

Inductive proximity sensors

IM 30 series, sensing range 15 / 20 mm

DC 3-wire, metal housing

Dimensions in mm



Advanced series

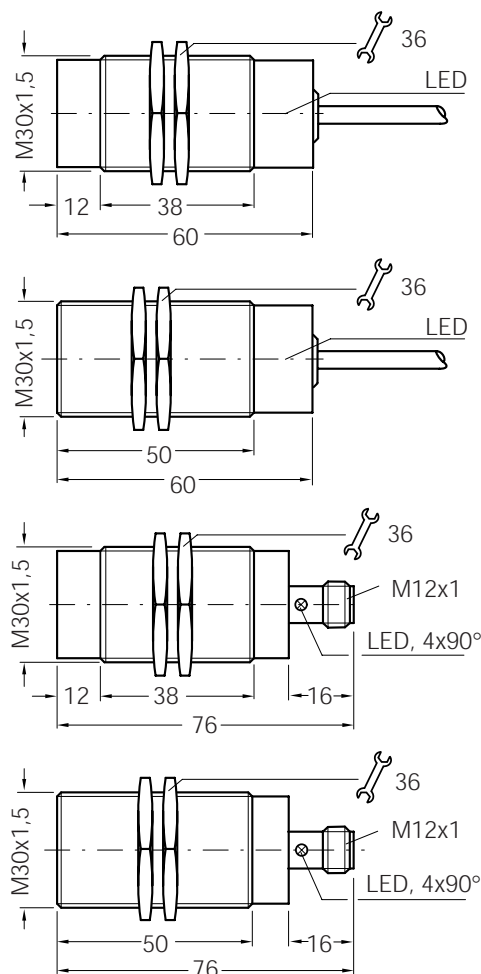
Features



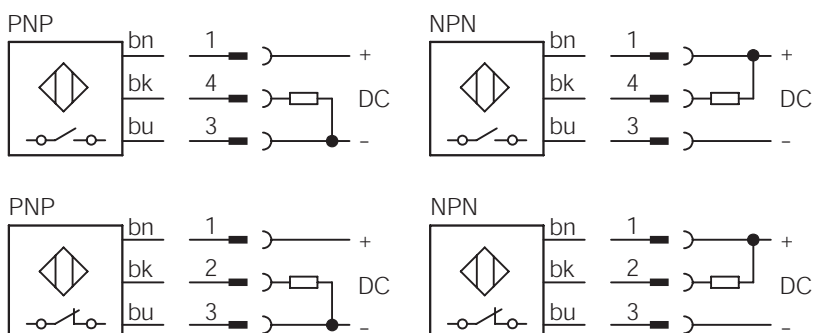
- Enhanced sensing range
- Can be installed flush or non-flush in metal
- PNP or NPN output
- Normally open/ normally closed function
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M30 x 1.5 mm
- Cable or connector
- Enclosure rating IP 67
- LED status indicator

Accessories

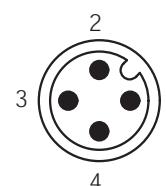
Round connectors
Mounting bracket



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_{pp}	$\leq 10\%$ of U_b	Reverse polarity protection	yes
Voltage drop U_d (at I_a max.)	≤ 1 V	Power-up pulse suppression	yes
Power consumption (without load)	≤ 10 mA	Enclosure rating to EN 60529	IP 67
Continuous current I_a	≤ 400 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	2% - 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	60 Nm
Temperature drift	$\pm 10\%$ of s_r	Connection cable	PVC, 3 x 0.5 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	Type	Order number
15		PNP		150	Cable 2 m	IM30-15BPS-ZW1	7900141
15		NPN		150	Cable 2 m	IM30-15BNS-ZW1	7900142
15		PNP		150	Cable 2 m	IM30-15BPO-ZW1	7900143
15		PNP		150	Connector M12 x 1 mm	IM30-15BPS-ZC1	7900145
15		NPN		150	Connector M12 x 1 mm	IM30-15BNS-ZC1	7900146
15		PNP		150	Connector M12 x 1 mm	IM30-15BPO-ZC1	7900147
20		PNP		150	Cable 2 m	IM30-20NPS-ZW1	7900153
20		PNP		150	Cable 2 m	IM30-20NPO-ZW1	7900155
20		PNP		150	Connector M12 x 1 mm	IM30-20NPS-ZC1	7900157
20		NPN		150	Connector M12 x 1 mm	IM30-20NNS-ZC1	7900158

* see installation notes