



Inductive proximity sensors

IM 18 series, sensing range 5 / 8 mm

DC 4-wire, metal housing

Dimensions in mm

For harsh environment

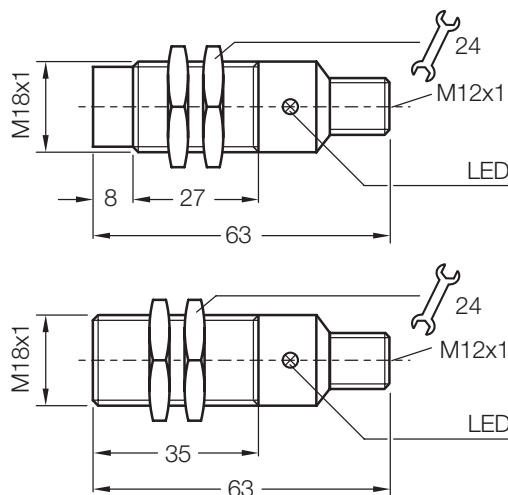
Features



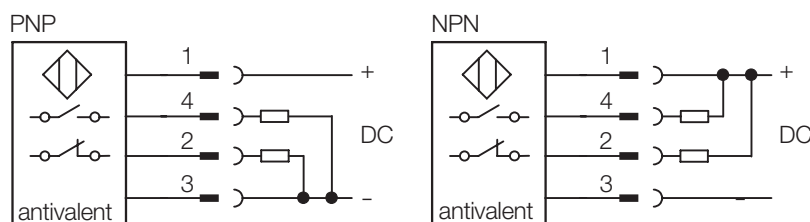
- For harsh environment, resistant to most cutting oils
- Enclosure rating IP 68
- Can be installed flush or non-flush in metal
- PNP or NPN output
- Complementary output function
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Internal enclosure housing in technopolymer
- Connector
- LED status indicator (NO function)

Accessories

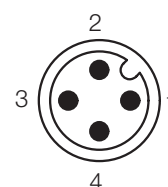
Round connectors
Mounting bracket



Connection diagram



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



Electrical and mechanical data

Operating voltage U_b	10 ... 30 V DC	Short-circuit protection (pulsed)	yes
Ripple U_{pp}	$\leq 10\%$	Reverse polarity protection	yes
Voltage drop U_d (at I_a max.)	≤ 0.8 V	Power-up pulse suppression	yes
Power consumption (without load)	≤ 20 mA	Enclosure rating	IP 68
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% - 10% of s_r	Housing material	Brass, nickel-plated, plastic
Repeatability R (U_b and T_a constant)	$\leq 5\%$ of s_r	Tightening torque	40 Nm
Temperature drift EMC	$\pm 10\%$ of s_r 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
5		PNP	 antivalent	1000	Connector M12 x 1 mm	IM18-05BPP-ZC1	7902931
5		NPN	 antivalent	1000	Connector M12 x 1 mm	IM18-05BNP-ZC1	7902932
8		PNP	 antivalent	1000	Connector M12 x 1 mm	IM18-08NPP-ZC1	7902933
8		NPN	 antivalent	1000	Connector M12 x 1 mm	IM18-08NNP-ZC1	7902934