

# LT78E-Q21-LU0X3-H1141

## Magnetically actuated linear position sensor



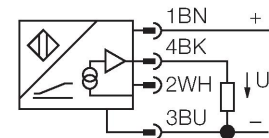
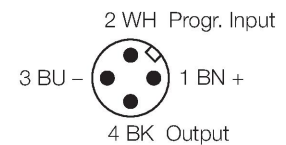
### Features

- 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                                   | LT78E-Q21-LU0X3-H1141            |
| ID                                     | LT0264                           |
| Measuring principle                    | Magnetostrictive                 |
| <b>General data</b>                    |                                  |
| Measuring range                        | 1981.2 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           |
| <b>Electrical data</b>                 |                                  |
| 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 |
| <b>Mechanical data</b>                 |                                  |
| Design                                 | Profile, Q21                     |
| Dimensions                             | 2095.5 x 34.8 mm                 |
| Housing material                       | Metal, AL, Anodized              |
| Electrical connection                  | Connector, M12 × 1               |
| <b>Environmental conditions</b>        |                                  |
| Ambient temperature                    | -40...+70 °C                     |
| Vibration resistance                   | 20 Hz (1 mm)                     |
| Shock resistance                       | 40 g (11 ms)                     |

### Wiring diagram

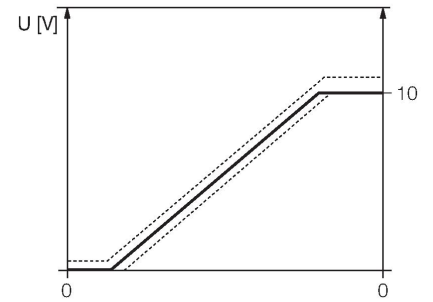


### Functional principle

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

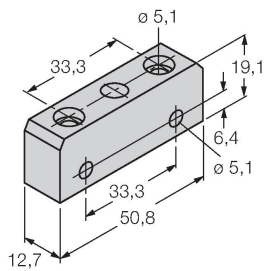
|                  |                               |
|------------------|-------------------------------|
| Protection class | IP67                          |
| Switching state  | 3-color LED, Green/yellow/red |



## Accessories

FM-Q21

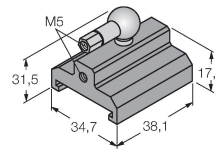
6900244



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

SM-Q21

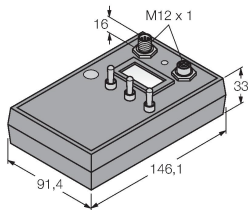
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Guided positioning element; this is inserted in the groove of the sensor

TB3LIU

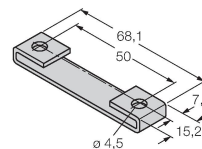
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Test and programming device for commissioning and testing the sensor, the measuring range of the standard version can be programmed with this device

MB-Q21

6900279



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