

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

CARLO GAVAZZI



- Stainless steel housing, cylindrical
- Diameter: M12, M18, M30
- Flush and non-flush types
- Long and short body versions
- Sensing distance: 2 to 15 mm
- Power supply: 20 to 250 VAC
- Output: SCR, normally open or normally closed
- Protection: Overvoltage
- LED-indication for output ON
- 2 m cable or plug M12 (double keyed)

Product Description

AC proximity switches constructed in stainless steel (1.4301) housings. Sizes available are M12, M18 and M30. 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 _____
Housing diameter (mm) _____
Rated operating dist. (mm) _____
Output type _____
Housing material _____
Body style _____
Plug _____

Type Selection AC Types, Cable and M12 Plug

Housing diameter	Body style	Connection	Rated operating dist. (S _n)	Ordering no. SCR Normally open	Ordering no. SCR Normally closed
M12	Long	Cable	2 mm ¹⁾	EI 1202 TBOSL	EI 1202 TBCSL
M12	Long	Plug	2 mm ¹⁾	EI 1202 TBOSL-6	
M12	Long	Cable	4 mm ²⁾	EI 1204 TBOSL	EI 1204 TBCSL
M12	Long	Plug	4 mm ²⁾	EI 1204 TBOSL-6	
M18	Short	Cable	5 mm ¹⁾	EI 1805 TBOSS	EI 1805 TBCSS
M18	Short	Plug	5 mm ¹⁾	EI 1805 TBOSS-6	
M18	Long	Cable	5 mm ¹⁾	EI 1805 TBOSL	EI 1805 TBCSL
M18	Long	Plug	5 mm ¹⁾	EI 1805 TBOSL-6	
M18	Short	Cable	8 mm ²⁾	EI 1808 TBOSS	EI 1808 TBCSS
M18	Short	Plug	8 mm ²⁾	EI 1808 TBOSS-6	
M18	Long	Cable	8 mm ²⁾	EI 1808 TBOSL	EI 1808 TBCSL
M18	Long	Plug	8 mm ²⁾	EI 1808 TBOSL-6	EI 1808 TBCSL-6
M30	Short	Cable	10 mm ¹⁾	EI 3010 TBOSS	EI 3010 TBCSS
M30	Long	Cable	10 mm ¹⁾	EI 3010 TBOSL	EI 3010 TBCSL
M30	Long	Plug	10 mm ¹⁾	EI 3010 TBOSL-6	
M30	Short	Cable	15 mm ²⁾	EI 3015 TBOSS	EI 3015 TBCSS
M30	Short	Plug	15 mm ²⁾	EI 3015 TBOSS-6	
M30	Long	Cable	15 mm ²⁾	EI 3015 TBOSL	EI 3015 TBCSL
M30	Long	Plug	15 mm ²⁾	EI 3015 TBOSL-6	

¹⁾ For flush mounting in metal

²⁾ For non-flush mounting in metal

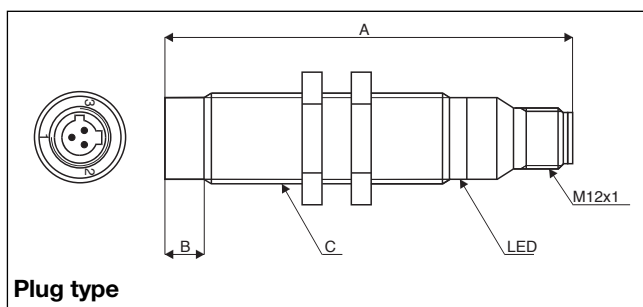
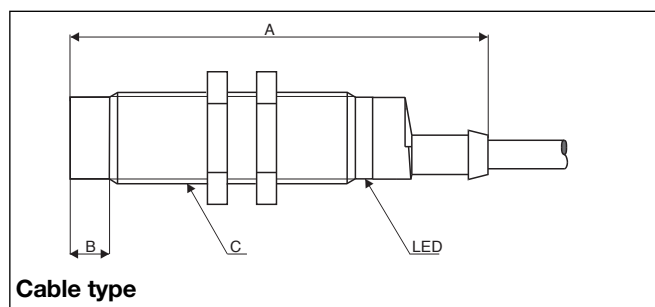
Specifications

