug (-6)	2 m, 2 x 0.50 mm ² , grey PVC, oil proof M 12 x 1 (double keyed) CONH6A-xx
Protection	Transients	Weight (cable excluded)	EI 12 80 g EI 18 130 g EI 30 200 g
Transient voltage	Level 3, 2.5 kV, acc. to IEC 60255-5 (500 Ω , 0.5 J) (prepared)	Tightening torque	EI 12 7.5 Nm (x) 17.5 Nm (y) EI 18 27.5 Nm EI 30 100.0 Nm
Power ON delay	≤ 100 ms	Approvals CE-marking	UL, CSA Yes
Frequency of operating cycles (f)	25 Hz		
Indication for output ON	LED, yellow		
Assured operating dist. (S_a)	$0 \leq S_a \leq 0.81 S_n$		
Repeat accuracy (R)	$\leq 5\%$		
Hysteresis (H) (Differential travel)	3 to 20% of sensing distance		
Effective operating dist. (S_r)	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$		

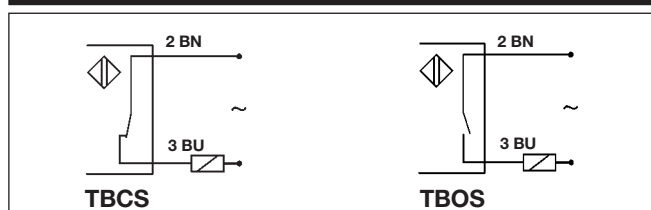
Dimensions

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.