iJiNUS
GROUPE CLAIRE

Performance
of sanitation systems and Natural water

2024 CATALOGUE

claiRE

The challenges of sanitation

Droughts, floods, the quality of aquatic environments, the condition of water and wastewater infrastructures... the increasing pace of change around the world is having a major impact on water management (population growth, economic development and changing consumption patterns).

Climate change is likely to slow or hinder progress in providing safe drinking water and sanitation to billions of people around the world.

Wastewater treatment is not a service that everyone has access to: in 2017, 55% of the world's population did not have such access, i.e. more than 4 billion people, and they did not have access to facilities that were managed in complete safety.

Against this background, it is essential to place the management of water resources at the very forefront of our priorities.

The first step towards improving network efficiency to contribute to its sustainability and provide a trouble-free service involves installing reliable products made from high-quality materials and proven expertise. Monitoring (measuring parameters and detecting anomalies), supervision (prioritising work and maintenance) and remote action (control) also help to improve the safety of the water supply, and help to improve the management and performance of water networks in order to safeguard resources.

3.4 billion

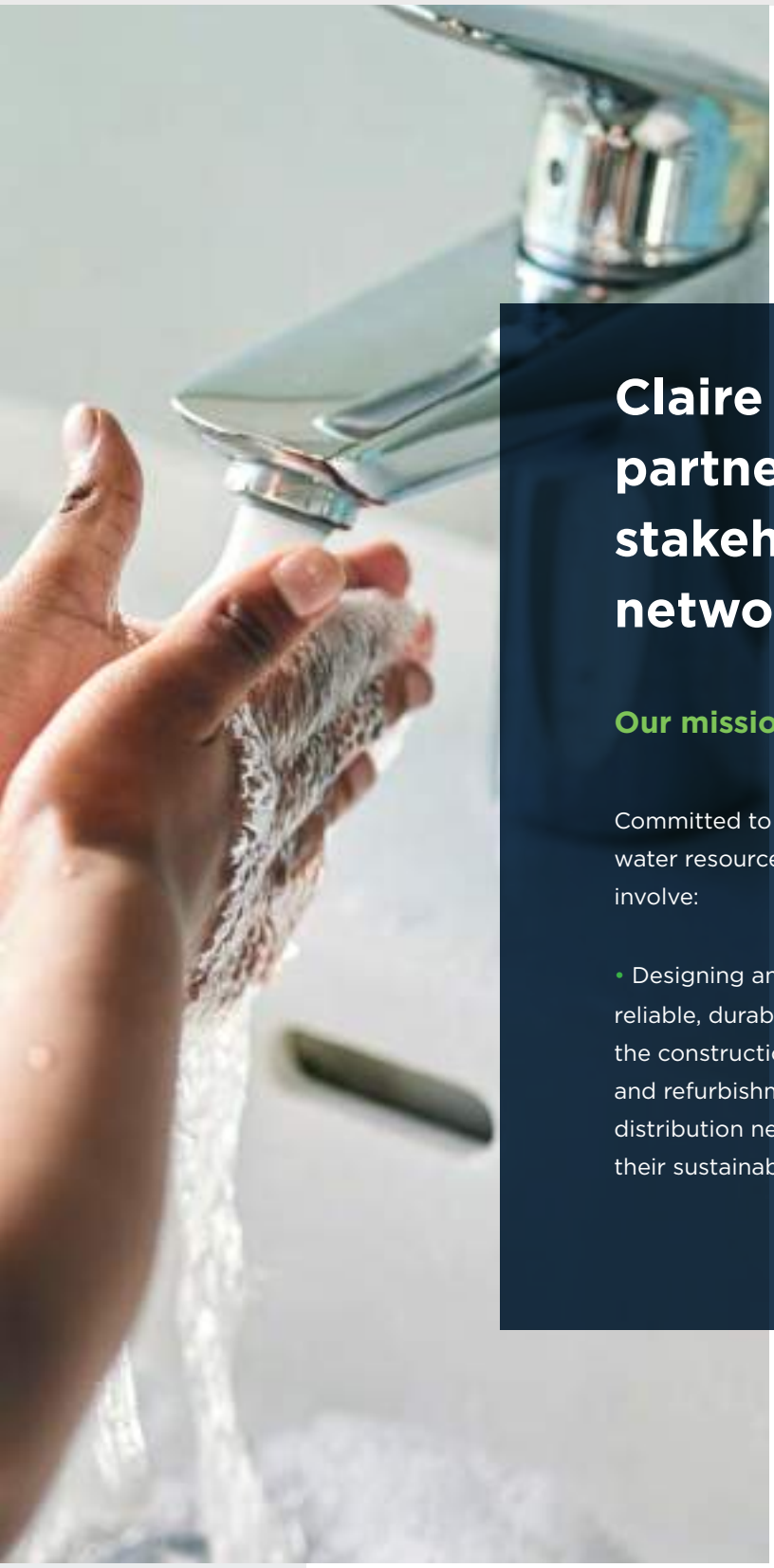
people have access to safe sanitation facilities

