

Inductive proximity sensors

IM 18 series, sensing range 12 / 20 mm

DC 3-wire, metal housing



Triplex series

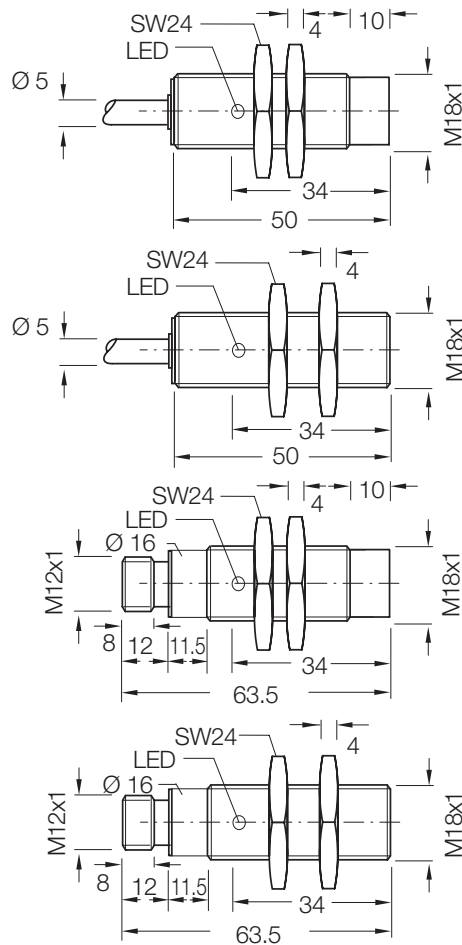
Features



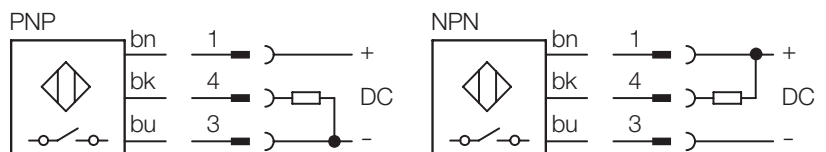
- ▶ Triple sensing range
- ▶ Installation quasi flush or non-flush in metal
- ▶ PNP or NPN output
- ▶ Normally open function
- ▶ High switching frequency
- ▶ Short-circuit protection (pulsed)
- ▶ Robust brass housing, chrome-plated with fine thread M18 x 1 mm
- ▶ Cable oder connector
- ▶ Enclosure rating IP 67
- ▶ LED status indicator

Accessories

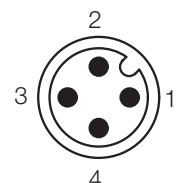
Round connectors
Mounting bracket



Connection diagram



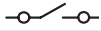
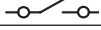
Wire colour	Contact	Assignment
bn brown	1	+ V DC
bk black	2/4	NO
bu blue	3	- V DC



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	30 Nm
Temperature drift EMC	$\pm 10\%$ of s_r to EN 60 947-5-2	Connection cable	PVC, 3 x 0.34 mm ²

Selection table

Sensing range s_n mm	Installation in metal	Switching output	Output function	Switching frequency f in Hz	Connection	Type	Order number
12	 *	PNP		500	Cable 2 m	IM18-12BPS-ZW1	6027515
12	 *	NPN		500	Cable 2 m	IM18-12BNS-ZW1	6027516
12	 *	PNP		500	Connector M12 x 1 mm	IM18-12BPS-ZC1	6027517
20		PNP		200	Cable 2 m	IM18-20NPS-ZW1	6027518
20		PNP		200	Connector M12 x 1 mm	IM18-20NPS-ZC1	6027519

* 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 = 4 mm / **A** Stainless steel = 1.5 mm

Other output functions available on request