

Product

LR8534 Wireless Module for Strain Gauges

Headline

5-ch wireless logger module for strain gauges, 1 ms

Short Description

5-channel wireless interface module for LR8450-01 Data Logger, update interval 1 ms, for strain gauges, 16 bits, 1/2/4-gauge method, AC or battery operation, spring-cage terminal block

Banner Specs

- Wireless data transmission to LR8450-01 Data Logger
- 5 input channels for strain gauges
- 1 ms update interval
- A/D resolution: 16 bits
- 1-gauge method (2-wire & 3-wire setup), 2-gauge method (adjacent sides), 4-gauge method

USPs

- Autonomous operation with wireless data transfer and battery option

Applications

- Durability and performance testing by evaluating stress and strain on vehicle components under different load conditions
- Analysis of the mechanical properties of materials by measuring strain during tensile, compressive, or fatigue tests
- Safety and compliance testing through assessment of strain on aircraft structures and components
- Failure prevention and predictive maintenance by monitoring strain in machinery and equipment

Product Description

The LR8534 Wireless Strain Module is a 5-channel measurement module for the LR8450-01 Wireless Data Logger. Up to seven LR8534 modules can be connected to a single LR8450-01, allowing users to record and transfer data via wireless LAN of up to 35 channels in a single device. By combining the LR8450-01 with seven LR8534 and four U8554 plug-in modules the total setup can be extended to up to 55 channels.

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This module supports measurement of strain by using strain gauges or strain gauge transducers. Input signals are connected to the module through a spring-cage terminal block, providing a quick and secure, vibration-resistant connection. The module allows to measure strain with the 1-gauge method – 2- or 3-wire setup. For applications requiring higher accuracies the 2-gauge or 4-gauge methods can be used. The U8554 module offers a fast update interval of 1 ms for all 5 channels simultaneously, making it ideal for dynamic and high-speed applications.

With a 16-bit A/D resolution, the LR8534 delivers high-precision data acquisition. The module offers eight strain measurement ranges, from $\pm 1000 \mu\epsilon$ to $\pm 200\,000 \mu\epsilon$, ensuring accurate readings across a variety of applications. In addition, the module can be used for the measurement of voltages offering ranges from 1 mV to 200 mV.

The LR8534 features wireless LAN capability, enabling seamless data transmission to the LR8450-01 Wireless Data Logger for real-time monitoring and analysis on its LCD display. Its compact design makes it ideal for installation in tight or hard-to-reach spaces. Additionally, the module offers flexible power options, supporting the use of both an AC adapter and an optional battery pack for versatile setup configurations.

This wireless module comes with an AC adapter (Z1008) and a mounting plate with screws, allowing the module to be securely attached to a wall or other flat surface.

What's in the box

- LR8534 Wireless Strain Module
- Instruction manual
- Z3231 Wireless LAN Adapter
- Z1008 AC Adapter
- Mounting plate
- M3×4 screws (for use with mounting plate)

Related Products

- LR8450-01 Data Logger
- Z1007 Battery Pack
- LR8530 Wireless Voltage/Temp Module
- LR8531 Wireless Universal Module
- LR8532 Wireless Voltage/Temp Module
- LR8533 Wireless High-speed Voltage Module
- LR8535 Wireless CAN Module
- LR8536 Wireless Current Module
- U8550 Voltage/Temp Module
- U8851 Universal Module
- U8552 Voltage/Temp Module
- U8553 High-speed Voltage Module
- U8554 Strain Module
- U8555 CAN Module
- U8556 Current Module

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Version	Date	Author	Approved	Document changes
1.0	26.02.2025	VL	KS	First Release