SOFREL LT RANGE

IoT DATA LOGGERS FOR WASTE WATER NETWORKS SELF-MONITORING

LT 42	LT-Radar	LT-US	LT-US Atex

FUNCTIONAL CHARACTERISTICS

COMMUNICATION	LT 42	LT-Radar	LT-US	LT-US Atex
DATA TRANSMISSION:				
- Sending of data to 1 or 2 SCADA Central Stations	IP 2G/3G	IP 2G/3G	IP 2G/3G	IP 2G/3G
- Communication medium				
- Versatile antenna management (FLEX version)	✓	✓	✓	✓
- Temporary exceptions	✓	✓	✓	✓
ALERT:				
- Send SMS alerts to mobiles	✓	✓	✓	✓
- Instant detection via a specific DI (intrusion on site)	✓	✓	✓	✓
- Sensor fault detection	✓	✓	✓	✓
CENTRALISATION:				
- SOFREL WEB LS (cloud hosting of data sent by LX data loggers)	✓	✓	✓	✓
- SOFREL PCWin2 (SCADA Central Station for SOFREL devices)	✓	✓	✓	✓
- Open to third-party applications (Web services and FTP)	✓	✓	✓	✓
- Analysis and exploitation of data on PC, tablet or smartphone	✓	✓	✓	✓
- Open to other SCADA systems		Contact us		
INTER-SITES:				
- Periodic or event-driven communications (change of DI status or threshold exceedance) to a S4W, S500 or AS for remote site control	✓	✓	✓	✓

I/O MANAGEMENT	LT 42	LT-Radar	LT-US	LT-US Atex
NUMBER OF INPUTS / OUTPUTS:				
- Digital Inputs (DI)	4	2	4	4
- Analogue Inputs (AI)	2	1	2	2
- Ultrasound probe			1	1
- RS485: interface and control of radar sensor Endress Hauser FMR20		✓		
SENSORS, ETC:				
- Flowmeter (metering input)	✓	✓	✓	✓
- Dry contact	✓	✓	✓	✓
- SOFREL CPR / CNPR Pressure sensors	✓	✓	✓	✓
- Remote power feeding to third-party sensors	✓	✓	✓	✓
- Lacroix Sofrel Ultrasound Probe		✓	✓	✓
- Autonomous sampler control	✓	✓	✓	

TREATMENT	LT 42	LT-Radar	LT-US	LT-US Atex
CALCULATIONS:				
- Daily balance of number of passes by 1 for each DI/Threshold	✓	✓	✓	✓
- Daily balance of total duration of active states for each DI/Threshold	✓	✓	✓	✓
- 2 conversion tables for calculating daily flow and volume from height measurement	✓	✓	✓	✓
- Daily district metering balance (night flow, max flow, min flow and daily volume)	✓	✓	✓	✓
ARCHIVING:				
- Daily balances and archiving of meters and flows	✓	✓	✓	✓
- Archiving changes to DI states and thresholds	✓	✓	✓	✓
- Variable archiving period	✓	✓	✓	✓
- Differentiated archiving for each AI	✓	✓	✓	✓

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SOFREL LT RANGE

GENERAL CHARACTERISTICS:

Mechanical design	Screwless opening system for easy access by the user 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	Reinforced IP68 certification (100 days under 1 meter of water) obtained from an external laboratory
Power supply	Power supply by an internal lithium battery: - Standard battery life: 5 years, high capacity battery life: 10 years Power supply by an external source (only FLEX version)*: - Photovoltaic cell, mains power, micro-turbine or battery kit - Input voltage : 5-30VDC - Required power : 3W – Inrush current : 3A
Connector types	Military-grade waterproof connectors

CONNECTIONS:

DI (Digital Inputs)	4 digital input for standard and bidirectional metering and signalling (Except LT-Radar: 2DI) Maximum frequency: 250 Hz Minimum pulse time: 2 ms Polarisation voltage: 3.3V max Polarisation current: 15µA max
AI (Analog Inputs)	2 analogue inputs for remote power feeding to third-party sensors via 4-20mA loop in 12V or 20V (Except LT-Radar: 1AI)
Radar	RS-485 MODBUS link for interfacing with "Endress Hauser FMR20" radar sensor Precision : +/- 2mm - Distance : 20 meters Acquisition of status information and radar diagnostic
US	Lacroix Sofrel Ultrasound Probe for level measurement, 0-3 metres Deadband: 17 cm Precision: +/- 3 mm Resolution: 1 mm 8° Measuring cone Cable length: 5 or 10 m

COMMUNICATIONS:

Quadriband 2G/3G modem	Quad-band GSM/GPRS/EDGE (850 MHz, 900 MHz, 1800 MHz, 1900 MHz) Hexa-band UMTS WCDMA FDD (800 MHz (B19), 850 MHz (B5/B6), 900 MHz (B8), 1900 MHz (B2), 2100 MHz (B1))
SIM cards supported	Standard SIM cards (Nano and Micro SIM cards can be installed via adapter)
Versatile antenna (FLEX version)	External, 4-meters-long antenna, IP68 certified
Configuration of the Data Logger	Daily configuration of the LT via SCADA
Communication to 1 or 2 PCs	Periodic, programmed or event-based

CONFIGURATION AND COMMISSIONING:

Bluetooth	Data logger configuration via Bluetooth connection
Assistance with commissioning	3G and 2G signal reception measurement 3G and 2G best operator test LEDs for visual diagnosis of 2G and 3G operation and signal
Assistance with maintenance	Calculation of remaining battery life

LOCAL DATA ARCHIVING:

Archiving capacities	50,000 data points

Not available for LT-US Atex

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