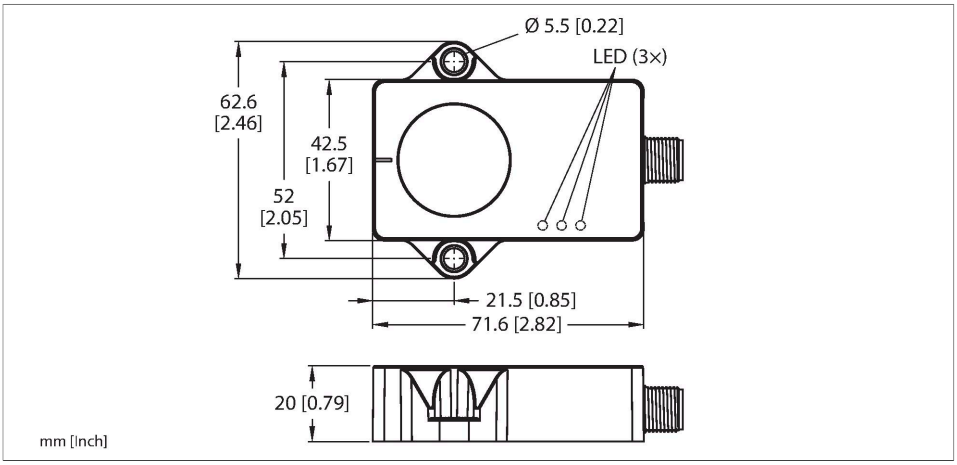
B2NF85H-QR20-IOLX3-H1141
Dynamic Inclinometer



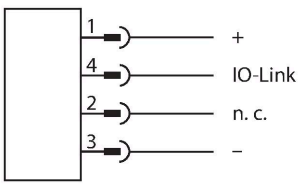
Technical data

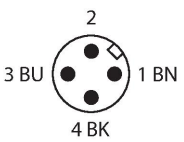
Type	B2NF85H-QR20-IOLX3-H1141
ID no.	100020901
Measuring principle	Fusion of gyroscopes and accelerometers
Measuring range	-85…85 °
Number of measuring axes	2
Repeat accuracy	≤ 0.06 % of full scale
Linearity deviation	≤ 0.15 %
Temperature drift	≤ ± 0.012 % / K
Resolution	≤ 0.01 °
Ambient temperature	-40…+85 °C
Temperature changes (EN60068-2-14)	-40… +85 °C; 20 cycles
Operating voltage	18…30 VDC
Residual ripple	≤ 10 % U_{ss}
Isolation test voltage	≤ 0.5 kV
Wire breakage/Reverse polarity protection	yes
Communication protocol	IO-Link
Current consumption	< 50 mA
Communication mode	COM 3 (230.4 kBaud)
Minimum cycle time	1.3 ms
Function Pin 4	IO-Link
Design	Rectangular, QR20
Dimensions	71.4 x 62.5 x 20 mm
Housing material	Plastic, Ultem
Electrical connection	Connector, M12 × 1

Features

- Rectangular, plastic, Ultem
- Status displayed via LED
- Angle detection via two axes with ±85 ° measuring range
- Temperature detection from -40 °C to 85 °C
- High protection class IP68/IP69K
- Protected against salt spray and rapid temperature change
- 18…30 VDC
- M12 × 1 connector, 4-pin
- Communication via IO-Link

Wiring diagram





Functional principle

The dynamic inclinometers use an acceleration measuring cell and a gyroscope sensor to determine angles. Influences caused by vibrations or interfering acceleration are minimized by applying an intelligent fusion

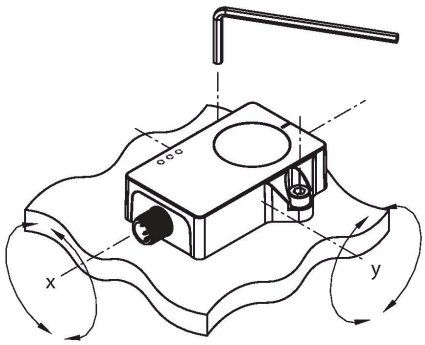
Technical data

Vibration resistance (EN 60068-2-6)	20 g; 5 h/axis; 3 axes
Shock resistance (EN 60068-2-27)	200 g; 4 ms ½ sine
Protection class	IP68 IP69K
MTTF	548 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Measuring range display	LED, yellow

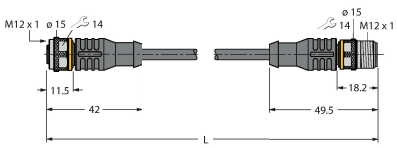
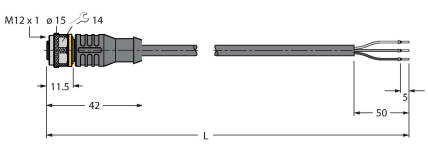
algorithm to the acceleration data and the rotation rate values. This enables the sensor to output a robust signal with impressive precision and speed, even in moving, dynamic applications.
The measuring principle used makes mounting and commissioning the device easy. The robust sensors are positioned with the cast side on a flat surface so that the casting compound is covered. The sensor is then secured with two screws.
The sensor can also record the temperature, which can be used to monitor the condition of the machine.

Mounting instructions

Mounting instructions/Description



Wiring accessories

Dimension drawing	Type	ID no.	
	RKC4T-2-RSC4T/TXL	6625604	Extension cable, M12 female, straight, 3-pin to M12 male, straight, 3-pin; cable length: 2 m, jacket material: PUR, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	RKC4T-2/TXL	6625500	Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see www.turck.com