Fuji Electric

Innovating Energy Technology

Application

Autonomous water flow and pressure measurement

Objectives

Enable flow and pressure measurements in remote reading, sectorization, leak detection or dynamic pressure management applications in drinking water distribution networks.
Monitor water consumption on drinking water, irrigation, watering or fire safety networks in hard-to-reach areas without power supply.

Solution used

- Electromagnetic flowmeter M5000
- Wireless data logger LOG V3
- Gauge pressure transducer GR

Power supply AC
(electrical network)
OR
Alimentation par pile interne
(jusqu'à 12 ans d'autonomie)
OR
Power supply DC
(solar panel, wind turbine, low voltage sources, etc.) with automatic backup on internal battery.

OR

Advantages

Battery power supply (up to 12 years of autonomy).
Possibility of using battery operation as a backup to an external power supply (poor quality network, solar power supply, etc.) with automatic switching.
No pressure drop and therefore no pressure drop in the network.
ACS (drinking water) and MID MI-001 (cold water invoicing) compliance.
Local recording of up to 500,000 measurements.
Integrated GSM/GPRS/3G communication.

Applications

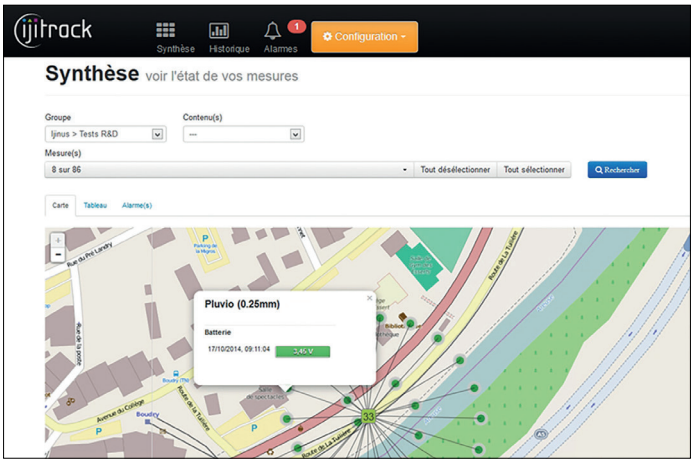
Monitoring of drinking water network flows and pressures, sectorization, leak detection, remote reading, monitoring of irrigation, watering and fire network consumption.

Specifications

Electromagnetic flowmeter M5000	Wireless data logger LOG V3	Gauge transducer GR serie
• Diameter : DN15 to DN600 • Accuracy : ±0,4% of flow rate ±2 mm/s • Interfaces : 4 logic outputs, RS232 ModBus® RTU (RS485 optional), MBUS & IrDA • Power supply : by battery (up to 12 years), emergency V AC/DC • Protection : IP67/IP68	• Setting : wireless with Rfid technology • Communication : HF/Modbus/GSM/GPRS/3G/Sigfox • Imputs : external power supply (7-30 V), 4-20 mA, logic, counter, Modbus • Outputs : transmitter power supply (7-30 V), open collector, Modbus • Memory : 500 000 measurements • Power supply : by battery (10 years or more) • Protection : IP68	• Measuring range : -1 to 250 bar • Sensing element : Piezoresistive ceramic membrane • Power supply : 10 to 30 V DC • Output signal : 4-20 mA – 2 wires • Overall error : ±1% of the measuring range • Process connection : ½" GM (standard)

Monitoring and management in real-time of your data| IJITRACK V2

Web Interface to supervise all your data, manage your clients accounts, export data in detailed reports.



Easy and user-friendly interface

3 sections allow you to manage your data :
Summary, History and Alarm. This data is visible on the map, table and object.

Device configuration

3 sections allow you to manage your data: Summary, History and Alarm. This data is visible on the map, table and object.

Export

Customizable CSV exports to Excel, by group, from date to date.
Automated export of HTTP request available.

Access to protected data

Secure HTTPS connection, 128-bit encryption.

Account management

Monitor all your sensors, manage your accounts and the different sites through a simple and quick tree structure.

Graphiques multi-axes et multi-courbes

The interface allows data from different sensors and/or sites to be compared.

Programming Kit - "WIJI"

The wireless solution to connect and collect data locally by radio with RFID technology

Programming kit UBS/HF Key - "WIJI key"

- Access point type transceiver
- USB connector
- Internal radio antenna

Configuration software - "Avelour 6"

Configuration software "Avelour 6" for the configuration of sensor and logger

- Multi curves display of your data
- Back-up are available for both data and settings
- Work safely by staying away from your measurement points
- Whole configuration of a sensor can be saved as template and paste into others

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