Rated operational volt. (U_e) (U_B)	24 to 240 VAC, 20 to 265 VAC, 50 to 60 Hz	Ambient temperature	
Rated operational current (I_a)		Operating	-25° to +70°C (-13° to +158°F)
Continuous	10 - 500 mA	Storage	-30° to +80°C (-22° to +176°F)
Short-time	≤ 2.5 A, max. 20 ms	Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)
Minimum load current	10 mA	Housing material	
OFF-state current (I_r)	≤ 2 mA	Body	Stainless steel (1.4301)
Voltage drop (U_d)	≤ 8 VAC at max. load	Front	Grey thermoplastic polyester
Protection	Transients	Back	Black thermoplastic polyester
Transient voltage	Level 3, 2.5 kV, acc. to IEC 60255-5 (500 Ω, 0.5 J) (prepared)	Connection	
Power ON delay	≤ 100 ms	Cable	2 m, 2 x 0.50 mm ² , grey PVC, oil proof M12 x 1 (double keyed) CONH6A-xx
Frequency of operating cycles (f)	25 Hz	Plug	
Indication for output ON	LED, yellow	Cables for plug (-6)	
Assured operating dist. (S_a)	$0 \leq S_a \leq 0.81 S_n$	Weight (cable excluded)	
Repeat accuracy (R)	≤ 5%	EI 12	80 g
Hysteresis (H) (Differential travel)	3 to 20% of sensing distance	EI 18	130 g
Effective operating dist. (S_r)	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$	EI 30	200 g
Usable operating dist. (S)	$0.9 \times S_r \leq S_u \leq 1.1 \times S_r$	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

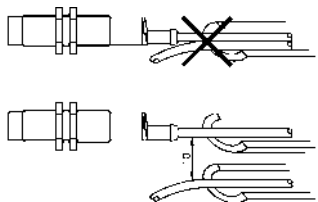
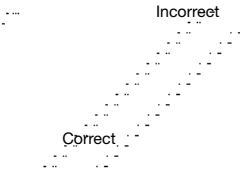
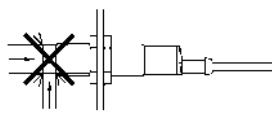
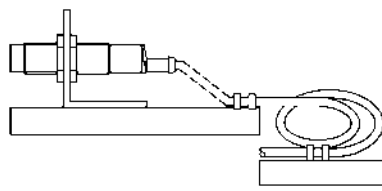
Dimensions

Type	A	B 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

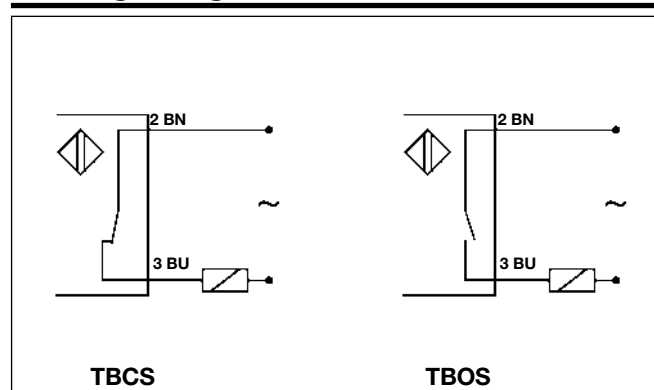
Type	A	B mm	C mm
EI 3010 TB..S	59	0	M 30 x 1.5 x 30
EI 3010 TB..L	79	0	M 30 x 1.5 x 50
EI 3010 TB..L-6	75.5	0	M 30 x 1.5 x 50
EI 3015 TB..S	87.5	12	M 30 x 1.5 x 30
EI 3015 TB..S-6	67.5	12	M 30 x 1.5 x 30
EI 3015 TB..L	91	12	M 30 x 1.5 x 50
EI 3015 TB..L-6	71	12	M 30 x 1.5 x 50



Installation Hints

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 	Relief of cable strain  The cable should not be pulled	Protection of the sensing face  A proximity switch should not serve as mechanical stop	Switch mounted on mobile carrier  Any repetitive flexing of the cable should be avoided
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Wiring Diagrams



Power Supplies

Power supplies VAC: > SS 110