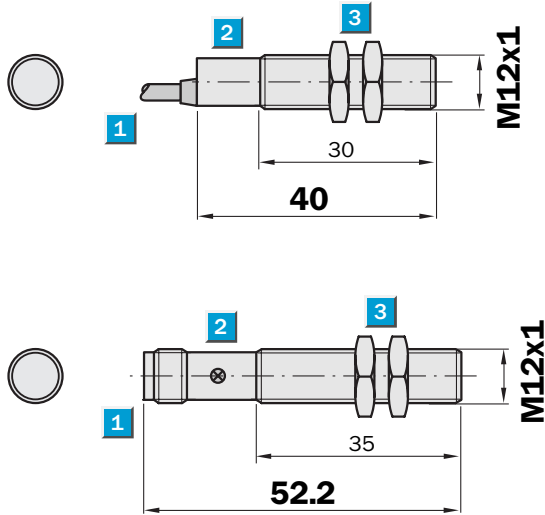


Sensing range
4 mm

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

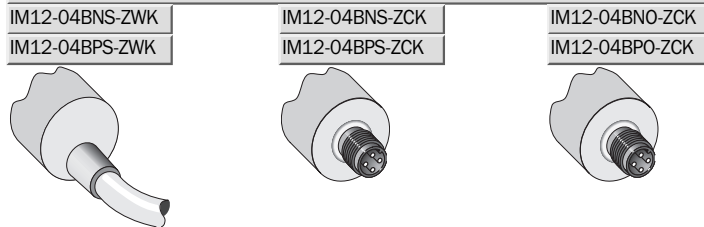
Dimensional drawing



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

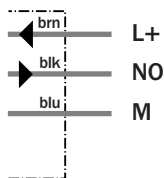


Connection type

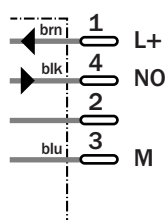


See chapter Accessories
Connector, M12, 4-pin
Mounting systems

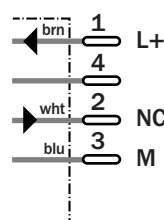
3 x 0.22 mm²



M12, 4-pin



M12, 4-pin



Technical specifications		IM12-	04BNS-ZWK	04BPS-ZWK	04BNO-ZCK	04BNS-ZCK	04BPO-ZCK	04BPS-ZCK				
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	$\leq 1.5\text{ V}$ ²⁾											
Power consumption	$\leq 10\text{ mA}$ ³⁾											
Continuous current I_a	$\leq 300\text{ mA}$											
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											
	Normally closed											
Installation	Flush ⁵⁾											
Connection type	Cable, PVC, 2 m											
	Connector, M12, 4-pin											
Enclosure rating	IP 67 ⁶⁾											
Max. switching frequency	2,000 Hz											
Dimensions	M12 x 1 ⁷⁾											
Wire-break protection	✓											
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 ... +75 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	7 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

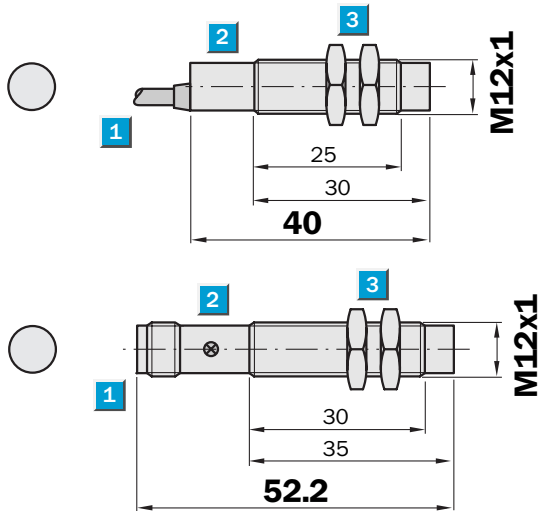
Type	Order no.
IM12-04BNS-ZWK	6 025 683
IM12-04BPS-ZWK	6 025 682
IM12-04BNO-ZCK	6 025 859
IM12-04BNS-ZCK	6 025 681
IM12-04BPO-ZCK	6 025 680
IM12-04BPS-ZCK	6 025 679

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

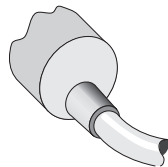


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

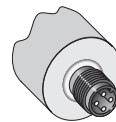
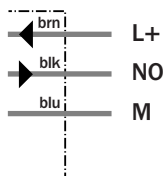


Connection type

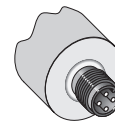
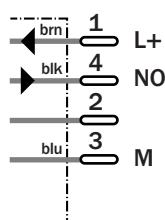
IM12-08NNS-ZWK	IM12-08NNS-ZCK	IM12-08NNO-ZCK
IM12-08NPS-ZWK	IM12-08NPS-ZCK	IM12-08NPO-ZCK



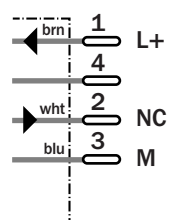
3 x 0.22 mm²



M12, 4-pin



M12, 4-pin



See chapter Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		IM12-	08NNS-ZWK	08NPS-ZWK	08NNS-ZCK	08NNO-ZCK	08NPO-ZCK	08NPS-ZCK				
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	≤ 1.5 V ²⁾											
Power consumption	≤ 10 mA ³⁾											
Continuous current I_a	≤ 300 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 open											
	Normally closed											
Installation	Non-flush											
Connection type	Cable, PVC, 2 m											
	Connector, M12, 4-pin											
Enclosure rating	IP 67 ⁵⁾											
Max. switching frequency	2,000 Hz											
Dimensions	M12 x 1 ⁶⁾											
Wire-break protection	✓											
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 ... +75 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	7 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.
IM12-08NNS-ZWK	6 025 685
IM12-08NPS-ZWK	6 025 684
IM12-08NNS-ZCK	6 025 687
IM12-08NNO-ZCK	6 025 860
IM12-08NPO-ZCK	6 025 688
IM12-08NPS-ZCK	6 025 686