80% **wastewater industrielles** **& 44%** **wastewater domestiques**

worldwide is discharged untreated into the environment


55%
of the world's population
does not have access to sanitation
or is inadequately served


claiRE
Let’s conserve
the resource together
for future generations



Claire Group, a trusted partner of water stakeholders serving network performance

Our mission: Conserving Water resources

Committed to conserving water resources, our actions involve:

- Designing and manufacturing reliable, durable equipment for the construction, maintenance and refurbishment of water distribution networks to ensure their sustainable efficacy
- Developing products for diagnostics, monitoring and management to improve the water network performance
- Providing resources and information to allow everyone to optimise their use of water

SAINTE-LIZAIGNE
GROUPE CLAIRE

Equipment and management for the drinking water network and irrigation

E.I.E
GROUPE CLAIRE

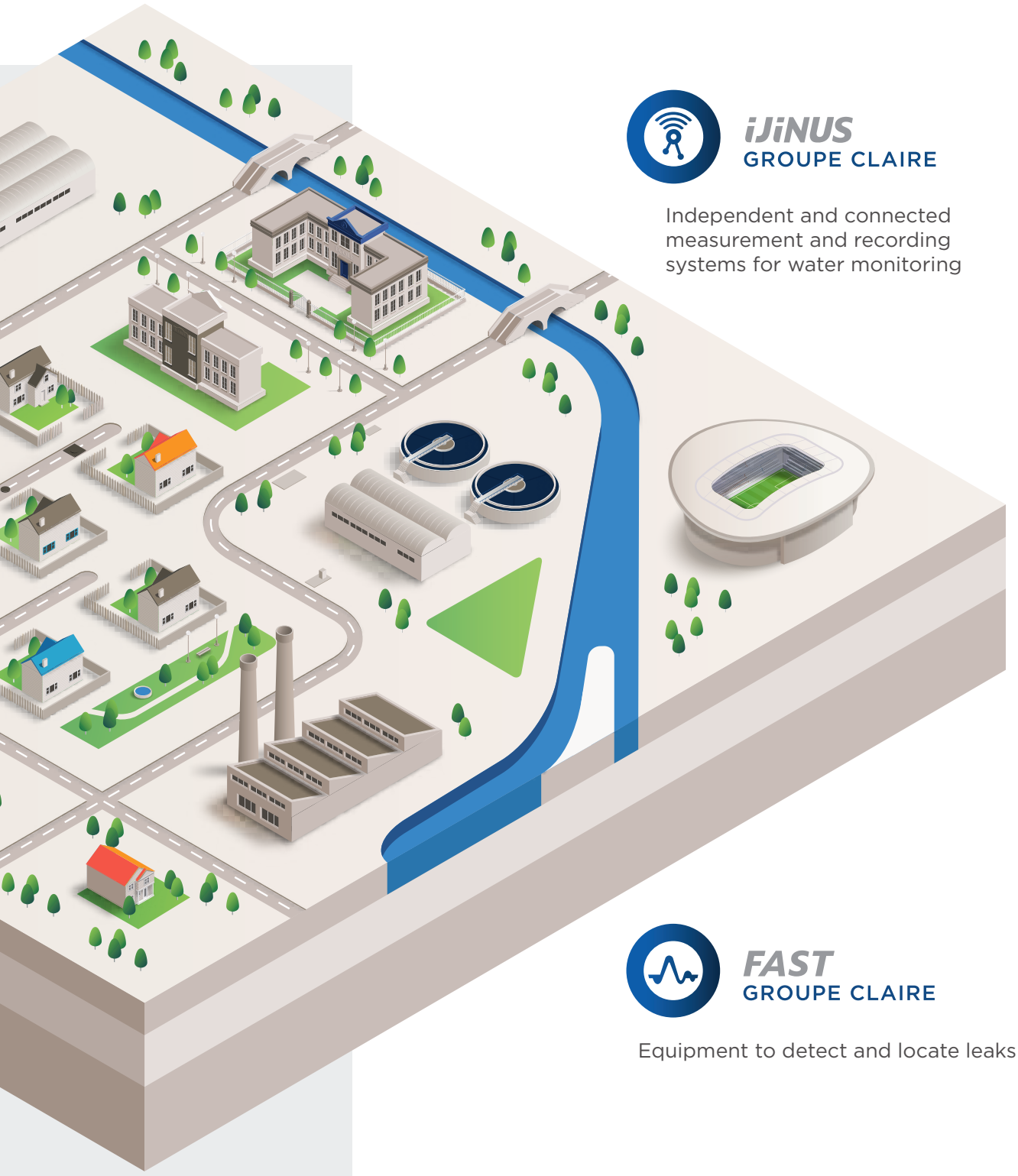
Intervention solutions without cutting off the water networks

