ISURLOG NB

Smart self-powered IIoT On-the-cloud data logger

ISURLOG NB (2nd generation) IIoT data logger is based on the cutting edge SP-IIoT-SAP (Self Powered Industrial Internet of Things Sensor Access Point) technology, offering the next outstanding features:

✔ Operates using on board rechargeable batteries, guaranteeing 400 days of minimum autonomy (considering 1 analogue input and 1 counter log cloud uploading every 15 minutes).

✔ **Anytime available** Telegram based remote user interface for:

- User parameters configuration.
- Alarms management.
- Real time values and states monitoring.
- On the cloud logged data download and management.
- Remote diagnostics and reboot.

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Instrumentación·y·control

✉ Gabiria 2, 1-L E-20.305 Irun SPAIN ☎(34)943-635437
irisboxpc@isurki.com https://isurki.com/Isurlog_2E.html

✔ 4 x 4-20 mA analogue inputs, active/ passive loop (adjustable power supply provided by the unit), **16 bits resolution**.

✔ 1 x potential free digital inputs for counters, meters and flowmeters, alarm signals and operational status.

✔ 1 x solid state relay digital output, for field actuators control.

✔ outdoors deployment ABS plastic case design features UV protection, IP67 / IK07 protection degree and -40 to +85 ºC extended temperature range.

✔ on the cloud logged data hosting.

✔ RS485 Modbus RTU data streaming to third party devices.

✔ IIoT-NB connectivity.

⇧ **ISURLOG NB** *field unit for drinkable water distribution network pressure monitoring*

ISURLOG NB [1] is based on **SP-IIoT-SAP** (*Self Powered Industrial Internet of Things Sensor Access Point*), thus offering:

- Rechargeable batteries power supplied.
- Data monitoring and device management from/to any smart terminal.
- General purpose input/outputs allowing the connection of practically any sensor.
- On the cloud data hosting.
- IIoT-NB connectivity.

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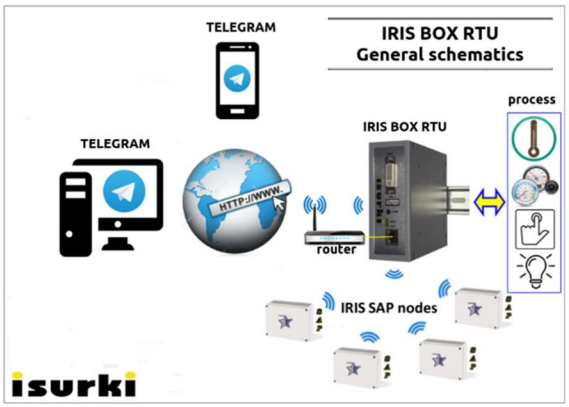
⇦ ⇧ **ISURLOG NB** *field unit for HVAC network temperatures monitoring at a health service facility.*

[1] As a result of a constant evolution, here in stated characteristics can be upgraded and changed without previous notice to customer. Please ask for the last datasheet version contacting directly with our company.

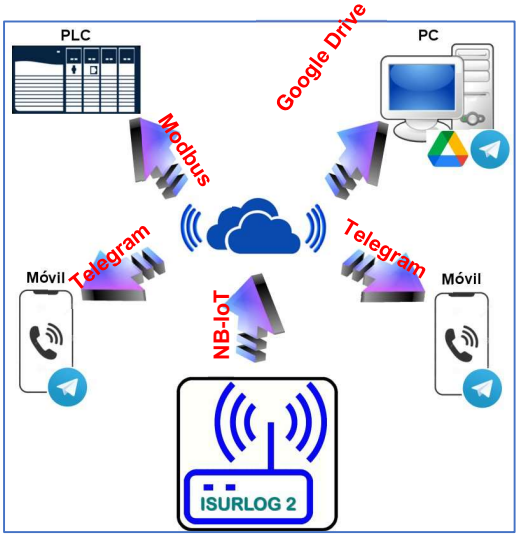


⇧ **ISURLOG NB** may be deployed as either stand-alone units or as a decentralized distributed periphery of the IRIS IIoT ecosystem (i.e., as a wireless sensor access point of the IRIS BOX RTU neural network controller and gateway, providing remote access to a wide geographical areas).

ISURLOG NB uploads logged data files to the cloud on a user-configurable interval, ranging from 5 up to 1440 minutes.

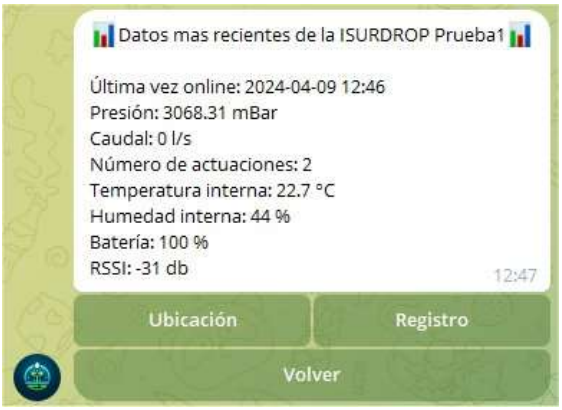
Logged data files are Google Drive accessible in a .csv format, thus providing direct importation from any datasheet application.

