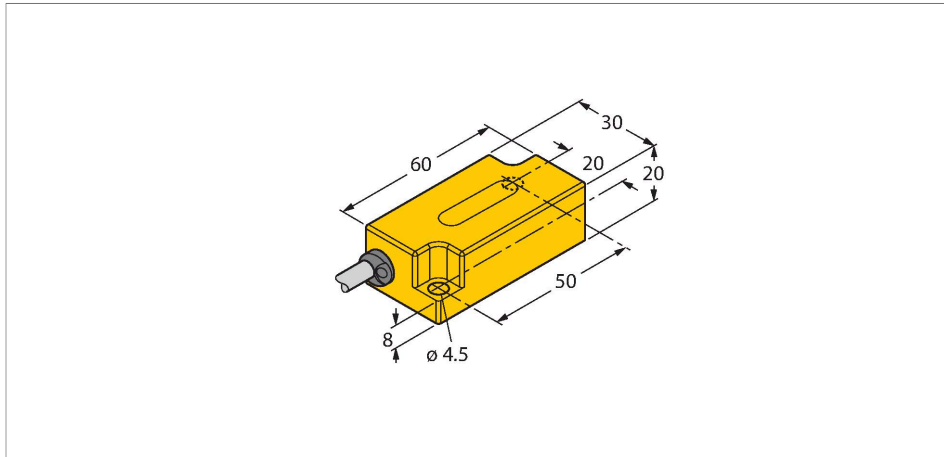


# B2N60H-Q20L60-2LU3/S97

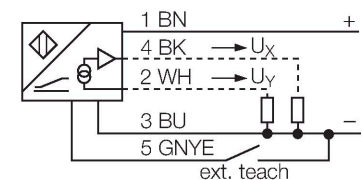
## Inclinometer – With Increased Temperature Range



### Features

- Plastic, PC
- Zero point calibration +/- 15°
- Two analog outputs
- Cable connection

### Wiring diagram

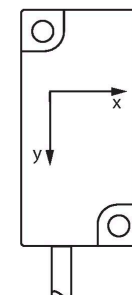
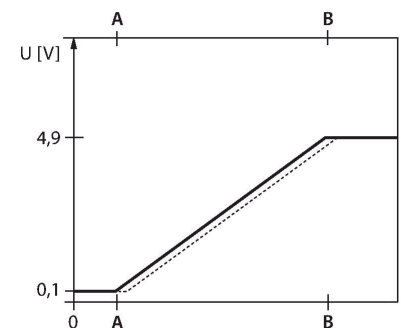
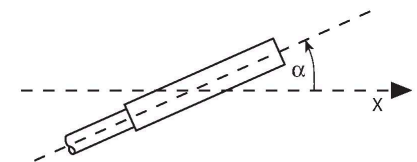


### Technical data

Type	B2N60H-Q20L60-2LU3/S97
ID	1534060
Measuring principle	Acceleration
<b>General data</b>	
Measuring range	-60...60 °
Measuring range x-axis	-60...60 °
Measuring range y-axis	-60...60 °
Number of measuring axes	2
Repeatability	≤ 0.2 % of measuring range  A - B
Linearity deviation	≤ 0.5 %
Temperature drift	≤ ± 0.025 %/K for temperature range between -40 °C and +85 °C
Resolution	≤ 0.14 °
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	no / yes
Surge protection	-48...48 VDC [U <sub>b,max.</sub> ]
Output function	4-wire, Analog output
Voltage output	0.1...4.9 V
Load resistance voltage output	≥ 40 kΩ
Response time	0.1 s

### Functional principle

Inclination is determined by a wear-free semiconducting sensor element.



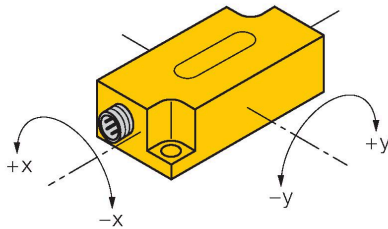
## Technical data

time for the output signal to achieve 90% of full scale if the angle changes from -60° to +60°

Current consumption	50 mA
<b>Mechanical data</b>	
Design	Rectangular, Q20L60
Dimensions	60 x 30 x 20 mm
Housing material	Plastic, PC
Active area material	PBT-GF20-V0
Electrical connection	Cable
Cable quality	Ø 5.5 mm, Lif32Y32Y, TPE, 2 m
	Low temp. flexible and E-chain capable
Core cross-section	5 x 0.34 mm <sup>2</sup>
<b>Environmental conditions</b>	
Ambient temperature	-40...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 IP69K
MTTF	203 years

## Mounting instructions

### Mounting instructions/Description



Width active area B 30 mm

#### Teaching

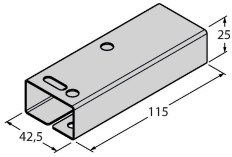
The zero point can be adjusted with teach adapter TX1-Q20L60.  
 Teach-GND is pressed for approx. 1 s to do this. The outputs are switched to 5 V as confirmation.  
 Teach-GND is pressed for 6 s to reset the axis zero points. The outputs are switched to 0 V as confirmation.  
 Once the teach button is released, the sensor returns to normal operation.

## Accessories

SG-Q20L60

6901100

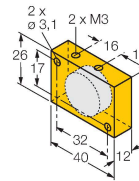
Protective housing for Q20L60 inclinometers for protecting against mechanical impact; material: Stainless steel



DM-Q12

6900367

Actuator, rectangular, plastic, attainable switching distance 58 mm on BIM-(E)M12 magnetic field sensors or 49 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3...5 mm



DMR20-10-4

6900214

Actuation magnet;  $\varnothing$  20 mm ( $\varnothing$  4 mm), h: 10 mm; attainable switching distance 59 mm on BIM-(E)M12 magnetic field sensors or 50 mm on BIM-EG08 magnetic field sensors; for Q25L linear position sensors: recommended distance between the sensor and magnet: 3...4 mm

