Smart logger

Description

A data logger is a device that stores and controls data transmitted by time-varying types of sensors (load, stress, strain, pressure, temperature, displacement, tilte sensor, etc.) installed in the field.

Smart Logger ADL-200A is our company's top model static data logger. It is a full range logger that connects 16-channel vibrating wire sensor and 16-channel analog sensors (temperature sensor, mV sensor, FSG sensor, sequential serial communication sensor, etc.).
Built-in 2.4GHz Zigbee wireless module port for logger-logger connection and RS-485 communication port for logger-logger connection in ADL-200A can be configured wired or wireless according to the site. When connecting wirelessly, data communication distance is about 200 ~ 600m.
ADL-200A 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.
Data loggers operate in proportion to the number of different types of sensors installed in the field. Therefore, even in small or large sensor installations, up to seven sets of Smart Logger ADL-200A can be controlled by Zigbee wireless or wired communication. Up to 112 vibrating wire sensors and 112 analog sensors can be connected and controlled in a single system simultaneously.
ADL-200A 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
- Digital and analog 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-200A	
Applied sensor		VW, mV, FSG, Temperature and Serial communication sensor	
Power source		DC 12V	
Output voltage		DC 5V, DC 12V	
Operating temperatuer		-20~70℃	
Voltage consumption		Less than 65mA / Standby, Less than 100mA / Measurement	
Data memory		60,000 Points	
Analog sensor	Range	mV sensor	−5000 ~ 5000 mV
		FSG sensor	−9999 ~ 9999 μV/V
		Temperature sensor	−50 ~ 150 ℃
	Accuracy	0.1% FSR	
	Channel	16 ch	
VW sensor	Frequency	0 ~ 15 kHz	
	Accuracy	0.05% FSR	
	Channel	16 ch	
Logger applied method		Single / Multi	
Logger max. connection quantity		Max. 7sets / 112ch	
Logger to logger wireless communication	Communication method	ZigBee method	
	Frequency	2.4 GHz	
	Communication distance	200 ~ 600 m (Depend on conditions)	
	Antenna	Helical antenna	
	Converter	Zigbee to RS-232 converter	
Logger to logger wire communication	Communication method	RS-485 method	
	Communication distance	Within 1,000m	
	Converter	RS-485 to RS-232 converter	
Communication speed		38,400 bps	
External modem		3G ~ 5G modem (Smart logger - Computer)	
Dimensions		202×152×39㎜	
Material		Aluminum anodizing case	
Weight		300g	
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-200A is used alone, but it is necessary when interlocking multiple sets of ADL-200A.]
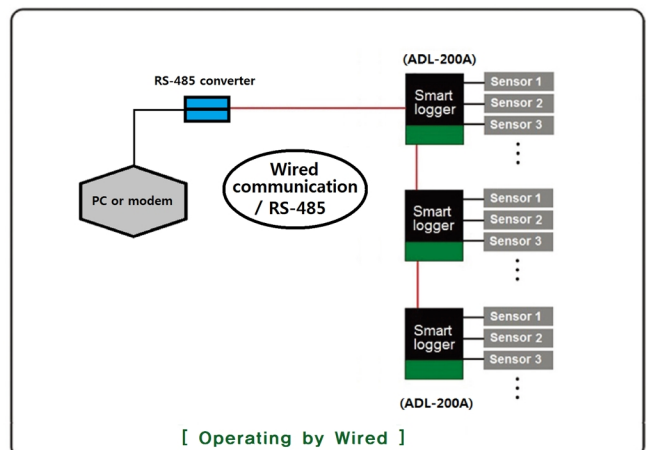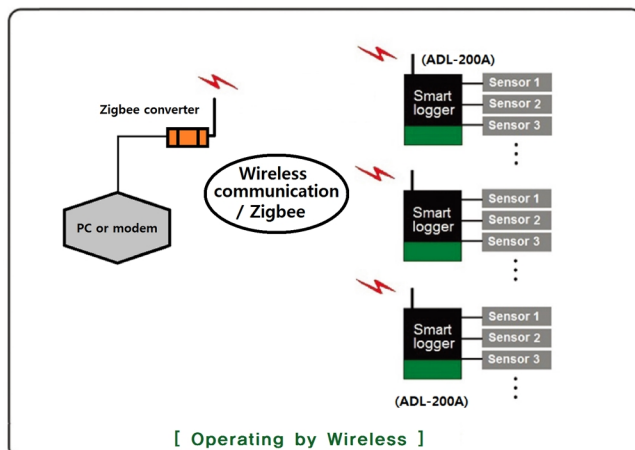
Smart logger
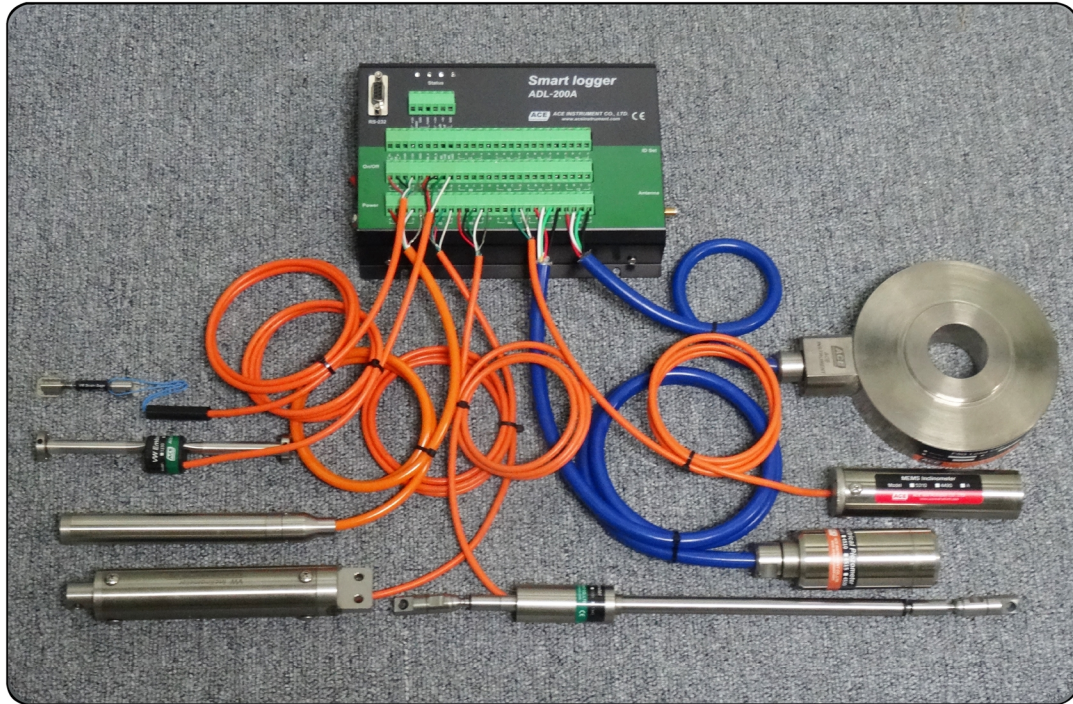
Applied sensor