ISURLOG NB features user-friendly configurable Modbus RTU links to third-party industrial automation devices, such as PLCs, PCs, controllers etc, automatically transmitting data strings containing the last acquired parameters' values. Therefore, **ISURLOG NB** can act as a centralized *wireless sensor access point* for any Modbus RTU field device.



DashBoard (IsurCloud app)

The units update on the cloud, according to the latency time configured by the user, the readings of the process parameters, the odometer reading of the counter and the battery level, showing the last readings as well as the historical evolution of the field parameters. The access is performed in a secure way to a web server protected with a user's credentials login ⇩.



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tecnica@isurki.com www.isurki.com www.irisboxpc.com

⇧ Legionella prevention units in a HVAC network of a hospital, measuring supplying ring flow and temp.
⇦ IP66, 300x265x165 mm cabinet execution for robust outdoors deployment and solar panel supply.

AREAS OF APPLICATION

- ✓ Environment and climate change.
- ✓ Green energies.
- ✓ Instrumentation and sensors.
- ✓ Smart cities.
- ✓ Smart buildings.
- ✓ Industrial control.
- ✓ Sustainable agriculture.
- ✓ Health care.
- ✓ Weather.
- ✓ Road and transport networks.

SMART WATER SPECIFIC FUNCTIONS FOR WATER NETWORKS

- ✓ Radar and ultrasonic level sensors: specific configuration parameters for calculation of the net effective level.
- ✓ Submersible level sensors: positive offset configuration to consider the vertical distance between the zero of the sensor and the origin of the level measurement (tank floor, channel…).
- ✓ Storm tanks: increase the frequency of data upddating (latency time) by automatically detecting the overflow level.
- ✓ Compatible with the intelligent **WISE** platform, software focused on assisting in operational decision-making in the technical management of drinking water distribution networks.

WISE
Water Infrastructures' Software based Efficiency

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isurki@isurki.com https://isurki.com/indexE.html

ORDER CODING

Image	Description	Reference
	IIoT Data logger, basic execution. • Delivered format: PCB (no housing). • 4 x 4-20 mA analogue inputs, active or passive current loop, 16 bits, powered by the unit. • 1 x voltage free digital input (counters/on-off state). • 1 x 2amps solid state relay digital output. • 1 x Pt100/Pt1000(optional), 2-3-4 wires. • 1 x RS485 Modbus RTU comms port. • 1 x Air quality and atmospheric sensor BMA680. • WiFi & Bluetooth connectivity. • RTC. • Without LoRa chip. • Local datalogging. • 1 x 2 ion-lithium rechargeable battery pack included. • External 6-24 Vdc power supply. • Includes micro photovoltaic solar panel integrated into the PCB. Requires basic box with transparent lid.	**ISURLOG-NB**
	Additional battery pack with 3 x NCR18650 ion-lithium cells. • x (0,1) ○ x = 0: without 2nd battery pack. ○ x = 1: with 2nd battery pack.	- BPx
x = 2 	NB-IoT connectivity: • x (0,1,2) ○ x = 0: without (only on-site WiFi data download). ○ x = 1: NB-IoT + internal flexible antenna. ○ x = 2: NB-IoT + 3 dBi elbowed antenna mounted in the box.	- COMx
	1 x Pt100/Pt1000 temperature sensor, IP67, with SPI bus connection of. • x (0,1) ○ x = 0: without temperature sensor. ○ x = 1: with SPI bus + 1 x Pt100 sensor, 8x8x35mm probe, -50…200ºC, 2 m cable. ○ x = 2: with SPI bus + 1 x Pt100 sensor, 8x8x35mm probe, -50…200ºC, 5 m cable.	- SPIx
	External additional power supply for basic enclosure (optional): • x (0,1,2,3) ○ x = 0: no additional external power supply. ○ x = 1: embedded solar panel on PCB + plastic case with clear lid. ○ x = 2: 230Vac to 5Vdc USB charger with 2 m cable. ○ x = 3: energy harvesting (no batteries, super capacitor powered by Peltier cell). TBD.	- EPSx
	Basic enclosure: • x (0,1,2) ○ x = 0: without enclosure. ○ x = 1: complete unit mounted in an indoor box, 122 (width) x 120 (heigth) x 86 (depth), in mm, all accessories included. Material: PLA. Not suitable for outdoor installation. ○ x = 2: complete unit mounted in an outdoor IP67 box, 122 (width) x 120 (heigth) x 86 (depth), in mm, all accessories included. Material: ABS.	- 1PCx

