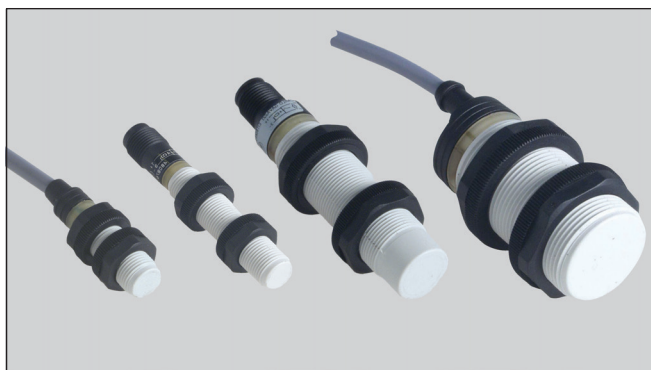


# Proximity Sensors Inductive Thermoplastic Polyester Housing Types EI, DC, M12, M18, M30



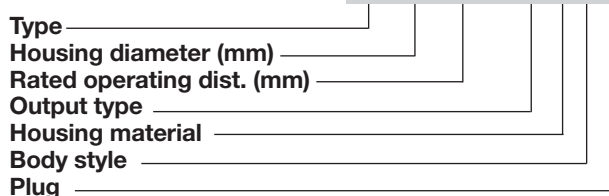
- Euronorm thermoplastic polyester housing, cylindrical
- Diameter: M12, M18, M30
- Flush and non-flush types
- Long and short body versions
- Sensing distance: 2 to 15 mm
- Power supply: 10 to 32 VDC
- Output: Transistor NPN/PNP, Normally open or Normally closed
- Protection: Short-circuit, reverse 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 EN 60947-5-2.

## Ordering Key

**EI 1808 PPCPL-1**



## Type Selection DC Types, Cable and M12 Plug

Housing diameter	Body style	Connection	Rated operating dist. (S <sub>n</sub> )	Ordering no. Transistor NPN Normally open	Ordering no. Transistor PNP Normally open	Ordering no. Transistor PNP Normally closed
M12	Long	Cable	2 mm <sup>1)</sup>		EI 1202 PPOPL	
M12	Short	Cable	4 mm <sup>2)</sup>		EI 1204 PPOPS	
M12	Long	Cable	4 mm <sup>2)</sup>	EI 1204 NPOPL	EI 1204 PPOPL	
M18	Long	Cable	5 mm <sup>1)</sup>	EI 1805 NPOPL	EI 1805 PPOPL	
M18	Short	Cable	8 mm <sup>2)</sup>	EI 1808 NPOPS	EI 1808 PPOPS	
M18	Short	Plug	8 mm <sup>2)</sup>		EI 1808 PPOPS-1	
M18	Long	Cable	8 mm <sup>2)</sup>	EI 1808 NPOPL	EI 1808 PPOPL	EI 1808 PPCPL
M18	Long	Plug	8 mm <sup>2)</sup>		EI 1808 PPOPL-1	EI 1808 PPCPL-1
M30	Long	Cable	10 mm <sup>1)</sup>	EI 3010 NPOPL	EI 3010 PPOPL	EI 3010 PPCPL
M30	Short	Cable	15 mm <sup>2)</sup>	EI 3015 NPOPS		
M30	Long	Cable	15 mm <sup>2)</sup>		EI 3015 PPOPL	

