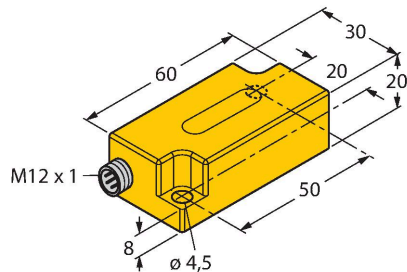


# B2N45H-Q20L60-2LU3-H1151/S97

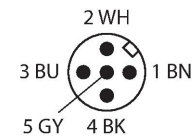
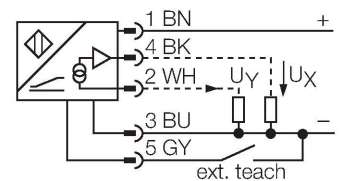
## Inclinometer – With Increased Temperature Range



### 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

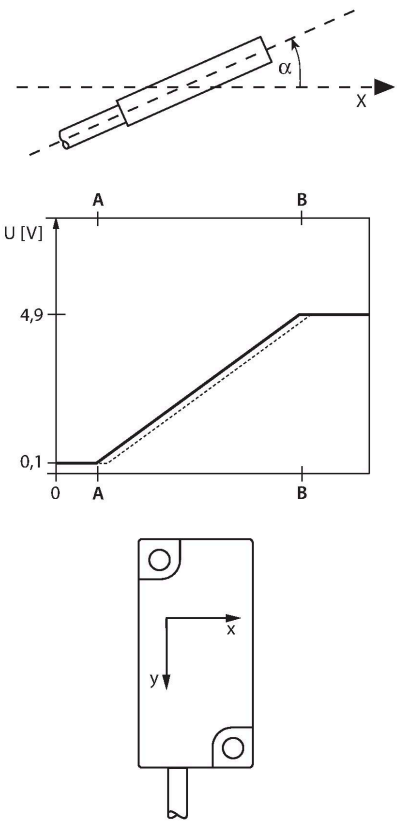
Inclination is determined by a wear-free semiconducting sensor element.

### Technical data

Type	B2N45H-Q20L60-2LU3-H1151/S97
ID	1534039
Measuring principle	Acceleration
<b>General data</b>	
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 °
<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	5-pin, Analog output
Voltage output	0.1...4.9 V
Load resistance voltage output	≥ 40 kΩ
Response time	0.1 s
	time for the output signal to achieve 90% of full scale if the angle changes from -45° to +45°
Current consumption	50 mA

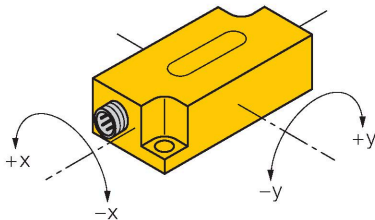
Technical data

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
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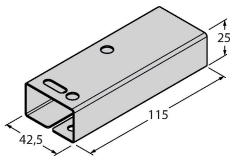


**Teaching**  
The zero point can be adjusted with teach adapter TX1-Q20L60.  
Teach-GND is pressed for approx. 1 s to do this. The outputs are switched to 5 V as confirmation.  
Teach-GND is pressed for 6 s to reset the axis zero points. The outputs are switched to 0 V as confirmation.  
Once the teach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

Accessories

GUARD-Q20L60	A9684
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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