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isurki@isurki.com https://isurki.com/indexE.html

x = 2 	Double waterproof plastic housing for outdoor installation, IP67, 300 (height) x 265 (width) x 165 (deep), in mm: • x (0,1,2,3) ○ x = 0: without. ○ x = 1: full unit, all options and accessories included and assembled in the plastic case. It contains the basic enclosure (1PC1 option) inside. ○ x = 2: adds an external solar panel (6W, 211x175x15 mm, orientable mounting holder, 4m cable, IP65) supply to the 2PC1 option. ⇦ ○ x = 3: adds 230Vca input power supply to the 2PC1 option.	- 2PCx
	x (0,1,2,3) = Gauge pressure sensor, available ranges: 0-6 (1), 0-10 (2) and 0-16 (3) bar, 4/20 mA 2 wire output signal, 8-30Vdc power supply, AISI316L case, 0,6 m cable for connection with **ISURLOG** included, IP67, ¼" M process connection.	- PSx
	**IsurCloud**: cloud data connectivity. • x (0,1) ○ x = 0: Only local WiFi data download. ○ x = 1: **IsurCloud Basic:** Cloud data upload latency ≥ 5', Google Drive accessible in both tabular and graphical format. Telegram and email alarms messaging. Last 365 days back up.	- ICSx

ACCESORIES AND SPARE PARTS		
Item	**Description**	**Reference**
	Pack of three additional NCR18650 ion-lithium rechargeable batteries.	BatPack

ENVIRONMENTALLY FRIENDLY

Since our beginnings in 1992, ISURKI has been involved in the application of cutting-edge technologies to provide products and solutions that help preserve the environment and natural surroundings.

As a result of this business approach, we are committed to reducing as much as possible the impact that the production and marketing of our products can have on the environment.

All our devices and spare parts provides traceability that allows us to know the fleet of operational units deployed in the field.

Likewise, both the devices and the batteries used in them have been declared and registered within the European Recycling Platform, which guarantees the correct recycling of these at the end of their useful life.

Finally, we apply environmental criteria in the design of our products, especially in terms of compliance with applicable regulations (RoHS), materials, type of energy sources (Energy harvesting, rechargeable batteries only, ...) as well as in the implementation of operational management routines that reduce the consumption of each unit as much as possible and maximise the autonomy time of the batteries.


Member of European Recycling Platform

MEMBERSHIP
CERTIFICATE

This is to certify that

ISURKI, S.L.
with ID number B20430427

is a member of the **WEEE** Producer Compliance Scheme of ERP SPAIN with the following Producer Registration Number (RII_AEE number)

13798

4 of April, 2024

Matias Rodrigues
General Manager

European Recycling Platform

EUROPEAN RECYCLING PLATFORM RAEE, S.L.
C/Raimundo Fernández Villaverde, nº 61 8º centro izqda. 28003 - Madrid
empresas@erp-recycling.org
Tel. +(34) 91 806 30 42


Member of European Recycling Platform

MEMBERSHIP
CERTIFICATE

This is to certify that

ISURKI, S.L.
with ID number B20430427

is a member of the **BATTERIES AND ACCUMULATORS** Producer Compliance Scheme of ERP SPAIN with the following Producer Registration Number (RII_PYA number)

4598

4 of April, 2024

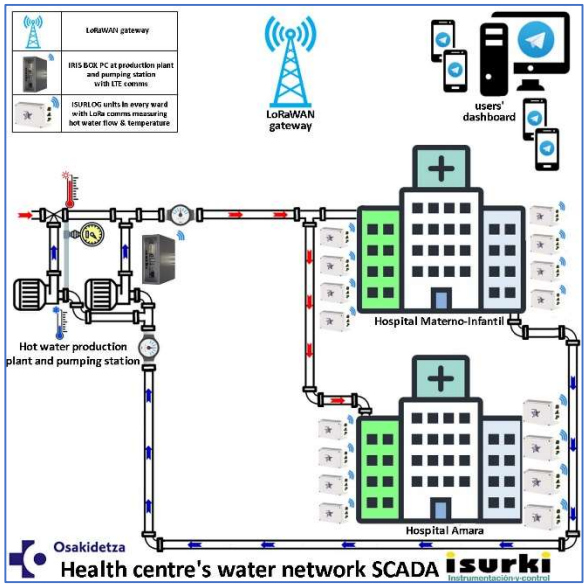
Matias Rodrigues
General Manager

European Recycling Platform

ERP España S.L.U.
C/Raimundo Fernández Villaverde, nº 61 8º centro izqda. 28003 - Madrid
empresas@erp-recycling.org
Tel. +(34) 91 806 30 42

A BIT OF HISTORY

ISURKI was founded in 1992 with the aim of providing the most advanced electronic, computing & communications technologies to the industry and the resources and facilities management companies to improve the supervision and control of their processes and infrastructures.



*Sanitary hot water control system based on **IRIS IIoT** ecosystem at the Hospital Universitario Donostia (Spain).*

ISURLOG-NB is the result of applying all this expertise to the hardware and software design of this industrial device, focused on its use within the **IRIS IIoT** Industrial Internet of Things ecosystem. This background and mastery of the aforementioned technologies allow us to design tailor-made solutions adapted to the requirements of each application, offering an extremely competitive final product in terms of price and performance. Last but not least, an excellence-based technical assistance and hotline service during the pre-sales and after-sales stages, together with the support of our matrix suppliers, guarantee the best results for the **ISURLOG-NB** unit in your application.

Company headquarters in Irun, Basque Country, Spain.

TECHNICAL SUPPORT

+34-943-63.54.37 irisboxpc@isurki.com https://isurki.com/indexE.html