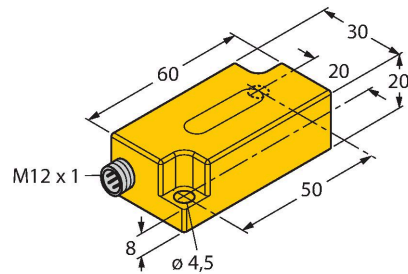


# B2N10H-Q20L60-2LU5-H1151

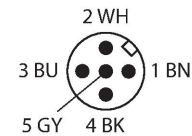
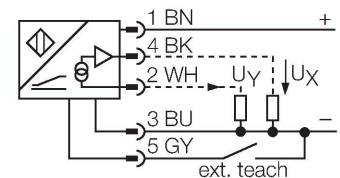
## Inclinometer



### Features

- Plastic, PC
- Zero point calibration  $\pm 5^\circ$
- Two analog outputs
- M12 x 1 male connector

### Wiring diagram



### Functional principle

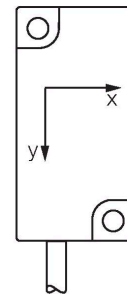
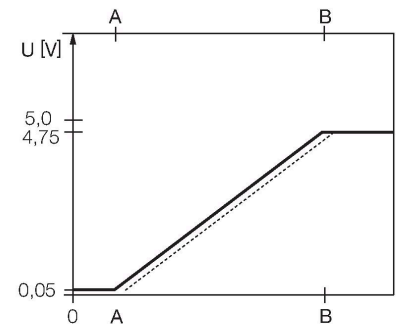
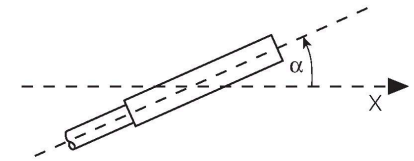
Inclination is determined by a wear-free semiconducting sensor element.

### Technical data

|                                           |                                                                                                           |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Type                                      | B2N10H-Q20L60-2LU5-H1151                                                                                  |
| ID no.                                    | 1534009                                                                                                   |
| Measuring principle                       | Acceleration                                                                                              |
| Measuring range                           | $-10 \dots 10^\circ$                                                                                      |
| Measuring range x-axis                    | $-10 \dots 10^\circ$                                                                                      |
| Measuring range y-axis                    | $-10 \dots 10^\circ$                                                                                      |
| Number of measuring axes                  | 2                                                                                                         |
| Repeatability                             | $\leq 0.2\%$ of measuring range $ A - B $                                                                 |
| Linearity deviation                       | $\leq 1\%$                                                                                                |
| Temperature drift                         | $\leq \pm 0.05\% / K$                                                                                     |
| Resolution                                | $\leq 0.04^\circ$                                                                                         |
| Absolute fault                            | $1^\circ$ [at $25^\circ C$ ]                                                                              |
| Ambient temperature                       | $-30 \dots +70^\circ C$                                                                                   |
| Operating voltage                         | $4.75 \dots 5.25$ VDC                                                                                     |
| Isolation test voltage                    | $\leq 0.5$ kV                                                                                             |
| Short-circuit protection                  | yes                                                                                                       |
| Wire breakage/Reverse polarity protection | no / yes                                                                                                  |
| Surge protection                          | $-16 \dots 16$ VDC [ $U_{b, max.}$ ]                                                                      |
| Output function                           | 5-pin, Analog output                                                                                      |
| Ratiometric output voltage                | $2 \dots 98\%$ $U_b$                                                                                      |
| Output impedance                          | $99 \dots 105\ \Omega$                                                                                    |
| Response time                             | 0.1 s                                                                                                     |
|                                           | time for the output signal to achieve 90% full scale if the angle changes from $-10^\circ$ to $+10^\circ$ |

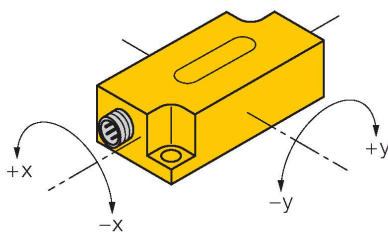
## Technical data

|                       |                                           |
|-----------------------|-------------------------------------------|
| Current consumption   | 50 mA                                     |
| Design                | Rectangular, Q20L60                       |
| Dimensions            | 60 x 30 x 20 mm                           |
| Housing material      | Plastic, PC                               |
| Electrical connection | Connector, M12 × 1                        |
| Vibration resistance  | 55 Hz (1 mm)                              |
| Shock resistance      | 30 g (11 ms)                              |
| Protection class      | IP68<br>IP69K                             |
| MTTF                  | 203 years acc. to SN 29500 (Ed. 99) 40 °C |



## 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.

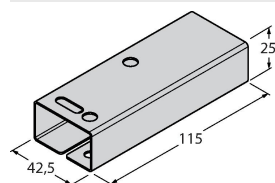
Teach-GND is pressed for 6 s to reset the axis zero points. The outputs are switched to 0 V as confirmation.

Once the teach button is released, the sensor returns to normal operation.

## Accessories

### GUARD-Q20L60

A9684



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