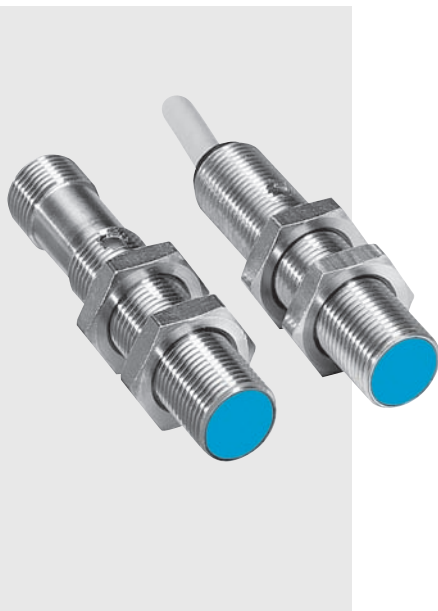


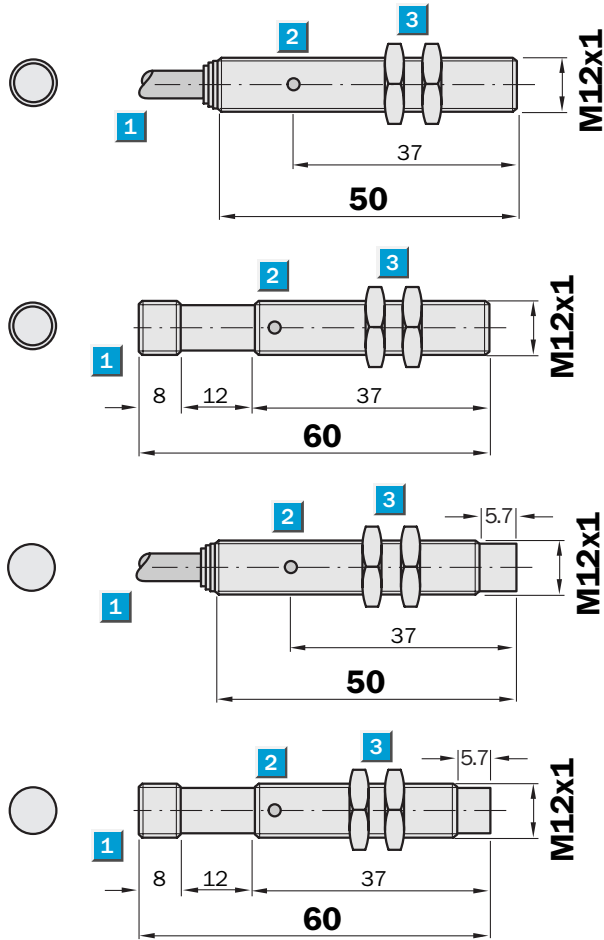
**Sensing range**  
6 / 10 mm

Inductive sensor

- Triple sensing range
- Installation quasi flush or non-flush in metal
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, chrome-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67



Dimensional drawing

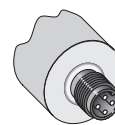
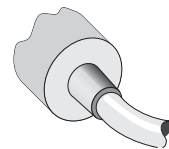


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal



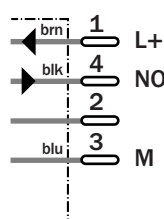
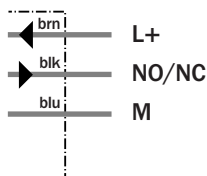
Connection type

IM12-06BPO-ZW1	IM12-06BNS-ZC1
IM12-06BPS-ZW1	IM12-06BPS-ZC1
IM12-10NNS-ZW1	IM12-10NPS-ZC1
IM12-10NPS-ZW1	



3 x 0.34 mm<sup>2</sup>

M12, 4-pin



See chapter Accessories

Connector, M12, 4-pin  
Mounting systems

Technical specifications		IM12-	06BNS-ZC1	06BPO-ZW1	06BPS-ZW1	06BPS-ZC1	10NNS-ZW1	10NPS-ZW1	10NPS-ZC1			
<b>Sensing range <math>S_n</math></b>	6 mm											
	10 mm											
<b>Electrical configuration</b>	DC 3-wire											
<b>Supply voltage <math>V_s</math></b>	DC 10 ... 30 V											
Ripple $U_{pp}$	$\leq 20\%$ <sup>1)</sup>											
	$\leq 10\%$ <sup>1)</sup>											
Voltage drop $U_d$	$\leq 2\text{ V}$ <sup>2)</sup>											
Power consumption	$\leq 10\text{ mA}$ <sup>3)</sup>											
<b>Continuous current <math>I_a</math></b>	$\leq 200\text{ mA}$											
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) <sup>4)</sup>											
Temperature drift, of $s_r$	$\pm 10\%$											
EMC	According to EN 60947-5-2											
<b>Switching output</b>	NPN											
	PNP											
<b>Output function</b>	Normally open <sup>5)</sup>											
	Normally closed <sup>5)</sup>											
<b>Installation</b>	Quasi-flush <sup>6)</sup>											
	Non-flush											
<b>Connection type</b>	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
<b>Enclosure rating</b>	IP 67 <sup>7)</sup>											
Max. switching frequency	800 Hz											
	400 Hz											
Dimensions	M12 x 1 <sup>8)</sup>											
<b>Short-circuit protection</b>	$\checkmark$ <sup>9)</sup>											
<b>Reverse polarity protection</b>	$\checkmark$											
<b>Power-up pulse suppression</b>	$\checkmark$											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature $T_a$	-25 °C ... +75 °C											
<b>Housing material</b>	Brass, chrome-plated, plastic											
Tightening torque	10 Nm											

<sup>1)</sup> of  $U_b$   
<sup>2)</sup> at  $I_a$  max  
<sup>3)</sup> without load

<sup>4)</sup> of  $s_r$   
<sup>5)</sup> other output functions available on request.

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

2 mm/A Stainless steel = 1 mm  
<sup>7)</sup> according to EN 60529  
<sup>8)</sup> Thread diameter x pitch (mm)  
<sup>9)</sup> (pulsed)

Order information	
Type	Order no.
IM12-06BNS-ZC1	6 030 524
IM12-06BPO-ZW1	6 027 510
IM12-06BPS-ZW1	6 027 509
IM12-06BPS-ZC1	6 027 511
IM12-10NNS-ZW1	6 027 513
IM12-10NPS-ZW1	6 027 512
IM12-10NPS-ZC1	6 027 514