

Inductive proximity sensors

IM 12

Sensing range 6/10 mm
DC 3-wire, metal housing



Triplex series

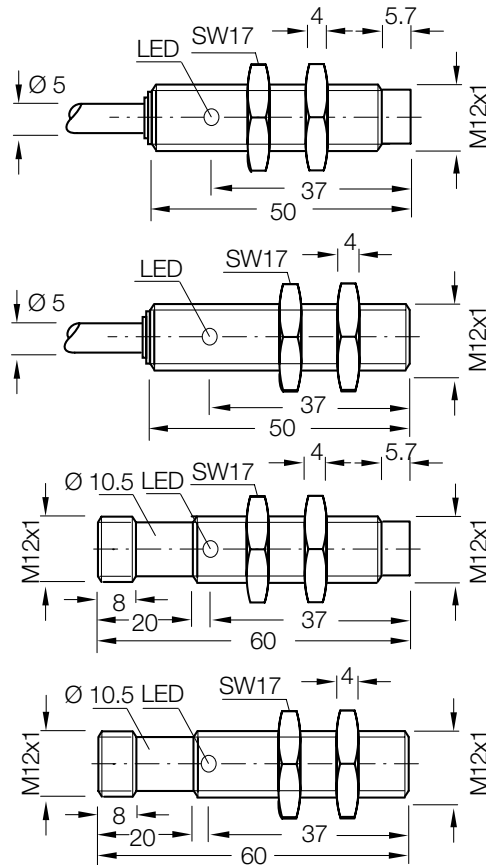
Features



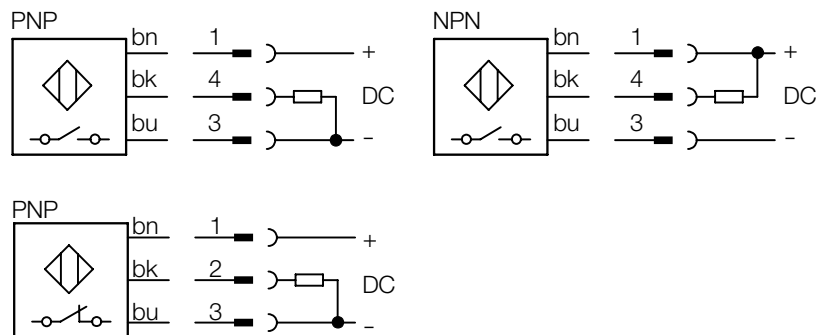
- Triple sensing range
- Installation quasi flush or non-flush in metal
- PNP or NPN output
- Normally open function and normally closed function
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, chrome-plated with fine thread M12 x 1 mm
- Cable or connector
- Enclosure rating IP 67
- LED status indicator

Accessories

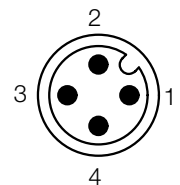
- Round connector
- Mounting bracket



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_{ss}	$\leq 20\%$ of U_b	Reverse polarity protection	yes
Voltage drop U_d (at I_a max)	≤ 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 ... 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 (5 % typ.)	Housing material	Brass, chrome-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 0.34 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
6	 *	PNP		800	Cable 2 m	IM12-06BPS-ZW1	6027509
6	 *	PNP		800	Cable 2 m	IM12-06BPO-ZW1	6027510
6	 *	PNP		800	Connector M12 x 1 mm	IM12-06BPS-ZC1	6027511
10		PNP		400	Cable 2 m	IM12-10NPS-ZW1	6027512
10		NPN		400	Cable 2 m	IM12-10NNS-ZW1	6027513
10		PNP		400	Connector M12 x 1 mm	IM12-10NPS-ZC1	6027514

* Installation notes „quasi flush“

When mounting in conductible materials the sensors have to be installed with a distance A to the surface.

A Steel, metal = 2 mm / **A** Stainless steel = 1 mm

Other output functions available on request

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