

# SOFREL NEO

IIoT data loggers for water networks monitoring





# Reliable, independent and waterproof IIoT

Dedicated to the permanent monitoring of water & wastewater networks, the SOFREL NEO data loggers offer an innovative waterproof and battery powered solution for installation in water meter manholes or isolated water facilities.

## IN THE CONTEXT OF WATER NETWORKS INTERCONNECTION

### 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 case of pollution detection** in the network

### 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



# data loggers AT THE HEART OF YOUR WATER NETWORKS

The business functions, the dynamic control of sensors and the processing capacity of the SOFREL NEO data loggers improve the efficiency of the water networks on a daily basis. .

## MONITOR THE WASTEWATER AND RAIN WATER COLLECTION NETWORKS

### DETECTION OF OVERFLOWS AND SELF-MONITORING

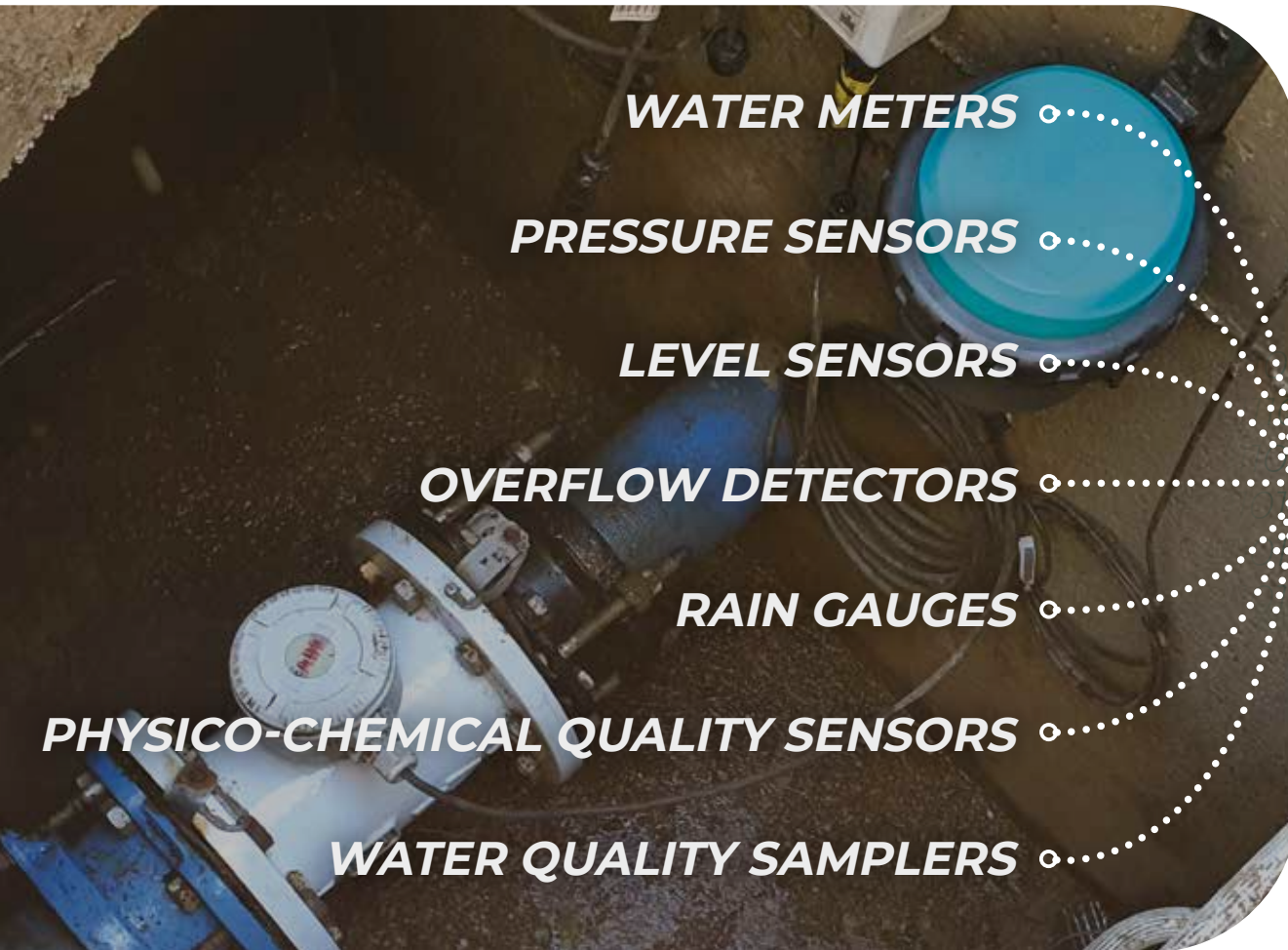
- **Overflow detection in the Combine Sewer Overflow**
- **Periodic calculations** of the number of overflows and their duration
- **Simultaneous measurement of 2 water levels** (main channel / diversion channel) via 4-20mA probes)
- **Recording of flows and volumes released**
- **Control and measurement of industrial discharges** into the network
- **Detection of the presence of infiltration water**

