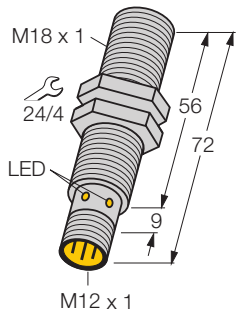
Inductive sensor
with selective performance
Bi5NF-EM18HE-AP6X2-H1141

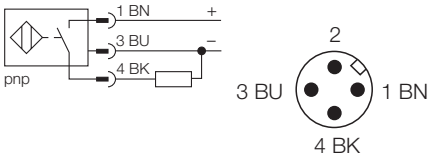
TURCK
Industrial Automation



- **Threaded barrel, M18 x 1**
- **long version**
- **stainless steel, 1.4301**
- **Front cap made of Duroplast, especially temperature and impact resistant**
- **detects non-ferromagnetic metals only**
- **3-wire DC, 10…30 VDC**
- **normally open, pnp output**
- **connector, M12 x 1**

Type	Bi5NF-EM18HE-AP6X2-H1141
Ident-No.	1615000
Rated operating distance Sn	5 mm
Mounting condition	flush
Assured sensing range	(0,81 x Sn) mm
Repeatability	2 %
Temperature drift	± 10 %
Hysteresis	3… 15 %
Ambient temperature	0…+ 60 °C
Operating voltage	10… 30VDC
Residual ripple	10 % U_{ss}
DC rated operational current	200 mA
No-load current I_0	15 mA
Residual current	0.1 mA
Rated insulation voltage	0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I_e	1.8V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Insulation class	
Switching frequency	2.5 kHz
Housing	threaded barrel, M18 x 1
Dimensions	72 mm
Housing material	metal, AISI 304
Material active face	plastic, Duroplast
Tightening torque of housing nut	25 Nm
Connection	connectors, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
Operating voltage display	LED green
Display switch state	LED yellow

Wiring diagram



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.
Inductive sensors with selective performance of the NF series detect non-ferrous metals only.

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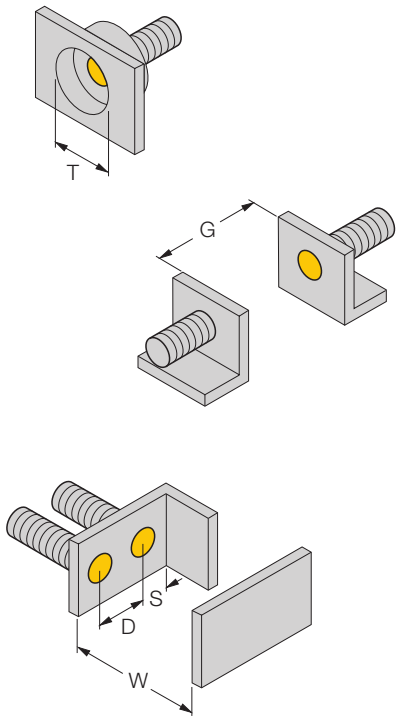
Mounting instructions	minimum distances
Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1,5 x B
Distance G	6 x Sn

Diameter of the active area B	Ø 18 mm



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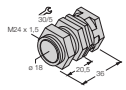
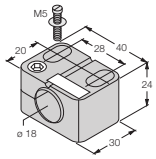
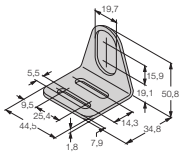
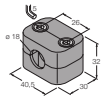
Accessories

Type code	Ident-No.	Short text	Dimension drawing
QM-18	6945102	quick-mount fixing clamp with dead-stop; material: chrome-plated brass male thread M24 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	
BST-18B	6947214	fixing clamp with dead-stop; material: PA6	
MW-18	6945004	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	fixing clamp; material: polypropylene	

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