

# Proximity Sensors Inductive Stainless Steel Housing Types EI, Ø 4, 5 x 5 mm



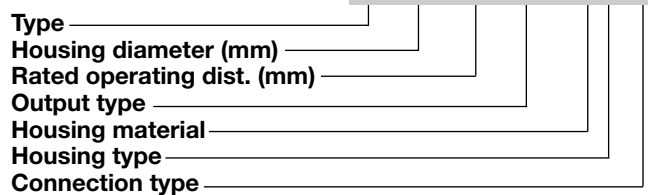
- Miniature stainless steel housing Ø 4, aluminium 5 x 5 mm
- Sensing distance: 1 mm
- Power supply: 10 to 30 VDC
- Output: Transistor NPN/PNP, make or break switching
- Protection: Short-circuit, reverse polarity and overload
- LED-indication for output ON
- 2 m PUR cable or M8 plug

## Product Description

Miniature inductive proximity sensor available as Ø 4 and 5 x 5 mm types. Output configuration for NPN/PNP with both NO and NC types as standard. Housing materials are stainless steel for Ø 4 and aluminium for the 5 x 5 mm type. Cabled models utilise 2 meters of PUR cable and plug versions features a bright ring LED.

## Ordering Key

**EI 0401 PPO SS-5**



## Type Selection

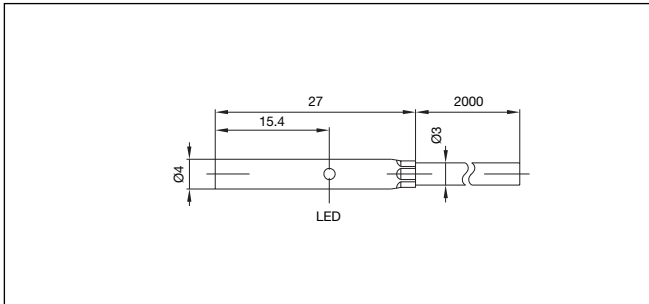
Housing diameter	Rated operating dist. (S <sub>n</sub> )	Connection type	Ordering no. Transistor NPN Make switching	Ordering no. Transistor NPN Break switching	Ordering no. Transistor PNP Make switching	Ordering no. Transistor PNP Break switching
Ø 4 mm	0.8 mm <sup>1)</sup>	Cable	EI 0401 NPOSS	EI 0401 NPCSS	EI 0401 PPOSS	EI 0401 PPCSS
Ø 4 mm	0.8 mm <sup>1)</sup>	Plug	EI 0401 NPOSS-5	EI 0401 NPCSS-5	EI 0401 PPOSS-5	EI 0401 PPCSS-5
5 x 5 mm	0.8 mm <sup>1)</sup>	Cable	EI X501 NPOSS	EI X501 NPCSS	EI X501 PPOSS	EI X501 PPCSS
5 x 5 mm	0.8 mm <sup>1)</sup>	Plug	EI X501 NPOSS-5	EI X501 NPCSS-5	EI X501 PPOSS-5	EI X501 PPCSS-5

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

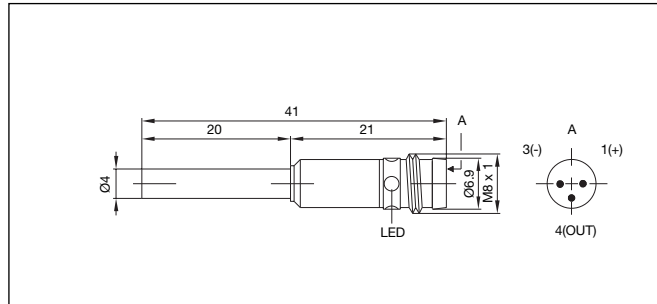
## Specifications

<b>Rated operational volt. (U<sub>B</sub>)</b>	10 to 30 VDC (ripple included)	<b>Usable operating dist. (S<sub>u</sub>)</b>	0.85 x S <sub>r</sub> ≤ S <sub>u</sub> ≤ 1.15 x S <sub>r</sub>
<b>Ripple</b>	≤ 10%	<b>Ambient temperature</b>	
<b>Rated operational current (I<sub>a</sub>)</b>		Operating	-25° to +70°C (-13° to +158°F)
Continuous	≤ 150 mA @ + 25°C (+75°F)	Storage	-30° to +80°C (-22° to +176°F)
<b>No-load supply current (I<sub>o</sub>)</b>	≤ 2.1 mA OFF: 1.5 mA ON: 10 mA	<b>Degree of protection</b>	Plug versions: IP 65 Cable versions: IP 67 (Nema 1, 3, 4, 6, 13)
<b>Voltage drop (U<sub>d</sub>)</b>	< 1 V	<b>Connection</b>	
<b>Protection</b>	Reverse polarity, short-circuit, overload	Cable	2 m, 3 x 0.14 mm <sup>2</sup> grey PUR, oil proof M8, CONH5A-xxx Serie
<b>Transient voltage</b>	≤ 1 kV/0.5 J (prepared)	Plug	
<b>Power ON delay</b>	Ca. 500 μs	<b>Housing material</b>	
<b>Frequency of operating cycles (f)</b>	1000 Hz	Body	Stainless steel (1.4301)
<b>Indication for output ON</b>	LED, yellow	Ø 4	Aluminium
<b>Assured operating dist. (S<sub>a</sub>)</b>	0 to 0.52 mm	5 x 5 mm	Plastic
<b>Repeat accuracy (R)</b>	± 0.01 mm	Cap	
<b>Hysteresis (H)</b>		<b>Weight</b>	Cable versions: 25 g Plug versions: 4 g
(Differential travel)	3 to 15% of sensing distance	<b>Tightening torque</b>	1 Nm
<b>Effective operating dist. (S)</b>	0.9 x S <sub>n</sub> ≤ S <sub>r</sub> ≤ 1.1 x S <sub>n</sub>	<b>CE-marking</b>	Yes

