

SINGLE CHANNEL DATALOGGER FOR VIBRATING WIRE SENSORS

DATASHEET

MODEL ESCL-10VT-BX



OVERVIEW

The model ESCL-10VT-BX single channel vibrating wire datalogger is designed for monitoring a wide range of single vibrating wire sensor such as piezometer, pressure sensor, crack meter, and displacement transducer. It can also measure barometric pressure and has a provision to monitor rainfall using a tipping bucket rain gauge. The datalogger provides versatile data transmission options, including telemetry through GSM/GPRS modem and data retrieval via laptop/mobile. It offers flexible logging intervals, with the capability to collect data every 5 seconds to 168 hours, allowing for precise, long-term environmental monitoring.

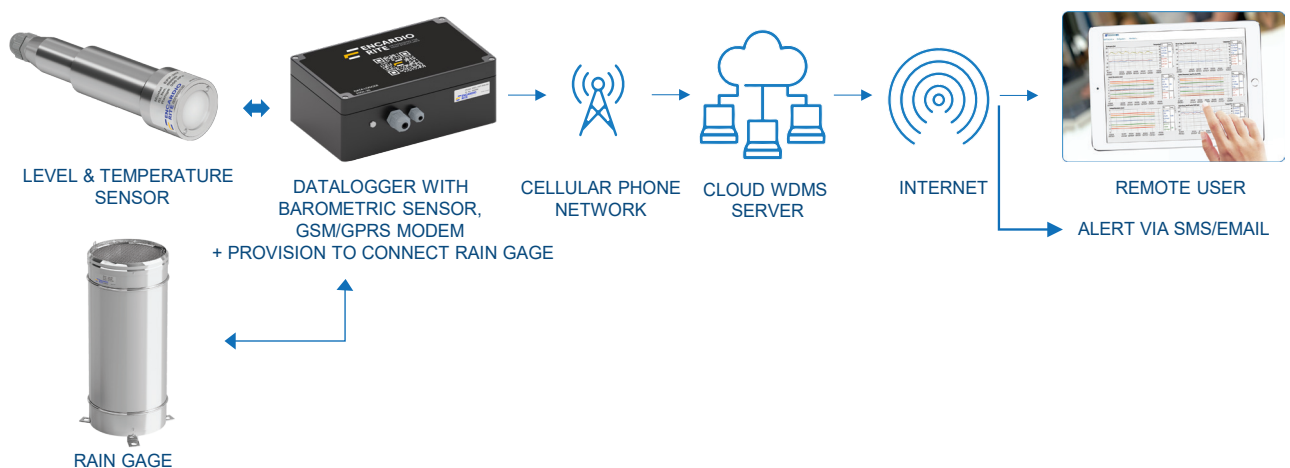
The system is widely used in groundwater level monitoring, with high accuracy fluid pressure sensor installed to measure the water level and temperature at a depth below the minimum expected water level. The datalogger has an inbuilt barometric sensor that corrects water level readings for barometric pressure variation and accounts for specific gravity differences in water, ensuring accurate data collection.

Model ESCL-10VT-BX datalogger has provision to attach model ERG-200/ERG-201 rain gage for simultaneous monitoring of rain fall along with the water level/table monitoring. This helps in correlating the water table data with the rainfall data.

FEATURES

- **Plug and play:** Effortless sensor installation and configuration with an intuitive setup process using a laptop/mobile.
- **Large memory capacity:** Offers substantial data storage with 8MB Flash RAM, capable of storing up to 3,145,728 data points, ensuring long-term data collection without frequent retrieval.
- **Versatile power options:** Choose from battery, mains, or optional solar power (model ESP-12V1A). For remote sites, mains or solar power is advised.
- **Wide temperature range:** Operates within -30°C to +70°C, making it suitable for various environmental conditions.
- **Flexible data logging intervals:** Logging interval ranges from 5 seconds to 168 hours, providing flexibility in monitoring applications.
- **Barometric pressure compensation:** Includes an in-built barometric pressure sensor that automatically corrects water level measurements for atmospheric pressure variations.
- **Real-time communication:** Telemetry options via GSM/GPRS modem for remote data transmission, allowing users to monitor from distant locations.
- **Local data retrieval facility:** Data can be downloaded directly to a laptop or PC in the field and transferred to other systems via USB or the Internet for further analysis.
- **Rainfall monitoring:** Compatible with external rain gauges (ERG-200/ERG-201) for simultaneous rainfall and water level monitoring.
- **Data output:** Outputs data in CSV format, which can be easily imported into applications like Microsoft® Excel.
- **Rugged and weatherproof housing:** The weather-resistant and durable housing ensures reliable performance in harsh outdoor environments.
- **Infrastructure data intelligence platform:** Transmit data to a local or cloud server hosting the Proqio platform for 24/7 insights. Proqio enables efficient data processing, analysis and real-time visualization. Benefit from instant alerts for critical events and automated reports, supporting informed decision-making.

Also compatible with any manufacturer's data management system for continuous monitoring





SPECIFICATIONS

Model ESCL-10VT-BX

Input	VW sensor
Resolution	18 bits (better than 1 mm for 70 m WC sensor)
Temperature measurement range	-20° to +70°C with 0.1°C resolution
Logging interval	5 seconds to 168 hours
Memory capacity	8 MB Flash RAM. Can store 3,145,728 data points
Data output format	CSV text file. Can be easily imported in many third party applications like Microsoft® Excel
Communication port	One RS-232 serial port. Interface cable for connecting to USB 2.0 port supplied as standard
Operating temperature range	-30° to 70°C
Power supply boxed version (BX)	2 x D size 3.6 V/19 Ah Lithium cells, or 2 x D size 1.5 V Alkaline high power cells, or 12 V SMF battery chargeable from solar panels, or 12V SMF battery chargeable from the AC mains
Housing	Box version: Weather proof enclosure
Dimensions (BX) (W x L x H)	120 x 220 x 91 (mm) for box version with suffix BX
Humidity	100 %
Modem (in telemetry option)	Quad Band GSM/GPRS/EDGE, 850/800/1800/1900 MHz
Antenna (In telemetry option)	Built-in or separate mounted antenna available

**All specifications are subject to change without prior notice*

DATASHEET | 1902-19 R01



Dams



Mining



Tunnels



Metro & Rail



Construction



Bridges



Landslides



Energy



Environmental Monitoring



Pipelines



Structural Health Monitoring



Smart Cities