

Technical data sheet

Inductive switch

Part no.: 50151090

IS C22PP/2NC-5E0

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Diagrams
- Operation and display
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For illustration purposes only



Technical data

Basic data

Series	C22
type. operating range limit S_n	5 mm
Operating range S_a	0 ... 4 mm

Characteristic parameters

MTTF	410 years
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Electrical data

Protective circuit	Inductive protection
	Polarity reversal protection
	Short circuit protected

Performance data

Supply voltage U_B	10 ... 30 V, DC
Residual ripple	0 ... 10 %, From U_B
Open-circuit current	0 ... 10 mA
Temperature drift, max. (in % of S_r)	10 %, Over the entire operating temperature range
Repeatability, max. (in % of S_r)	3 %, For $U_B = 20 ... 30$ VDC, ambient temperature $T_a = 23^\circ\text{C} \pm 5^\circ\text{C}$
Switching hysteresis	10 %

Outputs

Number of digital switching outputs	1 Piece(s)
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Switching outputs

Voltage type	DC
Switching current, max.	100 mA
Residual current, max.	0.1 mA
Voltage drop	2 V

Switching output 1

Switching element	Transistor, NPN
Switching principle	NO (normally open)

Time behavior

Switching frequency	800 Hz
Readiness delay	100 ms

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Gray
Number of conductors	3 -wire
Wire cross section	0.2 mm ²

Mechanical data

Design	Cubic
Dimension (W x H x L)	18 mm x 18 mm x 36 mm
Type of installation	Embedded/flush
Housing material	Plastic
Plastic housing	ABS
Sensing face material	Plastic, Polybutylene (PBT)
Net weight	60 g
Housing color	Red, RAL 3000 Silver
Type of fastening	Through-hole mounting
Standard measuring plate	15 x 15 mm ² , Fe360

Operation and display

Type of display	LED
Number of LEDs	1 Piece(s)

Environmental data

Ambient temperature, operation	-25 ... 70 °C
Ambient temperature, storage	-25 ... 70 °C

Certifications

Degree of protection	IP 67
Protection class	II
Test procedure for EMC in accordance with standard	IEC 61000-4-2
	IEC 61000-4-3
	IEC 61000-4-4
Standards applied	IEC 60947-5-2

Correction factors

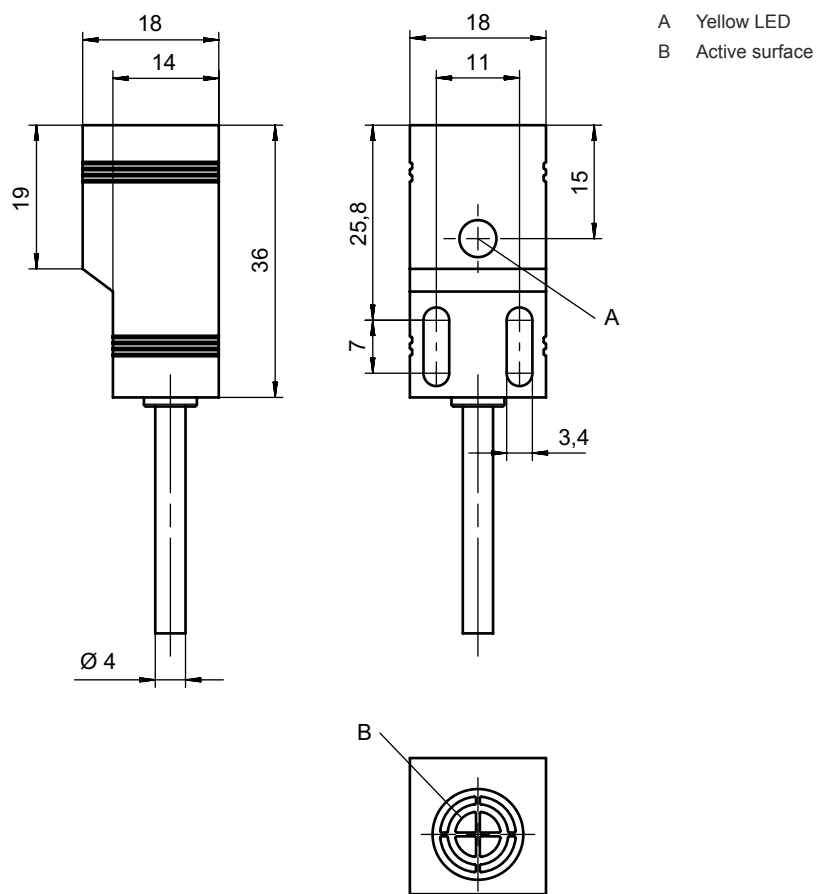
Aluminum	0.41
Stainless steel	0.65
Copper	0.42
Fe360 steel	1

