

**Inductive sensor**  
**With selective behaviour**  
**BI10NF-S30-AP6X**



- Threaded barrel, M30 x 1.5
- Plastic, PA12-GF30
- Detects only non-ferromagnetic metal
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

**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.

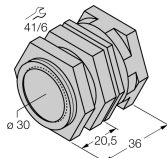
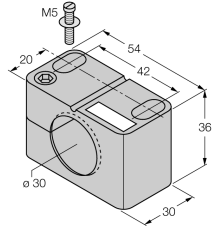
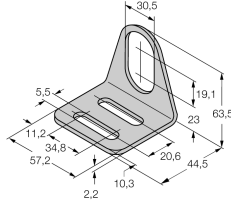
Inductive sensors of the NF series with selective performance detect non-ferrous metals only.

<b>Type designation</b>	BI10NF-S30-AP6X
Ident-No.	16115
<b>Rated switching distance Sn</b>	10 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0,81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
Ambient temperature	0...+60 °C
<b>Operating voltage</b>	10...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes/ Cyclic
Voltage drop at $I_0$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Protection class	□
Switching frequency	2 kHz
<b>Design</b>	Threaded barrel, M30 x 1.5
Dimensions	64 mm
Housing material	Plastic, PA12-GF30
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque housing nut	5 Nm
Electrical connection	Cable
Cable quality	5.2mm, LifYY, PVC, 2
Cable cross section	3 x 0.5 mm <sup>2</sup>
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
<b>Switching state</b>	LED, Yellow



**Inductive sensor  
With selective behaviour  
BI10NF-S30-AP6X**

**Accessories**

Type code	Ident-No.	Description	
QM-30	6945103	Quick-mount bracket 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-mount brackets.	
BST-30B	6947216	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
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	