HYDROMECA
GROUPE CLAIRE

Customised metering systems and tools

claire

Drinking water **Natural water** **Waste water**



iJiNUS
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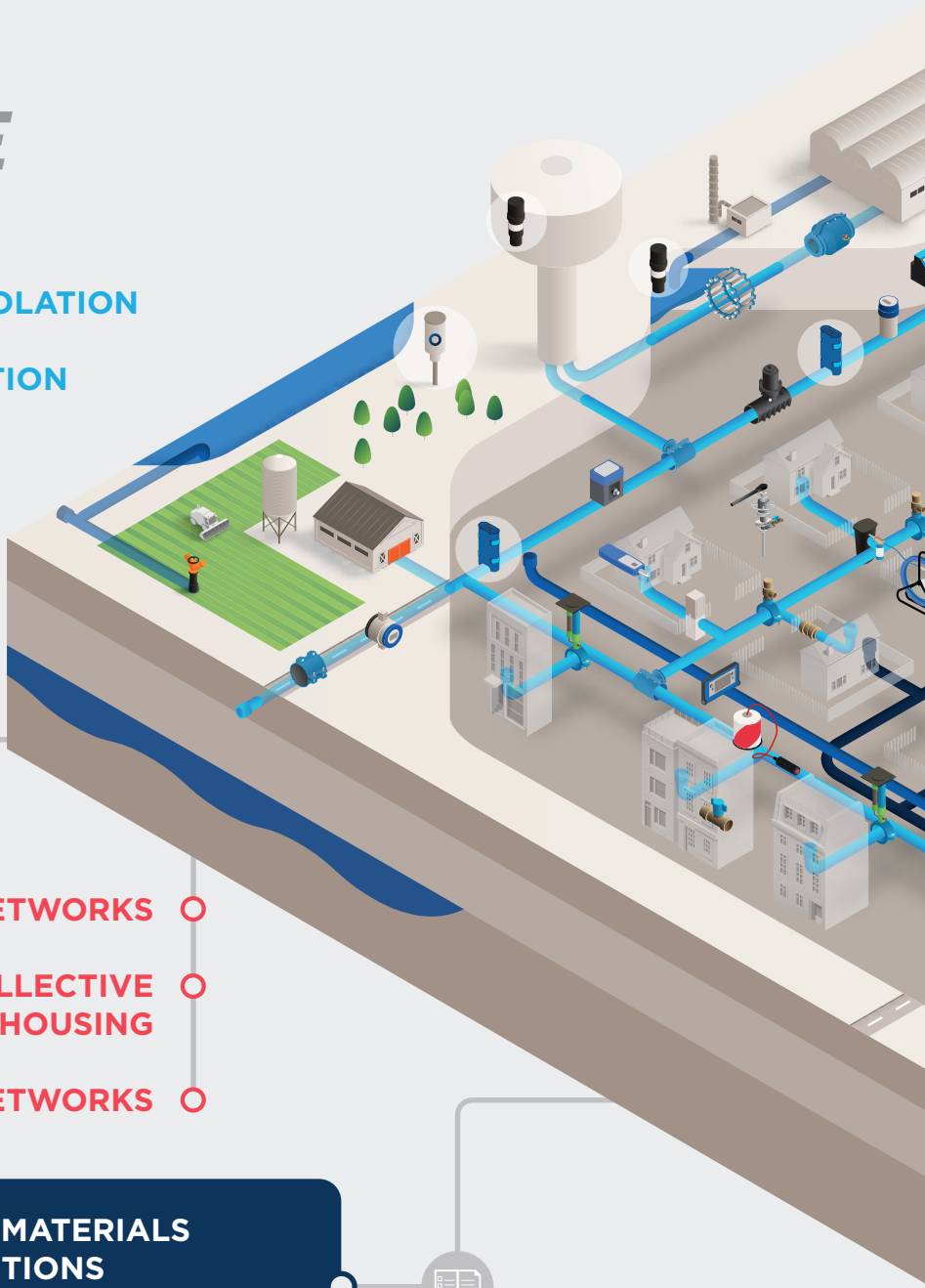
Independent and connected measurement and recording systems for water monitoring

