SOFREL LS-Flow

REMOTE READING OF FLOW METERS AND DISTRICT METERING

USES & BENEFITS

- **Remote reading of "major consumers" meters**
  - Monitor consumption levels
  - Detect consumption anomalies
  - Billing contribution
- **Remote reading of interconnection meters**
  - Inter-network transfer monitoring
- **Periodic reading of flow-meter registers**
  - Remote reading of electromagnetic flow-meters
  - Instantaneous flow monitoring
  - Flow-meter operational alarm monitoring
- **District metering**
  - Leaking sectors detections
  - Pressure and flow monitoring
  - Immediate alarm in case of an upstream or downstream pipe breakage
  - Improved network performance

PRODUCT FEATURES

- Enhanced IP68 waterproof rating
- Battery powered
- Integrated high performance 2G/4G M2M antenna
- Access to the SIM card and battery on site
- RS485 link for direct reading of internal flow-meter data(SIEMENS MAG 8000, ABB Aquamaster, KROHNE Waterflux or ARAD Octave)
- 3-year manufacturer guarantee

EASE OF USE

- On-site communication and exploitation via Bluetooth link
- Open to supervisory control software and third-party applications of major water operators
- Specific communication protocol guaranteeing data availability
- Simplified data exploitation via the SOFREL WEB LS IoT platform

MAIN FEATURES:

Communication


Simplicity

Waterproof

Battery life

Guarantee


Antenna FLEX

LACROIX

Technical and functional characteristics

GENERAL FEATURES:	
Mechanical design	Screwless opening system for easy access to the SIM card and battery
Dimensions	H 261 x W 155 mm
Weight	1,1 kg
Operating temperature	-20°c to +55°c
Storage temperature	-25°c to +70°c
Watertightness	Enhanced IP68 certification (30 days under 4 meters of water)
Power supply	Powered by an internal lithium battery
Connector types	Military-grade hermetic connector
DATA LOGGER INPUTS:	
RS485	RS-485 MODBUS link for interfacing with electromagnetic flow-meters Periodic acquisition of index values, instantaneous flow, alarms related to flow-meter performance, temperature and pressure data according to the electromagnetic flow-meter model
DI (Digital Input)	1 digital input for instant or timed signalling Maximum frequency: 250 Hz Minimum pulse time: 2 ms Maximum polarisation voltage: 3.3 V Maximum polarisation current: 15 µA
AI (Analog Input)	1 analog input for SOFREL pressure sensor or remote powering of a third-party sensor Remote powering of a third-party sensor via 4-20 mA loop, 12 V or 20 V
COMMUNICATION:	
2G/4G M2M quad-band modem	4G LTE-M : B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85 4G NB-IoT : B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85 Quad-band GSM/GPRS/EDGE (850 MHz, 900 MHz, 1800 MHz, 1900 MHz)
Supported SIM cards	Standard SIM cards (Nano and Micro SIM cards can be installed via adapter)
Versatile antenna (FLEX option)	4-meters, IP68-certified external antenna
Automatic data logger synchronisation	Daily synchronisation of the LS via the SCADA
Communication with 1 or 2 PCs	Periodic, programmed or event-based
Inter-sites communication to S500, S4W, YDRIX or AS	Periodic or event-driven (change of DI status or threshold exceedance)
Alert transmitted to mobile via SMS*	Upon change in DI state, exceeded threshold, sensor fault...
CONFIGURATION AND COMMISSIONING:	
Bluetooth	Data logger configuration via Bluetooth link
Assistance with commissioning	4G M2M and 2G reception level measurement LEDs for visual diagnosis of operation and 4G M2M/2G signal
Assistance with maintenance	Remaining battery life calculator
ARCHIVING:	
Local archiving capacity	100,000 data points
PROCESSING:	
District metering	Calculation of average flows Calculation of night flows Calculation of daily volumes, daily minimum and maximum flows
CERTIFICATIONS:	
CE Certification	2014/53/UE “Radio equipment” 2014/30/UE “Electromagnetic compatibility” 2014/35/UE “Low voltage”
Enhanced IP68 certification	Extended immersion test (30 days under 4 meters of water) performed by an independent laboratory
STANDARD BATTERY LIFE:	
2 counts and 1 pressure measurement every 15 minutes, processing and daily transmission to the SCADA	10 years

* Depending on the activation of the telecom operator

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