

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

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- 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: Inductive switch
Housing diameter
Rated operating dist. (mm)
Current output 0 to 20 mA
Connection type

Type Selection

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

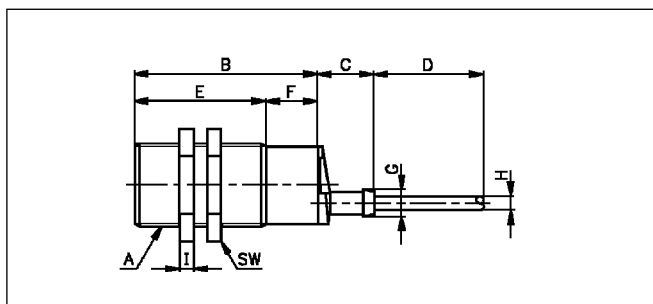
¹⁾ For flush mounting in metal

Specifications

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

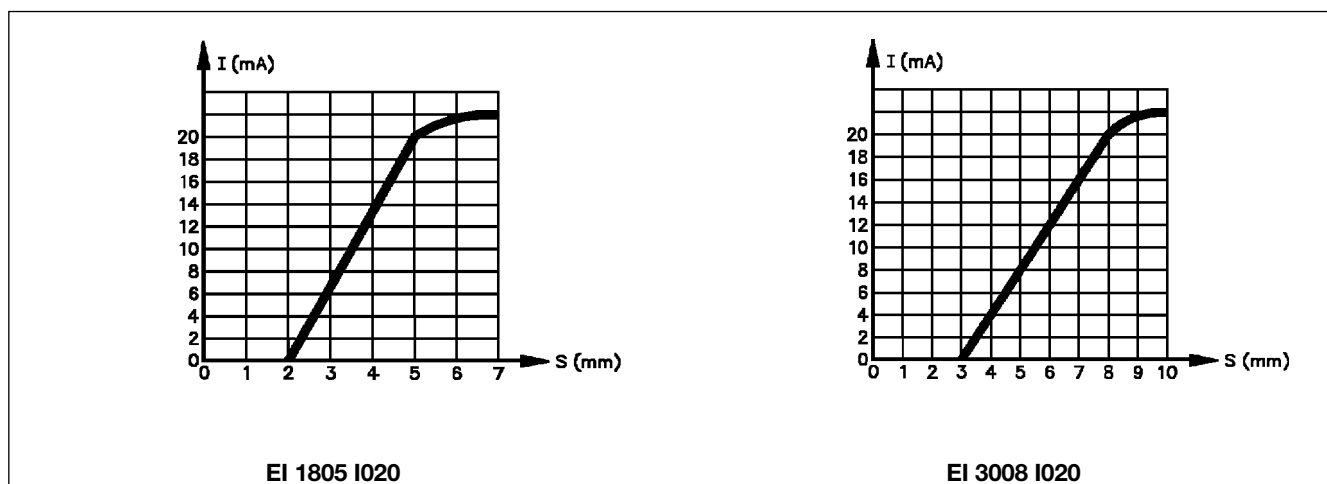
Dimensions

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.