FAST
GROUPE CLAIRE

Equipment to detect and locate leaks

claiRE

- BRANCH CONNECTIONS & ISOLATION
- CONSUMER HOUSE CONNECTION
- METERING ENVIRONMENT
- REPAIR & CONNECTION
- TOOLS AND MAINTENANCE



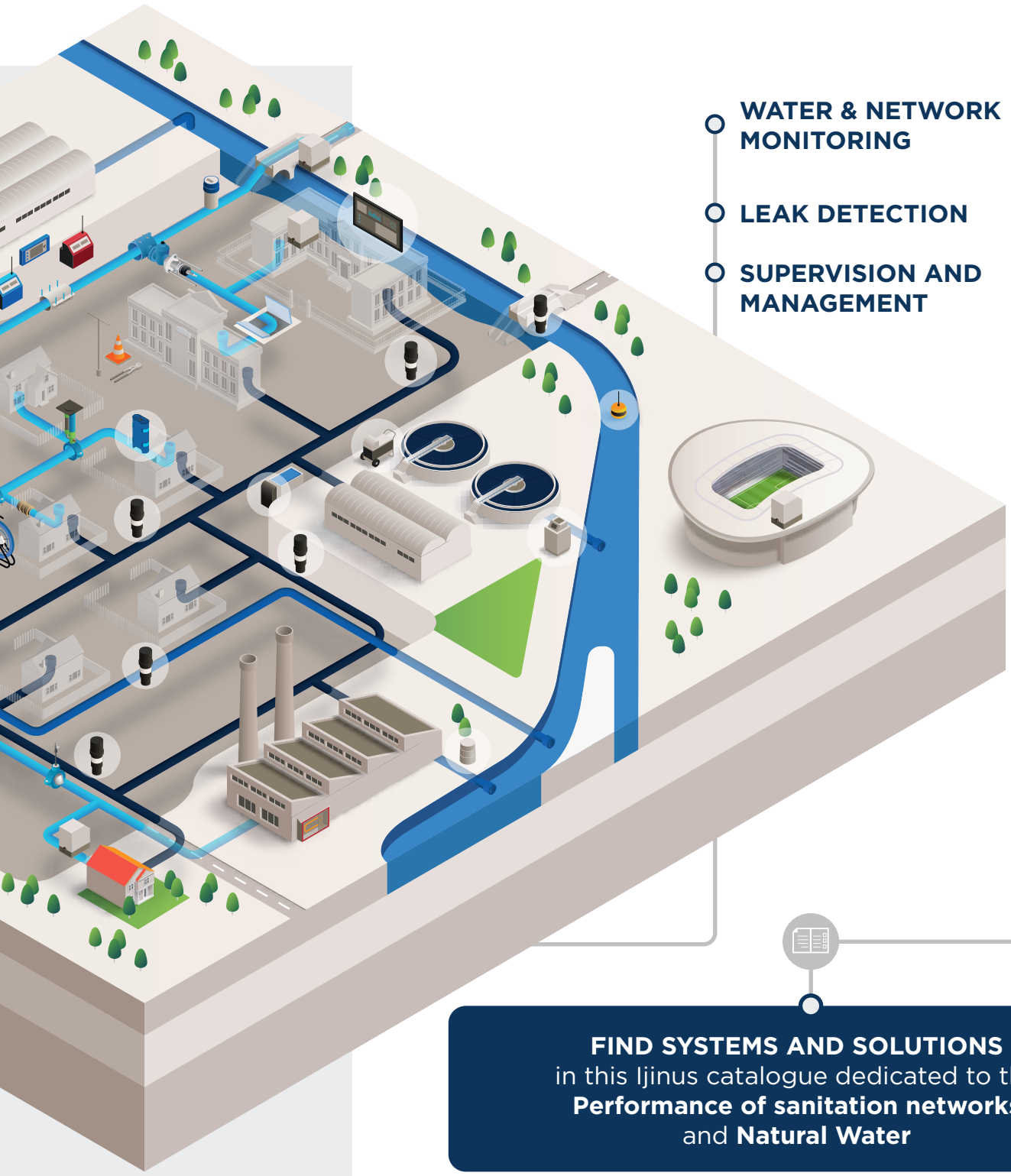
- IRRIGATION NETWORKS
- WATER NETWORKS FOR COLLECTIVE HOUSING
- INDUSTRIAL GAS NETWORKS

