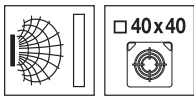
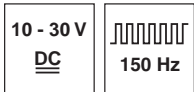


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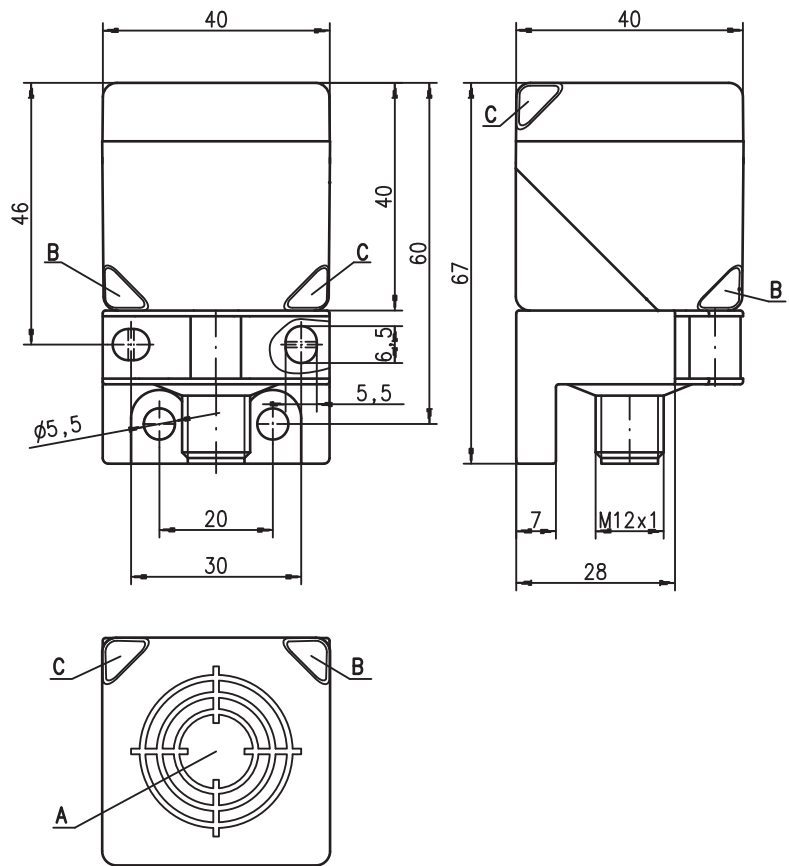
20mm



embedded

- Short 40 x 40 mm cubical housing
- Light plastic housing
- Built-in short circuit protection, polarity reversal protection
- LED for switching state

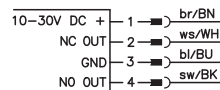
Dimensioned drawing



Tightening torque of the fastening screws < 1.8Nm !

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

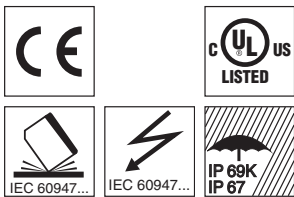
Electrical connection



Accessories:

(available separately)

- M12 connectors (KD ...)
- Ready-made cables (K-D ...)



We reserve the right to make changes • ISS_244_E_en.fm

Specifications

General specifications

Type of installation embedded installation
 Typ. operating range limit S_n 20.0mm
 Operating range S_a 0 ... 16.2mm

Electrical data

Operating voltage U_B 1) 10 ... 30VDC
 Residual ripple σ $\leq 20\%$ of U_B
 Output current I_L ≤ 200 mA
 Open-circuit current I_0 ≤ 20 mA
 Residual current I_r ≤ 500 μ A
 Switching output/function .../44... PNP transistor, make-contact + break-contact (NO + NC), complementary
 .../22... NPN transistor, make-contact + break-contact (NO + NC), complementary
 Voltage drop U_d ≤ 2 V
 Hysteresis H of S_r typ. 5 %
 Repeatability of S_r $\leq 10\%$ 2)

Timing

Switching frequency f ≤ 150 Hz
 Delay before start-up ≤ 300 ms

Indicators

Yellow LED (visible from 360°) switching state

Mechanical data

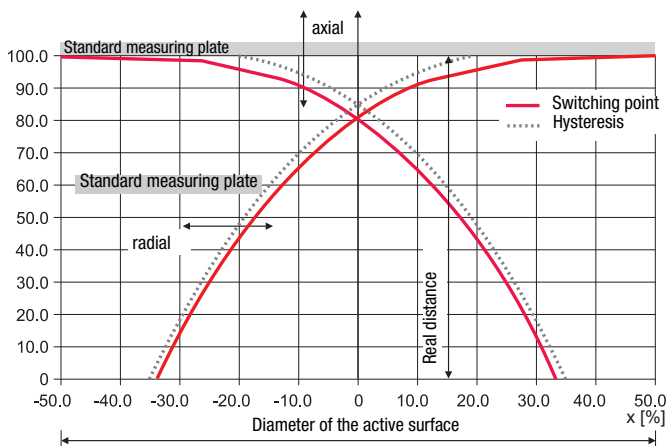
Housing PA
 Standard measuring plate 60 x 60mm², Fe360
 Active surface PA
 Weight (M12 plug/cable) approx. 130g
 Connection type M12 connector

Environmental data

Ambient temperature -25°C ... +85°C
 Protection class IP 67, IP 69K
 Protective circuit 3) 1, 2
 Standards applied IEC/EN 60947-5-2
 IEC 61000-4-2
 IEC 61000-4-3
 IEC 61000-4-4
 Air 8kV (ESD)
 10V/m (RFI)
 2kV (Burst)

- 1) Observe the safety regulations and installation instructions regarding power supply and wiring; for UL applications: only for use in "Class 2" circuits acc. to NEC
- 2) For U_B ambient temperature $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$
- 3) 1=polarity reversal protection, 2=short-circuit protection, for all outputs

Typical approach curve:



Order guide

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

$S_n = 20\text{mm}$	Designation	Part No.
	ISS 244 PP/44-20E-S12	50114217
	ISS 244 PP/22-20E-S12	50114215

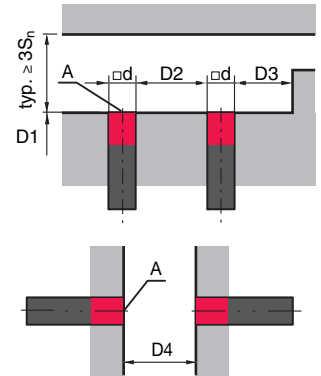
Tables

Reduction factors:
for $S_n = 20.0\text{mm}$

Material	Reduction Factor
Steel Fe360	1
Copper	0.31
Aluminum	0.33
Brass	0.41
Stainless steel	0.74

Mounting

Embedded installation:



A: active surface

Ferromagnetic and non-ferromagnetic materials				
S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]
20	0	40	10	70

Remarks

- **Approved purpose:**
 The inductive switches are electronic sensors for the inductive, contactless detection of objects. This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.