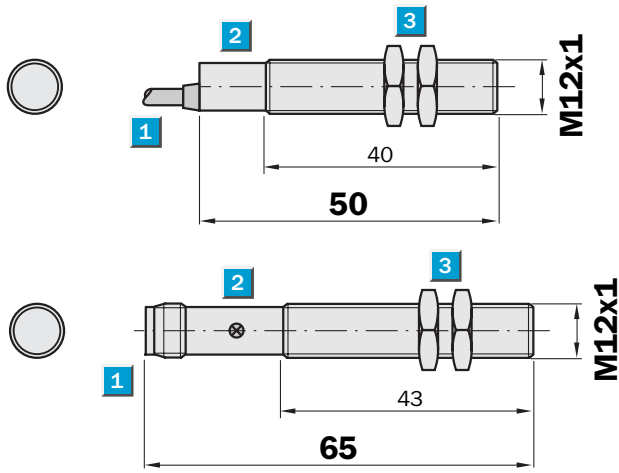


Sensing range
4 mm

Inductive sensor

- Enhanced sensing range
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67

Dimensional drawing

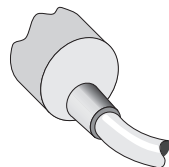


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

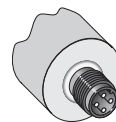
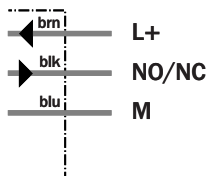


Connection type

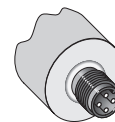
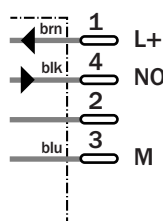
IM12-04BNS-ZW1	IM12-04BNS-ZC1	IM12-04BPO-ZC1
IM12-04BPO-ZW1	IM12-04BPS-ZC1	
IM12-04BPS-ZW1		



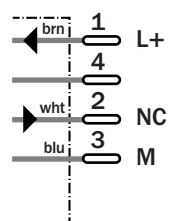
3 x 0.22 mm²



M12, 4-pin



M12, 4-pin



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

Technical specifications		IM12-	04BNS -ZW1	04BPO -ZW1	04BPS -ZW1	04BNS -ZC1	04BPO -ZC1	04BPS -ZC1				
Sensing range S_n	4 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	$\leq 10\%$ ¹⁾											
Voltage drop U_d	$\leq 1.2 V$ ²⁾											
Power consumption	$\leq 10 mA$ ³⁾											
Continuous current I_a	$\leq 200 mA$											
Time delay before availability t_v	$\leq 100 ms$											
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											
	Normally closed											
Installation	Flush ⁵⁾											
Connection type	Cable, PVC, 2 m											
	Connector, M12, 4-pin											
Enclosure rating	IP 67 ⁶⁾											
Max. switching frequency	1,000 Hz											
Dimensions	M12 x 1 ⁷⁾											
Short-circuit protection	✓ ⁸⁾											
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	10 Nm											

¹⁾ of U_b
²⁾ at I_a max

³⁾ without load
⁴⁾ of s_r

⁵⁾ see installation notes
⁶⁾ according to EN 60529

⁷⁾ Thread diameter x pitch (mm)
⁸⁾ (pulsed)

Order information

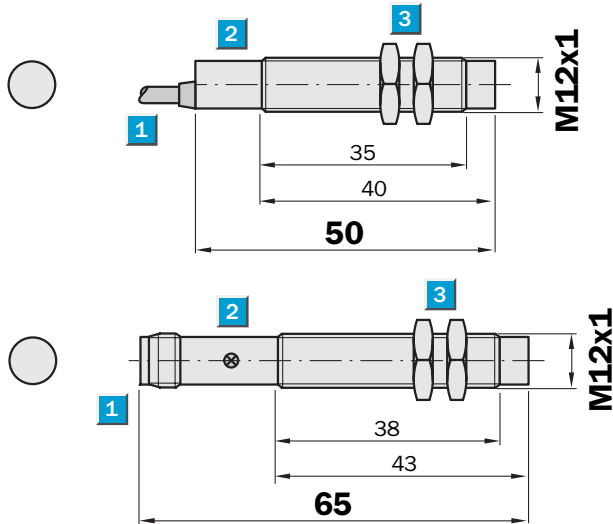
Type	Order no.
IM12-04BNS-ZW1	7 900 034
IM12-04BPO-ZW1	7 900 035
IM12-04BPS-ZW1	7 900 033
IM12-04BNS-ZC1	7 900 038
IM12-04BPO-ZC1	7 900 039
IM12-04BPS-ZC1	7 900 037

Sensing range
8 mm

Inductive sensor

- Enhanced sensing range
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67

Dimensional drawing

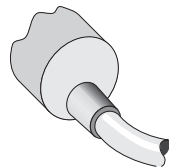


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

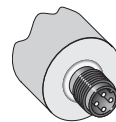
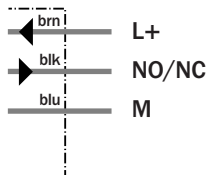


Connection type

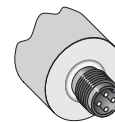
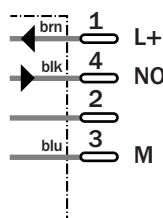
IM12-08NNO-ZW1	IM12-08NNS-ZC1	IM12-08NPO-ZC1
IM12-08NNS-ZW1	IM12-08NPS-ZC1	
IM12-08NPO-ZW1		
IM12-08NPS-ZW1		



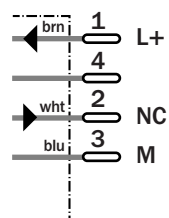
3 x 0.22 mm²



M12, 4-pin



M12, 4-pin



See chapter Accessories

Connector, M12, 4-pin
Mounting systems

Technical specifications		IM12-	08NN O-ZW1	08NNS -ZW1	08NPO -ZW1	08NPS -ZW1	08NNS -ZC1	08NPO -ZC1	08NPS -ZC1			
Sensing range S_n	8 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U _{pp}	≤ 10 % ¹⁾											
Voltage drop U _d	≤ 1.2 V ²⁾											
Power consumption	≤ 10 mA ³⁾											
Continuous current I_a	≤ 200 mA											
Time delay before availability t _v	≤ 100 ms											
Hysteresis H, of s _r	1 ... 15 %											
Repeatability R	≤ 5 % (U _b and T _a constant) ⁴⁾											
Temperature drift, of s _r	± 10 %											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally closed											
	Normally open											
Installation	Non-flush											
Connection type	Cable, PVC, 2 m											
	Connector, M12, 4-pin											
Enclosure rating	IP 67 ⁵⁾											
Max. switching frequency	1,000 Hz											
Dimensions	M12 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	10 Nm											

¹⁾ of U_b
²⁾ at I_a max

³⁾ without load
⁴⁾ of s_r

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

⁷⁾ (pulsed)

Order information	
Type	Order no.
IM12-08NNO-ZW1	7 900 044
IM12-08NNS-ZW1	7 900 042
IM12-08NPO-ZW1	7 900 043
IM12-08NPS-ZW1	7 900 041
IM12-08NNS-ZC1	7 900 046
IM12-08NPO-ZC1	7 900 047
IM12-08NPS-ZC1	7 900 045