FIND SYSTEMS, MATERIALS AND SOLUTIONS
in our Claire catalogue dedicated to the **Performance of drinking water networks**

iJiNUS GROUPE CLAIRE

FAST GROUPE CLAIRE

WAYVE GROUPE CLAIRE



- **WATER & NETWORK MONITORING**
- **LEAK DETECTION**
- **SUPERVISION AND MANAGEMENT**

FIND SYSTEMS AND SOLUTIONS
in this Ijinus catalogue dedicated to the
Performance of sanitation networks
and **Natural Water**

iJiNUS
GROUPE CLAIRE

Our services

Claire training centre

A customised training programme is offered to operators, installers and design offices, etc. on the Sainte-Lizaigne campus. With themed or customised modules, it allows teams to learn effectively in real-life conditions.

Quality support

- Showroom + dedicated training premises
- 600 m^2 outside space in real-life conditions
- 300 m of different pipes including Claire group products and combining PE, PVC and cast iron pipes

Simplified logistics

- Training centre based in central France
- On-site catering services
- Option to arrange accommodation

A customised offer

- Various modules are available: water management, house connection, leak detection, Wayve, etc.
- A customised programme tailored to your project
- Partners to enrich the range

Online services

Claire Group is a combination of skills, expertise and people who work hard every day to preserve Water resources. Claire invites you to learn all about its mission, initiatives and solutions to tackle the challenges related to water by visiting its dedicated website **groupe-claire.com**!
Claire's multilingual teams offer a wide range of equipment and solutions to support you in your projects for construction, renovation, leak detection and water network monitoring.
It also contains information about the group, new products, our presence at trade fairs, industry events and our latest news.

Rental / After-sales service and assistance

From manufacturing to rental of equipment

Sensors and data loggers are designed and manufactured on the Ijinus site. Special care is taken when assembling the products to ensure that they are properly sealed for use in the field.

A special area is dedicated to the rental of measuring equipment. It includes everything needed to clean and refurbish the equipment and get it back into service. Each item of equipment returned is subject to a specific procedure to ensure a new, reliable and effective measurement campaign.

Ijinus has an after-sales service, a dedicated area where technicians can advise installers on how to use the products.

Our brands

iJiNUS GROUPE CLAIRE

Ijinus is specialised in the development of **autonomous and smart measuring and data logging systems to monitor water**: metrology equipment, automated water samplers, sensors and data loggers connected to a supervision application and platform.

ijinus.com

• **Solutions to conduct diagnostics of drinking water supply networks,** such as the **BLUE logger** from iJiNUS GROUPE CLAIRE

• **Equipment** FAST GROUPE CLAIRE for **detecting and locating leaks**

• **Smart boxes** to **control water consumption** WAYVE GROUPE CLAIRE

are available **in our catalogue** **Performance of drinking water supply networks**

