VW data logger

[ADL-16V Installation in tunnel]

Description

ADL-16V Vibrating wire data logger is a data logger for connecting 16-channel vibrating wire sensor and temperature sensor. It is designed to be used mainly for vibrating wire sensor, which is frequently used and installed and operated in civil works.

Built-in 2.4GHz Zigbee wireless module port for logger-logger connection and RS-485 communication port for wired logger-logger connection in ADL-16V allows you to select wired or wireless depending on the site. When connecting wirelessly, data communication distance is about 200 ~ 600m.

ADL-16V can be equipped with wireless modems for 2G, 3G, 4G and 5G, and can be controlled remotely, outputting with high precision, accuracy and high resolution regardless of the surrounding environment or temperature, and highly stable and reliable data acquisition.

The ADL-16V interlocks the data logger in proportion to the number of vibrating wire sensors installed in the field. Therefore, even in small or large sensor installations, up to seven data loggers can be controlled by Zigbee wireless or wired communication. Up to 112 vibrating wire sensors and 112 temperature sensors can be connected and controlled in a single system simultaneously.
ADL-16V is developed with world-class hardware and operating software to ensure quality.
The operating software developed for civil site measurement is very easy and convenient for anyone who needs only 3 to 4 hours of training.

Functions

- High accuracy of measurement data and storage of continuous measurement data
- Vibrating wire and temperature sensor connection
- Possibility of Remote control
- Easy to operate even for beginners
- Possible to use both single and multiple use so, very efficient
- Compatible with ACE-WMP Web monitoring program

Specification

Model		ADL-16V
Applied sensor		VW, mV and temperature sensor
Power source		DC 12V
Output voltage		DC 5V
Operating temperatuer		-20~70℃
Voltage consumption		Less than 35mA / Standby, Less than 100mA / Measurement
Data memory		30,000 Points
VW sensor	Frequency	0 ~ 15 kHz
	Accuracy	0.05% FSR
	Channel	16 ch
Wireless module communication standard (on-site)	Frequency	2.4 GHz
	Communication Speed	38,400 bps
	Communication distance	200 ~ 600 m (Depend on conditions)
	Communication method	ZigBee method
	Antenna	Helical antenna
External modem		3G ~ 5G modem (Smart logger - Computer)
Dimensions		293×142×58㎜
Material		Aluminum anodizing case
Weight		400g
Installation port		RS-485 communication port Helical antenna port RS-232 communication port Power port
Continuous use time		Car battery : More than 20 consecutive days in RS-485 communication, more than 7 consecutive days in Zigbee method 200W solar panel at full charge : More than 5 consecutive days in Zigbee method

[Zigbee wireless module is not used when ADL-16V is used alone, but it is necessary when interlocking multiple sets of ADL-16V.]

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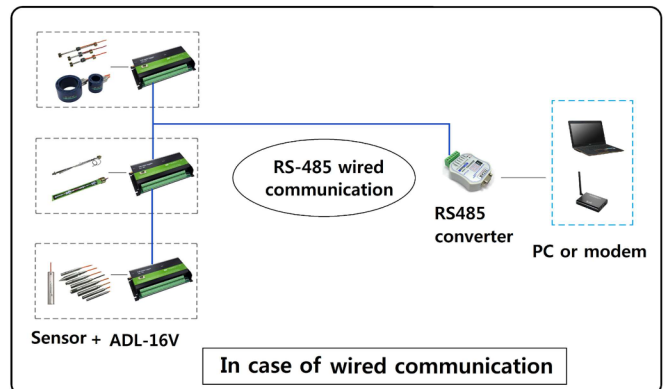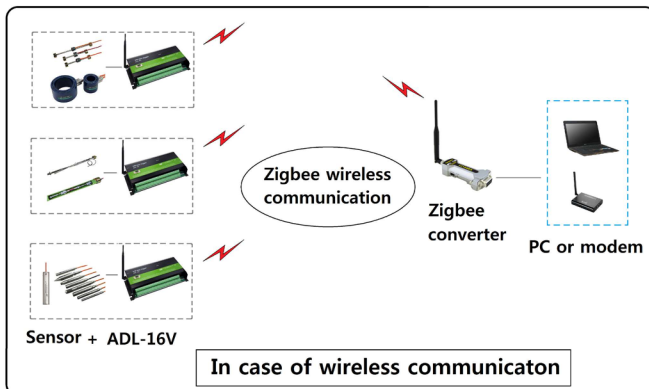
VW data logger

Applied sensor

- Vibrating wire sensor
- Thermistor, RTD temperature sensor
- mV output sensor

Applications

ADL−16V VW data Logger is specially designed to collectively connect small or large amount of vibration wire sensor installed in various types of civil and construction sites.

- Sites requiring remote control and unmanned control
- Site where need accurate, real−time data
- Automated measurement in the field where people are hard to enter
- Automated measurement enables the current status check by multiple users when using external modem
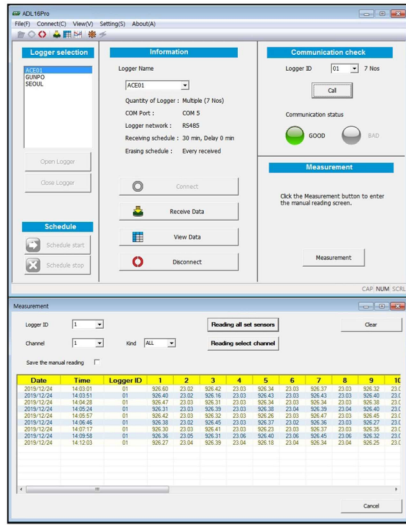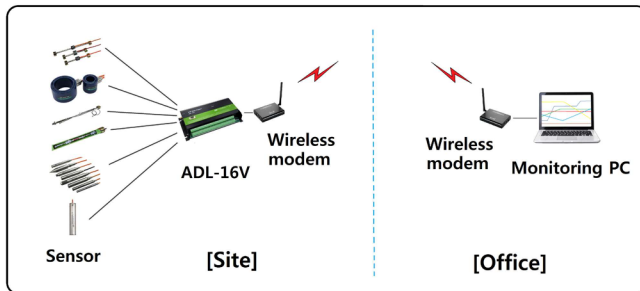
Operating mode

Zigbee wireless communication

Zigbee converter

PC or modem

Sensor + ADL-16V

In case of wireless communicaton

RS-485 wired communication

RS485 converter

PC or modem

Sensor + ADL-16V

In case of wired communication

[7 sets of VW data loggers (ADL−16V) can be connected by wired or wireless network to operate automation system]

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ACE INSTRUMENT
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Smart logger

Operating software

System configuration

Wireless modem

ADL-16V

Wireless modem

Monitoring PC

Sensor

[Site]

[Office]

[System configuration]

Web program

W-Pro
Web monitoring program

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Web monitoring program as W-Pro is availabel graph frontier, report creation and modification, alarm, real-time measurement data retrieval. It is based on the data stored in the server computer throughout all kind of static sensors.

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