



Advanced series

Features



- Enhanced sensing range
- Can be installed flush or non-flush in metal
- PNP or NPN output
- Normally open/ normally closed function
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Cable or connector
- Enclosure rating IP 67
- LED status indicator
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Accessories

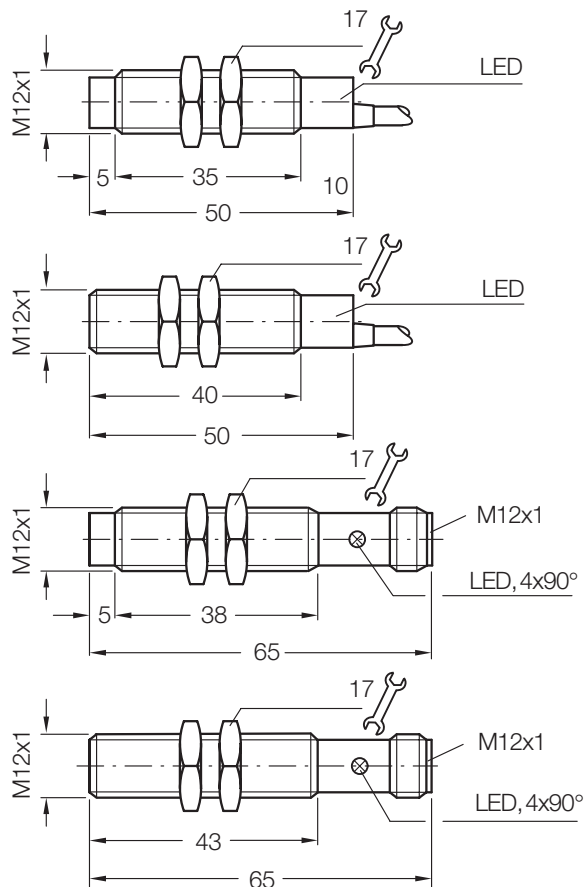
Round connectors
Mounting bracket

Inductive proximity sensors

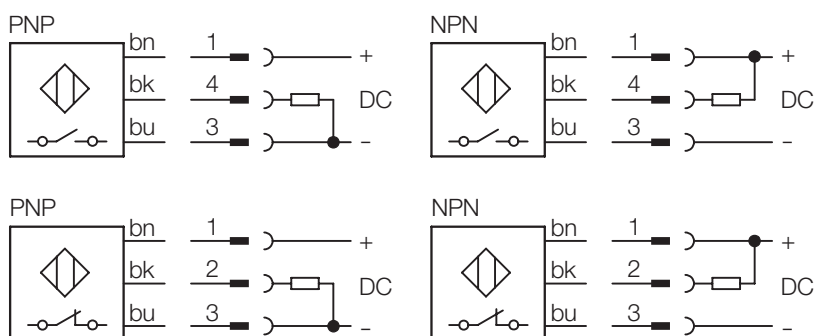
IM 12 series, sensing range 4 / 8 mm

DC 3-wire, metal housing

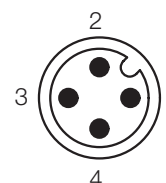
Dimensions in mm



Connection diagram



Wire colour	Contact	Assignment
bn brown	1	+ V DC
bk black	2/4	NC/NO
bu blue	3	- V DC



Electrical and mechanical data

Operating voltage U_b	10 ... 30 V DC	Short-circuit protection (pulsed)	yes
Ripple U_{pp}	$\leq 10\%$ of U_b	Reverse polarity protection	yes
Voltage drop U_d (at I_a max.)	≤ 1.2 V	Power-up pulse suppression	yes
Power consumption (without load)	≤ 10 mA	Enclosure rating to EN 60529	IP 67
Continuous current I_a	≤ 200 mA	Shock and vibration stress	30 g, 11 ms 10 to 55 Hz, 1 mm
Time delay before availability t_v	≤ 100 ms	Ambient temperature T_a	- 25 ... + 70 °C
Hysteresis H	1% - 15% of s_r	Housing material	Brass, nickel-plated, plastic
Repeatability R (U_b and T_a constant)	$\leq 5\%$ of s_r	Tightening torque	10 Nm
Temperature drift	$\pm 10\%$ of s_r	Connection cable	PVC, 3 x 0.22 mm ²
EMC	to EN 60 947-5-2		

Selection table

Sensing range s_n mm	Installation in metal	Switching output	Output function	Switching frequency f in Hz	Connection	Type	Order number
4		PNP		1000	Cable 2 m	IM12-04BPS-ZW1	7900033
4		NPN		1000	Cable 2 m	IM12-04BNS-ZW1	7900034
4		PNP		1000	Cable 2 m	IM12-04BPO-ZW1	7900035
4		PNP		1000	Connector M12 x 1 mm	IM12-04BPS-ZC1	7900037
4		NPN		1000	Connector M12 x 1 mm	IM12-04BNS-ZC1	7900038
4		PNP		1000	Connector M12 x 1 mm	IM12-04BPO-ZC1	7900039
8		PNP		1000	Cable 2 m	IM12-08NPS-ZW1	7900041
8		NPN		1000	Cable 2 m	IM12-08NNS-ZW1	7900042
8		PNP		1000	Cable 2 m	IM12-08NPO-ZW1	7900043
8		NPN		1000	Cable 2 m	IM12-08NNO-ZW1	7900044
8		PNP		1000	Connector M12 x 1 mm	IM12-08NPS-ZC1	7900045
8		NPN		1000	Connector M12 x 1 mm	IM12-08NNS-ZC1	7900046
8		PNP		1000	Connector M12 x 1 mm	IM12-08NPO-ZC1	7900047

* see installation notes