



Sanlien Technology Corp.

# VWdot16



Vibrating Wire Datalogger

Model: VD-1601

Be the frontier of environmental monitoring

[www.sanlien.com](http://www.sanlien.com)

## Introduction

The VWdot16 Vibrating Wire datalogger utilizes LTE-M and NB-IoT wireless transmission technologies and is specially designed to meet the needs of geotechnical engineering applications. It is a reliable choice for automated safety monitoring in civil engineering, water conservancy, construction, and other fields. This datalogger can measure the frequency of vibrating wire sensors and thermistor temperature signals with sturdy waterproof outer case and low power consumption, ensuring accurate and continuous data collection even in harsh environments.

The VWdot16 Vibrating Wire datalogger is equipped with a built-in 32 GB Micro SD card, providing sufficient storage capacity for over one million data records, making data analysis during long-term monitoring more comprehensive and ensuring that no critical data is missed. This datalogger is renowned for its excellent cost performance and reliability and has undergone rigorous testing and quality verification to deliver accurate and consistent measurement.



## Features



### Low Power Consumption

Powered by five 18650 Li-ion batteries, VWdot16 operates up to 6 months (RSSI < 15) to 12 months (RSSI ≥ 15) with hourly measurements.



### LTE-M and NB-IoT wireless transmission

Real-time monitoring enabled via LTE-M / NB-IoT and dot cloud integration.



### MQTT Protocol

Supports MQTT for versatile data acquisition and integration.



### Simple Operation

Data uploads to the dot cloud via simple Micro SD card setup.

## Applications

- ✓ **Water level monitoring** - Water level transducers measurement
- ✓ **Water pressure monitoring** - Piezometers measurement
- ✓ **Stress monitoring** - Rebar strain gauges measurement
- ✓ **Strain monitoring** - Strain gauges measurement
- ✓ **Load monitoring** - Load cells measurement
- ✓ **Crack monitoring** - Crackmeters measurement
- ✓ **Landslide monitoring** - Displacement transducers measurement

## Best Suited



Construction Site and Civil Engineering Project



Water Conservancy Project



Bridge Engineering



Slope Safety

## Specifications

Measurement Type	Vibrating Wire Sensor
Measuring Range	450 - 6000 Hz
Accuracy	± 0.01 % @ 3000 Hz
Channel	16
LPWAN	LTE-M / NB-IoT
Network Protocol	MQTT
Storage	32 GB Micro SD Card (expandable)
Power Supply	18650 Li-ion rechargeable battery x5 (Supports 5-25 Vdc charging via solar panel or external source)
Power Consumption	6 months (RSSI < 15) ; 12 months (RSSI ≥ 15) one measurement per hour
Temperature Type	Thermistor (resolution 0.1 °C)
Dimension (L x W x H)	340 x 236 x 95.5 mm (excluding antenna)

## Be the frontier of environmental monitoring

Sanlien Technology is committed to making environments safe for humans. Hence, we insist on continuing R&D investment, perfecting our manufacture of monitoring systems, and expanding into Smart City and IoT monitoring. With more than 1,000 local and international customers, Sanlien is trusted by global customers with high standards. By working with renowned agents around the world, we ensure optimal performance and reliability of our services. With 50 years profound experience in Taiwan, Sanlien becomes the most exceptional provider measuring technologies in the Asia-Pacific region. Sanlien has conceptualized the idea of being a global partner into a three-in-one strategy: long-term deployment of globalization, integration of local resources, and localized operations. We shall march on step by step with the stamina for running a marathon.

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\*All price, feature and specification are subject to change without prior notice.