

DATALOGGER - 4 Channels (E210)

Category: General



Product Code: E210

Category: GENERAL

Sub-Category: DATALOGGER

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- Designed to meet the stringent demands of both construction sites and university laboratories.

- This versatile and robust device ensures accurate, real-time data collection for a variety of applications, including structural health monitoring, environmental studies, soil testing, and more.
- High Precision Data Collection: Provides accurate measurements for stress, strain, displacement, vibration, temperature, humidity, wind speed, rainfall, water quality, and more.
- Real-time Monitoring: Capable of continuous monitoring with real-time data streaming to ensure timely interventions and decision-making.
- Large Data Storage Capacity: Equipped with substantial internal memory and expandable storage options to handle extensive data collection over prolonged periods.
- Robust and Durable Design: Engineered to withstand harsh environmental conditions and rough handling at construction sites.
- Automated Data Logging: Reduces manual effort and minimizes human error with automated data collection and logging.
- Used in:
 - Structural Health Monitoring
 - Measurement Parameters: Stress, strain, displacement, vibration
 - Sensor Compatibility: Supports a wide range of sensors including strain gauges, accelerometers, and LVDTs
 - Data Frequency: High-frequency sampling up to 8 Hz
 - Environmental Monitoring
 - Weather Stations: Records temperature, humidity, wind speed, rainfall
 - Water Quality: Monitors parameters such as pH, turbidity, conductivity
 - Data Integration: Seamless integration with environmental sensors and weather stations
 - Soil Testing
 - Geotechnical Monitoring: Supports piezometers, inclinometers, settlement plates
 - Measurement Accuracy: High precision data for soil behavior analysis
 - Concrete Testing
 - Curing Process Monitoring: Tracks temperature and humidity conditions
 - Compliance: Ensures optimal curing conditions for concrete
 - Load Testing
 - Static and Dynamic Load Tests: Records load-bearing capacity data
 - High Sampling Rate: Capable of capturing transient load data
 - University Laboratories
 - Material Testing: Collects data on concrete, steel, composites during tensile, compression, fatigue tests
 - Prototype Testing: Captures performance data of new construction technologies
 - Educational Use
 - Student Projects: Provides real-time data for experiments and projects
 - Demonstrations: Demonstrates principles of structural behavior and material properties
 - Instrumentation and Calibration
 - Equipment Testing: Ensures accuracy and reliability of various instruments
 - Sensor Development: Collects data for new sensor development
- Connectivity and Data Management
 - Wireless Communication: Bluetooth, Wi-Fi, and cellular options for remote data

access

- Data Export: Supports multiple formats for easy data transfer and analysis
 - Software Integration: Compatible with major data analysis software
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TECHNICAL SPECIFICATIONS

- Wireless connection through Wifi for settings and data monitoring
- 24-Bit System, on all channels independantly
- Has 4 independent channels, each can read:
 - 1 x LVDT (0-10 V or 4-20 mA, electronically selected)
 - 1 x Loadcell or Strain Gauge (Wheatstone Bridge)
 - 1 x Thermocouple (like J-Type)
- Ability to drive motor with the datalogger in PULSE mode
- Multiple General Purpose Input / Output Channels
- Can Export Data to:
 - USB Flash Drive
 - SD Card
 - Through Wifi
- Ability to save unlimited number of calibration profiles to recall later on for each sensor
- Web-Based user interface, compatible with PC, mobile phones, tablets ... etc
- RS-232 and RS485 communication ports are available
- Front LED Status Indicator
- Real-Time Clock
- Screw Terminal Connectors to avoid soldering and make wiring easier than ever

SUPPLIED WITH

- D-Sub 9 Screw Terminal for easy connection (x4)
- D-Sub 25 Screw Terminal for easy connection
- Power Adaptor
- USB Connection Cable

ORDERING INFORMATION

Item	Code
DATALOGGER - 4 Channels	E210X04XU
D-SUB 9 SCREW-TYPE BREAKOUT TERMINAL	E210P001H
D-SUB 25 SCREW-TYPE BREAKOUT TERMINAL	E210P002H
STRAIN GAUGE (25.2 x 4.5 mm / 350 ohm) - Pack of 10	E210P003H
STRAIN GAUGE (55.9 x 5 mm / 120 ohm) - Pack of 10	E210P004H
STRAIN GAUGE (55.9 x 5 mm / 350 ohm) - Pack of 10	E210P005H

Keywords: 4-Channel Datalogger, Data Acquisition System, Wireless Datalogger, LVDT Data Logger, Load Cell Data Logger, Strain Gauge Logger, Thermocouple Data Logger, ALFA Datalogger, Real-Time Data Monitoring, Laboratory Data Acquisition