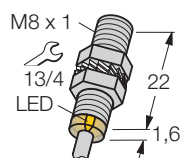
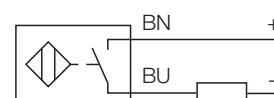


Inductive sensor with extended switching distance Bi2-EG08K-AG41X



- threaded barrel, M8 x 1
- stainless steel, 1.4404
- large detection range
- 2-wire DC, 10...55 VDC
- polarized version
- normally open
- cable connection

Wiring diagram



Functional principle

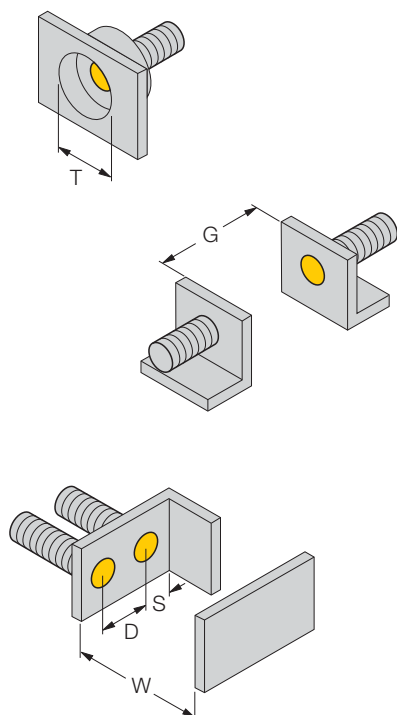
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

Type	Bi2-EG08K-AG41X
Ident-No.	4562010
Rated operating distance S_n	2 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	$\leq 2 \%$
Temperature drift	$\leq \pm 10 \%$
Hysteresis	1... 15 %
Ambient temperature	-25...+ 70 °C
Operating voltage	10... 55 VDC
Residual ripple	$\leq 10 \% U_{ss}$
DC rated operational current	≤ 100 mA
Residual current	≤ 0.6 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I_e	≤ 3.5 V
Output function	2-wire, NO contact, 2-wire
Smallest operating current I_m	≥ 3 mA
Switching frequency	≤ 1 kHz
Housing	threaded barrel, M8 x 1
Dimensions	23.6 mm
Housing material	Metal, V2A (1.4301)
Material active face	Plastic, plastic, PA12-GF20
End cap	Plastic, PP
Tightening torque of housing nut	10 Nm
Electrical connection	cables
Cable quality	Ø 4, LifYY-11Y, PUR, 2 m
Cable cross section:	2 x 0.25mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection class	IP67
Switching state	LED yellow

Inductive sensor with extended switching distance Bi2-EG08K-AG41X

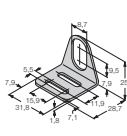
Mounting instructions	minimum distances
Distance D	$2 \times B$
Distance W	$3 \times S_n$
Distance T	$3 \times B$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$

Diameter of the active area B	$\varnothing 8 \text{ mm}$
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Inductive sensor with extended switching distance Bi2-EG08K-AG41X

Accessories

Type code	Ident-No.	Short text	Dimension drawing
BST-08B	6947210	Fixing clamp with dead-stop; material: PA6	
QM-08	6945100	Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M12 x 1. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets.	
MW-08	6945008	Mounting bracket; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-08	6901322	Fixing clamp; material: Polypropylene	