

LT48E-Q21-LU0X3-H1141

Magnetically actuated linear position sensor



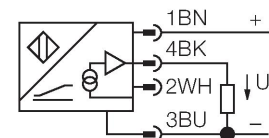
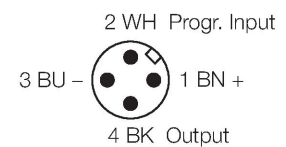
Features

- Rectangular, height 20.6 mm
- Metal, aluminium
- 4-wire, 10...30 VDC
- High repeatability
- Extremely high linearity
- Programmable measuring range
- Invertible output signal
- Analog output 0...10 VDC
- Male connector M12 x 1

Technical data

Type	LT48E-Q21-LU0X3-H1141
ID	LT0158
Measuring principle	Magnetostrictive
General data	
Measuring range	1219.2 mm
Resolution	12 bit
Blind zone connector end L3	76.2 mm
Blind zone non-connector end L4	38.1 mm
Repeat accuracy	≤ 0.01 % of full scale
Electrical data	
Operating voltage U_s	10...30 VDC
No-load current	≤ 80 mA
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes (voltage supply)
Output function	4-wire, Analog output
Voltage output	0...10 V
Current consumption	35 mA at 30 VDC, 80 mA at 10 VDC
Mechanical data	
Design	Profile, Q21
Dimensions	1333.5 x 34.8 mm
Housing material	Metal, AL, Anodized
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-40...+70 °C
Vibration resistance	20 Hz (1 mm)
Shock resistance	40 g (11 ms)

Wiring diagram

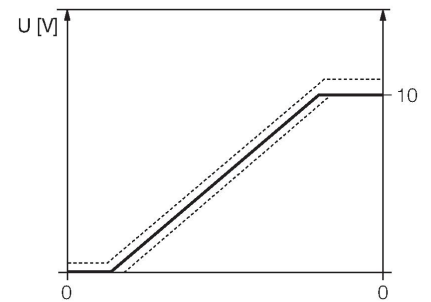


Functional principle

Magnetostrictive linear position sensors with analog output provide a signal that is proportional to the travel distance. Simple control tasks can thus be accomplished. These sensors feature an excellent repeat accuracy, resolution and linearity. Due to their extremely robust design, they are especially suited for industrial applications. They also excel in their high electromagnetic compatibility and stability over a wide temperature range. The sensors operate on the non-contact function principle and are thus wear and maintenance free.

Technical data

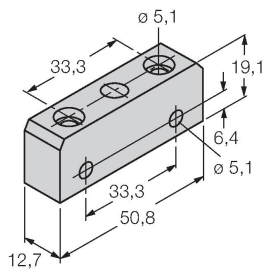
Protection class	IP67
Switching state	3-color LED, Green/yellow/red



Accessories

FM-Q21

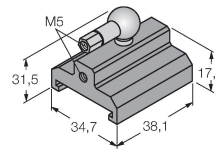
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Floating positioning element; this can be installed up to 9 mm away from the sensor

SM-Q21

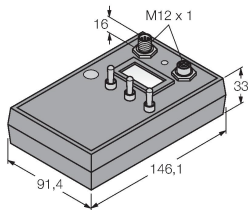
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Guided positioning element; this is inserted in the groove of the sensor

TB3LIU

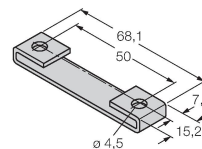
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Test and programming device for commissioning and testing the sensor, the measuring range of the standard version can be programmed with this device

MB-Q21

6900279



Mounting bracket for side mounting of Q25L and Q21 linear position sensors; material: Stainless steel