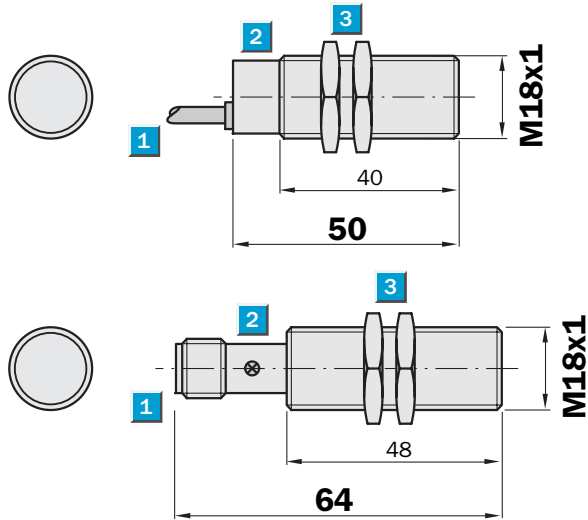


Sensing range
8 mm

Inductive sensor

- Enhanced sensing range
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M18 x 1 mm
- Enclosure rating IP 67

Dimensional drawing

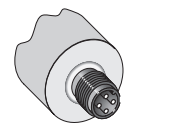
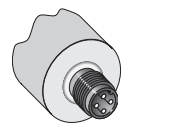
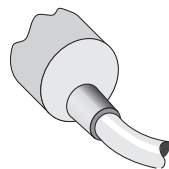


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 24, metal



Connection type

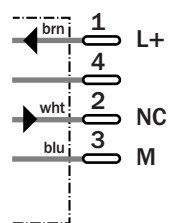
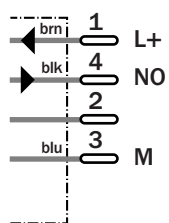
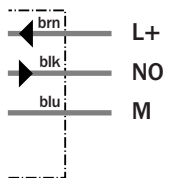
IM18-08BNS-ZW1	IM18-08BNS-ZC1	IM18-08BPO-ZC1
IM18-08BPS-ZWB	IM18-08BPS-ZC1	
IM18-08BPS-ZW1		



3 x 0.34 mm²

M12, 4-pin

M12, 4-pin



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

Technical specifications		IM18-	08BNS-ZC1	08BNS-ZW1	08BPO-ZC1	08BPS-ZC1	08BPS-ZWB	08BPS-ZW1				
Sensing range S_n	8 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	$\leq 10\%$											
Voltage drop U_d	$\leq 1\text{ V}^{1)}$											
Power consumption	$\leq 10\text{ mA}^{2)}$											
Continuous current I_a	$\leq 400\text{ mA}$											
Time delay before availability t_v	$\leq 100\text{ ms}$											
Hysteresis H, of s_r	2 ... 15 %											
Repeatability R	$\leq 5\%$ (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	$\pm 10\%$											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally open											
	Normally closed											
Installation	Flush ⁴⁾											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
	Cable, PVC, 5 m											
Enclosure rating	IP 67 ⁵⁾											
Max. switching frequency	300 Hz											
Dimensions	M18 x 1 ⁶⁾											
Short-circuit protection	✓ ⁷⁾											
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 ... +70 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	30 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ see installation notes

⁵⁾ according to EN 60529
⁶⁾ Thread diameter x pitch (mm)

⁷⁾ (pulsed)

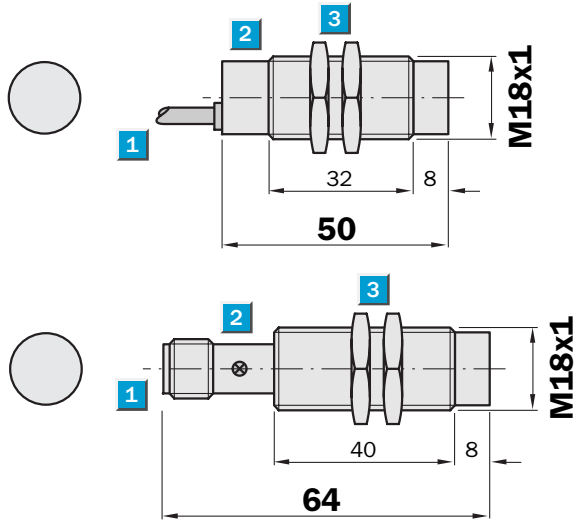
Order information	
Type	Order no.
IM18-08BNS-ZC1	7 900 086
IM18-08BNS-ZW1	7 900 082
IM18-08BPO-ZC1	7 900 087
IM18-08BPS-ZC1	7 900 085
IM18-08BPS-ZWB	6 030 761
IM18-08BPS-ZW1	7 900 081

Sensing range
12 mm

Inductive sensor

- Enhanced sensing range
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-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

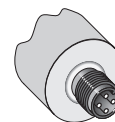
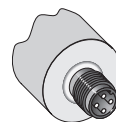
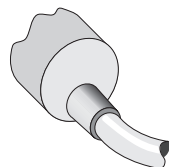


Connection type

IM18-12NNS-ZW1
IM18-12NPS-ZW1

IM18-12NNS-ZC1
IM18-12NPS-ZC1

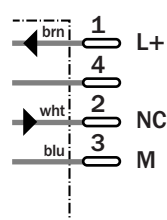
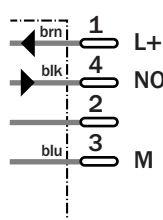
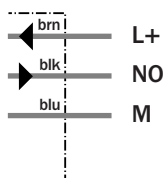
IM18-12NPO-ZC1



3 x 0.34 mm²

M12, 4-pin

M12, 4-pin



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

Technical specifications		IM18-	12NNS-ZC1	12NNS-ZW1	12NPO-ZC1	12NPS-ZC1	12NPS-ZW1					
Sensing range S_n	12 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U _{pp}	≤ 10 %											
Voltage drop U _d	≤ 1 V ¹⁾											
Power consumption	≤ 10 mA ²⁾											
Continuous current I_a	≤ 400 mA											
Time delay before availability t _v	≤ 100 ms											
Hysteresis H, of s _r	2 ... 15 %											
Repeatability R	≤ 5 % (U _b and T _a constant) ³⁾											
Temperature drift, of s _r	± 10 %											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally open											
	Normally closed											
Installation	Non-flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	300 Hz											
Dimensions	M18 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
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 ... +70 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	30 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Order information	
Type	Order no.
IM18-12NNS-ZC1	7 900 098
IM18-12NNS-ZW1	7 900 094
IM18-12NPO-ZC1	7 900 099
IM18-12NPS-ZC1	7 900 097
IM18-12NPS-ZW1	7 900 093