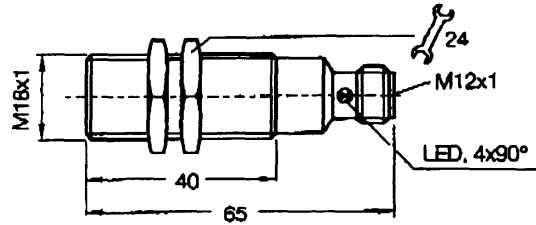
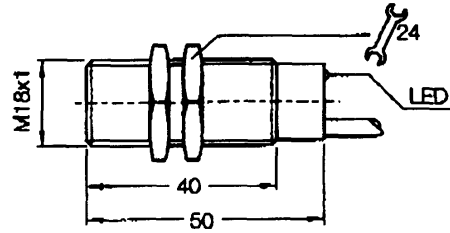


Magnetic proximity sensors

MM 18 sensors, sensing range 70 mm

DC 3-wire, metal housing

Dimensions in mm



Features

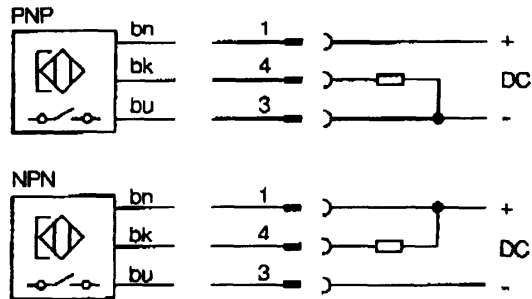


- ▶ Can be installed flush and non-flush in metal
- ▶ Sensing range up to 70 mm
- ▶ PNP or NPN output
- ▶ High switching frequency
- ▶ Short-circuit protection (pulsed)
- ▶ Robust brass housing, nickel-plated with fine thread M18 x 1 mm
- ▶ Cable or connector
- ▶ Enclosure rating IP 67
- ▶ LED status indicator

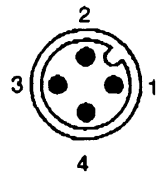
Accessories

- Round connectors
- Magnets
- Mounting bracket

Connection diagram



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



Electrical and mechanical data

Operating voltage U_0	10 ... 30 V DC	Wire-break protection	yes
Ripple U_{pp}	$\leq 10\%$ of U_0	Short-circuit protection (pulsed)	yes
Voltage drop U_d (at I_a max.)	≤ 1.5 V	Reverse polarity protection	yes
Current 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_d	≤ 2 ms	Shock and vibration stress	30 g, 11 ms 10 to 55 Hz, 1 mm
Hysteresis H	1% - 10% of s_n	Ambient temperature T_a	- 25 ... + 75 °C
Repeatability R (U_0 and T_a constant)	$\leq 1\%$ of s_n	Housing material	Brass, nickel-plated, plastic
Temperature drift	$\pm 10\%$ of s_n	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	Magnetic alignment	Switching output	Output function	Switching frequency f in Hz	Connection	Type	Order number
70	Axial	PNP		5000	Cable 2 m	MM18-70APS-ZU0	7900272
70	Axial	PNP		5000	Connector M12 x 1 mm	MM18-70APS-ZC0	7900274

* Sensing range s_n based on installation in non-magnetizable material using magnet M 4.0

Output NPN on request

Sensing ranges (Typical values)

Magnet type	Sensing range s_n Any installation version (flush or non-flush) in non-magnetizable material	Sensing range s_n Flush installation in magnetizable material (e.g. iron)
M 1.0	24 mm	20 mm
M 2.0	25 mm	17 mm
M 3.0	38 mm	32 mm
M 4.0	70 mm	55 mm
M 5.0/5.1	85 mm	60 mm

Magnetic proximity sensors, MM 18 series, DC