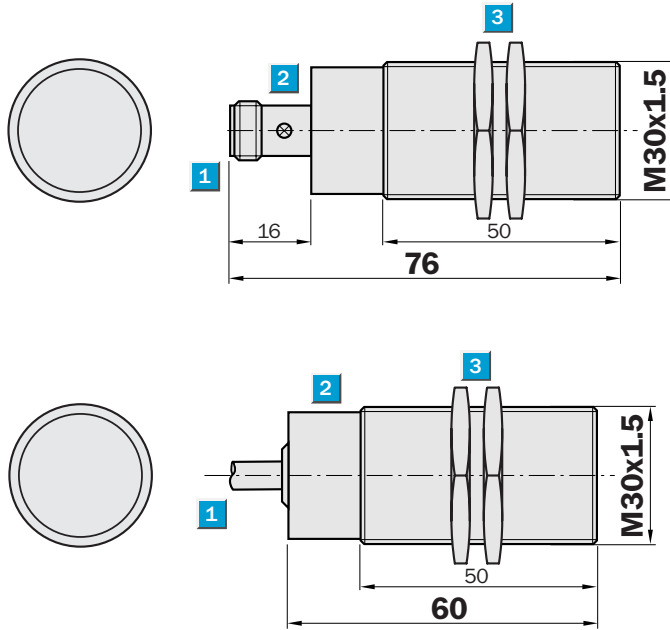


Sensing range
15 mm

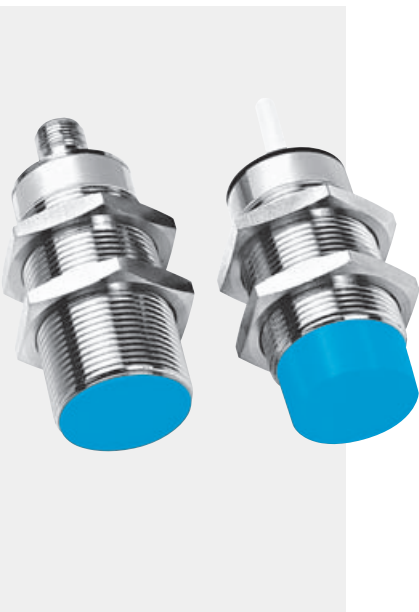
Inductive sensor

- Enhanced sensing range
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M30 x 1.5 mm
- Enclosure rating IP 67

Dimensional drawing

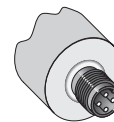
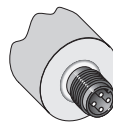
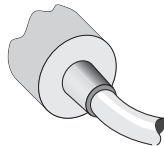


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 36, metal



Connection type

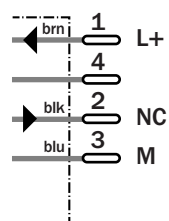
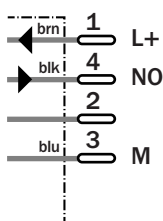
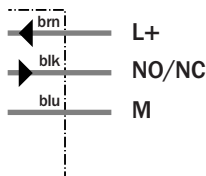
IM30-15BNS-ZW1	IM30-15BNS-ZC1	IM30-15BPO-ZC1
IM30-15BPO-ZW1	IM30-15BPS-ZC1	
IM30-15BPS-ZW1		



3 x 0.5 mm²

M12, 4-pin

M12, 4-pin



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

Technical data		IM30-	15BNS-ZW1	15BPO-ZW1	15BPS-ZW1	15BNS-ZC1	15BPO-ZC1	15BPS-ZC1				
Sensing range S_n	15 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple V_{pp}	$\leq 10\%$ ¹⁾											
Voltage drop V_d	$\leq 1\text{ V}$ ²⁾											
Current consumption	$\leq 10\text{ mA}$ ³⁾											
Continuous current I_a	$\leq 400\text{ mA}$											
Time delay before availability t_v	$\leq 100\text{ ms}$											
Hysteresis H (of s_r)	2 ... 15 %											
Repeatability R	$\leq 5\%$ (U_b and T_a constant) ⁴⁾											
Temperature drift, of s_r	$\pm 10\%$											
EMC	According to EN 60 947-5-2											
Switching output	PNP											
	NPN											
Output function	Normally open											
	Normally closed											
Installation	Flush ⁵⁾											
Connection types	Plug, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁶⁾											
Max. switching frequency	150 Hz											
Dimensions	M30 x 1.5 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 material	60 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 60 529

