

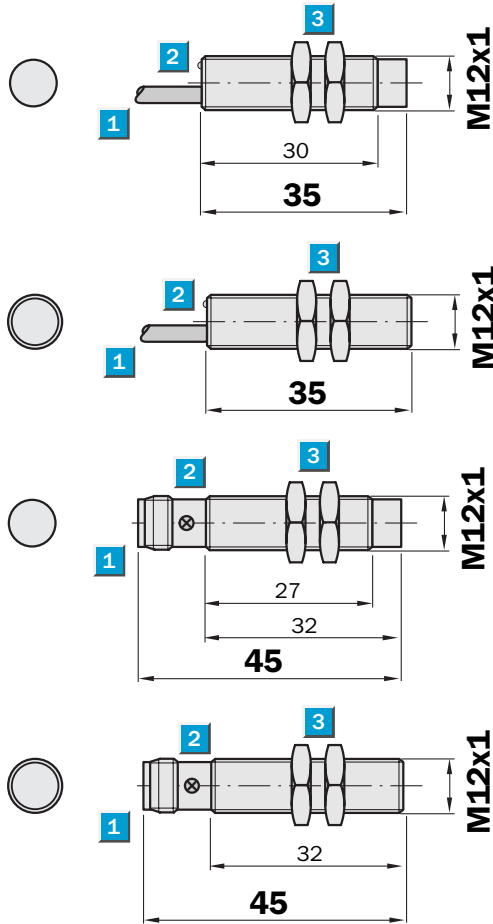
**Sensing range**  
2 / 4 mm

Inductive sensor

- 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

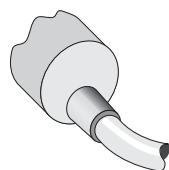


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

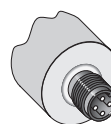
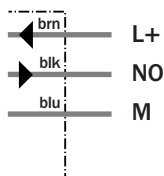


Connection type

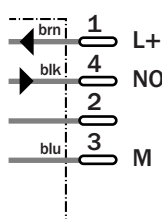
IM12-02BNS-ZUK	IM12-02BPS-ZCK
IM12-02BPS-ZUK	IM12-02BNS-ZCK
IM12-04NNS-ZUK	IM12-04NPS-ZCK
IM12-04NPS-ZUK	IM12-04NNS-ZCK



3 x 0.25 mm<sup>2</sup>



M12, 4-pin



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

Technical specifications		IM12-	02BNS-ZUK	02BPS-ZUK	02BPS-ZCK	02BNS-ZCK	04NNS-ZUK	04NPS-ZUK	04NPS-ZCK	04NNS-ZCK		
<b>Sensing range <math>S_n</math></b>	2 mm											
	4 mm											
<b>Electrical configuration</b>	DC 3-wire											
<b>Supply voltage <math>V_s</math></b>	DC 10 ... 30 V											
Ripple $U_{pp}$	$\leq 10\%$ <sup>1)</sup>											
Voltage drop $U_d$	$\leq 1.5 V$ <sup>2)</sup>											
Power consumption	$\leq 10 mA$ <sup>3)</sup>											
<b>Continuous current <math>I_a</math></b>	$\leq 300 mA$											
Time delay before availability $t_v$	$\leq 2 ms$											
Hysteresis H, of $s_r$	1 ... 10 %											
Repeatability R	$\leq 1\%$ ( $U_b$ 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											
<b>Installation</b>	Flush											
	Non-flush											
<b>Connection type</b>	Cable, PUR-PVC, 2 m											
	Connector, M12, 4-pin											
<b>Enclosure rating</b>	IP 67 <sup>5)</sup>											
Max. switching frequency	2,000 Hz											
Dimensions	M12 x 1 <sup>6)</sup>											
<b>Wire-break protection</b>	✓											
<b>Short-circuit protection</b>	✓ <sup>7)</sup>											
<b>Reverse polarity protection</b>	✓											
<b>Power-up pulse suppression</b>	✓											
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 nickel-plated, plastic											
Tightening torque	7 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> according to EN 60529  
<sup>6)</sup> Thread diameter x pitch (mm)

<sup>7)</sup> (pulsed)

#### Order information

Type	Order no.
IM12-02BNS-ZUK	1 017 438
IM12-02BPS-ZUK	1 017 426
IM12-02BPS-ZCK	1 017 428
IM12-02BNS-ZCK	1 017 440
IM12-04NNS-ZUK	1 017 439
IM12-04NPS-ZUK	1 017 427
IM12-04NPS-ZCK	1 017 429
IM12-04NNS-ZCK	1 017 441