Main contents

Smart, connected network management with our range of AUTONOMOUS DATA LOGGERS

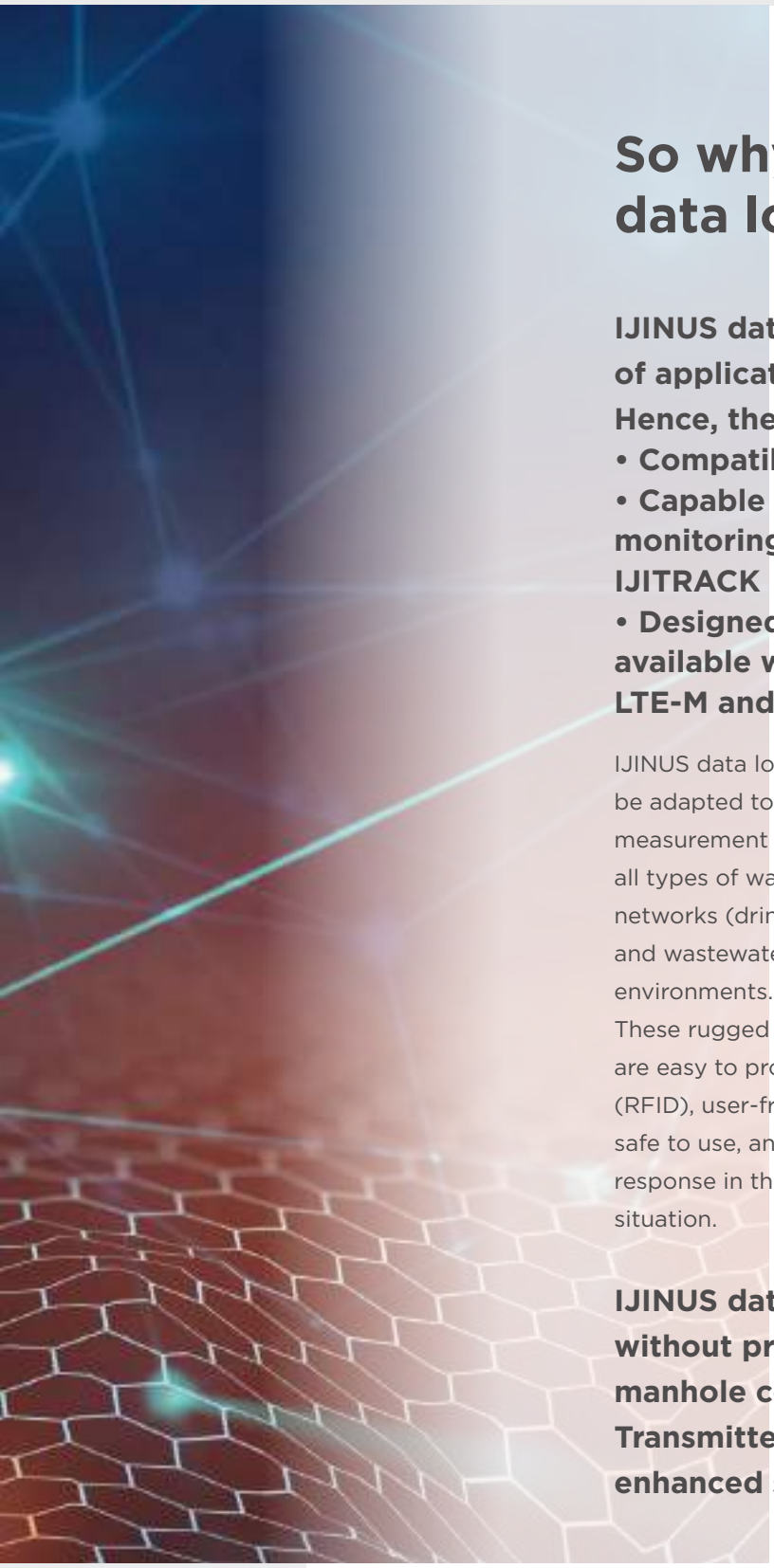
What is an autonomous data logger?

A data logger transmits the measurements collected by one or more sensors to supervision tools via different communication protocols (GSM, GPRS – 2G, MODBUS, LTE-M and NB-IoT).

Therefore, it simplifies the management of environmental data on drinking water, wastewater and surface water. The data are transmitted to a platform or to software where they can be compiled, compared, analysed and interpreted.

A data logger is described as being autonomous when it does not require an external power supply. **All IJINUS data loggers are autonomous and supply power to the sensors with which they communicate via their own internal battery*.**

*a battery pack is available for the most power hungry sensors.



So why use an IJINUS data logger?

IJINUS data loggers can be used for a multitude of applications.
Hence, they are:
• Compatible with a wide range of sensors
• Capable of being interfaced with most monitoring platforms and software, including IJITRACK
• Designed to communicate over all commercially available wide area networks: GSM, MODBUS, 2G, LTE-M and NB-IoT.

IJINUS data loggers can be adapted to all your measurement campaigns, all types of water networks (drinking water and wastewater) and all environments.
These rugged data loggers are easy to program by radio (RFID), user-friendly and safe to use, and offer a fast response in the field in any situation.

They have been developed by our teams and are designed to be independent and long-lasting, with a 5-year battery life (for 1 measurement every 15 minutes and 1 transmission per day). The data are characterised by a quality indicator to provide the highest possible reliability.

IJINUS data loggers can be configured remotely, without prior activation or the need to open the manhole covers.
Transmitted data is encrypted using FTPs for enhanced security.

A complete range for all market sectors and applications

The LOG range comprises 3 models of data loggers that can be customised to suit your specific requirements

COMMUNICATIONS

MEASUREMENT

APPLICATIONS

ACCESS POINT

COMPATIBLE SENSORS

Technical characteristics

Memory: 500,000 measurements
Battery-powered
Seal: IP68 (1 bar/30 days)
Wireless configuration by radio
Communications: locally by radio (RFID), and depending on model GSM, GPRS, 2G, LTE-M, NB-IoT

