

Inductive proximity sensors

IM 18 series, sensing range 5 / 8 mm

DC 3-wire, metal housing

Dimensions in mm



Short version

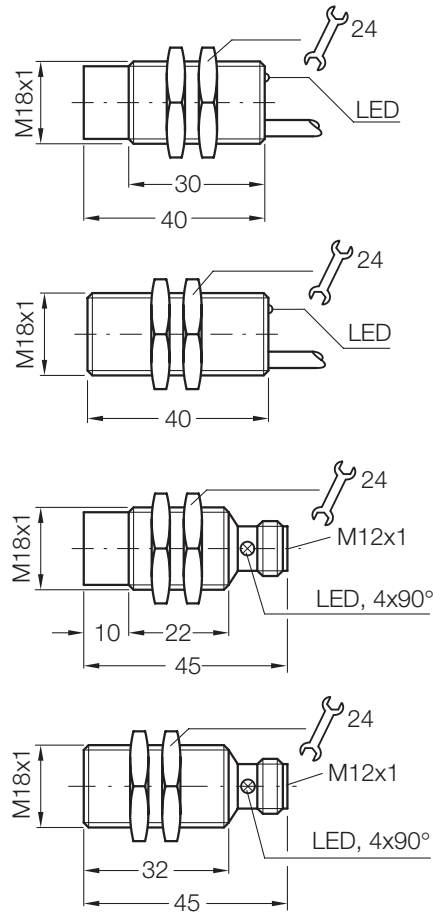
Features



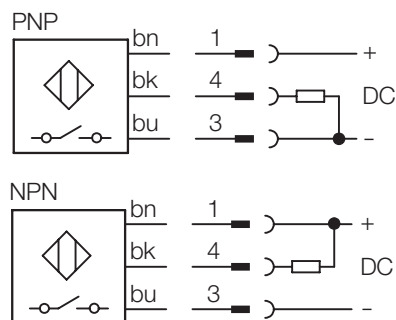
- Can be installed flush or non-flush in metal
- PNP or NPN output
- Normally open function
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M18 x 1 mm
- Cable and connector
- Enclosure rating IP 67
- LED status indicator

Accessories

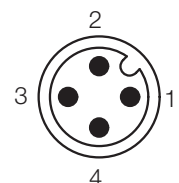
Round connectors
Mounting bracket



Connection diagram



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



Electrical and mechanical data

Operating voltage U_b	10 ... 30 V DC	Wire-break protection	yes
Ripple U_{pp}	$\leq 10\%$ of U_b	Short-circuit protection (pulsed)	yes
Voltage drop U_d (at I_a max.)	≤ 1.5 V	Reverse polarity protection	yes
Power consumption (without load)	≤ 10 mA	Power-up pulse suppression	yes
Continuous current I_a	≤ 300 mA	Enclosure rating to EN 60529	IP 67
Time delay before availability t_v	≤ 10 ms	Shock and vibration stress	30 g, 11 ms 10 to 55 Hz, 1 mm
Hysteresis H	2% - 10% of s_r	Ambient temperature T_a	- 25 ... + 75 °C
Repeatability R (U_b and T_a constant)	$\leq 2\%$ of s_r	Housing material	Brass, nickel-plated, plastic
Temperature drift	$\pm 10\%$ of s_r	Tightening torque	25 Nm
EMC	to EN 60 947-5-2	Connection cable	PUR-PVC, 3 x 0.25 mm ²

Selection table

Sensing range s_n mm	Installation in metal	Switching output	Switching function	Switching frequency f in Hz	Connection	Type	Order number
5		PNP		1000	Cable 2 m	IM18-05BPS-ZUK	1017430
5		NPN		1000	Cable 2 m	IM18-05BNS-ZUK	1017442
5		PNP		1000	Connector M12 x 1 mm	IM18-05BPS-ZCK	1017432
5		NPN		1000	Connector M12 x 1 mm	IM18-05BNS-ZCK	1017444
8		PNP		1000	Cable 2 m	IM18-08NPS-ZUK	1017431
8		NPN		1000	Cable 2 m	IM18-08NNS-ZUK	1017443
8		PNP		1000	Connector M12 x 1 mm	IM18-08NPS-ZCK	1017433
8		NPN		1000	Connector M12 x 1 mm	IM18-08NNS-ZCK	1017445