



# IL1 series

10 x 28 x 16 mm  
cubic miniaturized inductive sensors



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## features

- Compact dimensions: 10 x 28 x 16 mm
- Supply voltage 10...30 Vdc, output current 300 mA
- LED status indicator
- IP 67 housing protection
- Complete protection against electrical damages



## web contents



- Application notes
- Photos
- Catalogue / Manuals



## code description

IL1 / A P - 3 A

series	<b>IL1</b>	10 x 28 x 16 mm inductive proximity switch
output state	<b>A</b>	NO output state
	<b>C</b>	NC output state
logica uscita	<b>N</b>	NPN logic output
	<b>P</b>	PNP logic output
distance	<b>3</b>	Shielded model long distance 3 mm
	<b>4</b>	Unshielded model long distance 6 mm
connect.	<b>A</b>	Cable exit output
	<b>F</b>	M8 plug cable exit

## available models

dimension (mm)	installation	distance	plug	distance (mm)	NPN/NO	NPN/NC	PNP/NO	PNP/NC
10 x 28 x 16	shielded	long distance	cable	3	IL1/AN-3A	IL1/CN-3A	IL1/AP-3A	IL1/CP-3A
			M8		IL1/AN-3F	IL1/CN-3F	IL1/AP-3F	IL1/CP-3F
	unshielded		cable	6	IL1/AN-4A	IL1/CN-4A	IL1/AP-4A	IL1/CP-4A
			M8		IL1/AN-4F	IL1/CN-4F	IL1/AP-4F	IL1/CP-4F

## technical specification

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	IL1/**-3*	IL1/**-4*
		
nominal sensing distance $S_n$	3 mm	6 mm
hysteresis	0 ... 2.4 mm	0 ... 4.8 mm
operating distance	1...20% $S_r$	
standard target	12x12 mm	18x18 mm
repeatability	≤ 5%	
operating voltage	10...30 Vdc	
output type	NPN or PNP - NO or NC	
max ripple content	≤ 10%	
output current	≤ 300 mA	
output voltage drop	≤ 1.5 V @ 100 mA	
max. output capacity	1μF	
no-load supply current	≤ 10 mA	
leakage current	≤ 0.12 mA	
switching frequency	≤ 3 kHz	
power on delay	≤ 100 ms	
ambient temperature range	-25...+70 °C	
temperature drift of $S_r$	≤ 10%	
short-circuit protection	●	
voltage reversal protection	●	
induction protection	●	
shocks and vibration	IEC 60947-5-2	
weight	7 g connector 63 g cable	
protection degree	IP 67	
EMC	in conformity with the EMC Directive according to IEC 60947-5-2	
active head material	PA	
connection	2 m cable 3x0.25 mm <sup>2</sup>	

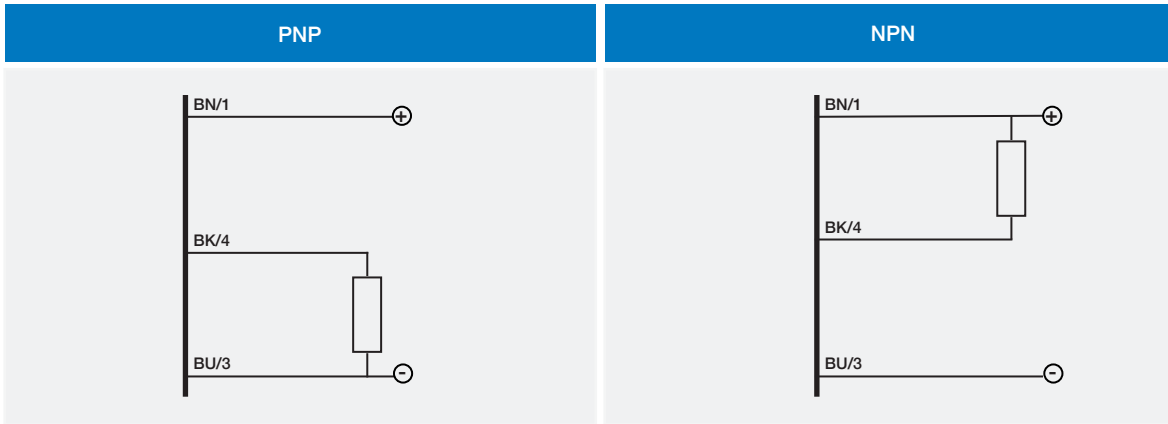
## correction factors

steel FE 360		copper		aluminium		brass		stainless steel	
IL1/**-3*	IL1/**-4*	IL1/**-3*	IL1/**-4*	IL1/**-3*	IL1/**-4*	IL1/**-3*	IL1/**-4*	IL1/**-3*	IL1/**-4*
1.0	1.0	0.25	0.41	0.28	0.50	0.37	0.55	0.63	0.75