### WATER QUALITY AND PHYSICO-CHEMICAL MONITORING

- **Power supply and control** of the quality measurement sensors (conductivity, pH, Redox, ORP, etc.)
- **Water quality parameters measurement and registration**
- **Control of the autonomous samplers** and estimation of the pollutant load

# 4G M2M data loggers for **CONNECTED** AND

**Reliable, autonomous and connected** in 4G M2M, the SOFREL NEO guarantee the deliverability of all necessary data to monitor networks and alert of any incident in real time.



**DATA ACQUISITION**



**TIME STAMPING /  
DATA PROCESSING**

# SMART water networks

## 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 sites



## COMMUNICATION AND USE OF DATA

# The simplicity and performance of the SOFREL NEO: configure, install and forget about them

## THEY WILL **KEEP AN EYE** ON YOUR **NETWORKS** IN **REAL-TIME**

With the SOFREL NEO range, the concept of “Plug and forget” makes perfect sense. Simple to install and configure, they will become a critical necessity when it comes to collecting regular network data.

Remote diagnostics of devices and alarms on default sensors will minimise any on-site trips.

### 2G & 4G M2M communication

- Integrated modem
- Sending of data to 1 or 2 SCADA
- GSM reception level test

### External power supply (option)

- Option to use a photovoltaic kit, micro-turbines, external battery or the mains as a power supply



## Waterproofness and reliability

- Designed for underground use (manholes with a flood risk)
- IP68 Waterproofness
- Safe and simple access to the on-site SIM card and battery
- “Military” type connections

## Autonomy

- Long-life lithium battery
- Energy efficient electronics
- 4-20mA sensor power supply

## Simplified implementation and maintenance

- On-site or remote graphic configuration
- Diagnostics functions

## A RANGE OF DATA LOGGERS FOR SPECIFIC USE CASES



REMOTE READING FOR MAJOR CONSUMERS	DISTRICT METERING AREA	MONITORING OF PRESSURE AND WATER QUALITY INDICATORS
SOFREL NEO LC	SOFREL NEO DMA	SOFREL NEO CWT
2DI	2DI/2AI	2AI
Remote reading for major consumers	Management of basic or “in/out” meters	Control of pressure sensors
	Pressure measurement and pollution detection	Pollution detection



SELF-MONITORING	PERMANENT DIAGNOSTICS AND RAIN GAUGE MONITORING	MONITORING OF WASTE WATER QUALITY
SOFREL NEO SWW	SOFREL NEO CWW	SOFREL NEO WWQ
2DI	2DI/2AI	2AI
Overflow detection	Overflow detection	Control of physico-chemical sensors
	Level measurement	

CONNECTED  
TECHNOLOGIES  
FOR **SMARTER**  
**WATER** &  
**ENERGY**



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