

ISS 208 (short construction)

Inductive switches

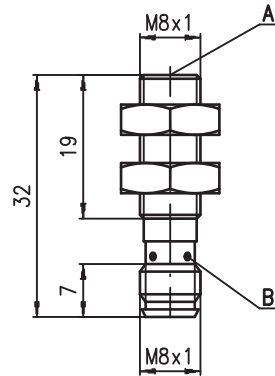
Dimensioned drawing



en 01-2011/09 50117146

	M8 2mm
	10 - 30 V DC
	5 kHz embedded

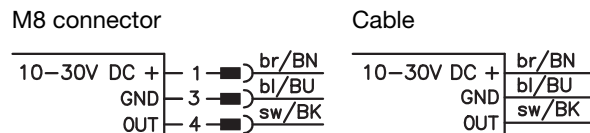
- Slim and short cylindrical metal housing M8
- Stainless steel housing
- Built-in short circuit protection, inductive protection and polarity reversal protection
- LED for switching state visible from 360°



Tightening torque of the fastening nuts < 10Nm !

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

Electrical connection

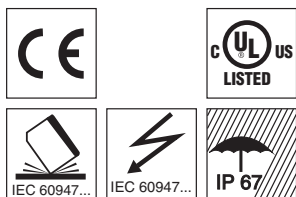


Accessories:

(available separately)

- M8 connectors (D M8...)
- Ready-made cables (K-D ...)
- Mounting clamp (MC 008...)

We reserve the right to make changes • DS_ISS_208_E_en.fm



Specifications

General specifications

Type of installation	
Typ. operating range limit S_n	2.0mm
Operating range S_a	0 ... 1.6mm

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	≤ 10 mA
Residual current I_r	≤ 100 μ A
Switching output/function	.../4NO... PNP transistor, make-contact (NO) .../4NC... PNP transistor, break-contact (NC) .../2NO... NPN transistor, make-contact (NO) .../2NC... NPN transistor, break-contact (NC)

Voltage drop U_d		
Hysteresis H of S_r		$\leq 10\%$
Temperature drift of S_r	$\leq 10\%$ 2)	$\leq 5\%$
Repeatability	$\leq 4.7\%$ 3)	$\leq 5\%$

Timing

Switching frequency f	5kHz
Delay before start-up	≤ 50 ms

Indicators

Yellow LED (visible from 360°)	switching state
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Mechanical data

Housing	stainless steel
Standard surface plate	8 x 8mm ² , Fe360
Active surface	PA12
Weight (M8 plug/cable)	approx. 8g/approx. 70g
Connection type	M8 connector, 3-pin or cable: 2m, PVC, 3 x 0.14mm ² , \varnothing 3.5mm

Environmental data

Ambient temperature	-25°C ... +70°C
Protection class	IP 67
Protective circuit 4)	1, 2, 3
Standards applied	IEC/EN 60947-5-2
Electromagnetic compatibility	IEC 60255-5 1kV IEC 61000-4-2 Level 3 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; for UL applications: only for use in "Class 2" circuits acc. to NEC
- 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

Order guide

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

	Designation	Part No.
$S_n = 2$ mm	ISS 208 MM/4NO-2E0-S8.3	50117201

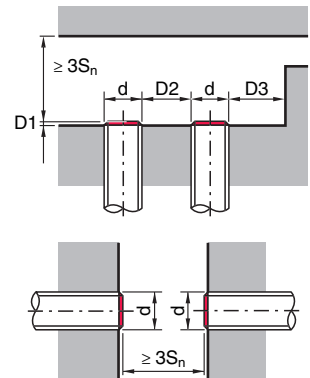
Tables

Reduction factors:
for $S_n = 2.0$ mm

Steel Fe360	1
Copper	0.25
Aluminum	0.25
Brass	0.35
Stainless steel	0.65

Mounting

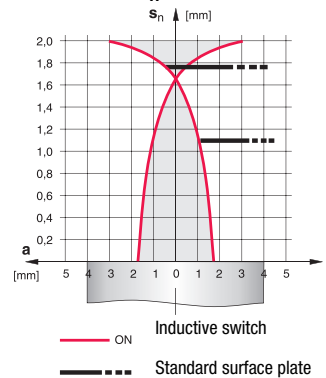
Embedded installation:



Ferromagnetic and non-ferromagnetic materials			
S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]
2.0	0	4.0	2.0

Diagrams

Models with $S_n = 2.0$ mm



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Inductive switches

Part number code

I	S	S	2	0	8	M	M	/	4	N	0	-	2	E	0	-	S	8	.	3
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Operating principle / construction

ISS Inductive switch / short construction

Series

208 Series with M8 x 1 external thread

Housing / thread

MM Metal housing (active surface: plastic) / metric thread

Output function

4NO PNP transistor, make-contact (NO)

4NC PNP transistor, break-contact (NC)

2NO NPN transistor, make-contact (NO)

2NC NPN transistor, break-contact (NC)

Measurement range / type of installation

2E0 Typ. scan range limit 2.0mm / embedded installation

Electrical connection

N/A Cable, PVC, standard length 2000mm

S8.3 M8 connector, 3-pin, axial

Remarks

● **Approved purpose:**

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.