LOG03	LOG04	LOG09
4-20mA	MODBUS RS485	4-20mA – MODBUS RS485
Height flow using pressure probe	Flow by Height / Velocity Physico-chemical	Flow by Height / Velocity Physico-chemical Height and Flow using pressure probe
CSO / SSO Groundwater resources Lift station Rainfall	CSO / SSO Lift station Physico-chemical Rainfall Electromagnetic flowmeter	CSO / SSO Lift station Groundwater resources Electromagnetic flowmeter
HF / Cellular	HF / MODBUS / Cellular	HF / Cellular
Overflow detector Clamp-on ammeters Relative pressure level sensors CNR and CNRT series Rainfall Pressure probe Slope sensor Other 4-20mA output sensors 100-Hz meters	Submerged height/velocity sensor VLI and KDO Submerged Doppler velocity sensor UB-V Overflow detector Clamp-on ammeters Physico-chemical water quality sensor Rain gauge RG20 and RG25 Electromagnetic flowmeter (MODBUS) 100-Hz meters	Relative pressure level sensors CNR and CNRT series Pressure probe CPA Physico-chemical water quality sensor Electromagnetic flowmeter (MODBUS)
		

Why choose the IJINUS level sensor?

A compact, all-in-one solution

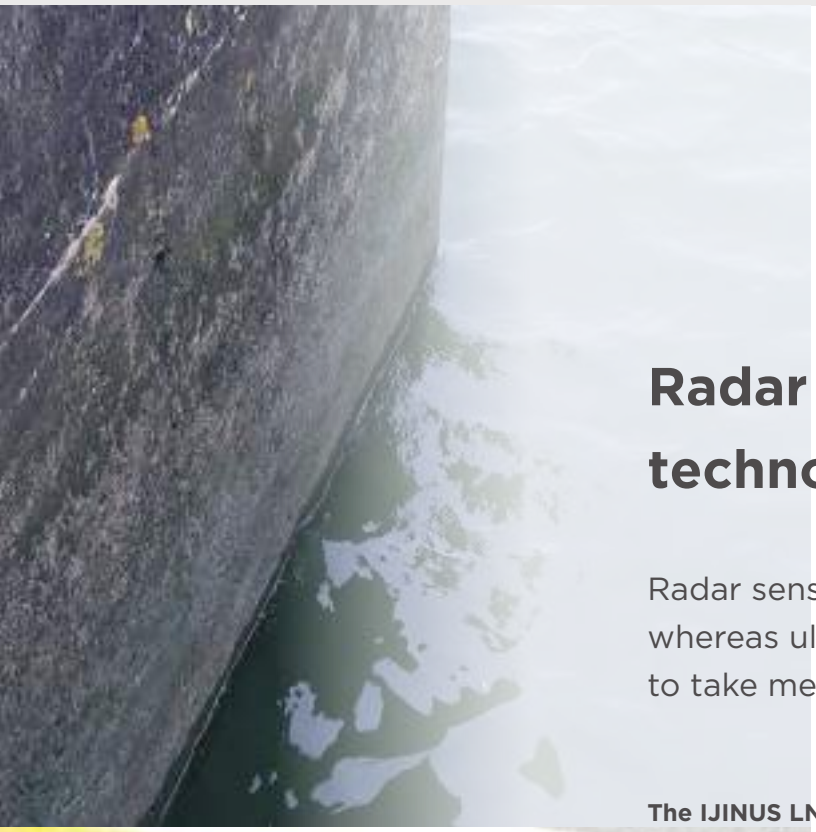
The Ijinus sensor incorporates a contact sensor and battery-powered data logger in a single compact module to measure, record and communicate data, all without any exposed cables.

This means that a single box replaces the conventional measuring kit consisting of a sensor, a power supply and a PLC for data retrieval.

This makes it more discreet and **reduces its visual impact on the natural environment**.

This all-in-one concept also makes it **easy to install**. It is a Plug&Play solution with no need for an external power supply (built-in battery). The radar sensor consists of a single, compact, lightweight unit that can be fixed to a wall. By purchasing the box as a single unit, you can **optimise costs**, instead of having to acquire various measuring, power supply and data transmission devices.

Multi-modal communications
Data can be transferred via 2G and 4G networks (LTE-M / NB-IoT).



Radar or Ultrasonic technology?

Radar sensors use **electromagnetic waves,** whereas ultrasonic sensors use **sound waves** to take measurements.

The IJINUS LNU ultrasonic level sensor is recommended for continuous diagnostics of sanitation networks: in CSOs / SSOs, drainage pipes, etc. It provides highly accurate measurements in stable climatic conditions and in places that are relatively difficult to access.

The IJINUS LNR radar level sensor is ideal for outdoor use in areas exposed to adverse weather conditions. It is the best choice to monitor:

- Watercourses: management of low water levels and high water levels (floods), for which sensors are often installed on bridge piers

- Rainwater storage / retention basins (to ensure that the basin is the right size, and that no outlets are blocked, etc.).

