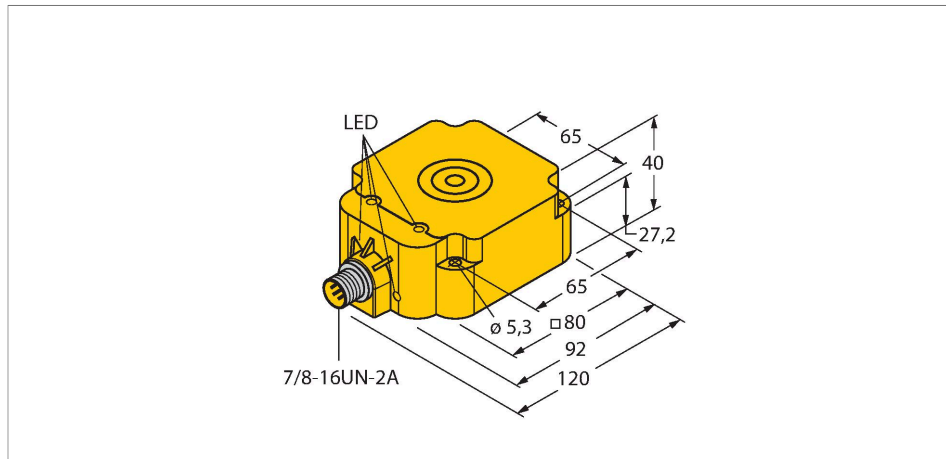


# BI50-Q80-ADZ30X2-B1131

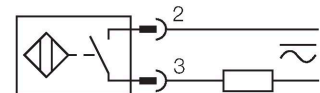
## Inductive Sensor – With Increased Switching Distance



### Features

- Rectangular, height 40 mm
- Active face on top
- Plastic, PBT-GF30-V0
- Large sensing range
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 7/8" male connector

### Wiring diagram

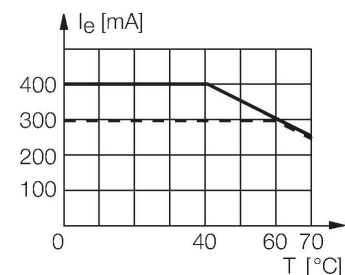


### Technical data

Type	BI50-Q80-ADZ30X2-B1131
ID	4200310
<b>General data</b>	
Rated switching distance	50 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	$\leq 2$ % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400$ mA
DC rated operational current	$\leq 300$ mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	$\leq 1.7$ mA
Isolation test voltage	$\leq 1.5$ kV
Surge current	$\leq 3$ A ( $\leq 20$ ms max. 5 Hz)
Short-circuit protection	yes / Latching
Voltage drop at $I_e$	$\leq 6$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	2-wire, NO contact, 2-wire

### 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.

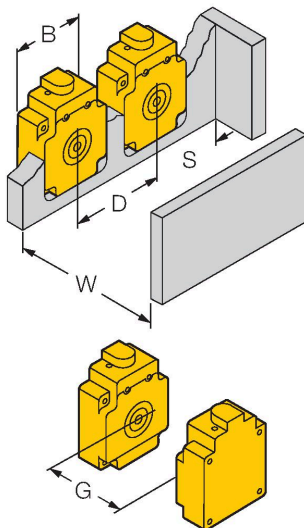


## Technical data

Smallest operating current	≥ 3 mA
Switching frequency	0.02 kHz
<b>Mechanical data</b>	
Design	Rectangular, Q80
Dimensions	92 x 80 x 40 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0, black
Tightening torque fixing screw	4 Nm
Electrical connection	Connector, 7/8"
<b>Environmental conditions</b>	
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
Power-on indication	LED, Green
Switching state	LED, Red

## Mounting instructions

### Mounting instructions/Description



Distance D	3 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Width active area B	80 mm