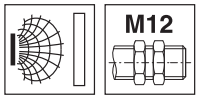
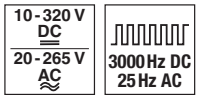
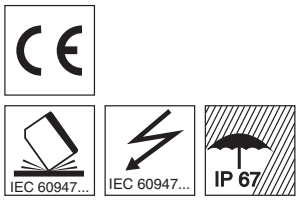
IS 212 2-wire UC standard design — Inductive switches

en 01-2015/01 50128373





- 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



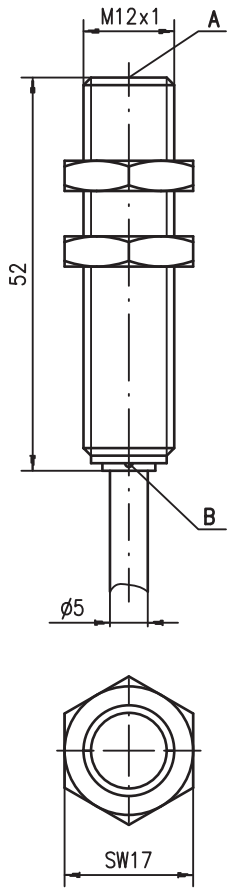
Accessories:

(available separately)

- Mounting clamp (MC 012…)

Dimensioned drawing

IS 212…-2E0

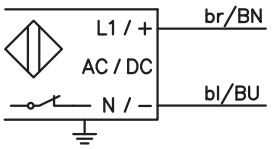


Tightening torque of the fastening nuts < 10Nm !

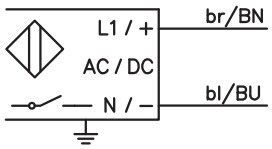
A Active surface
B Yellow indicator diode

Electrical connection

…NC… (normally closed)



…NO… (normally open)



IS 212 2-wire UC standard design

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		≤ 20% of U_B
Output current I_L		≤ 200mA AC/DC
Open-circuit current I_0		≤ 1mA
Minimum load current I_m		2mA
Switching output/function	.../1NC.3...	relay, NC contact
	.../1NO.3...	relay, NO contact
Voltage drop U_d		≤ 6V at 200mA
Hysteresis H of S_r		≤ 20%
Temperature drift of S_r		≤ 10% [2]
Repeatability		≤ 0.5mm [3]
Timing		
Switching frequency f		AC: 25Hz DC: 3000Hz
Delay before start-up		≤ 10ms
Indicators		
Yellow LED (visible from 360°)		switching state
Mechanical data		
Housing		chromium-plated brass
Standard measuring plate		12 x 12mm², Fe360
Active surface		PBTP
Weight		approx. 95g
Connection type		cable: 2m, PVC, 2 x 0.34mm², Ø 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 ... 30VDC, ambient temperature T_a = 23°C ± 5°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	0	.	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.

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

Additional types on request

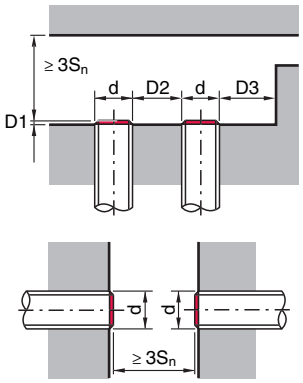
Tables

Reduction factors: for S_n = 2.0mm

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

Mounting

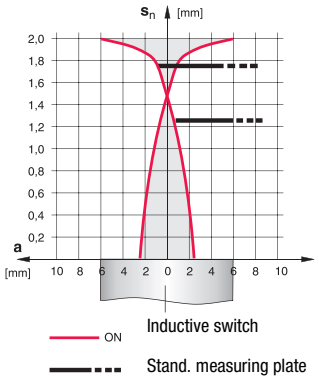
Embedded installation:



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 = 2.0mm**



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.