

DATALOGGER (E210)

Category: Monitoring



Product Code: E210

Category: MONITORING

Sub-Category: DATALOGGER

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- 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.
- **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 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
DATALOGGER - 16 Channels

E210X08XU
E210X16XU

Keywords: 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