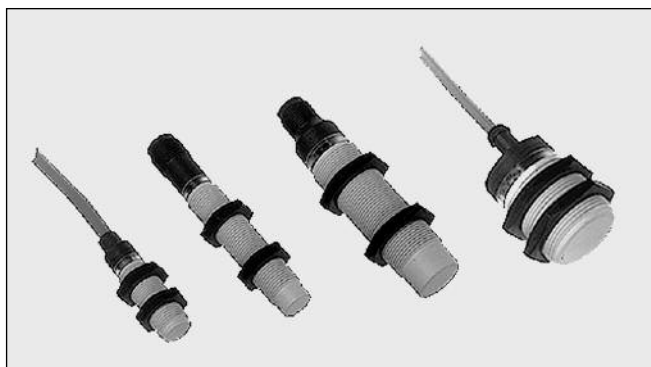


Proximity Sensors Inductive Thermoplastic Polyester Housing Types EI, DC, M12, M18, M30

CARLO GAVAZZI



- Euronorm thermoplastic polyester housing, cylindrical
- Diameter: M12, M18, M30
- Sensing distance: 2 to 15 mm
- Power supply: 10 to 40 VDC
- Output: Transistor NPN/PNP, make or break switching
- Protection: Short-circuit, reverse polarity and overload
- LED-indication for output ON
- 2 m cable or M12 plug

Product Description

Proximity switch in M12, M18 and M30 polyester housings. Made in accordance with euronorms EN 50 008 and EN 50 036. For metal versions refer to type. EI ...S.

Ordering Key

EI 1808 PPCPL-1

Type _____
Housing diameter (mm) _____
Rated operating dist. (mm) _____
Output type _____
Housing material _____
Body style _____
Plug _____

Type Selection DC Types, Cable and M12 Plug

Housing diameter	Body style	Connection	Rated operating dist. (S _n)	Ordering no. Transistor NPN Make switching	Ordering no. Transistor NPN Break switching	Ordering no. Transistor PNP Make switching	Ordering no. Transistor PNP Break switching
M12	Long	Cable	2 mm ¹⁾	EI 1202 NPOPL		EI 1202 PPOPL	
M12	Short	Cable	4 mm ²⁾			EI 1204 PPOPS	
M12	Long	Cable	4 mm ²⁾	EI 1204 NPOPL		EI 1204 PPOPL	
M18	Short	Cable	5 mm ¹⁾			EI 1805 PPOPS	
M18	Long	Cable	5 mm ¹⁾	EI 1805 NPOPL			
M18	Short	Cable	8 mm ²⁾	EI 1808 NPOPS		EI 1808 PPOPS	
M18	Short	Plug	8 mm ²⁾			EI 1808 PPOPS-1	
M18	Long	Cable	8 mm ²⁾	EI 1808 NPOPL		EI 1808 PPOPL	EI 1808 PPCPL
M18	Long	Plug	8 mm ²⁾			EI 1808 PPOPL-1	EI 1808 PPCPL-1
M30	Long	Cable	10 mm ¹⁾	EI 3010 NPOPL		EI 3010 PPOPL	EI 3010 PPCPL
M30	Short	Cable	15 mm ²⁾	EI 3015 NPOPS			
M30	Long	Cable	15 mm ²⁾			EI 3015 PPOPL	

¹⁾ For flush mounting in metal

²⁾ For non-flush mounting in metal

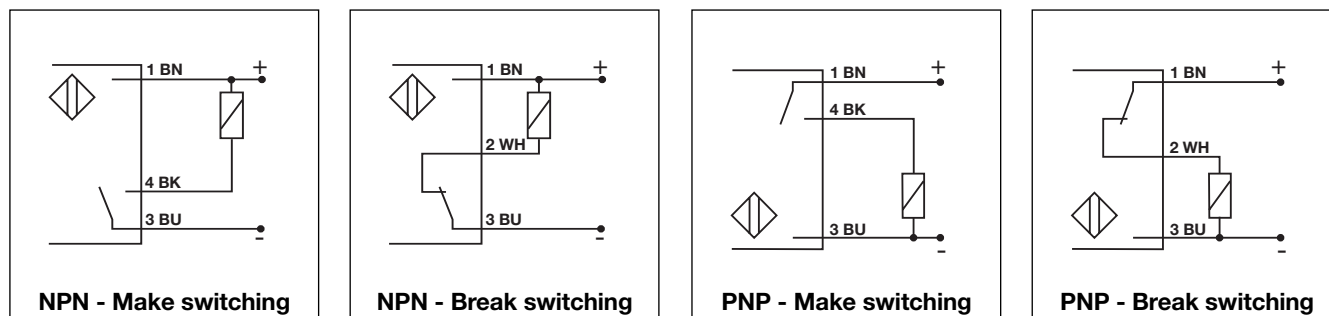
Make switching = Normally Open (NO)

Break switching = Normally Closed (NC)

