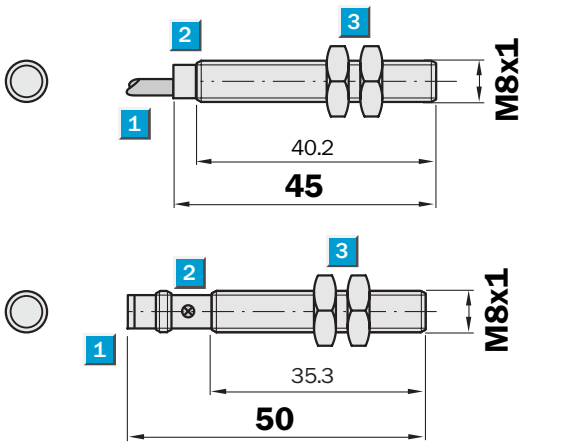
Sensing range 2 mm

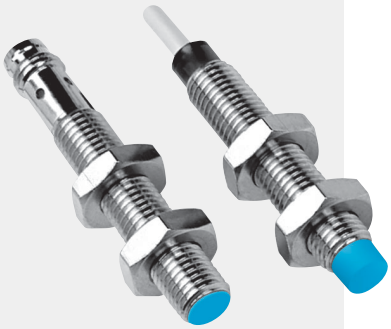
Inductive sensor

- Enhanced sensing range
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread or stainless steel with fine thread M8 x 1 mm
- Enclosure rating IP 67

Dimensional drawing

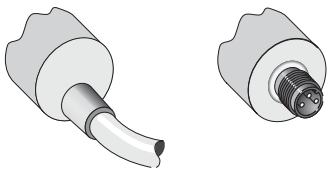


1 Connection
2 Display LED
3 Fastening nuts (2 x); width across 13, metal / stainless steel

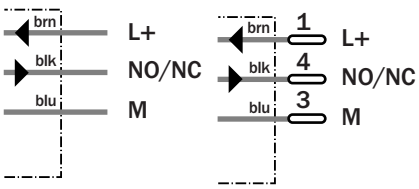


Connection type

IM08-02BNO-VW1	IM08-02BNO-ZT1
IM08-02BNS-ZW1	IM08-02BNS-ZT1
IM08-02BPO-ZW1	IM08-02BPS-ZT1
IM08-02BPS-ZW1	IM08-02BPO-ZT1
IM08-02BPO-VW1	



3 x 0.14 mm²	M8, 3-pin



Accessories

Connector, M8, 3-pin

Technical specifications	IM08-	02BNO -VW1	02BNS -ZW1	02BPO -ZW1	02BPS -ZW1	02BPO -VW1	02BNO -ZT1	02BNS -ZT1	02BPS -ZT1	02BPO -ZT1
Sensing range S_n	2 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	≤ 20 mA[3]	■	■	■	■	■	■	■	■	■
Continuous current I_a	≤ 200 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)[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	Flush	■	■	■	■	■	■	■	■	■
Connection type	Cable, PVC, 2 m	■	■	■	■	■				
	Connector, M8, 3-pin						■	■	■	■
Enclosure rating	IP 67[5]	■	■	■	■	■	■	■	■	■
Max. switching frequency	3,000 Hz	■	■	■	■	■	■	■	■	■
Dimensions	M8 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	Stainless steel V2A	■				■				
	Brass nickel-plated, plastic		■	■	■		■	■	■	■
Tightening torque	4 Nm	■	■	■	■	■	■	■	■	■

