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.

- 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)	E210P003H
STRAIN GAUGE (55.9 x 5 mm / 120 ohm)	E210P004H
STRAIN GAUGE (55.9 x 5 mm / 350 ohm)	E210P005H
STRAIN GAUGE GLUE for CONCRETE	E210P006H
STRAIN GAUGE GLUE for METAL	E210P007H
FULL BRIDGE CONVERTER for 120 ohm STRAIN GAUGE	E210P008H
FULL BRIDGE CONVERTER for 350 ohm STRAIN GAUGE	E210P009H
FULL BRIDGE CONVERTER for 1k ohm STRAIN GAUGE	E210P010H
DATALOGGER - 4 Channels	E210X04XU
DATALOGGER - 8 Channels	E210X08XU
DATALOGGER - 16 Channels	E210X16XU

OTHER PHOTOS


ALFA TESTING EQUIPMENT
USB
rs232/485
Input Output
USB HOST
Power 24V