Specifications

Rated operational volt. (U_e) (U_B)	12 to 36 VDC 10 to 40 VDC (ripple incl.)	Hysteresis (H) (Differential travel)	1 to 15% of sensing distance
Ripple	≤ 10%	Effective operating dist. (S_r)	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$
Rated operational current (I_a) Continuous	≤ 200 mA	Usable operating dist. (S)	$0.9 \times S_r \leq S_u \leq 1.1 \times S_r$
No-load supply current (I_o)	Output ON: < 6.5 mA Output OFF: < 2.7 mA	Ambient temperature Operating	-25° to +70°C (-13° to +158°F)
Voltage drop (U_d)	≤ 2 VDC at max. load	Storage	-30° to +80°C (-22° to +176°F)
Protection	Reverse polarity, short-circuit, transients	Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)
Transient voltage	≤ 700 V/0.5 J	Housing material Body	Grey thermoplastic polyester
EMC	Approved acc. to EN 50 080, EN 50 081	Back	Black polyester
Power ON delay	< 10 ms	Connection Cable	2 m, 3 x 0.3 mm ² , grey PVC, oil proof
Frequency of operating cycles (f)	EI 1202 800 Hz EI 1204 500 Hz EI 1805 500 Hz EI 1808 400 Hz EI 3010 300 Hz EI 3015 100 Hz	Plug	M 12 x 1
Indication for output ON	LED, yellow	Cables for plug (-1)	CONH1A serie
Assured operating dist. (S_a)	$0 \leq S_a \leq 0.81 S_n$	Weight (cable excluded)	EI12 10 g EI 1805 18 g EI 1808 20 g EI 3010 50 g EI 3015 70 g
Repeat accuracy (R)	≤ 5%	Tightening torque	EI 12 1.8 Nm EI 30 7.5 Nm EI 18 2.6 Nm
		Approvals	UL, CSA
		CE-marking	Yes

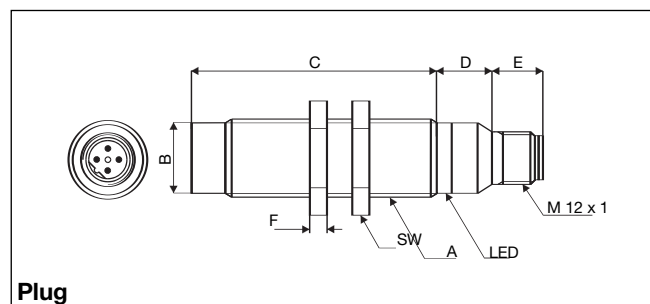
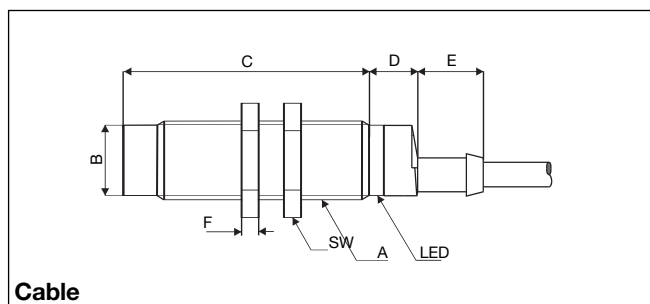
Wiring Diagrams



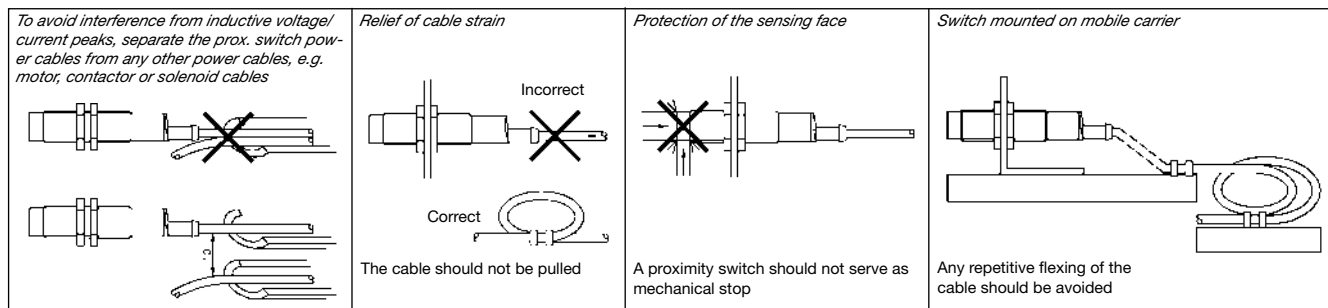
Dimensions

Type	A	B (Ø mm)	C (mm)	D (mm)	E (mm)	F (mm)	SW (mm)
EI 1202 XPXPL	M 12 x 1 x 50	10.7	50	11	5.0	8	17
EI 1204 XPXPS	M 12 x 1 x 30	10.7	34	11	5.0	8	17
EI 1204 XPXPL	M 12 x 1 x 50	10.7	54	11	5.0	8	17
EI 1805 XPXPS	M 18 x 1 x 30	16.7	30	11.6	15.4	8	24
EI 1805 XPXPL	M 18 x 1 x 50	16.7	50	11.6	15.4	8	24
EI 1808 XPXPS	M 18 x 1 x 30	16.7	38	11.6	15.4	8	24
EI 1808 XPXPL	M 18 x 1 x 50	16.7	58	11.6	15.4	8	24
EI 1808 XPXPL-1	M 18 x 1 x 50	16.7	58	13.1	11.9	8	24
EI 3010 XPXPL	M 30 x 1.5 x 50	28	50	13.6	15.4	10	36
EI 3015 XPXPS	M 30 x 1.5 x 30	28	42	13.6	15.4	10	36
EI 3015 XPXPL	M 30 x 1.5 x 50	28	62	13.6	15.4	10	36

Dimensions (cont.)



Installation Hints



Power Supplies

Power supplies VAC: > SS 110.
 Power supplies VDC: > SS 130/140.
 Power supplies with amplifier relays: > SV 190.