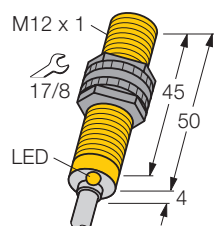


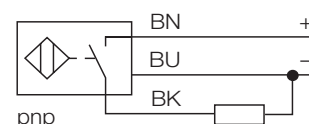
Inductive sensor

Bi3U-S12-AP6X



- threaded barrel, M12 x 1
- plastic, PBT-GF30-V0
- factor 1 for all metals
- degree of protection IP68
- magnetic field immune
- extended temperature range
- high switching frequency
- 3-wire DC, 10...30 VDC
- normally open pnp output
- cable connection

Wiring diagram



Function principles

Inductive proximity switches are designed for wear-free non-contact detection of metal objects. Due to a ferrite-less 3-coil system, Uprox factor 1 sensor have distinct advantages. The detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

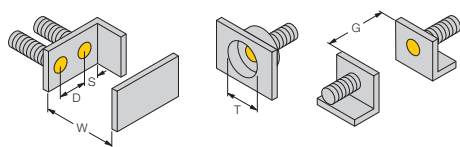
Type	Bi3U-S12-AP6X
Ident-No.	1634500
Rated operating distance S_n	3 mm
Mounting mode	flush
Hysteresis (switching distance)	3... 15 %
Min. repeat accuracy	$\leq 2 \%$
Temperature drift	$\leq \pm 10 \%$
Operating temperature	$\leq \pm 15 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$ -30 ...+ 85 °C
Rated operational voltage (DC) U_B	10... 30 VDC
Max. ripple	$\leq 10 \% U_{pp}$
Rated operational current (DC) I_e	$\leq 200 \text{ mA}$
No-load current I_0	$\leq 15 \text{ mA}$
Max. OFF-state current	$\leq 0,1 \text{ mA}$
Max. switching frequency	$\leq 3 \text{ kHz}$
Rated insulation voltage	$\leq 0,5 \text{ kV}$
Output function	3-wire, normally open, PNP
Short-circuit protection	yes, cyclic
Max. voltage drop at I_e	$\leq 1,8 \text{ V}$
Wire breakage / reverse polarity protection	yes / complete
Protection class	□
Housing style	threaded barrel; M12 x 1
Dimensions	54 mm
Housing material	plastic, PBT-GF20-V0
Active face	plastic, PBT-GF20-V0
Max. fixing torque of coupling nut	1 Nm
Wiring	cable
Cable	Ø 5,2, LifYY, PVC, 2 m
Cable cross section	3 x 0,34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 x g (11 ms)
Degree of protection	IP68
Switching status indication	LED yellow

Inductive sensor**Bi3U-S12-AP6X****Mounting instructions**

Gap D	minimum gap 2 x B
Gap W	3 x Sn
Gap T	3 x B
Gap S	1,5 x B
Gap G	6 x Sn

Diameter of active face B

Ø 12 mm



Inductive sensor

Bi3U-S12-AP6X

Accessories

Typ	Ident-No.	Description	Dimension drawing
QM-12	6945101	quick-mount fixing clamp with dead-stop; material: chrome-plated brass external thread M16 x 1	
BST-12B	6947212	fixing clamp with dead-stop; material: PA6	