<sup>1)</sup> For flush mounting in metal

<sup>2)</sup> For non-flush mounting in metal

## Specifications

<b>Rated operational volt. (U<sub>B</sub>)</b>	10 to 32 VDC (ripple incl.)	<b>Frequency of operating cycles (f)</b>	
<b>Ripple</b>	≤ 10%	<b>EI 1202</b>	800 Hz
<b>Rated operational current (I<sub>e</sub>)</b>		<b>EI 1204</b>	500 Hz
Continuous	≤ 200 mA	<b>EI 1805</b>	500 Hz
<b>No-load supply current (I<sub>o</sub>)</b>	Output ON: < 6.5 mA Output OFF: < 2.7 mA	<b>EI 1808</b>	400 Hz
<b>Voltage drop (U<sub>d</sub>)</b>	≤ 2 VDC at max. load	<b>EI 3010</b>	300 Hz
<b>Protection</b>	Reverse polarity, short-circuit, transients	<b>EI 3015</b>	100 Hz
<b>Transient voltage</b>	≤ 700 V/0.5 J	<b>Indication for output ON</b>	LED, yellow
<b>Power ON delay</b>	< 10 ms	<b>Assured operating dist. (S<sub>a</sub>)</b>	0 ≤ S <sub>a</sub> ≤ 0.81 S <sub>n</sub>
		<b>Repeatability (R)</b>	≤ 5%
		<b>Hysteresis (H) (Differential travel)</b>	1 to 15% of sensing distance
		<b>Effective operating dist. (S<sub>r</sub>)</b>	0.9 x S <sub>n</sub> ≤ S <sub>r</sub> ≤ 1.1 x S <sub>n</sub>
		<b>Usable operating dist. (S)</b>	0.9 x S <sub>r</sub> ≤ S <sub>u</sub> ≤ 1.1 x S <sub>r</sub>

## Specifications (cont.)

<b>Ambient temperature</b>		<b>Weight (cable excluded)</b>	
Operating	-25° to +70°C (-13° to +158°F)	<b>EI12</b>	10 g
Storage	-30° to +80°C (-22° to +176°F)	<b>EI 1805</b>	18 g
<b>Degree of protection</b>	IP 67	<b>EI 1808</b>	20 g
<b>Housing material</b>		<b>EI 3010</b>	50 g
Body	Grey thermoplastic polyester	<b>EI 3015</b>	70 g
Back	Black polyester	<b>Tightening torque</b>	
<b>Connection</b>		<b>EI 12</b>	1.8 Nm
Cable	2 m, 3 x 0.3 mm <sup>2</sup> , grey PVC, oil proof	<b>EI 18</b>	2.6 Nm
Plug	M 12 x 1	<b>EI 30</b>	7.5 Nm
Cables for plug (-1)	CONx... series to be purchased separately	<b>Approvals</b>	UL, CSA
		<b>CE-marking</b>	Yes
		<b>EMC</b>	Approved acc. to EN 60947-5-2

## Dimensions

Type	A	B (Ø mm)	C (mm)	D (mm)	E (mm)	F (mm)	SW (mm)
<b>EI 1202 xPxPL</b>	M 12 x 1 x 50	10.7	50	11	5.0	8	17
<b>EI 1204 xPxPS</b>	M 12 x 1 x 30	10.7	34	11	5.0	8	17
<b>EI 1204 xPxPL</b>	M 12 x 1 x 50	10.7	54	11	5.0	8	17
<b>EI 1805 xPxPL</b>	M 18 x 1 x 50	16.7	50	11.6	15.4	8	24
<b>EI 1808 xPxPS</b>	M 18 x 1 x 30	16.7	38	11.6	15.4	8	24
<b>EI 1808 xPxPL</b>	M 18 x 1 x 50	16.7	58	11.6	15.4	8	24
<b>EI 1808 xPxPS-1</b>	M 18 x 1 x 30	16,7	38	13,1	11,9	8	24
<b>EI 1808 xPxPL-1</b>	M 18 x 1 x 50	16.7	58	13.1	11.9	8	24
<b>EI 3010 xPxPL</b>	M 30 x 1.5 x 50	28	50	13.6	15.4	10	36
<b>EI 3015 xPxPS</b>	M 30 x 1.5 x 30	28	42	13.6	15.4	10	36
<b>EI 3015 xPxPL</b>	M 30 x 1.5 x 50	28	62	13.6	15.4	10	36

