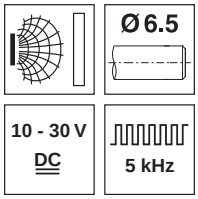
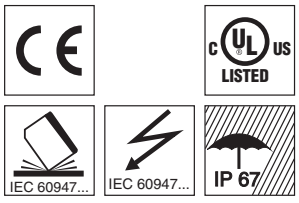
ISS 206

Inductive switches

Part No. 501 11723



- Slim and very short cylindrical metal housing Ø 6.5mm
- Chromium-plated brass or stainless steel housing
- Built-in short circuit protection, inductive protection and polarity reversal protection
- LED for switching state visible from 360°

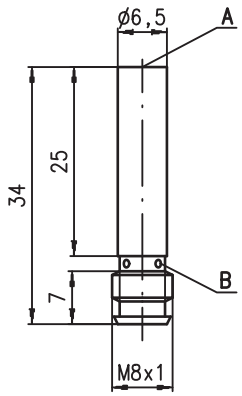


Accessories:

(available separately)

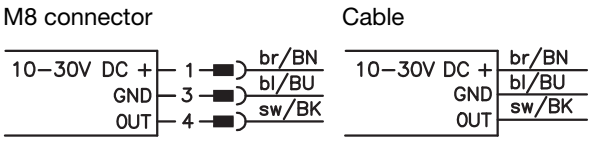
- M8 connectors (D M8…)
- Ready-made cables (K-D …)
- Mounting clamp (MC 006…)

Dimensioned drawing



A Active surface
B Yellow indicator diode

Electrical connection



Specifications

General specifications		**ISS 206…-2E0…**
Type of installation		embedded 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		≤ 2% [3]
Timing		
Switching frequency f		5kHz
Delay before start-up		≤ 10ms
Indicators		
Yellow LED (visible from 360°)		switching state
Mechanical data		
Housing		stainless steel
Standard surface plate		6.5 x 6.5mm², Fe360
Active surface		PA12
Weight (M8 plug/cable)		approx. 5g/approx. 60g
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 206 MP/4NO-2E0-S8.3	501 11438

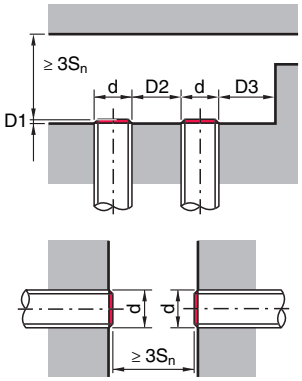
Tables

Reduction factors: for S_n = 2.0mm

Steel Fe360	1
Copper	0.25
Aluminum	0.30
Brass	0.40
Stainless steel	0.70

Mounting

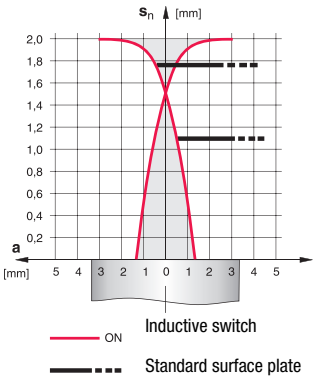
Embedded installation:



Ferromagnetic and non-ferromagnetic materials			
S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]
2.0	0	4.5	1.75

Diagrams

Models with **S_n = 2.0mm**



Type key

I	S	S		2	0	6		M	P	/	4	N	O	-	2	E	0	-	S	8	.	3

Operating principle / construction

ISS	Inductive switch / short construction

Series

206	series with Ø 6.5 mm

Housing / thread

MP	metal housing (active surface: plastic) / smooth (without 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
200-S8.3	cable, PVC, length 200 mm with M8 connector, 3-pin, axial

Remarks

- **Approved purpose**:
  Inductive switches are electronic sensors used for the inductive, contactless detection of objects.