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

Order information

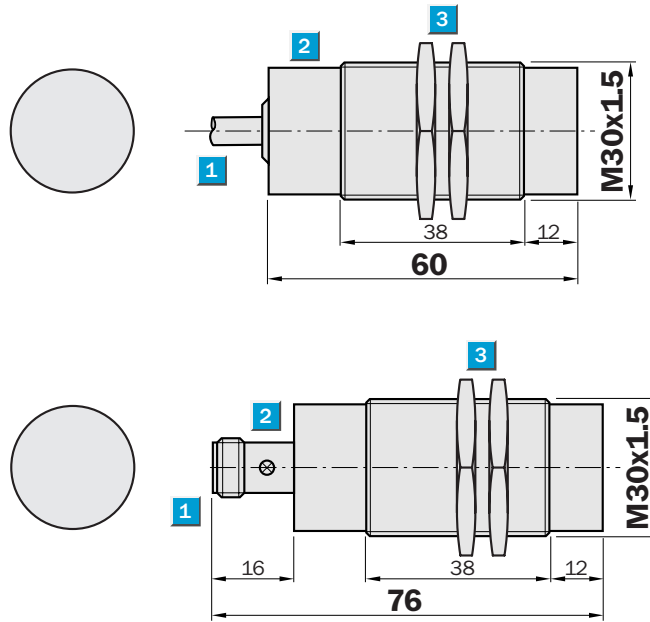
Type	Order no.
IM30-15BNS-ZW1	7 900 142
IM30-15BPO-ZW1	7 900 143
IM30-15BPS-ZW1	7 900 141
IM30-15BNS-ZC1	7 900 146
IM30-15BPO-ZC1	7 900 147
IM30-15BPS-ZC1	7 900 145

Sensing range
20 mm

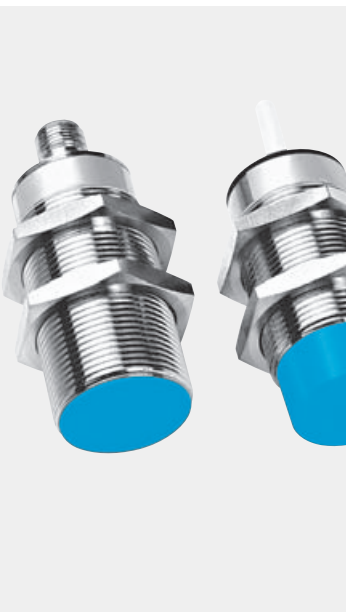
Inductive sensor

- Enhanced sensing range
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M30 x 1.5 mm
- Enclosure rating IP 67

Dimensional drawing



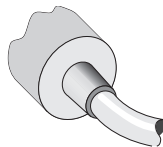
- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 36, metal



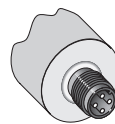
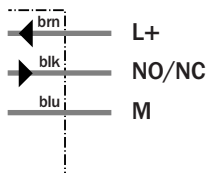
Connection type

IM30-20NNS-ZW1
IM30-20NPO-ZW1
IM30-20NPS-ZW1

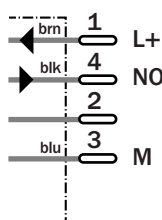
IM30-20NNS-ZC1
IM30-20NPS-ZC1



3 x 0.5 mm²



M12, 4-pin



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

Technical data		IM30-	20NNS-ZW1	20NPO-ZW1	20NPS-ZW1	20NNS-ZC1	20NPS-ZC1						
Sensing range S_n	20 mm												
Electrical configuration	DC 3-wire												
Supply voltage V_s	DC 10 ... 30 V												
Ripple V_{pp}	$\leq 10\%$ ¹⁾												
Voltage drop V_d	$\leq 1\text{ V}$ ²⁾												
Current consumption	$\leq 10\text{ mA}$ ³⁾												
Continuous current I_a	$\leq 400\text{ mA}$												
Time delay before availability t_v	$\leq 100\text{ ms}$												
Hysteresis H (of s_r)	2 ... 15 %												
Repeatability R	$\leq 5\%$ (U_b and T_a constant) ⁴⁾												
Temperature drift, of s_r	$\pm 10\%$												
EMC	According to EN 60 947-5-2												
Switching output	PNP												
	NPN												
Output function	Normally open												
	Normally closed												
Installation	Non-flush												
Connection types	Plug, M12, 4-pin												
	Cable, PVC, 2 m												
Enclosure rating	IP 67 ⁵⁾												
Max. switching frequency	150 Hz												
Dimensions	M30 x 1.5 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 material	60 Nm												

¹⁾ of U_b
²⁾ at I_a max

³⁾ without load
⁴⁾ of s_r

⁵⁾ according to EN 60 529
⁶⁾ thread diameter x pitch (mm)

⁷⁾ (pulsed)

Order information	
Type	Order no.
IM30-20NNS-ZW1	7 900 154
IM30-20NPO-ZW1	7 900 155
IM30-20NPS-ZW1	7 900 153
IM30-20NNS-ZC1	7 900 158
IM30-20NPS-ZC1	7 900 157