DATA DIGGER EQUIPMENT

DATA SHEET

DATALOGGER

MODEL DDEDL-101

Introduction

The **DDEDL-101** data logger by **Data Digger** is an advanced, compact, and versatile device designed for continuous data acquisition and monitoring across a wide range of applications. It allows users to collect, store, and analyze data from various sensors, making it ideal for industries such as environmental monitoring, industrial process control, geotechnical measurements, and research. The DDEDL-101 is engineered to handle multiple types of input signals, including analog and digital signals, and is compatible with numerous sensors like temperature, humidity, pressure, and strain gauges. Its robust construction, the DDEDL-101 is suitable for use in harsh environments, ensuring long-term reliability in both indoor and outdoor installations. The device features high accuracy, real-time data logging, and easy integration into existing systems, offering seamless communication through standard protocols. Its modular design allows it to be easily expanded and adapted to different applications, making it a reliable solution for monitoring critical parameters in industries like construction, energy, and scientific research. With user-friendly software support, it enables effortless data visualization and analysis, ensuring users can make informed decisions based on the collected data.

Features

- The DDEDL-101 data logger supports multiple sensor inputs, including analog and digital signals, for versatile data collection.
- Designed for precise, real-time data logging with minimal error, ensuring reliable measurements over long periods.
- Built to withstand harsh environments, making it ideal for use in industrial, environmental, and geotechnical applications.
- Comes with software for easy setup, data visualization, and analysis, simplifying the monitoring process for users.

Application

- Used for tracking parameters like temperature, humidity, and pressure in weather stations or outdoor environments.
- Monitors strain, displacement, and vibration in construction sites, dams, tunnels, and other infrastructure projects.
- Collects data from manufacturing lines to monitor equipment performance and optimize operations
- Assists in continuous data logging for scientific experiments and long-term research projects..

Overview

The **DDEDL-101** data logger by **Data Digger** is a robust and adaptable solution for continuous data collection across various industries. It accommodates multiple input channels, allowing users to connect various sensors, including those for temperature, humidity, pressure, and strain measurement. Designed for use in challenging environments, the device ensures reliable performance under tough conditions. With real-time data logging, it continuously monitors critical parameters without interruption. The DDEDL-101 integrates easily with existing systems through standard communication protocols like Ethernet and USB. It also offers intuitive software for seamless data visualization, analysis, and reporting. This makes it perfect for applications such as environmental monitoring, geotechnical research, industrial process control, and scientific studies. The device provides high accuracy for precise data capture, and its modular design allows for scalability based on specific needs. Remote monitoring capabilities enhance its usability, particularly in remote or hard-to-access locations. With its durability, flexibility, and reliability, the DDEDL-101 is an excellent choice for long-term data monitoring projects.

Description

In a wireless sensor network, **nodes** are individual devices that collect data from their surroundings using embedded sensors. Each node processes the data locally and transmits it wirelessly to a **wireless gateway**. The gateway serves as a central communication point that aggregates data from multiple nodes and forwards it to a cloud platform or server for further processing and analysis. The connection between the node and the gateway is typically established through protocols like Wi-Fi, Zigbee, LoRa, or Bluetooth, depending on the application. Nodes typically operate on low power to ensure long-term use, while the gateway is responsible for maintaining communication and managing network traffic. The wireless connection ensures flexibility and scalability, allowing easy expansion of the network by adding more nodes without the need for extensive wiring. This system is commonly used in remote monitoring applications such as environmental sensing, smart buildings, and industrial IoT. Data transmitted through this wireless connection can be accessed remotely, enabling real-time monitoring and decision-making. The gateway ensures reliable data flow and often has security features to protect the network from unauthorized access.

Techincal Specifications:

DATA LOGGER DDEDL-101	
Power Source	6V 4Ah rechargeable
Battery Charger	90 V to 270 V AC, 50 or 60 Hz
Charging	6 Hourly
Connectors	Weather-proof connectors