

Datalogger : RTDL-11

- Small and rugged
- Online configurable
- Easy data download



www.wscada.com

RTDL-11

The RTDL-11 is a standalone device that can read various types of electrical signals and store data in its internal memory for later transmission or download. It records data over time via sensors connected to its ports.

RTDL-11 is a **WSCADA based device** where it can completely be configured and maintained through a web browser. This feature of RTDL-11 makes it perfect for remote and unattended areas.

FEATURES

- Displays date, time, error message and basic settings on LCD.
- RTDL-11 has an internal battery-backed real time clock that automatically synchronizes its time with global time server (e.g.: time.windows.com).
- It has two levels of memory :
 - (i) Internal 4 Mb Flash
 - (ii) Micro SD CardThe 4Mb flash memory uses cyclic data storage technique. Moreover, at the end of each day, it stores all the recorded values of the whole day into the micro SD card as backup.
- Stored data can easily be downloaded into a pen drive.
- It can be configured to post stored data to two servers simultaneously.
- Alerts can be generated for a number of alarming conditions, for example : data deviating from pre-defined threshold value, for any communication error logs, for any system faults etc.
 - SMS can be programmed to send to all authorized numbers.
 - Siren can be connected for issuing warnings against any alarming condition.
- Settings in datalogger can be configured either locally using a software or remotely through web using any web server.
- Firmware in datalogger can be upgraded remotely through web .
- For efficiency device initiates communication only when there is data available.



Applications:

- Automatic Weather Station
- Water Level Measurement
- Discharge Measurement
- Precipitation Measurement
- Early Warning System
- Power Meter Monitoring
- Data Center Monitoring System
- Micro-hydropower Monitoring

Technical Specification

Power

Input voltage: 10 - 15 Volts
Power Saving Mode: ON/OFF

Real Time Clock

Accuracy: 1%
RTC Battery: Replaceable Lithium Cell
Time Set: Automatic through SNTP server

Processor:

32-bit, ARM Processor

Display:

16X2 line Alphanumeric LCD display

Data Storage

Type: Flash Memory
Size: 4 MB
Logging interval: 1 min. to 71582.78 min.
Sampling interval: 15 secs to 71582.78 min.

Micro SD card Slot

Micro SD card upto 32GB (for redundancy)
Format: Fat 32 Format

Digital Interface

SDI-12

Channels: 10
Mode: Master Mode
Baud rate: 1200
Format: 7 bits, 1 parity, 1 start bit, 1 stop bit

Analog Inputs

Channels: 5 (4 Single Ended ;
1 Differential)
Resolution: 10 bit
Input Range: 0 - 5 Volts
Additional Inputs: Analog Expansion board with 9 inputs

RS232

Channels: 2
Baud rate and format: User definable

RS485

Channel: 1

Event Counter

Channels: 2

Outputs

Number of ports: 2
Voltage: 12 V
Current : 5 A continuous

All I/O ports are surged protected

Communication Interface: RS232

USB:

USB host

User Interface

Membrane Keypad
PS/2 Port for AT keyboard connection

Environment

Operating Temperature: -20 to +60 °C
Operating Humidity: 0 to 100% non-condensing

Extension Module

The analog extension module AEXTM-C207 is an expansion to RTDL-11 for connecting analog sensors.

Following inputs can be connected to the analog extension module:

Inputs	No. of channels
Differential Input	7
4 to 20 mA	1
PT 100 / thermocouple	2
SDI	1
RS485	1

The settings can be configured through datalogger's configuration software itself.



- 24-Bit Low Power Sigma Delta ADC
- True Continuous Background Calibration at all gains
- Low-Noise programmable gain (1x - 128x)
- 2 x 3 matched excitation current sources from 100 μ A to 1000 μ A
- Simultaneous 50 Hz & 60 Hz line rejection
- Operating Temp Range -40°C to 105°C



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