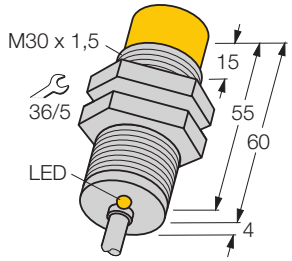
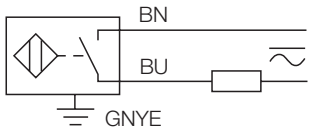
Inductive sensor
Ni15-M30-AZ3X

Industrial Automation



- **threaded barrel, M30 x 1.5**
- **Chrome-plated brass**
- **AC 2-wire, 20…250 VAC**
- **2-wire DC, 10…300 VDC**
- **normally open**
- **cable connection**

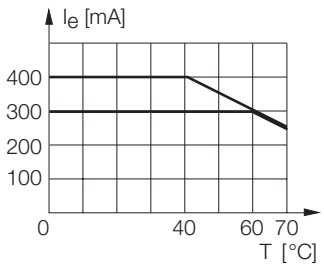
Wiring diagram



Type	Ni15-M30-AZ3X
Ident-No.	43165
Rated operating distance Sn	15 mm
Mounting condition	non-flush
Assured sensing range	(0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	2 %
Temperature drift	± 10 %
Hysteresis	3… 15 %
Ambient temperature	-25…+ 70 °C
Operating voltage	20… 250VAC
Operating voltage	10… 300VDC
AC rated operational current	400 mA
DC rated operational current	300 mA
Frequency	50… 60 Hz
Residual current	1.7 mA
Rated insulation voltage	1.5 kV
Surge current	8 A (10 ms max. 5 Hz)
Voltage drop at I_e	6V
Output function	2-wire, normally open
Smallest operating current I_m	≥ 3 mA
Switching frequency	0.02 kHz
Housing	threaded barrel, M30 x 1.5
Dimensions	64 mm
Housing material	metal, CuZn, chrome-plated
Material active face	plastic, PA12-GF30
End cap	plastic, EPTR
Tightening torque of housing nut	75 Nm
Connection	cable
Cable quality	Ø 5.2, LifYY, PVC, 2 m
Cable cross section:	3 x 0.5mm^2
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
Display switch state	LED red

Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. Conserning inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.



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Inductive sensor
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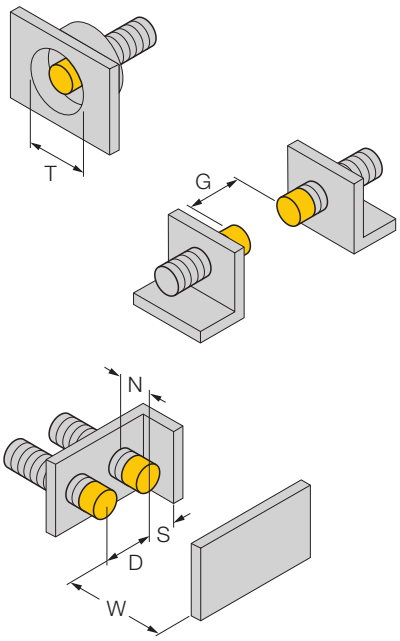
Mounting instructions	minimum distances
Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1,5 x B
Distance G	6 x Sn
Distance N	2 x Sn

Diameter of the active area B	Ø 30 mm



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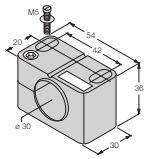
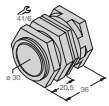
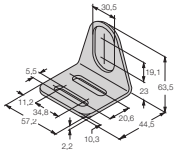
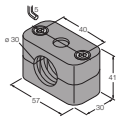
Accessories

Type code	Ident-No.	Short text	Dimension drawing
BST-30B	6947216	fixing clamp with dead-stop; material: PA6	
QM-30	6945103	quick-mount fixing clamp with dead-stop; material: chrome-plated brass male thread M36 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	
MW-30	6945005	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-30	6901319	fixing clamp; material: polypropylene	

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