

# ISS 244 (short construction)

## Inductive switches

en 01-2016/07 50134490



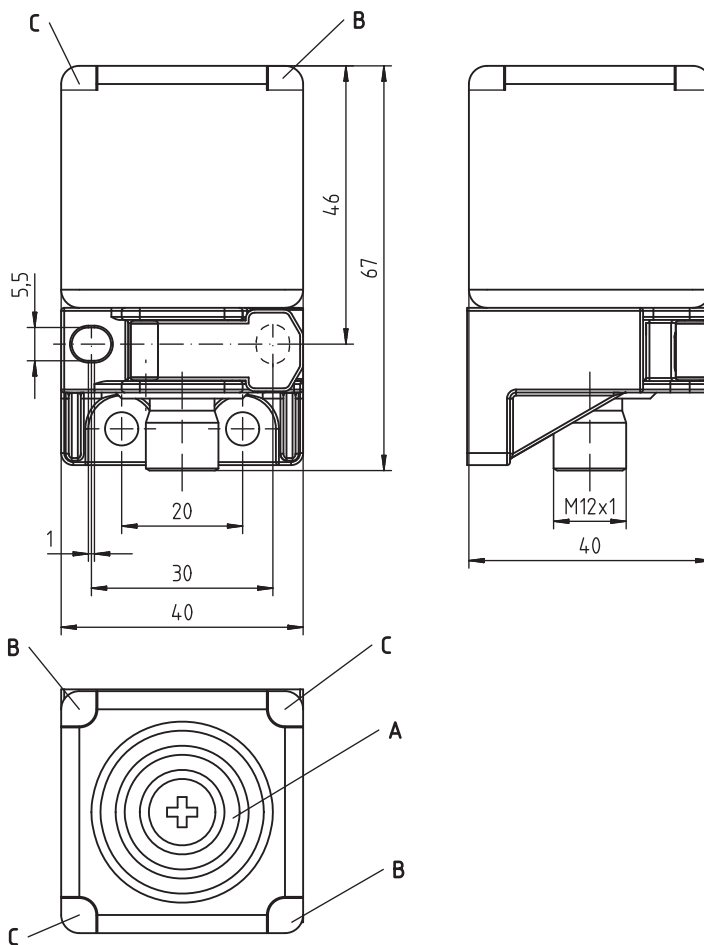
**20mm**



**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 < 2.5Nm !**

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

### Electrical connection

10-30V DC +	1	br/BN
NC OUT	2	ws/WH
GND	3	bl/BU
NO OUT	4	sw/BK



### Accessories:

(available separately)

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

We reserve the right to make changes • DS\_ISS244PP1\_20E\_en\_50134490.fm

## Specifications

### General specifications

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

### ISS 244PP.1...-20E...

embedded installation  
20.0mm  
0 ... 16.2mm

### Electrical data

Operating voltage  $U_B$  <sup>1)</sup> 10 ... 30VDC  
Residual ripple  $\sigma$   $\leq 10\%$  of  $U_B$   
Output current  $I_L$   $\leq 200\text{mA}$   
Open-circuit current  $I_0$   $\leq 30\text{mA}$   
Residual current  $I_r$   $\leq 10\mu\text{A}$   
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  $U_d$   
Hysteresis  $H$  of  $S_r$  typ. 15%  
Repeatability of  $S_r$   $\leq 10\%$  <sup>2)</sup>

### Timing

Switching frequency  $f$   $\leq 100\text{Hz}$   
Delay before start-up  $\leq 100\text{ms}$

### Indicators

Green LED (visible from 360°) ready  
Orange LED (visible from 360°) switching state

### Mechanical data

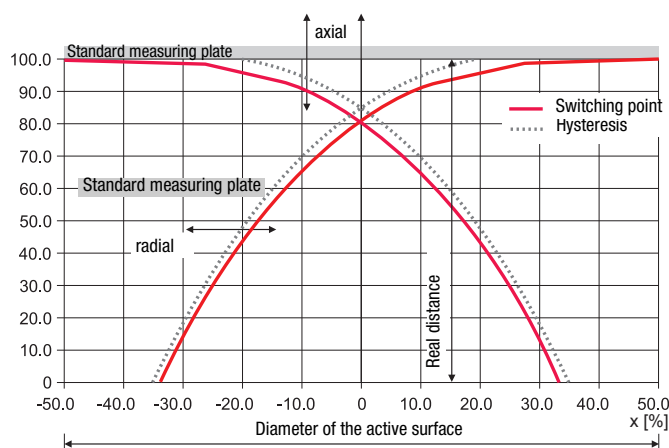
Housing PA GF  
Standard measuring plate 60 x 60mm<sup>2</sup>, Fe360  
Active surface PA GF  
Weight (M12 plug/cable) approx. 120g  
Connection type M12 connector

### Environmental data

Ambient temperature -25°C ... +85°C  
Protection class IP 67, IP 69K  
Protective circuit <sup>3)</sup> 1, 2  
Standards applied IEC/EN 60947-5-2  
Electromagnetic compatibility IEC 61000-4-2 Air 8kV (ESD)  
IEC 61000-4-3 10V/m (RFI)  
IEC 61000-4-4 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](http://www.leuze.com).

	Designation	Part No.
$S_n = 20\text{mm}$	ISS 244PP.1/44-20E-S12	50133520

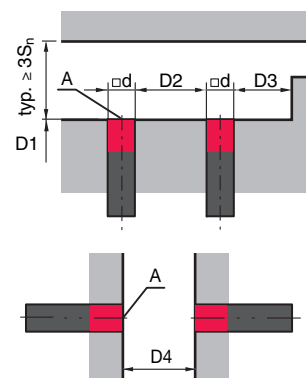
## Tables

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

Steel Fe360	1
Copper	0.29
Aluminum	0.32
Brass	0.40
Stainless steel	0.75

## 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

### 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.