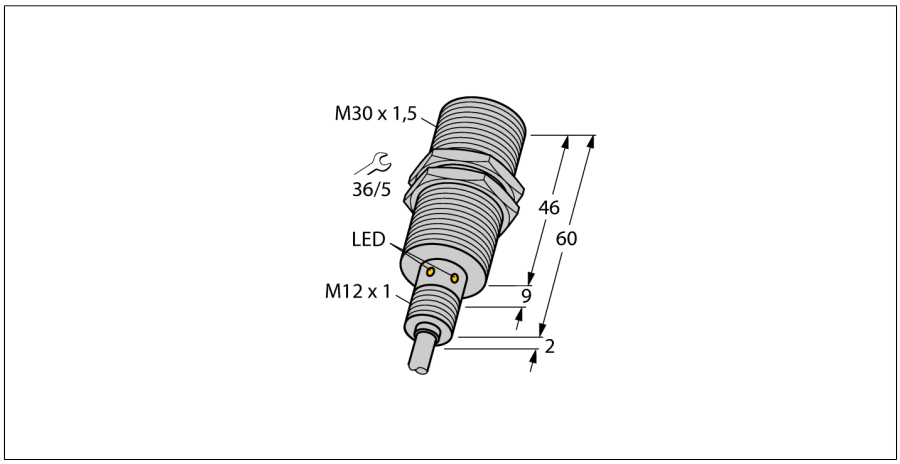
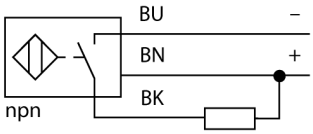
Inductive sensor
For the food industry
BI15U-EM30WD-AN6X 15M



Type code	BI15U-EM30WD-AN6X 15M
Ident no.	1634942
Rated switching distance Sn	15 mm
Mounting conditions	flush
Assured switching distance	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
	≤ ± 20 %, ≤ -25 °C , ≥ +70 °C
Hysteresis	3…15 %
Ambient temperature	-40…+100 °C
Operating voltage	10…30VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 20 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, NPN
Protective insulation	⧈
Switching frequency	0.75 kHz
Construction	threaded barrel, M30 x 1.5
Dimensions	66 mm
Housing material	stainless steel, V4A (1.4404)
Material active area	plastic, LCP
End cap	Plastic, PP, transparent
Admissible pressure on front cap	≤ 10 bar
Max. tightening torque housing nut	75 Nm
Connection	cable
Cable quality	5.2 mm, white, D12YSL9Y-OB, PP, 15m
	halogen-free
Cable cross section	3 x 0.34 mm²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
IP Rating	IP68 / IP69K
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

- **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**
- **Temperatures -40 °C … +100 °C**
- **High protection class IP69K, for harsh environments**
- **Special double-lip seal**
- **Protection against all common acid and alkaline cleaning agents**
- **Laser engraved label, permanently legible**
- **DC 3-wire, 10…30 VDC**
- **NO contact, NPN output**
- **Cable connection**

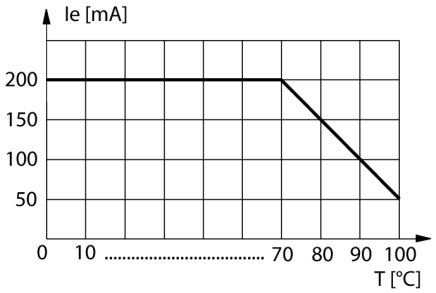
Wiring diagram



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.

Derating curve

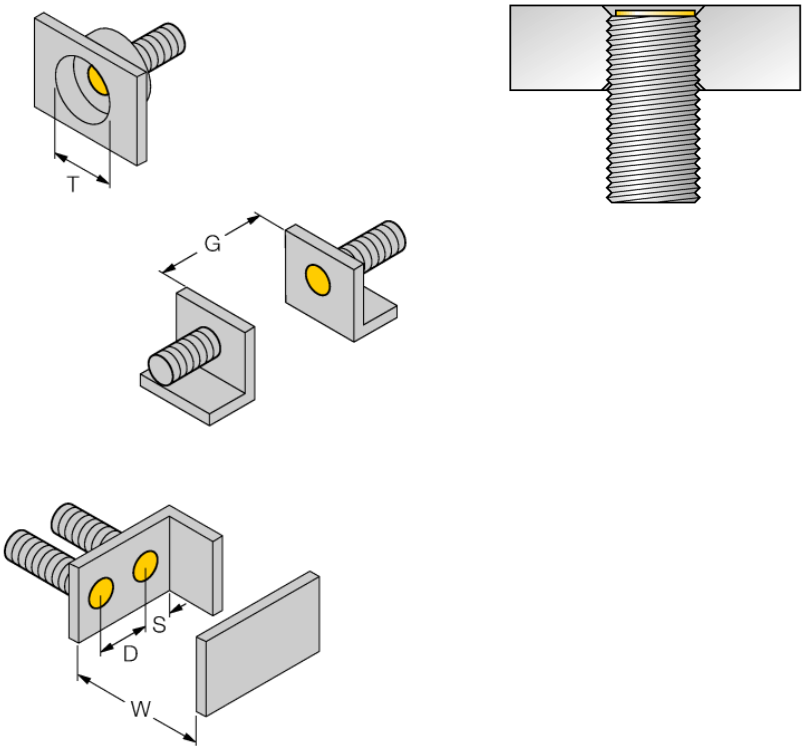


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Inductive sensor
For the food industry
BI15U-EM30WD-AN6X 15M

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 of the active area B	Ø 30 mm

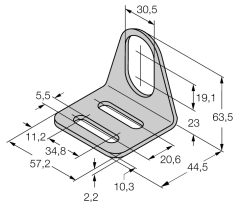
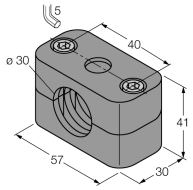
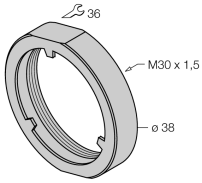


All flush mountable *uprox*®+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

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Accessories

Type code	Ident no.	Description	Design
MW-30	6945005	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-30	6901319	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	
PN-M30	6905308	Protective nut for M30 x 1 threaded barrel devices; material: Stainless steel A2 1.4305 (AISI 303)	

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