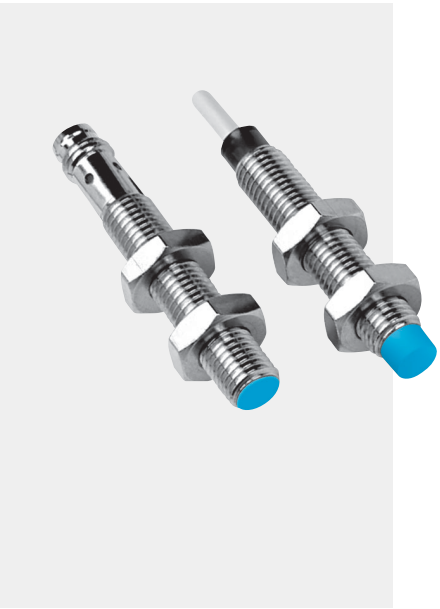
[1] of U_b
[2] at I_a max
[3] without load
[4] of s_r
[5] According to EN 60529
[6] Thread diameter x pitch (mm)
[7] (pulsed)

Ordering information	
Type	**Part Number**
IM08-02BNO-VW1	6 034 063
IM08-02BNS-ZW1	7 900 002
IM08-02BPO-ZW1	7 900 003
IM08-02BPS-ZW1	7 900 001
IM08-02BPO-VW1	6 029 840
IM08-02BNO-ZT1	7 900 008
IM08-02BNS-ZT1	7 900 006
IM08-02BPS-ZT1	7 900 005
IM08-02BPO-ZT1	7 900 007

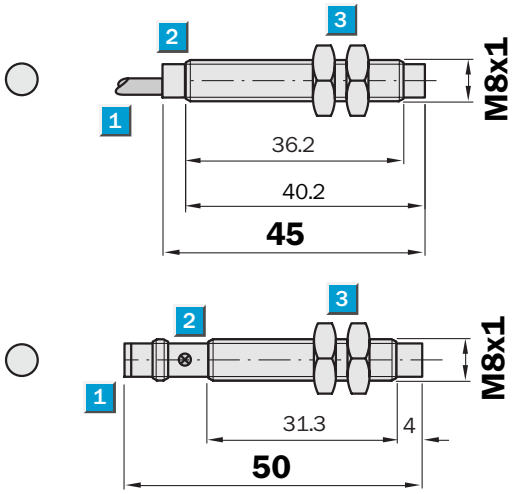
Sensing range 4 mm

Inductive sensor

- Enhanced sensing range
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M8 x 1 mm
- Enclosure rating IP 67



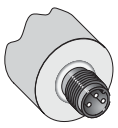
Dimensional drawing



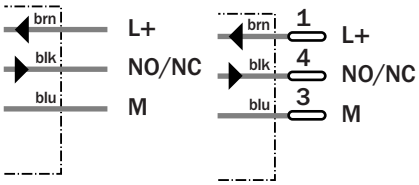
1 Connection
2 Display LED
3 Fastening nuts (2 x); width across 13, metal

Connection type

IM08-04NNS-ZW1	IM08-04NNO-ZT1
IM08-04NPO-ZW1	IM08-04NNS-ZT1
IM08-04NPS-ZW1	IM08-04NPO-ZT1
	IM08-04NPS-ZT1



3 x 0.14 mm²	M8, 3-pin



Accessories

Connector, M8, 3-pin

Technical specifications	IM08-	04NNS-ZW1	04NPO-ZW1	04NPS-ZW1	04NN0-ZT1	04NNS-ZT1	04NPO-ZT1	04NPS-ZT1			
Sensing range S_n	4 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	≤ 20 mA[3]	■	■	■	■	■	■	■			
Continuous current I_a	≤ 200 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)[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, M8, 3-pin				■	■	■	■			
Enclosure rating	IP 67[5]	■	■	■	■	■	■	■			
Max. switching frequency	1,800 Hz	■	■	■	■	■	■	■			
Dimensions	M8 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	4 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)

Ordering information

Type	Part Number
IM08-04NNS-ZW1	7 900 010
IM08-04NPO-ZW1	7 900 011
IM08-04NPS-ZW1	7 900 009
IM08-04NNO-ZT1	7 900 016
IM08-04NNS-ZT1	7 900 014
IM08-04NPO-ZT1	7 900 015
IM08-04NPS-ZT1	7 900 013