## electrical diagrams of connections

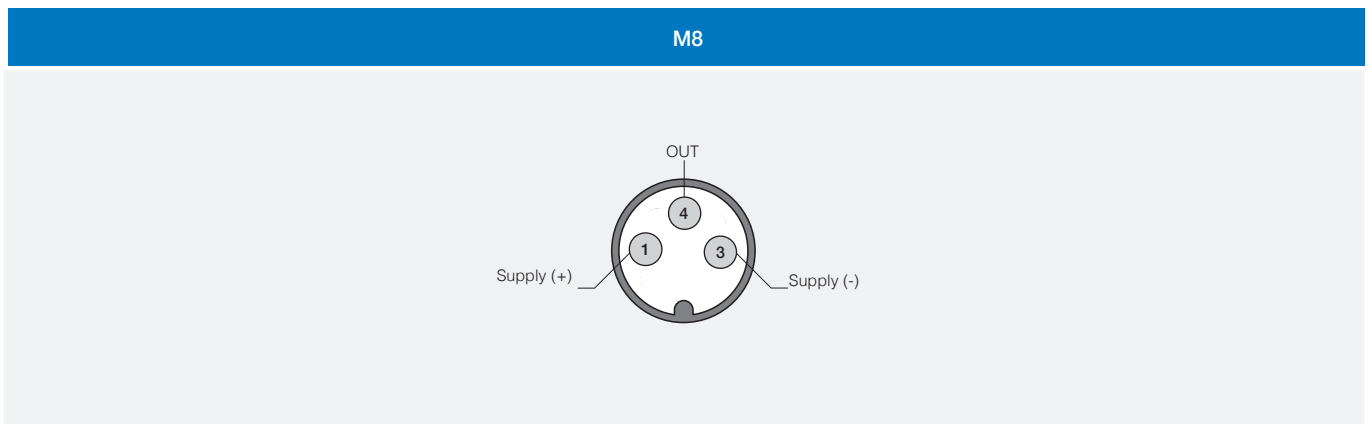


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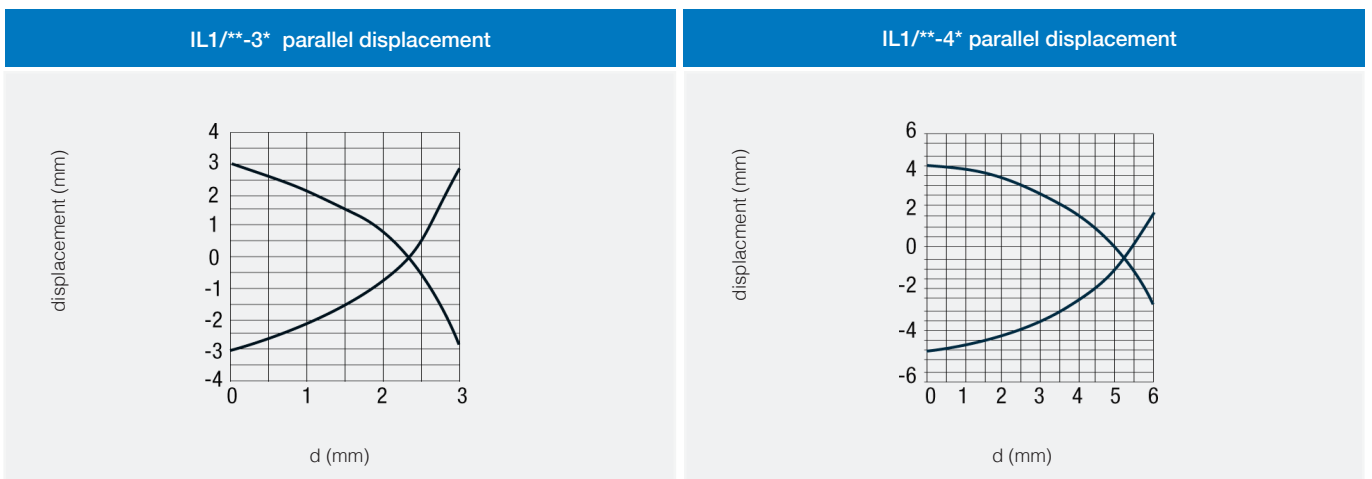


