

# DATALOGGER

Code : E210



- The Datalogger is 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.

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- 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

## **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 Name	Item Code
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
STRAIN GAUGE GLUE for CONCRETE	E210P006H
STRAIN GAUGE GLUE for METAL	E210P007H
DATALOGGER - 4 Channels	E210X04XU
DATALOGGER - 8 Channels	E210X08XU
DATALOGGER - 16 Channels	E210X16XU

**OTHER PHOTOS**

