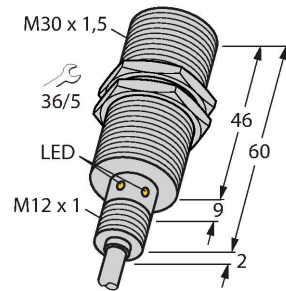


BI15U-EM30WD-AP6X

Inductive Sensor – For the Food Industry



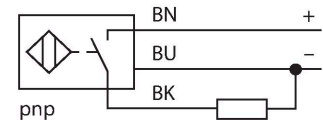
Features

- Threaded barrel, M30 x 1.5
- Stainless steel, 1.4404
- Front cap made of liquid crystal polymer
- Factor 1 for all metals
- Resistant to magnetic fields
- For temperatures of -40 °C...+100 °C
- High protection class IP69K for harsh environments
- Special double-lip seal
- Protection against all common acidic and alkaline cleaning agents
- Laser engraved label, permanently legible
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Technical data

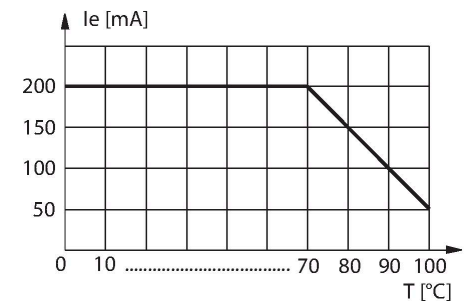
| | |
|----------------------------------------|------------------------------------------------------------|
| Type | BI15U-EM30WD-AP6X |
| ID | 1634819 |
| General data | |
| Rated switching distance | 15 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2 \%$ of full scale |
| Temperature drift | $\leq \pm 10 \%$ |
| | $\leq \pm 20 \%, \leq -25 \text{ °C}, \geq +70 \text{ °C}$ |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage U_B | 10...30 VDC |
| Ripple U_{ss} | $\leq 10 \%$ U_{Bmax} |
| DC rated operating current I_o | $\leq 200 \text{ mA}$ |
| No-load current | $\leq 25 \text{ mA}$ |
| Residual current | $\leq 0.1 \text{ mA}$ |
| Isolation test voltage | 0.5 kV |
| Short-circuit protection | yes/Cyclic |
| Voltage drop at I_o | $\leq 1.8 \text{ V}$ |
| Wire break/reverse polarity protection | yes/Complete |
| Output function | 3-wire, NO contact, PNP |
| DC field stability | 300 mT |
| AC field stability | 300 mT _{ss} |
| Insulation class | □ |

Wiring diagram



Functional principle

The inductive sensors for the food industry are absolutely tight and resistant to cleaning agents and disinfectants, thanks to the LCP front cap and the stainless steel housing.

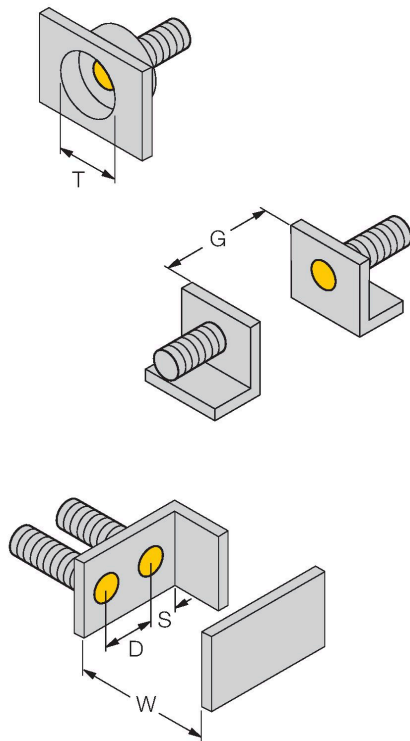


Technical data

| | |
|---------------------------------------|-------------------------------------------|
| Switching frequency | 0.75 kHz |
| Mechanical data | |
| Design | Threaded barrel, M30 x 1.5 |
| Dimensions | 66 mm |
| Housing material | Stainless steel, 1.4404 (AISI 316L) |
| Active area material | Plastic, LCP |
| End cap | Plastic, PP, transparent |
| Admissible pressure on front cap | ≤ 10 bar |
| Max. tightening torque of housing nut | 75 Nm |
| Electrical connection | Cable |
| Cable quality | Ø 5.2 mm, White, D12YSL9Y-OB, PP, 2 m |
| | halogen-free |
| Core cross-section | 3 x 0.34 mm ² |
| Environmental conditions | |
| Ambient temperature | -40...+100 °C |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP68 IP69K |
| MTTF | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state | LED, Yellow |

Mounting instructions

Mounting instructions/Description



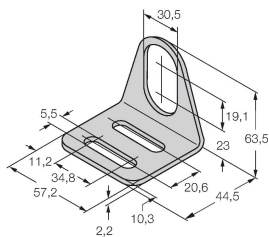
| | |
|------------------------|---------|
| Distance D | 60 mm |
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| Diameter active area B | Ø 30 mm |

All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

Accessories

MW30

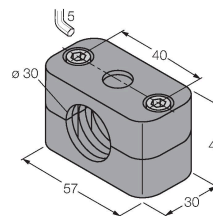
6945005



Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-30

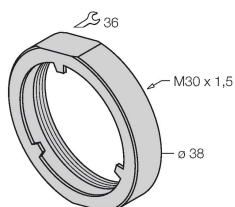
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Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

PN-M30

6905308



Protective nut for M30 x 1 threaded barrel devices; material: Stainless steel A2 1.4305 (AISI 303)