- BN** brown
- BU** blue
- BK** black
- WH** white

## plug



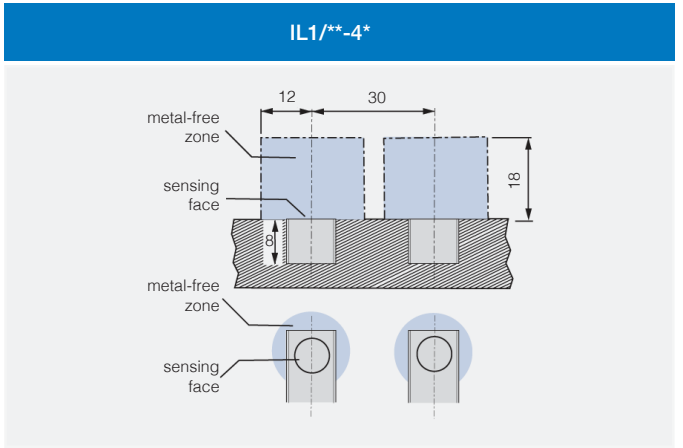
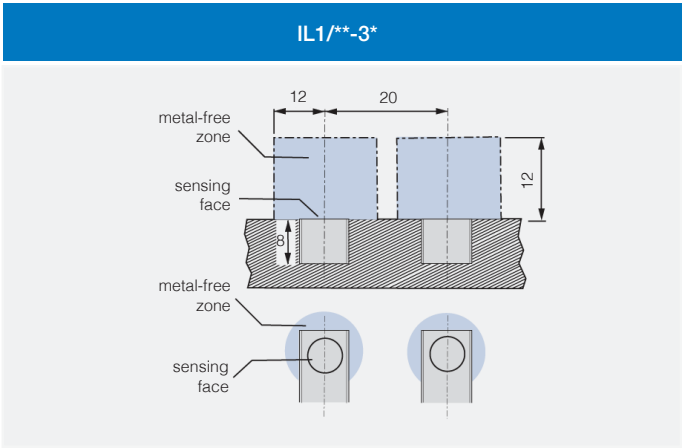
## response diagram



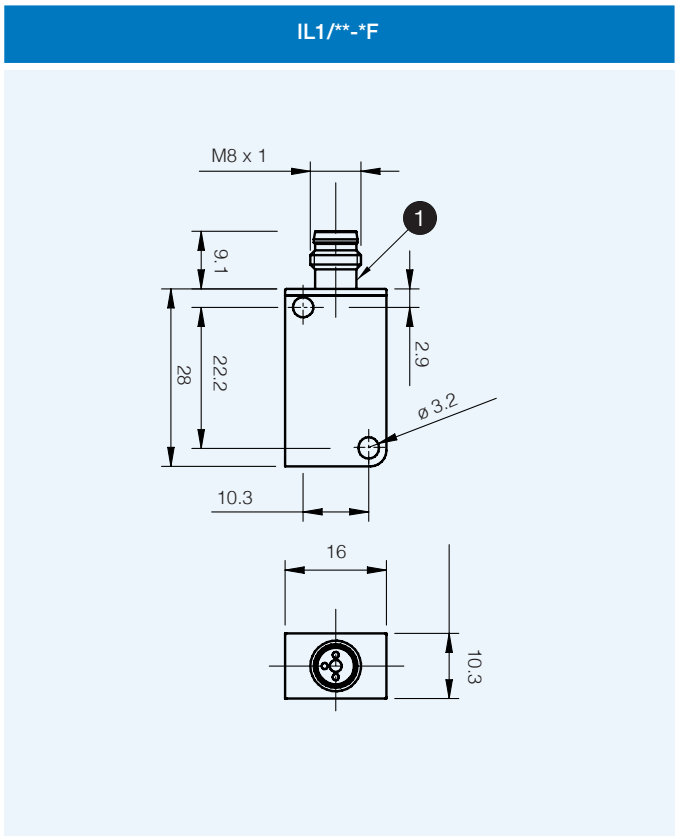
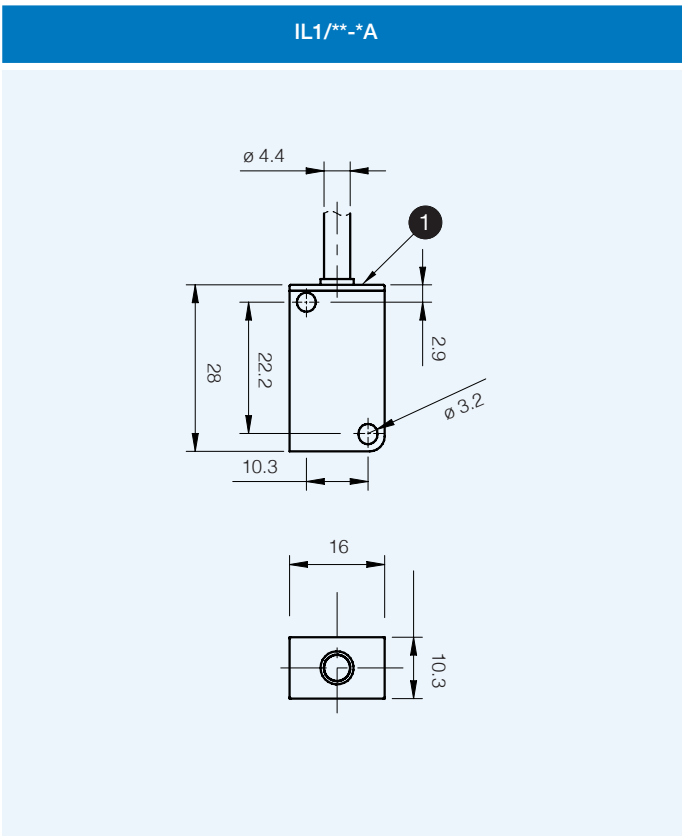


# installation

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## dimensions (mm)



1 LED