

# Proximity Sensors Inductive Analogue Position Sensor Types EI, M 18, M 30



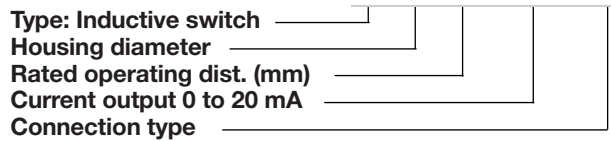
- Nickel-plated brass housing, cylindrical
- Diameter: M 18, M 30
- Sensing range: EI 1805 I020: 2 to 5 mm  
EI 3008 I020: 3 to 8 mm
- Power supply: 15 to 30 VDC
- Current source output: 0 to 20 mA
- Protection: Reverse polarity, internal current limiter
- 2 m cable or plug M12

## Product Description

Cylindrical analogue position sensor in M 18 and M 30 nickel-plated brass housings. High degree of linearity, output current 0 to 20 mA. Can be ex-

tended with level amplifier relay S 183 and analogue display to make up complete measuring systems.

## Ordering Key EI 1805 I020-1



## Type Selection

Housing diameter	Rated operating dist. (S <sub>n</sub> )	Ordering no. Output type 0 to 20 mA	Ordering no. Output type 0 to 20 mA
M 18	2 to 5 mm <sup>1)</sup>	EI 1805 I020	EI 1805 I020-1
M 30	3 to 8 mm <sup>1)</sup>	EI 3008 I020	EI 3008 I020-1

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

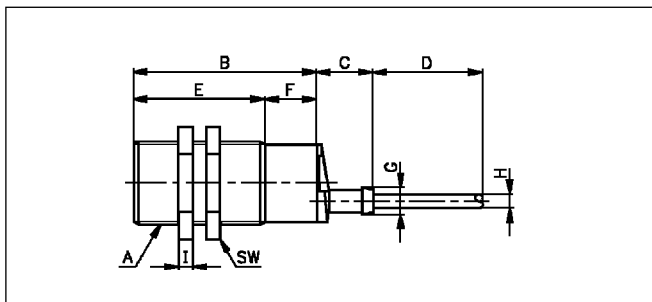
## Specifications

<b>Rated operational volt. (U<sub>e</sub>)</b>	17 to 27 VDC	<b>Ambient temperature</b>	Operating	-15° to +65°C (+5° to +144°F)
(U <sub>B</sub> )	15 to 30 VDC		Storage	-20° to +70°C (-4° to +158°F)
	(ripple included)	<b>Degree of protection</b>		IP 67
<b>Ripple</b>	≤ 10%			(Nema 1, 3, 4, 6, 13)
<b>Rated operational current (I<sub>e</sub>)</b>	0 to 20 mA	<b>Housing material</b>		
	(R load: 0 to 500 Ω)	Body		Nickel-plated brass
	Max. 30 mA (current limiter)	Front		Blue thermoplastic polyester
<b>No-load supply current (I<sub>o</sub>)</b>	≤ 7 mA (no load)	Back		Black thermoplastic polyester
<b>Protection</b>	Reverse polarity current limiter	<b>Cable</b>		2 m, 3 x 0.25 mm <sup>2</sup> grey PVC, oil proof
<b>Transient voltage</b>	≤ 2 kV/0.5 J (prepared)	<b>Weight (cable included)</b>		
<b>Power ON delay</b>	Safe operation after 1 s	EI 1805 I020		85 g
<b>Rate of rise</b>	EI 1805 I020 ≥ 1 mm/ms	EI 3008 I020		195 g
	EI 3008 I020 ≥ 3 mm/ms	<b>Tightening torque</b>		
<b>Assured operating dist. (S<sub>a</sub>)</b>	EI 1805 I020 2 to 5 mm	EI 1805 I020		17.5 Nm
	EI 3008 I020 3 to 8 mm	EI 3008 I020		35.0 Nm
<b>Repeat accuracy (R)</b>	≤ 1%			
<b>Usable operating dist. (S<sub>u</sub>)</b>	EI 1805 I020 ≤ 2 μm/°C per mm			
	EI 3008 I020 ≤ 1 μm/°C per mm			



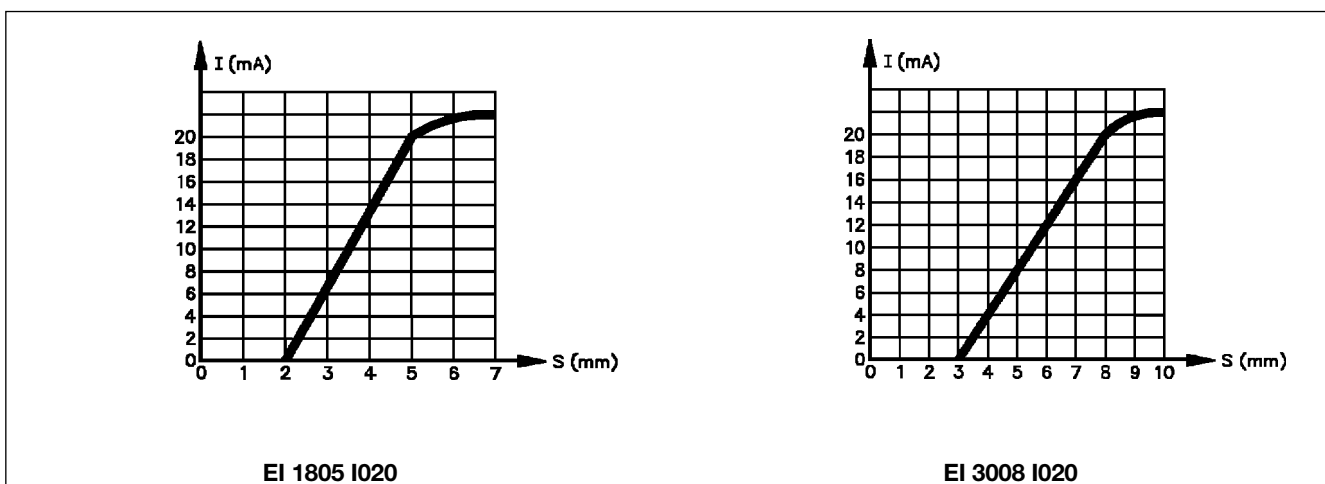
## Dimensions

Type	A	B mm	C mm	D mm	E mm	F mm	G mm	H Ø mm	I mm	SW mm
EI 1805 I020	M 18 x 1	71	20.5	2000	52	19	10	5.2	4	24
EI 3008 I020	M 30 x 1.5	67	20.5	2000	48	19	10	5.2	5	36



EI .... I020

## Output curves



### Wiring Diagram

Refer to "Wiring Diagrams",  
 Technical information.

### Installation Hints

Refer to "Installation Hints",  
 Technical information.

### Power Supplies

Power supplies VAC: > SS 110.  
 Power supplies VDC: > SS 130/140.

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