

Inductive proximity sensors

IM 08 series, sensing range 2 / 4 mm

DC 3-wire, metal housing

Dimensions in mm



Advanced series

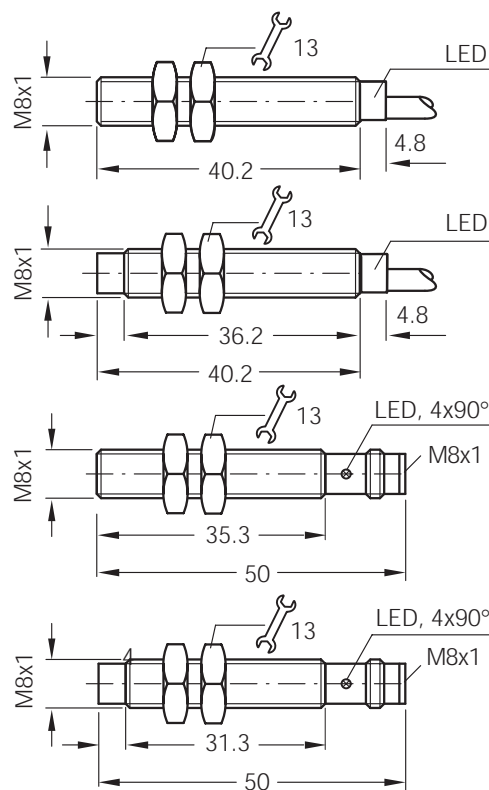
Features



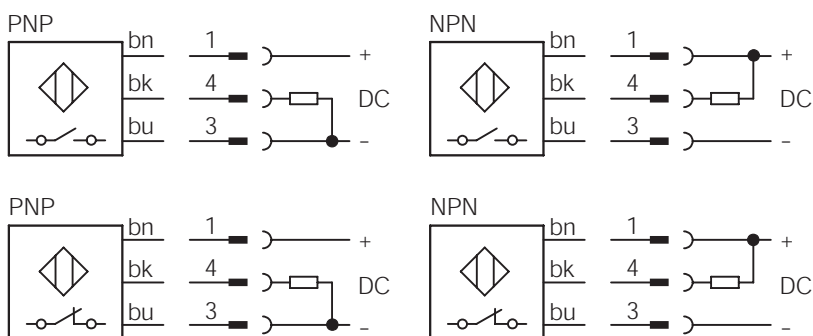
- Enhanced sensing range
- Can be installed flush or non-flush in metal
- PNP or NPN output
- Normally open/ normally closed function
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M8 x 1 mm
- Cable or connector
- Enclosure rating IP 67
- LED status indicator

Accessories

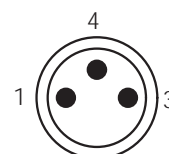
Round connectors



Connection diagram



Wire colour	Contact	Assignment
bn brown	1	+ V DC
bk black	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)	≤ 20 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	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	4 Nm
Temperature drift	$\pm 10\%$ of s_r	Connection cable	PVC, 3 x 0.14 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
2		PNP		3000	Cable 2 m	IM08-02BPS-ZW1	7900001
2		NPN		3000	Cable 2 m	IM08-02BNS-ZW1	7900002
2		PNP		3000	Cable 2 m	IM08-02BPO-ZW1	7900003
2		PNP		3000	Connector M8 x 1 mm	IM08-02BPS-ZT1	7900005
2		NPN		3000	Connector M8 x 1 mm	IM08-02BNS-ZT1	7900006
2		PNP		3000	Connector M8 x 1 mm	IM08-02BPO-ZT1	7900007
2		NPN		3000	Connector M8 x 1 mm	IM08-02BNO-ZT1	7900008
4		PNP		3000	Cable 2 m	IM08-04NPS-ZW1	7900009
4		NPN		3000	Cable 2 m	IM08-04NNS-ZW1	7900010
4		PNP		3000	Cable 2 m	IM08-04NPO-ZW1	7900011
4		PNP		3000	Connector M8 x 1 mm	IM08-04NPS-ZT1	7900013
4		NPN		3000	Connector M8 x 1 mm	IM08-04NNS-ZT1	7900014
4		PNP		3000	Connector M8 x 1 mm	IM08-04NPO-ZT1	7900015
4		NPN		3000	Connector M8 x 1 mm	IM08-04NNO-ZT1	7900016