

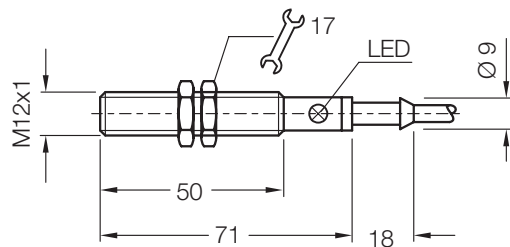
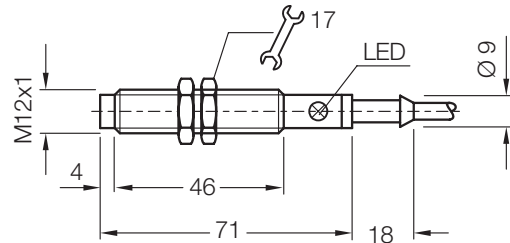


Inductive proximity sensors

IM 12 series, sensing range 2 / 4 mm

AC 2-wire, metal housing

Dimensions in mm



Features

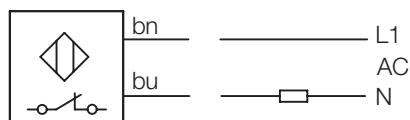
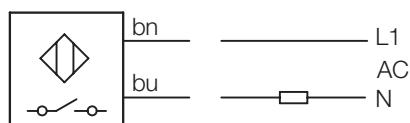


- Can be installed flush or non-flush in metal
- Broad operating voltage range in AC
- Normally open/ normally closed function
- Robust brass housing, nickel-plated, with fine thread M12 x 1 mm
- Enclosure rating IP 67
- LED status indicator

Accessories

Mounting bracket

Connection diagram



Wire colour		Assignment
bn	brown	L1
bu	blue	N

Electrical and mechanical data

Operating voltage U_b	20 ... 250 V AC	Wire-break protection	-
Voltage drop U_d (at I_a max.)	≤ 8.5 V AC	Short-circuit protection (pulsed)	-
Continuous current I_a	≤ 250 mA AC (... + 50 °C) ≤ 200 mA AC (... + 80 °C)	Reverse polarity protection	-
Peak current I_K	0.9 A (20 ms/0.5 Hz)	Power-up pulse suppression	yes
Min. load current	8 mA	Enclosure rating to EN 60529	IP 67
Residual current	≤ 3 mA (250 V AC) ≤ 1.5 mA (120 V AC)	Protection class	
Time delay before availability t_v	approx. 10 ms	Shock and vibration stress	30 g, 11 ms 10 to 55 Hz, 1 mm
Hysteresis H	1% - 15% of s_r	Ambient temperature T_a	- 25 ... + 80 °C
Repeatability R (U_b and T_a constant)	$\leq 10\%$ of s_r	Housing material	Brass, nickel-plated, plastic
Temperature drift	$\pm 10\%$ of s_r	Tightening torque	7 Nm
EMC	to EN 60 947-5-2	Connection cable	PUR-PVC, 2 x 0.5 mm ²

Selection table

Sensing range s_n mm	Installation in metal	Output function	Switching frequency f in Hz	Connection	Type	Order number
2			25	Cable 2 m	IM12-02BAS-ZU0	7902118
2			25	Cable 2 m	IM12-02BAO-ZU0	7902119
4			25	Cable 2 m	IM12-04NAS-ZU0	7902120
4			25	Cable 2 m	IM12-04NAO-ZU0	7902121