- Digital sensor : Vibrating wire sensor
- Analog sensors
  - FSG(Foil strain gage) sensor
  - Potentiometer
  - LVDT
  - Thermistor, RTD temperature sensor
  - 4~20mA sensor
  - Sequential serial communication sensor

Applications

Model ADL-200A Smart Logger is useful for sensor automation measurement 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
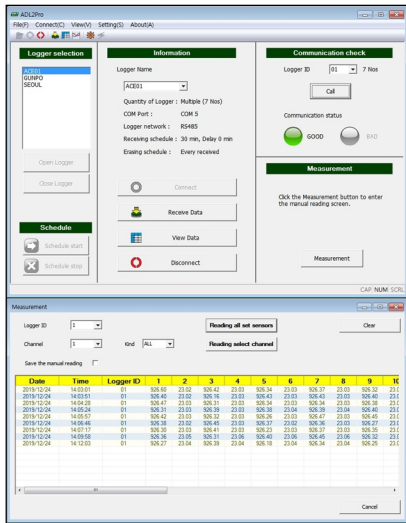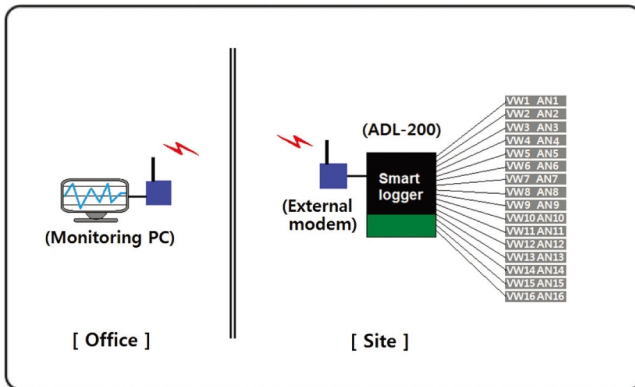
Operating mode

[Operating by Wireless]

[Operating by Wired]

[7 sets of smart loggers (ADL-200A) can be connected by wired or wireless network to operate automation system]

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Smart logger

Operating software

System configuration

[System configuration]

Web program

Web monitoring program as ACE-WMP is available 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.