

IT 12

Inductive sensor with expanded switching distance



Plug connection (flush)	Plug connection (non-flush)	Cable connection (flush)

Sensor data		Functions	
Switching distance ¹	6 mm	Indicator LED, yellow	Switching output indicator
Switching distance ²	10 mm		
Repeatability ¹	0.3 mm ⁴		
Repeatability ²	0.5 mm ⁴		
Hysteresis	≤ 15 % ⁵		
Reduction factor; Al ³	1.00 / 1.00		
Reduction factor; Cu ³	0.85 / 0.80		
Reduction factor; V2A 1 mm thick ³	0.50 / no detection		
Reduction factor; V2A 2 mm thick ³	0.90 / 0.65		
Reduction factor; steel FE 360 ³	1.00 / 1.00		
Reduction factor; brass ³	1.30 / 1.40		
Electrical data		Mechanical data	
Operating voltage, +U _B	10 ... 30V DC ⁶	Dimensions	M12 x 60 mm
No-load current, I ₀	≤ 10 mA	Mounting	Flush / non-flush (see Selection Table)
Operating current, I _L	≤ 200 mA	Enclosure rating	IP 69K & IP 68 ⁷
Voltage drop, U _D	≤ 2V at 200 mA	Material, housing	Stainless steel, V2A
Protective circuits	Reverse-polarity protection, U _B / short-circuit protection (Q) / induction protection	Material, front surface	Stainless steel, V2A
Switching output, Q	PNP	Type of connection	See Selection Table
Output function	N.O.	Ambient temperature: operation	-25 ... +70 °C
Switching frequency, f (ti/tp 1:1)	See Selection Table	Vibration and impact resistance	IEC 60947-5-2 / 7.4

¹ Flush devices ² Non-flush devices ³ Flush / non-flush devices ⁴ U_B = 20 ... 30 V DC, T_A = 23 °C ± 5 °C ⁵ Refers to switching distance

⁶ Max. 20 % ripple, within U_B ⁷ With connected IP 68 / IP 69K plug

Connection plug, 4-pin	Connection cable, 3-wire

Switching distance	Mounting	Switching output	Switching frequency, f (ti/tp 1:1)	Type of connection	Part number	Article number
6 mm	Flush	PNP	≤ 600 Hz	Plug, M12x1, 4-pin	IT 12 BM-PSL4	996-51480
10 mm	Non-flush	PNP	≤ 400 Hz	Plug, M12x1, 4-pin	IT 12 NBM-PSL4	996-51481
6mm	Flush	PNP	≤ 600 Hz	Cable, 2 m, 3-wire	IT 12 BM-PSK3	996-51487