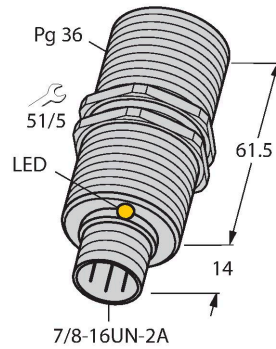


BI20-G47-RZ3X-B2131

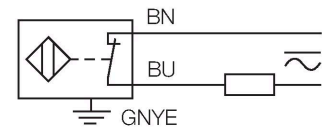
Inductive Sensor



Features

- PG36 threaded barrel
- Chrome-plated brass
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 7/8" connector

Wiring diagram

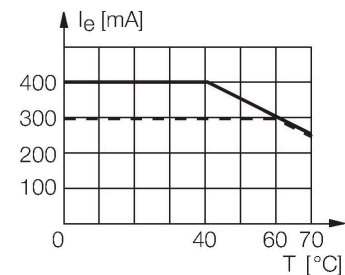


Technical data

Type	BI20-G47-RZ3X-B2131
Ident. no.	43760
Rated switching distance	20 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n) \text{ mm}$
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2 \text{ \% of full scale}$
Temperature drift	$\leq \pm 10 \text{ \%}$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400 \text{ mA}$
DC rated operational current	$\leq 300 \text{ mA}$
Frequency	$\geq 50 \dots \leq 60 \text{ Hz}$
Residual current	$\leq 1.7 \text{ mA}$
Isolation test voltage	$\leq 1.5 \text{ kV}$
Surge current	$\leq 8 \text{ A} (\leq 10 \text{ ms max. } 5 \text{ Hz})$
Voltage drop at I_o	$\leq 6 \text{ V}$
Output function	2-wire, NC contact
Smallest operating current	$\geq 3 \text{ mA}$
Switching frequency	0.02 kHz

Functional principle

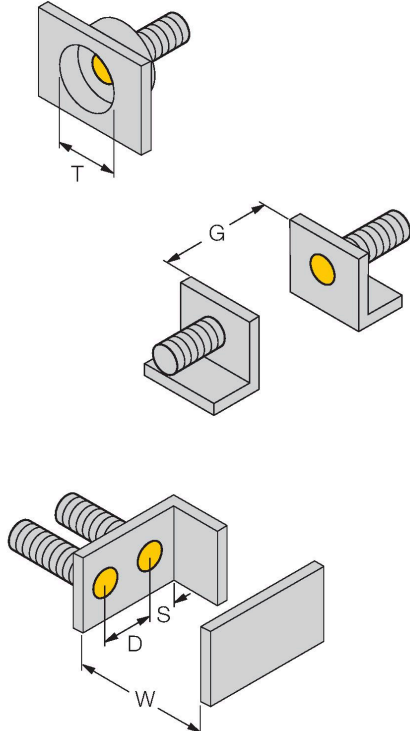
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.



Technical data

Design	Threaded barrel, G47
Dimensions	75.5 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Connector housing	plastic
Max. tightening torque of housing nut	90 Nm
Electrical connection	Connector, 7/8"
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 47 mm

Accessories

MW47

69452

Mounting bracket; material: Steel
plate, galvanized

