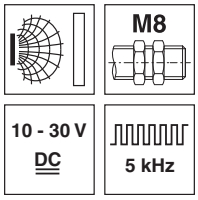
ISS 208 (short construction) — Inductive switches

en 01-2011/09 50117146

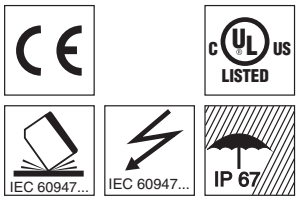




2mm

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°

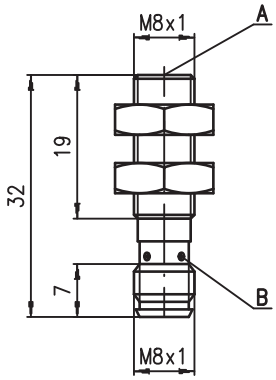


Accessories:

(available separately)

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

Dimensioned drawing

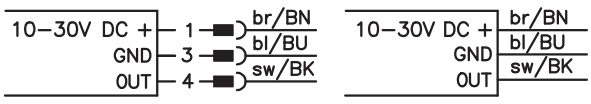




Tightening torque of the fastening nuts < 10Nm !

A Active surface
B Yellow indicator diode

Electrical connection



We reserve the right to make changes • DS_ISS_208_E_en.fm

Specifications

General specifications		IS 208…-2E0…	
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		≤ 20% of U_B	
Output current I_L		≤ 200mA	
Open-circuit current I_0		≤ 10mA	
Residual current I_r		≤ 100µA	
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		≤ 2V	
Hysteresis H of S_r			≤ 10%
Temperature drift of S_r		≤ 10% [2]	
Repeatability		≤ 4.7% [3]	≤ 5%
Timing			
Switching frequency f		5kHz	
Delay before start-up			≤ 50ms
Indicators			
Yellow LED (visible from 360°)		switching state	
Mechanical data			
Housing		stainless steel	
Standard surface plate		8 x 8mm², Fe360	
Active surface		PA12	
Weight (M8 plug/cable)		approx. 8g/approx. 70g	
Connection type		M8 connector, 3-pin or cable: 2m, PVC, 3 x 0.14mm², Ø 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 … 30VDC, ambient temperature T_a = 23°C ± 5°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 = 2mm	ISS 208 MM/4N0-2E0-S8.3	50117201

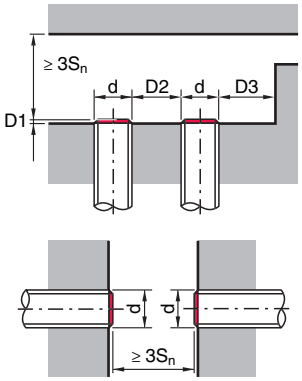
Tables

Reduction factors: for S_n = 2.0mm

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

Mounting

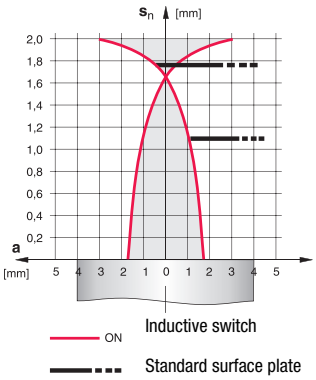
Embedded installation:



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 = 2.0mm**



ISS 208 (short construction) — Inductive switches

Part number code

I	S	S	2	0	8		M	M	/	4	N	O	-	2	E	0	-	S	8	.	3

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 2.0 mm / embedded installation

Electrical connection

N/A	Cable, PVC, standard length 2000 mm
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.

ISS 208 (short construction)