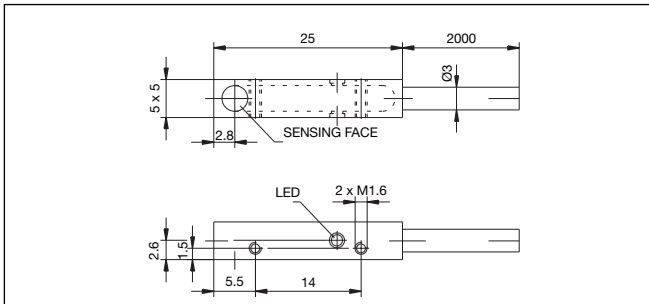
## Dimensions



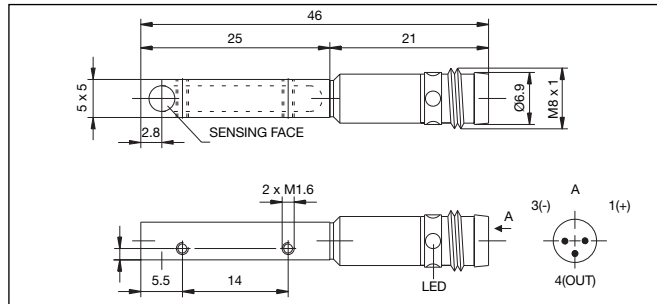
EI 0401 xPxSS



EI 0401 xPxSS-5

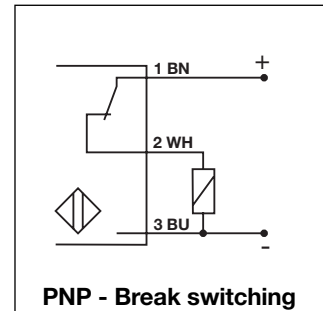
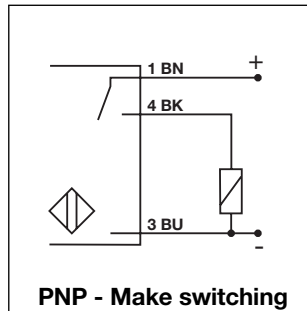
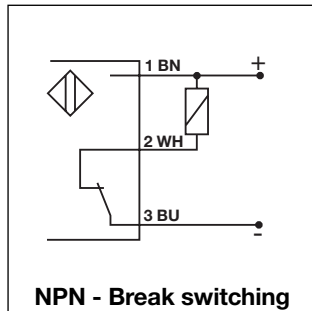
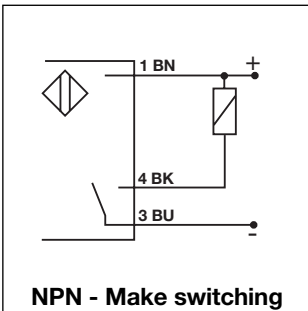


EI X501 xPxSS

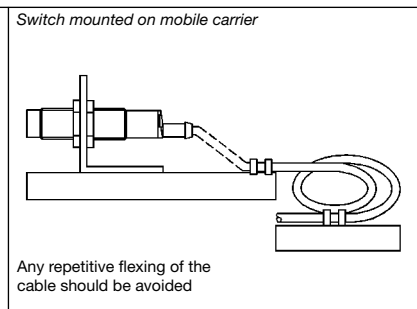
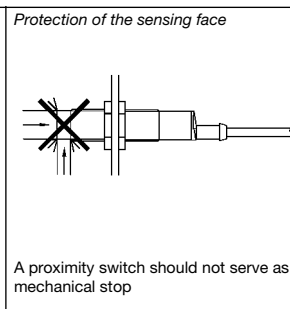
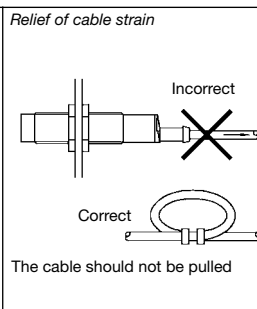
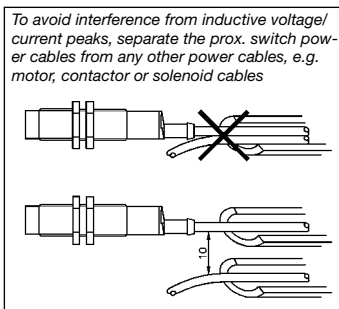


EI X501 xPxSS-5

## Wiring Diagrams



## Installation Hints



## Power Supplies

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