

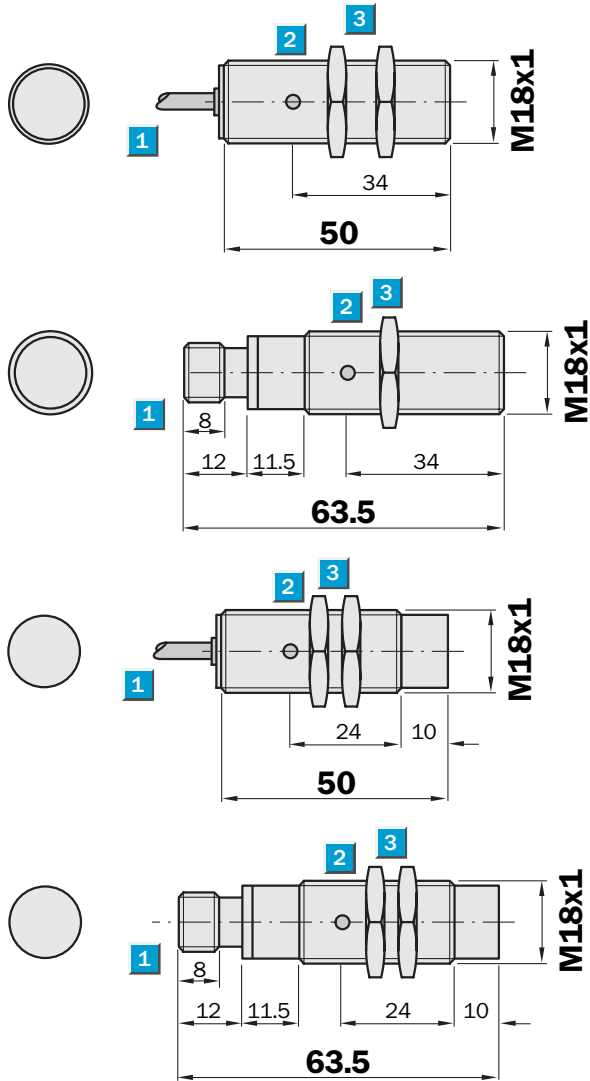
Sensing range
12 / 20 mm

Inductive sensor

- Triple sensing range
- Installation quasi flush or non-flush in metal
- Short-circuit protection (pulsed)
- Robust brass housing, chrome-plated with fine thread M18 x 1 mm
- Enclosure rating IP 67



Dimensional drawing

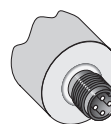
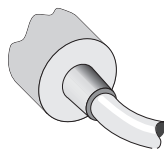


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 24, metal



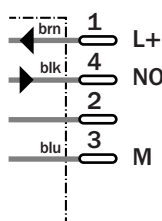
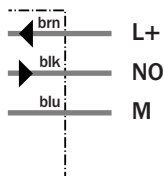
Connection type

IM18-12BNS-ZW1	IM18-12BPS-ZC1
IM18-12BPS-ZW1	IM18-20NPS-ZC1
IM18-20NPS-ZW1	



3 x 0.34 mm²

M12, 4-pin



See chapter Accessories
Connector, M12, 4-pin
Mounting systems

Technical specifications		IM18-	12BNS-ZW1	12BPS-ZW1	12BPS-ZC1	20NPS-ZW1	20NPS-ZC1						
Sensing range S_n	12 mm												
	20 mm												
Electrical configuration	DC 3-wire												
Supply voltage V_s	DC 10 ... 30 V												
Ripple U_{pp}	$\leq 20\%$ ¹⁾												
Voltage drop U_d	$\leq 2\text{ V}$ ²⁾												
Power consumption	$\leq 10\text{ mA}$ ³⁾												
Continuous current I_a	$\leq 200\text{ mA}$												
Time delay before availability t_v	$\leq 100\text{ ms}$												
Hysteresis H, of s_r	1 ... 15 %												
Repeatability R	$\leq 5\%$ (U_b and T_a constant) ⁴⁾												
Temperature drift, of s_r	$\pm 10\%$												
EMC	According to EN 60947-5-2												
Switching output	NPN												
	PNP												
Output function	Normally open ⁵⁾												
Installation	Quasi-flush ⁶⁾												
	Non-flush												
Connection type	Cable, PVC, 2 m												
	Connector, M12, 4-pin												
Enclosure rating	IP 67 ⁷⁾												
Max. switching frequency	500 Hz												
	200 Hz												
Dimensions	M18 x 1 ⁸⁾												
Short-circuit protection	✓ ⁹⁾												
Reverse polarity protection	✓												
Power-up pulse suppression	✓												
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm												
Ambient temperature T_a	-25 °C ... +75 °C												
Housing material	Brass, chrome-plated, plastic												
Tightening torque	30 Nm												

¹⁾ of U_b
²⁾ at I_a max
³⁾ without load

⁴⁾ of s_r
⁵⁾ other output functions available on request.

⁶⁾ when mounting in conductible materials the sensors must be installed with a distance A to the surface. A Steel, metal =

4 mm/A Stainless steel = 1.5 mm
⁷⁾ according to EN 60529
⁸⁾ Thread diameter x pitch (mm)
⁹⁾ (pulsed)

Order information	
Type	Order no.
IM18-12BNS-ZW1	6 027 516
IM18-12BPS-ZW1	6 027 515
IM18-12BPS-ZC1	6 027 517
IM18-20NPS-ZW1	6 027 518
IM18-20NPS-ZC1	6 027 519