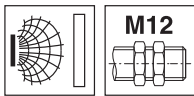
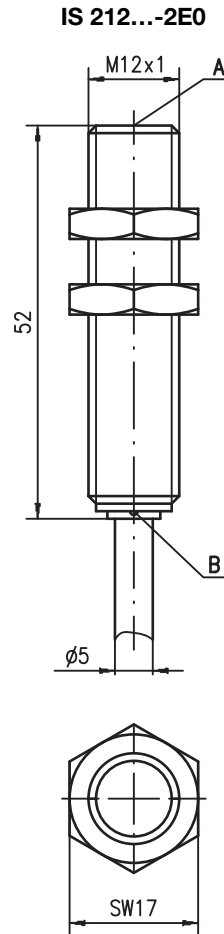


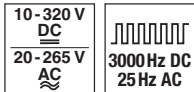
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Dimensioned drawing



2mm



Embedded

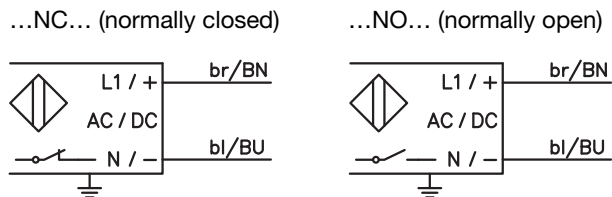
- Slim and short cylindrical metal housing M12
- Chromium-plated brass housing
- Built-in short circuit protection, inductive protection and polarity reversal protection
- LED for switching state visible from 360°
- Non-polarized 2-wire design
- AC/DC supply voltage



Tightening torque of the fastening nuts < 10Nm !

- A** Active surface
- B** Yellow indicator diode

Electrical connection



We reserve the right to make changes • DS_IS212E_1N3_en_50128373.fm



Accessories:

(available separately)

- Mounting clamp (MC 012...)

Specifications

General specifications	IS 212...-2E0
Type of installation	embedded installation
Typ. operating range limit S_n	2.0mm
Operating range S_a	0 ... 1.6mm
Electrical data	
Operating voltage U_B 1)	20 ... 265VAC / 10 ... 320VDC
Residual ripple σ	$\leq 20\%$ of U_B
Output current I_L	≤ 200 mA AC/DC
Open-circuit current I_0	≤ 1 mA
Minimum load current I_m	2mA
Switching output/function	.../1NC.3... relay, NC contact
	.../1NO.3... relay, NO contact
Voltage drop U_d	≤ 6 V at 200mA
Hysteresis H of S_r	$\leq 20\%$
Temperature drift of S_r	$\leq 10\%$ 2)
Repeatability	≤ 0.5 mm 3)
Timing	
Switching frequency f	AC: 25Hz DC: 3000Hz
Delay before start-up	≤ 10 ms
Indicators	
Yellow LED (visible from 360°)	switching state
Mechanical data	
Housing	chromium-plated brass
Standard measuring plate	12 x 12mm ² , Fe360
Active surface	PBTP
Weight	approx. 95g
Connection type	cable: 2m, PVC, 2 x 0.34mm ² , \varnothing 5.0mm
Environmental data	
Ambient temperature	-25°C ... +70°C
Degree of protection	IP 67
Protective circuit 4)	1, 2, 3
Standards applied	IEC/EN 60947-5-2
Electromagnetic compatibility	IEC 60947-5-2 5kV IEC 61000-4-2 Level 2 air 8kV (ESD) IEC 61000-4-3 Level 3 10V/m (RFI) IEC 61000-4-4 Level 3 2kV (Burst)

- 1) Observe the safety regulations and installation instructions regarding power supply and wiring.
- 2) Over the entire operating temperature range
- 3) For $U_B = 20 \dots 30$ VDC, ambient temperature $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$
- 4) 1=polarity reversal protection, 2=short circuit protection, 3=inductive protection for all outputs

Part number code

I S 2 1 2 M M / 1 N O . 3 - 2 E 0

Operating principle / construction	IS Inductive switch / Standard
Series	212 Series with M12 x 1 external thread
Housing / thread	MM Metal housing (active surface: plastic) / metric thread
Output function / Supply	1NO.3 Relay, NO contact / AC/DC 1NC.3 Relay, NC contact / AC/DC
Measurement range / type of installation	2E0 Typ. operating range limit 2.0mm / embedded installation
Electrical connection	N/A Cable, PVC, standard length 2000mm

Order guide

The sensors listed here are preferred types; current information at www.leuze.com.

$S_n = 2$mm	Designation	Part no.
	IS 212 MM/1NC.3-2E0	50128149
	IS 212 MM/1NO.3-2E0	50128150
	Additional types on request	

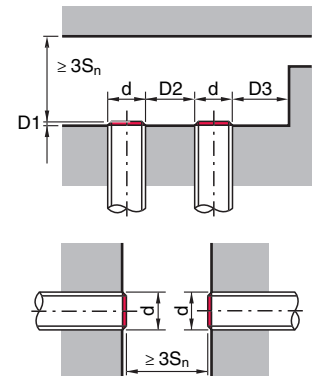
Tables

Reduction factors:
for $S_n = 2.0$ mm

Steel Fe360	1
Copper	0.20
Aluminum	0.30
Brass	0.40
Stainless steel	0.80

Mounting

Embedded installation:

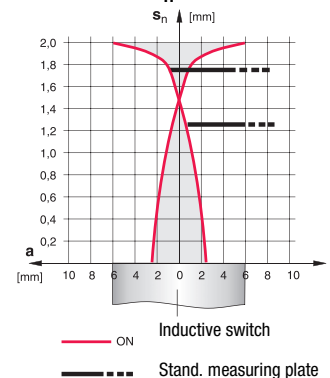


Ferromagnetic and non-ferromagnetic materials

S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]
2.0	0	6.0	2.0

Diagrams

Models with $S_n = 2.0$ mm



Remarks

Operate in accordance with intended use!
⚠ This product is not a safety sensor and is not intended as personnel protection.
⚠ The product may only be put into operation by competent persons.
⚠ Only use the product in accordance with the intended use.