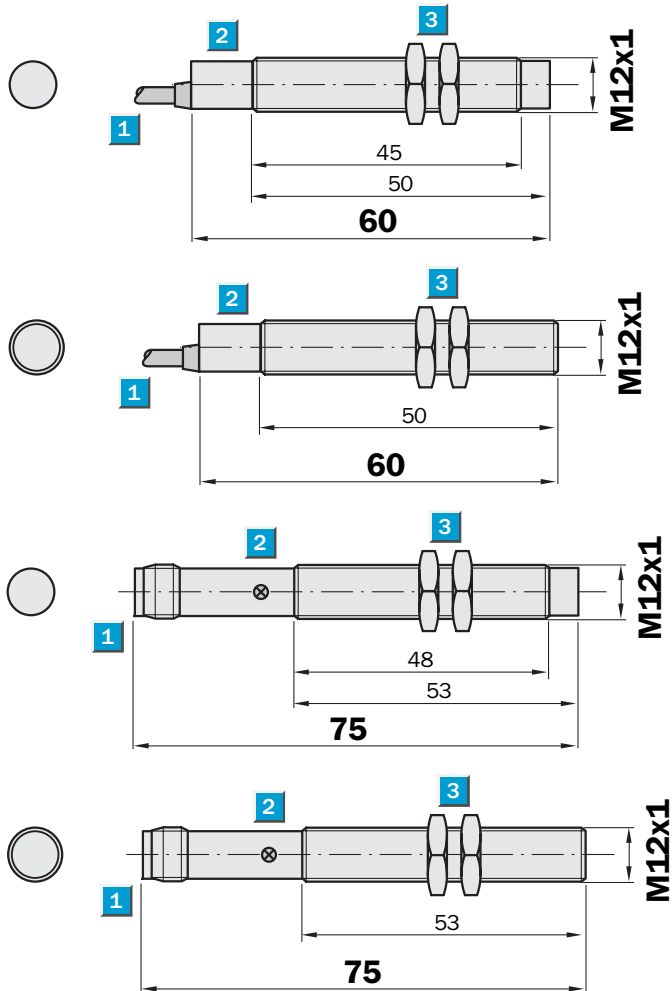


Sensing range
2 / 4 mm

Inductive sensor

- Free configurable output functions in one sensor PNP / NO, PNP / NC NPN / NO, NPN / NC
- Short-circuit protection
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67
- LED status indicator (NO function)

Dimensional drawing



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

Connection type

IM12-02BCP-ZW1	IM12-02BCP-ZC1
IM12-04NCP-ZW1	IM12-04NCP-ZC1



4 x 0.22 mm ²		M12, 4-pin	
PNP version	NPN version	PNP version	NPN version
brn ← L+	brn → M	brn ← 1 L+	brn ← 1 L+
wht ← L+	wht → NC	wht ← 2 L+	wht ← 2 NO
blk → M	blk ← L+	blk ← 3 M	blk ← 3 M
blu → NO	blu → M	blu ← 4 NO	blu ← 4 M
brn → M	brn ← L+	brn ← 1 M	brn ← 1 M
wht ← L+	wht → NO	wht ← 2 L+	wht ← 2 NC
blk ← L+	blk → M	blk ← 3 L+	blk ← 3 L+
blu → NC	blu → M	blu ← 4 NC	blu ← 4 M



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

Technical specifications		IM12-	02BCP-ZW1	02BCP-ZC1	04NCP-ZW1	04NCP-ZC1						
Sensing range S_n	2 mm											
	4 mm											
Electrical configuration	DC 4-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	$\leq 10\%$ ¹⁾											
Voltage drop U_d	$\leq 1.2\text{ V}$ ²⁾											
Power consumption	$\leq 30\text{ mA}$ ³⁾											
Continuous current I_a	$\leq 100\text{ mA}$											
Time delay before availability t_v	$\leq 250\text{ ms}$											
Hysteresis H, of s_r	2 ... 10 %											
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	PNP/NPN config.											
Output function	Configurable											
Installation	Flush											
	Non-flush											
Connection type	Cable, PVC, 2 m											
	Connector, M12, 4-pin											
Enclosure rating	IP 67 ⁵⁾											
Max. switching frequency	1,000 Hz											
Dimensions	M12 x 1 ⁶⁾											
Short-circuit protection	✓											
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	10 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)

Order information

Type	Order no.
IM12-02BCP-ZW1	7 902 927
IM12-02BCP-ZC1	7 902 928
IM12-04NCP-ZW1	7 902 929
IM12-04NCP-ZC1	7 902 930