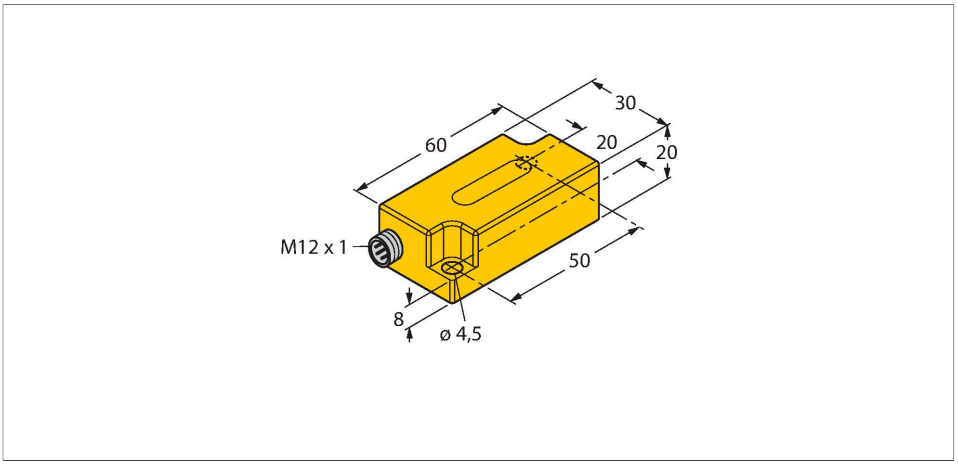
# B2N45H-Q20L60-2LU3-H1151/S97
# Inclinometer – With Increased Temperature Range



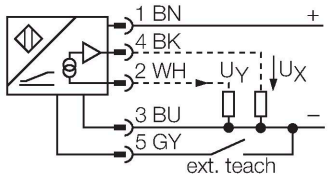

## Technical data

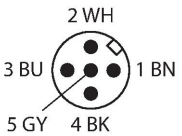
| | |
|---|---|
| Type | B2N45H-Q20L60-2LU3-H1151/S97 |
| ID | 1534039 |
| Measuring principle | Acceleration |
| **General data** | |
| Measuring range | -45…45 ° |
| Measuring range x-axis | -45…45 ° |
| Measuring range y-axis | -45…45 ° |
| Number of measuring axes | 2 |
| Repeatability | ≤ 0.2 % of measuring range \|A - B\| |
| Linearity deviation | ≤ 0.5 % |
| Temperature drift | ≤ ± 0.04 %/K |
| | for temperature range between -40 °C and +85°C |
| Resolution | ≤ 0.1 ° |
| **Electrical data** | |
| Operating voltage $U_B$ | 10…30 VDC |
| Isolation test voltage | 0.5 kV |
| Short-circuit protection | yes |
| Wire break/reverse polarity protection | no/yes |
| Surge protection | -48…48 VDC [$U_{b\,max.}$] |
| Output function | 5-pin, Analog output |
| Voltage output | 0.1…4.9 V |
| Load resistance voltage output | ≥ 40 kΩ |
| Response time | 0.1 s |

## Features

- Plastic, PC
- For temperatures up to - 40 °C
- Zero point calibration +/- 15°
- Two analog outputs
- M12 x 1 male connector

## Wiring diagram



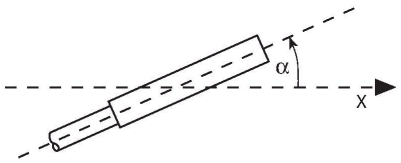

## Functional principle

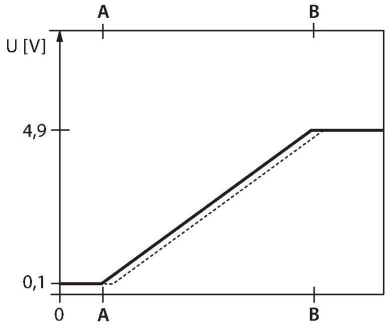
Inclination is determined by a wear-free semiconducting sensor element.

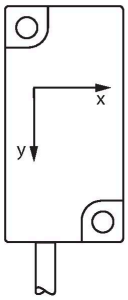
B2N45H-Q20L60-2LU3-H1151/S97| 02/21/2025 15-08 | technical changes reserved

## Technical data

| | |
|---|---|
| | time for the output signal to achieve 90% of full scale if the angle changes from -45° to +45° |
| Current consumption | 50 mA |
| **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 |

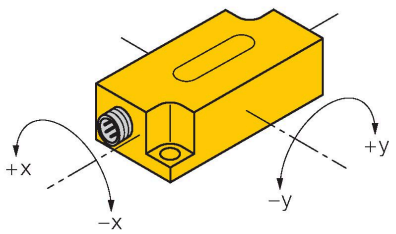



## Mounting instructions

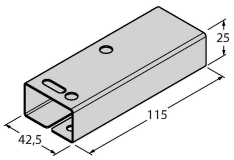
| Mounting instructions/Description |
|---|




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 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.

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## Accessories

| GUARD-Q20L60 | A9684 |
|---|---|
|  | Protective housing for Q20L60 inclinometers for protecting against mechanical impact; material: Stainless steel |

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