

BI3-GT12K-AD4X/S1589

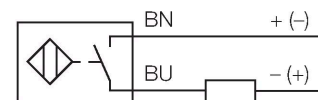
Inductive Sensor – With Weldguard® coating



Features

- Threaded barrel, M12 x 1
- Brass, PTFE-coated
- DC 2-wire, 10...65 VDC
- NO contact
- Cable connection

Wiring diagram



Technical data

Type	BI3-GT12K-AD4X/S1589
ID	44050841
Special version	S1589 Corresponds to: With weldguard coating
General data	
Rated switching distance	3 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Hysteresis	1...15 %
Electrical data	
Operating voltage U_B	10...65 VDC
Ripple U_{rs}	≤ 10 % U_{Bmax}
DC rated operating current I_B	≤ 100 mA
Residual current	≤ 0.6 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_B	≤ 5 V
Wire break/reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	1 kHz

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.

Technical data

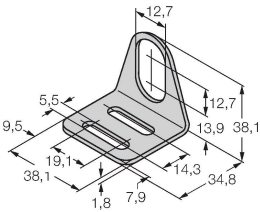
Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	34 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PA12-GF30, PTFE-coated
End cap	Plastic, EPTR
Max. tightening torque of housing nut	10 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	2 x 0.34 mm ²
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
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 12 mm

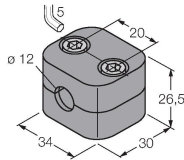
Accessories

MW126945003



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

BSS-126901321



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