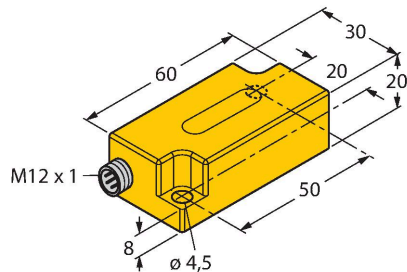


# B2N60H-Q20L60-2LI2-H1151/S97

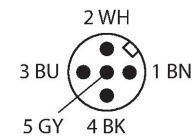
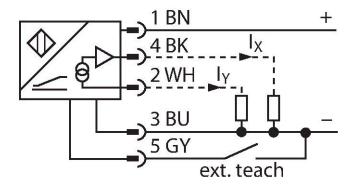
## Inclinometer – With Increased Temperature Range



### Features

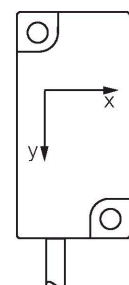
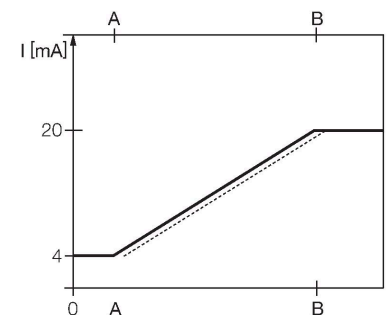
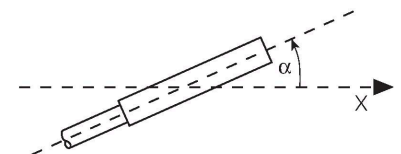
- Plastic, PC
- Zero point calibration  $\pm 15^\circ$
- Two analog outputs
- M12 x 1 male connector

### Wiring diagram



### Functional principle

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



### Technical data

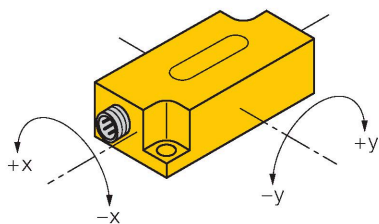
|  |  |
|--|--|
| Type                                   | B2N60H-Q20L60-2LI2-H1151/S97   |
| ID                                     | 1534046  |
| Measuring principle                    | Acceleration   |
| <b>General data</b>                    |  |
| Measuring range                        | $-60 \dots 60^\circ$   |
| Measuring range x-axis                 | $-60 \dots 60^\circ$   |
| Measuring range y-axis                 | $-60 \dots 60^\circ$   |
| Number of measuring axes               | 2  |
| Repeatability                          | $\leq 0.2\%$ of measuring range $ A - B $  |
| Linearity deviation                    | $\leq 0.5\%$   |
| Temperature drift                      | $\leq \pm 0.03\%/K$  |
|  | for temperature range between $-40^\circ C$ and $+85^\circ C$  |
| Resolution                             | $\leq 0.14^\circ$  |
| <b>Electrical data</b>                 |  |
| Operating voltage $U_b$                | 10...30 VDC  |
| Isolation test voltage                 | 0.5 kV   |
| Short-circuit protection               | yes  |
| Wire break/reverse polarity protection | no/yes   |
| Output function                        | 5-pin, Analog output   |
| Current output                         | 4...20 mA  |
| Load resistance current output         | $\leq 0.2\ k\Omega$  |
| Response time                          | 0.1 s  |
|  | time for the output signal to achieve 90% of full scale if the angle changes from $-60^\circ$ to $+60^\circ$ |
| Current consumption                    | 50 mA  |

Technical data

| Mechanical data          |                     |
|--------------------------|---------------------|
| Design                   | Rectangular, Q20L60 |
| Dimensions               | 60 x 30 x 20 mm     |
| Housing material         | Plastic, PC         |
| Electrical connection    | Connector, M12 × 1  |
| Environmental conditions |                     |
| Ambient temperature      | -40...+70 °C        |
| Vibration resistance     | 55 Hz (1 mm)        |
| Shock resistance         | 30 g (11 ms)        |
| Protection class         | IP68<br>IP69K       |
| MTTF                     | 203 years           |

Mounting instructions

Mounting instructions/Description

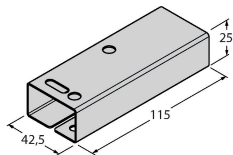


**Teaching**  
The zero point can be adjusted with teach adapter TX1-Q20L60.  
Teach-GND is pressed for approx. 1 s to do this. The outputs are switched to 20 mA as confirmation.  
Teach-GND is pressed for 6 s to reset the axis zero points. The outputs are switched to 4mA as confirmation.  
Once the teach button is released, the sensor returns to normal operation.

Accessories

GUARD-Q20L60 A9684

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



Accessories

| Dimension drawing   | Type       | ID      |   |
|---|------------|---------|---|
|  | TX1-Q20L60 | 6967114 | Teach adapter for inductive encoders, linear position, angle, ultrasonic and capacitive sensors |