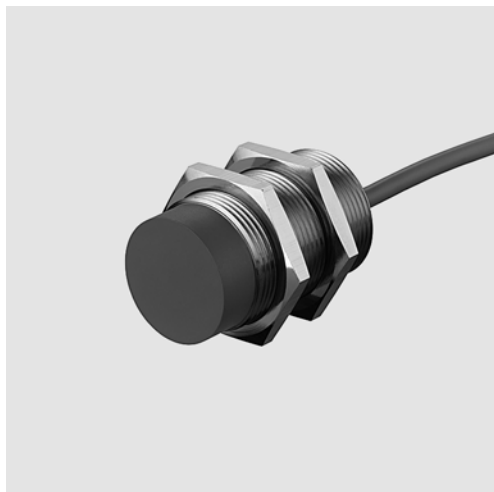


en 01-2015/01 50128375



15 mm

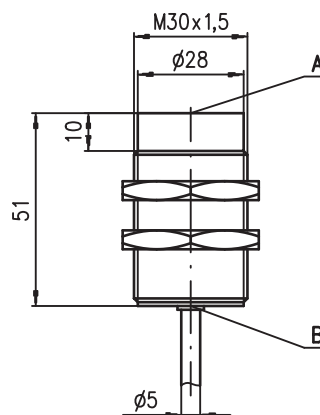


Non-embedded

- Slim and short cylindrical metal housing M30
- 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

Dimensioned drawing

IS 230...-15N

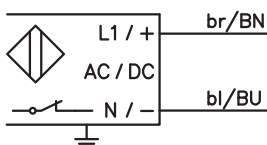


Tightening torque of the fastening nuts < 40Nm !

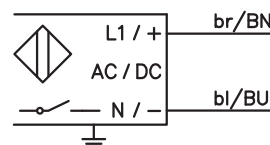
- A** Active surface
B Yellow indicator diode

Electrical connection

...NC... (normally closed)



...NO... (normally open)



Accessories:

(available separately)

- Mounting clamp (MC 030...)



We reserve the right to make changes • DS_IS230N_1N3_en_50128375.fm

Specifications

General specifications

Type of installation
Typ. operating range limit S_n
Operating range S_a

IS 230...-15N

non-embedded installation
15.0mm
0 ... 12.1mm

Electrical data

Operating voltage U_B 1)
Residual ripple σ
Output current I_L
Open-circuit current I_0
Minimum load current I_m
Switching output/function .../1NC.3...
.../1NO.3...
Voltage drop U_d
Hysteresis H of S_r
Temperature drift of S_r
Repeatability

20 ... 265VAC / 10 ... 320VDC
 $\leq 20\%$ of U_B
 ≤ 200 mA AC/DC
 ≤ 1 mA
2mA
relay, NC contact
relay, NO contact
 ≤ 6 V at 200mA
 $\leq 15\%$
 $\leq 10\%$ 2)
 ≤ 0.75 mm 3)

Timing

Switching frequency f
Delay before start-up

AC: 25Hz
DC: 500Hz
 ≤ 10 ms

Indicators

Yellow LED (visible from 360°) switching state

Mechanical data

Housing
Standard measuring plate
Active surface
Weight (M12 plug/cable)
Connection type

chromium-plated brass
45 x 45mm², Fe360
PBTP
approx. 180g
cable: 2m, PVC, 2 x 0.34mm², Ø 5.0mm

Environmental data

Ambient temperature
Degree of protection
Protective circuit 4)
Standards applied
Electromagnetic compatibility

-25°C ... +70°C
IP 67
1, 2, 3
IEC/EN 60947-5-2
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 3 0 M M / 1 N O . 3 - 1 5 N

Operating principle / construction

IS Inductive switch / Standard

Series

230 Series with M30 x 1.5 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

15N Typ. operating range limit 15.0mm / non-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.
$S_n = 15$ mm	IS 230 MM/1NC.3-15N	50128153
	IS 230 MM/1NO.3-15N	50128154
	Additional types on request	

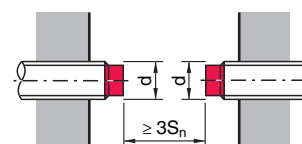
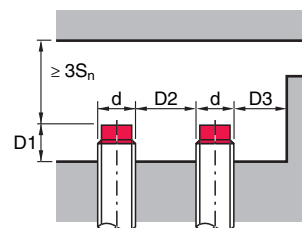
Tables

Reduction factors:
for $S_n = 15.0$ mm

Steel Fe360	1
Copper	0.43
Aluminum	0.49
Brass	0.53
Stainless steel	0.95

Mounting

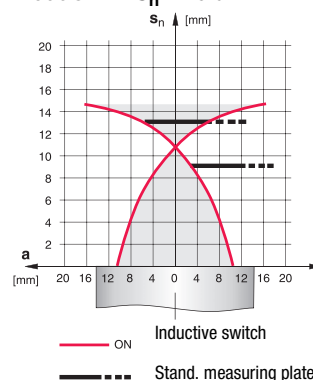
Non-embedded installation:



Ferromagnetic and non-ferromagnetic materials			
S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]
15.0	13.0	45.0	15.0

Diagrams

Models with $S_n = 15.0$ 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.