

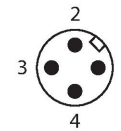
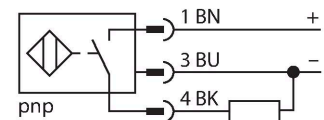
BI5NF-EM18HE-AP6X2-H1141

Inductive Sensor – With Selective Behaviour

Features

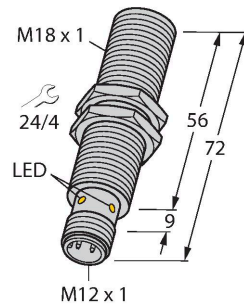
- Threaded barrel, M18 x 1
- Long version
- Stainless steel, 1.4301
- Duroplast front cap, very resistant to thermal and mechanical load
- Detects only non-ferromagnetic metal
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors of the NF series with selective performance detect non-ferrous metals only.



Technical data

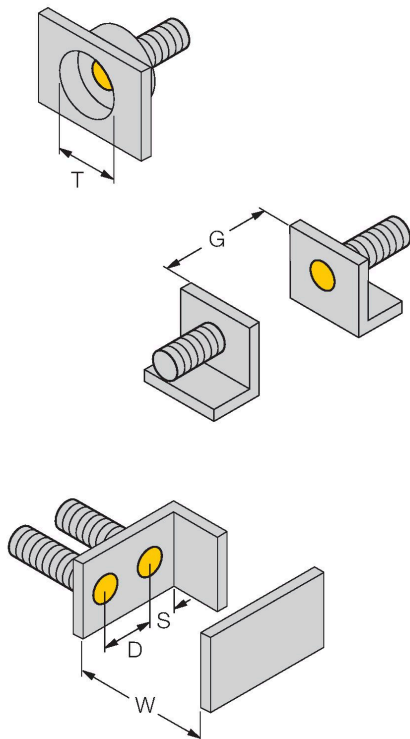
Type	BI5NF-EM18HE-AP6X2-H1141
ID	1615000
General data	
Rated switching distance	5 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current	15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Insulation class	□
Switching frequency	2.5 kHz
Mechanical data	
Design	Threaded barrel, M18 x 1

Technical data

Dimensions	72 mm
Housing material	Stainless steel, 1.4301 (AISI 304)
Active area material	Plastic, Duroplast
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	0...+60 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

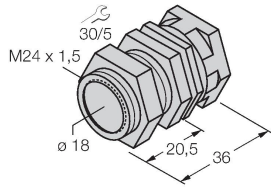
Mounting instructions/Description



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 active area B	Ø 18 mm

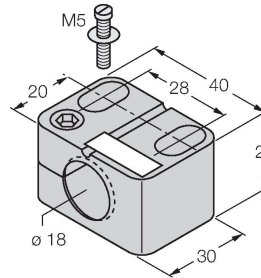
Accessories

QM-18 6945102



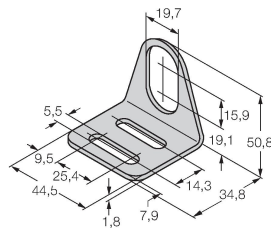
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-18B 6947214



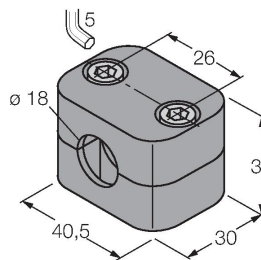
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

MW-18 6945004



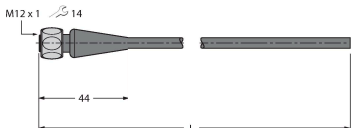
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-18 6901320



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

Wiring accessories

Dimension drawing	Type	ID	
	RKH4-2/TFE	6935482	Connection cable, M12 female, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, gray temperature range -25...+80 °C; other cable lengths and designs available, see www.turck.com
	RKH4-2/TFG	6934384	Connection cable, M12 female, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: TPE, gray temperature range -40...+105 °C; other cable lengths and designs available, see www.turck.com