SOFREL DL4W

4G M2M data loggers for monitoring and controlling the performance of water networks
Monitoring of the consumption of “Major consumers”
Detection of consumption anomalies
Monitoring of the transfers between 2 networks in the context of an interconnection
Billing support

REMOTE READING OF WATER METERS AND FLOW METERS

- Monitoring of the consumption of “Major consumers”
- Detection of consumption anomalies
- Monitoring of the transfers between 2 networks in the context of an interconnection
- Billing support

PRESSURE AND QUALITY MONITORING

- Measurement and monitoring of 2 pressure points
- Monitoring of water quality parameters (pH, chlorine, conductivity, etc.)
- Alert of pressure threshold overrun
- Alert in the event of pollution detection in the network
- Measurement of the service quality level

DISTRICT METERING AREA MONITORING

- Remote reading of meter indexes and flow meters of each water district area
- Calculation of average, max. and night flowrates... and automatic detection of leakage
- Performance monitoring and improvement of the network efficiency
- Measurement and registration of the pressure
- Management of the “in/out” type meters
- Immediate alert in the case of upstream or downstream pipe bursts
REAL-TIME MONITORING OF YOUR WATER NETWORK

The business functions, the power supply and dynamic control of sensors, and the processing capacity of the SOFREL DL4W help you control the performance of your networks on a daily basis.

MONITOR THE WASTEWATER AND RAIN WATER COLLECTION NETWORKS

PERMANENT NETWORK DIAGNOSTICS AND SELF-MONITORING

- Measurement of effluent heights and speed
- Overflow detection in the Combine Sewer Overflow
- Periodic calculations of the number of overflows and their duration
- Simultaneous measurement of 2 water levels (main channel / diversion channel) via 4-20mA probes or radar
- Recording of flows and volumes released
- Confirmation of correct scaling of network
- Measurement of inputs from surrounding municipalities
- Control and measurement of industrial discharges into the network
- Detection of the presence of infiltration water

RAIN GAUGE MONITORING

- Metering of rain gauge pulses
- Calculation of rainfall intensity
- Alignment of rain gauge indications with the operation of the network

WATER QUALITY AND PHYSICOCHEMICAL MONITORING

- Power supply and control of the quality measurement sensors (conductivity, pH, Redox, ORP, etc.)
- Measurement and registration of water quality parameters
- Control of the autonomous samplers and estimation of the pollutant load
Reliable, autonomous, with a very-high-capability built-in antenna communicating via 4G M2M, SOFREL DL4W guarantee the deliverability of all data necessary for the monitoring of your networks and inform you of any incidents in real time.
AND **SMART** water networks

**Communication and Use of Data**

**On-field Mobile Access**
- Secure HTML5 app
- Can be used on PC/Tablet/Smartphone

**Centralisation/Supervision**
- Permanent network and facilities control
- Alarms and maintenance management
- Data management and analysis

**Communication with SCADA**
- Data transfer to SCADA or hypervision solutions
- Monitoring and analysis of operational performances
- Provision of SMART CITY data

**On-site Communication**
- Bluetooth link
- Local data transfer
- Device configuration

**Inter-RTU Communication**
- M2M link with SOFREL RTU
- Control of remote installation
The simplicity and performance of the SOFREL DL4W: configure, install and forget about them. They will keep an eye on your networks for many years.

With the SOFREL DL4W range, the concept of “Plug and forget” makes perfect sense. Designed to operate in buried manholes, and very simple to install and configure, they will become a critical necessity in the sustainable provision of monitoring data for your networks. Remote diagnostics of devices, alarms on sensor faults and the precise monitoring of remaining battery life will minimise any routine on-site trips.

2G & 4G M2M communication
- Integrated modem
- Sending of data to 1 or 2 SCADA
- SMS-enabled alarm
- GSM reception level test
- Flex Option to have a remotely deployed antenna

Serial port
- Modbus communication with flow meters
- Reading of Modbus records, device diagnostics and alarm on faults
### Water proofness and reliability
- Designed for underground use (manholes with a flood risk)
- Enhanced IP68 watertightness (certified 200 days at a depth of 2 m)
- Safe and simple access to the on-site SIM card and battery
- ”Military” type connections

### Autonomy
- Long-life lithium battery (up to 10 years of battery life)
- Energy efficient electronics
- 4-20 mA sensor power supply
- Indication of remaining run time

### Simplified implementation and maintenance
- Access to the data logger on-site via a Bluetooth connection
- On-site or remote graphic configuration
- Diagnostics functions

## A Range of Data Loggers for Specific Use Cases

### Drinking Water

<table>
<thead>
<tr>
<th>Use</th>
<th>Remote reading for major consumers</th>
<th>District Metering Area</th>
<th>Pressure Monitoring</th>
<th>Level, Quality</th>
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<tbody>
<tr>
<td>Version</td>
<td>LS42</td>
<td>LS42</td>
<td>LS-FLOW</td>
<td>LS42 or LS-P</td>
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<tr>
<td>DI/AI</td>
<td>4DI-2AI</td>
<td>4DI-2AI</td>
<td>1DI-1AI</td>
<td>4DI-2AI for LS42</td>
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<tr>
<td>Serial port</td>
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<td>No</td>
<td>Modbus RTU</td>
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<tr>
<td>Model</td>
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<td>SOFREL DL4W-S</td>
<td>SOFREL DL4W-HP</td>
<td>SOFREL DL4W-S</td>
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### Wastewater

<table>
<thead>
<tr>
<th>Use</th>
<th>Selfmonitoring / Permanent diagnostics</th>
<th>Level, Quality, Speed</th>
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<tbody>
<tr>
<td>Version</td>
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<td>LT-US</td>
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<tr>
<td>DI/AI</td>
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<td>Serial port</td>
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<td>US probe</td>
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<tr>
<td>Model</td>
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