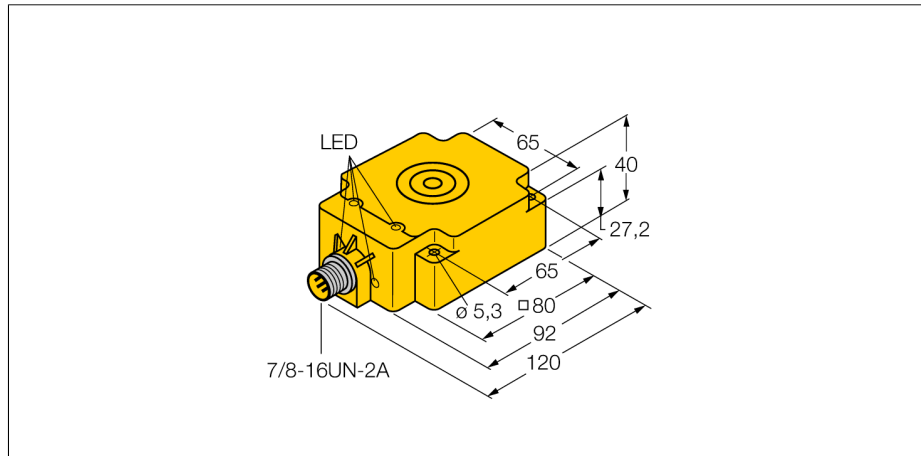
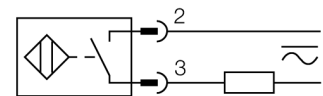


**Inductive sensor  
with extended switching distance  
Bi50-Q80-ADZ30X2-B1131**



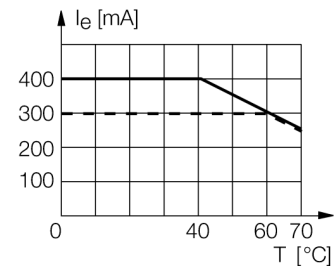
- Rectangular, height 40 mm
- Active face on top
- Plastic, PBT-GF30-V0
- Large detection range
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- Connector, 7/8"

**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.



<b>Type</b>	Bi50-Q80-ADZ30X2-B1131
Ident-No.	4200310
<b>Rated operating distance Sn</b>	50 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	≤ 2 %
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	20...250 VAC
Operating voltage	10...300VDC
AC rated operational current	≤ 400 mA
DC rated operational current	≤ 300 mA
Frequency	≥ 50...≤ 60 Hz
Residual current	≤ 1.7 mA
Rated insulation voltage	≤ 1.5 kV
Surge current	≤ 3 A (≤ 20 ms max. 5 Hz)
Short-circuit protection	yes/ latching
Voltage drop at I <sub>e</sub>	≤ 6 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	2-wire, NO contact
Smallest operating current I <sub>m</sub>	≤ 3 mA
Switching frequency	0.02 kHz
<b>Design</b>	rectangular, Q80
Dimensions	92 x 80 x 40 mm
Housing material	Plastic, PBT-GF30-V0
Connection	connector, 7/8"
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283years acc. to SN 29500 (Ed. 99) 40 °C
<b>Operating voltage</b>	LED green
Switching state	LED red

**Inductive sensor  
with extended switching distance  
Bi50-Q80-ADZ30X2-B1131**

Mounting instructions	minimum distances
Distance D	3 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn

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<b>Width of the active face B</b>	80 mm
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