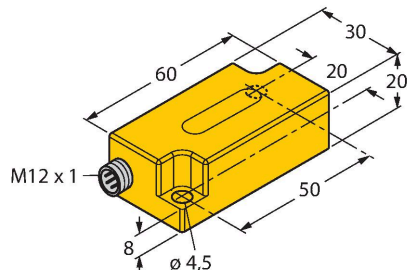


# B2N60H-Q20L60-2LU3-H1151/S97

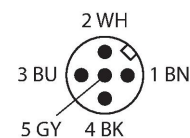
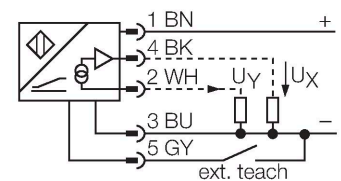
## Inclinometer – With Increased Temperature Range



### Features

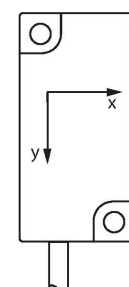
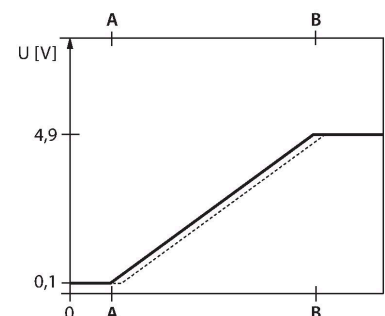
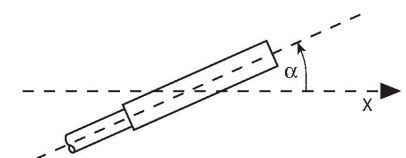
- Plastic, PC
- Zero point calibration  $\pm 15^\circ$
- Two analog outputs
- M12 x 1 male connector

### Wiring diagram



### Functional principle

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



### Technical data

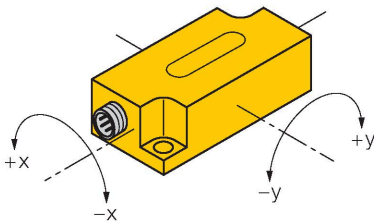
Type	B2N60H-Q20L60-2LU3-H1151/S97
ID	1534038
Measuring principle	Acceleration
<b>General data</b>	
Measuring range	$-60 \dots 60^\circ$
Measuring range x-axis	$-60 \dots 60^\circ$
Measuring range y-axis	$-60 \dots 60^\circ$
Number of measuring axes	2
Repeatability	$\leq 0.2\%$ of measuring range $ A - B $
Linearity deviation	$\leq 0.5\%$
Temperature drift	$\leq \pm 0.025\%/K$
	for temperature range between $-40^\circ C$ and $+85^\circ C$
Resolution	$\leq 0.14^\circ$
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	no / yes
Surge protection	$-48 \dots 48$ VDC $[U_{b \max}]$
Output function	5-pin, Analog output
Voltage output	0.1...4.9 V
Load resistance voltage output	$\geq 40$ 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 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.

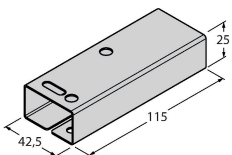
Once the teach button is released, the sensor returns to normal operation.

## 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