

Technical data sheet

Inductive switch

Part no.: 50153681

IS 130MM/1NC-15N-M12

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For illustration purposes only



Technical data

Basic data

Series	130
type. operating range limit S_n	15 mm
Operating range S_a	0 ... 12.2 mm

Electrical data

Protective circuit	Overload protection Polarity reversal protection Short circuit protected
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Performance data

Supply voltage U_B	20 ... 250 V, AC/DC
Residual ripple	10 %, From U_B
Open-circuit current	0 ... 1 mA
Temperature drift, max. (in % of S_r)	10 %
Switching hysteresis	10 %

Outputs

Number of digital switching outputs	1 Piece(s)
Switching current for AC	400 mA
Switching current for DC	100 mA

Switching outputs

Voltage drop	< 8 V
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Switching output 1

Switching element	Relay, NC
Switching principle	NC (normally closed)

Time behavior

Switching frequency	15 Hz
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Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Signal OUT Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin
Encoding	A-coded

Mechanical data

Design	Cylindrical
Dimension ($\varnothing \times L$)	30 mm x 82 mm
Thread size	M30 x 1.5 mm
Type of installation	Non-embedded
Housing material	Metal
Metal housing	Nickel-plated brass
Sensing face material	Plastic, ABS
Net weight	153 g
Housing color	Red, RAL 3000 Silver
Type of fastening	Mounting thread
Standard measuring plate	30 x 30 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
Standards applied	IEC 60947-5-2

Correction factors

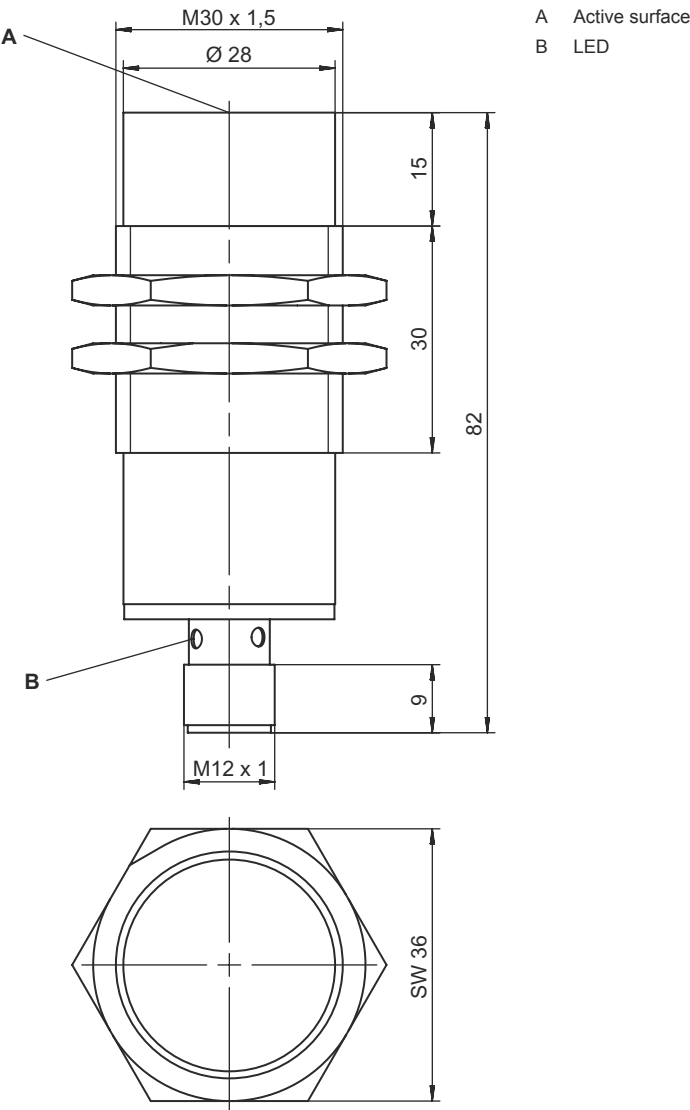
Aluminum	0.45
Stainless steel	0.8
Copper	0.4
Brass	0.5
Fe360 steel	1

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
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

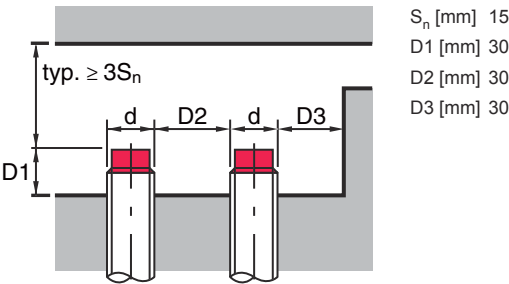
Function	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin
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Electrical connection

Pin	Pin assignment
1	V+
2	n.c.
3	GND
4	n.c.

Diagrams

Non-embedded installation



Operation and display

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

Part number code

Part designation: ISX YYY XX/ZZZ-AAA-BBBB

ISX	Operating principle / construction IS: inductive switch, standard design ISS: inductive switch, short construction
YYY	Series 104: series with Ø 4.0 mm 108: series with M8 x 1 external thread 112: series with M12 x 1 external thread 118: series with M18 x 1 external thread 122: series in cubic design with 18 x 18 mm 130: series with M30 x 1.5 external thread 144: series in cubic design with 40 x 40 mm 180: series in cubic design with 80 x 80 mm
XX	Housing MM: metal housing (active surface: plastic) / metric thread PP: Plastic housing MP: metal housing (active surface: plastic) / smooth (without thread)
ZZZ	Switching output 4NO: PNP transistor, NO contact 4NC: PNP transistor, NC contact 44: PNP transistor, NO contact / NC contact 2NO: NPN transistor, NO contact 2NC: NPN transistor, NC contact 22: NPN transistor, NO contact / NC contact 1NO: relay, NO contact / AC/DC 1NC: Relay, NC contact / AC/DC

Part number code

AAA	Measurement range / type of installation 1E2: typ. range limit 1.2 mm / embedded installation 2E0: typ. range limit 2.0 mm / embedded installation 4E0: typ. range limit 4.0 mm / embedded installation 4N0: typ. range limit 4.0 mm / non-embedded installation 5E0: typ. range limit 5.0 mm / embedded installation 6E0: typ. range limit 6.0 mm / embedded installation 8E0: typ. range limit 8.0 mm / embedded installation 8N0: typ. range limit 8.0 mm / non-embedded installation 10E: typ. range limit 10.0 mm / embedded installation 15N: typ. range limit 15.0 mm / non-embedded installation 16E: typ. range limit 16.0 mm / embedded installation 16N: typ. range limit 16.0 mm / non-embedded installation 20E: typ. range limit 20.0 mm / embedded installation 25N: typ. range limit 25.0 mm / non-embedded installation 30N: typ. range limit 30.0 mm / non-embedded installation 40N: typ. range limit 40.0 mm / non-embedded installation 50N: typ. range limit 50.0 mm / non-embedded installation 2E5: Typ. range limit 2.5 mm / embedded installation
DDD	Electrical connection n/a: cable, standard length 2000 mm, 3-wire M8.3: M8 connector, 3-pin (plug) M12: M12 connector, 4-pin (plug) TB.4: terminals, 4-pin 050: cable, standard length 5000 mm, 3-wire

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

Notes

 Observe 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 its intended use.