Classification

Customs tariff number	85365019
ECLASS 5.1.4	27270101
ECLASS 8.0	27270101
ECLASS 9.0	27270101
ECLASS 10.0	27270101
ECLASS 11.0	27270101
ECLASS 12.0	27274001
ECLASS 13.0	27274001
ECLASS 14.0	27274001
ECLASS 15.0	27274001
ECLASS 16.0	27274001
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
ETIM 8.0	EC002714
ETIM 9.0	EC002714
ETIM 10.0	EC002714

Dimensioned drawings

All dimensions in millimeters



Electrical connection

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Gray
Number of conductors	3 -wire
Wire cross section	0.2 mm ²

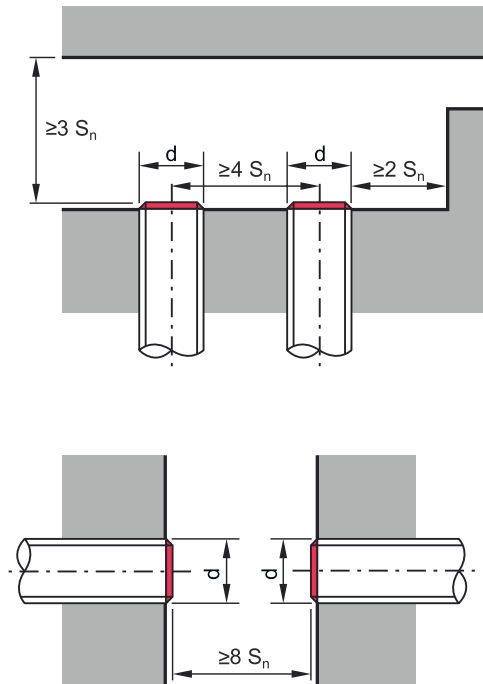
Conductor color

Brown	V+
Blue	GND
Black	OUT 1

Conductor assignment

Diagrams

Embedded/flush installation



Operation and display

LED	Display	Meaning
1	Yellow, continuous light	Switching output/switching state

Part number code

Part designation: **IS AAABB/CCC-DDD-EEE**


IS	Operating principle / construction IS: inductive switch, standard design
AAA	Series C08: series with M8 x 1 external thread C12: series with M12 x 1 external thread C18: series with M18 x 1 external thread C22: series in cubic design with 18 x 18 mm C30: series with M30 x 1,5 external thread
BB	Housing MM: metal housing (active surface: plastic) / metric thread PP: Plastic housing
CCC	Output current / supply 2NC: NPN transistor, NC contact 2NO: NPN transistor, NO contact 4NC: PNP transistor, NC contact 4NO: PNP transistor, NO contact

Part number code

DDD	<p>Measurement range / type of installation</p> <p>2E0: typ. range limit 2.0 mm / embedded/flush installation 2N5: typ. range limit 2.5 mm / non-embedded/non-flush installation 4E0: typ. range limit 4.0 mm / embedded/flush installation 4N0: typ. range limit 4.0 mm / non-embedded/non-flush installation 5E0: typ. range limit 5.0 mm / embedded/flush installation 8E0: typ. range limit 8.0 mm / embedded/flush installation 8N0: typ. range limit 8.0 mm / non-embedded/non-flush installation 10E: typ. range limit 10.0 mm / embedded/flush installation 12N: typ. range limit 12.0 mm / non-embedded/non-flush installation 15E: typ. range limit 15.0 mm / embedded/flush installation 15N: typ. range limit 15.0 mm / non-embedded/non-flush installation 16N: typ. range limit 16.0 mm / non-embedded/non-flush installation 30N: typ. range limit 30.0 mm / non-embedded/non-flush installation</p>
EEE	<p>Electrical connection</p> <p>n/a: cable, standard length 2000 mm, 3-wire M8: M8 connector, 3-pin (plug) M12: M12 connector, 4-pin (plug)</p>

Note	
	<p>↪ A list with all available device types can be found on the Leuze website at www.leuze.com.</p>

Notes

⚠ Observe intended use!	
	<p>↪ This product is not a safety sensor and is not intended as personnel protection.</p> <p>↪ The product may only be put into operation by competent persons.</p> <p>↪ Only use the product in accordance with its intended use.</p>