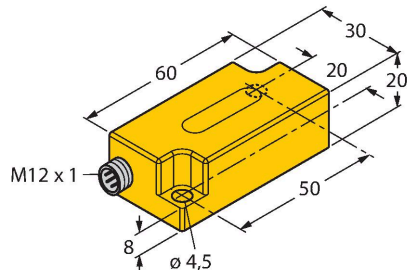


B1N360V-Q20L60-2LI2-H1151/S1217

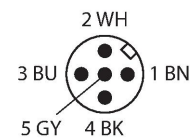
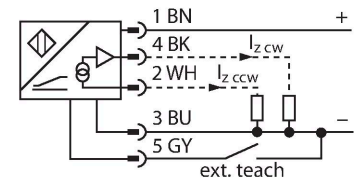
Inclinometer – with increased damping



Features

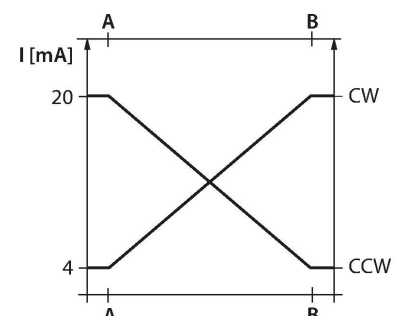
- Rectangular, plastic, PC
- Compact housing
- Connection via M12 x 1 male
- Response time 1 s
- Cutoff frequency 6 Hz
- Measuring range adjustable via teach adapter TX1-Q20L60
- 10...30 VDC
- Two counter-running 4 ... 20mA analog outputs improve machine safety through redundancy

Wiring diagram



Functional principle

The TURCK inclinometers incorporate a micromechanical pendulum, operating on the principle of MEMS technology (Mikro Elektro Mechanic Systems). The pendulum basically consists of two 'plate' electrodes arranged in parallel with a dielectric placed in the middle. When the sensor is inclined, the dielectric in the middle moves, causing the capacitance ratio between both electrodes to change. The downstream electronics evaluates this change in capacitance and generates a corresponding output signal.



Technical data

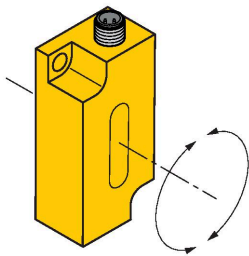
Type	B1N360V-Q20L60-2LI2-H1151/S1217
Ident. no.	1534058
Special version	S1217 = Inclinometers: 1 s response time and 6 Hz low-pass filter and level 8
Measuring range	0...360°
Number of measuring axes	1
Mounting conditions	Vertical
Repeatability	≤ 0.2 % of measuring range A - B
Linearity deviation	≤ 0.6 %
Temperature drift	≤ ± 0.05 % / K
Resolution	≤ 0.14°
Ambient temperature	-30...+70 °C
Operating voltage	10...30 VDC
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	yes / Complete
Output function	5-pin, Analog output
Current output	4...20 mA
	2 outputs, one for CW and one for CCW
Load resistance, current output	≤ 0.2 kΩ
Response time	1 s
	Time for the output signal to reach 90% of the adjusted measuring range
Current consumption	50...105 mA (voltage-dependent)
Design	Rectangular, Q20L60
Dimensions	60 x 30 x 20 mm
Housing material	Plastic, PC
Electrical connection	Connectors, M12 x 1

Technical data

Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K
MTTF	203 years acc. to SN 29500 (Ed. 99) 40 °C

Mounting instructions

Mounting instructions/Description



Accessories

GUARD-Q20L60

A 3D perspective drawing of a grey rectangular protective housing. The dimensions are labeled: 42,5 (width), 115 (length), and 25 (height).

A9684

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

Accessories

Dimension drawing	Type	Ident. no.	
A detailed 3D perspective drawing of the TX1-Q20L60 teach adapter. It is a yellow rectangular component with a circular top surface. Dimensions are labeled: 60 (length), 30 (width), 20 (height), 50 (depth), 8 (hole offset), 4.5 (hole diameter), 15 (thread diameter), and 42.5 (thread length). Two M12 x 1 threaded holes are shown on the side. A cable is connected to the front. Below the main component, a separate view shows the cable connector with dimensions 42.5 (length) and M12 x 1 (thread). <p>TX1-Q20L60</p>	6967114	Teach adapter for inductive encoders, linear position, angle, ultrasonic and capacitive sensors	