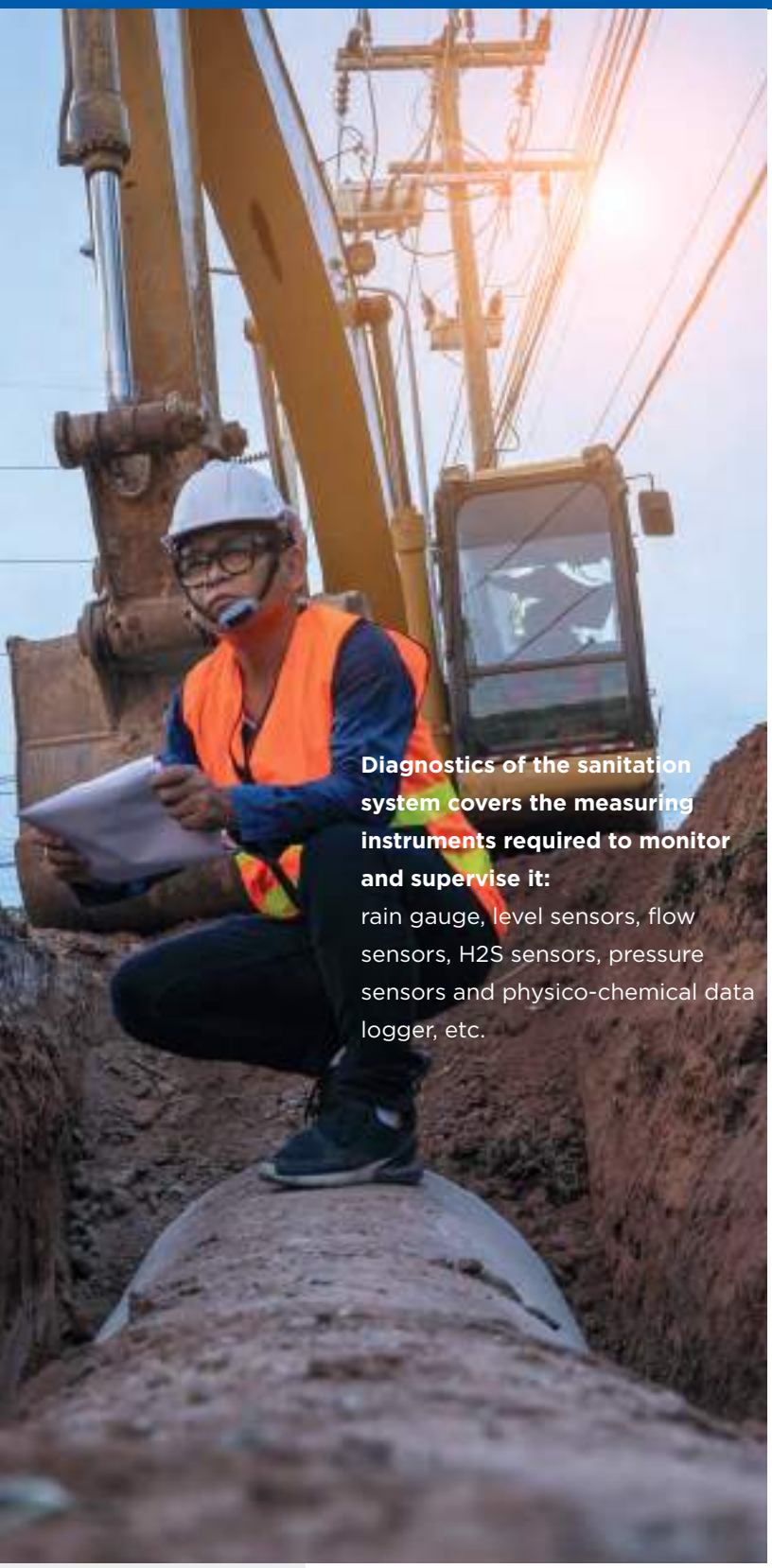
- Wastewater treatment plant inlets and outlets (legal obligation to measure flows at plant inlets and outlets. By measuring the water level, the flow rates can be calculated by conversion)

Conserving resources

Sanitation is a process that encompasses wastewater collection, treatment and discharge into the natural environment. It also includes the management of rainwater and run-off water, which impacts the sanitation system.

To safeguard the sustainability and performance of the sanitation system, which is a community asset, continuous monitoring facilities are required. The measurement of certain parameters such as rainfall, levels, flow and H2S, as well as monitoring of groundwater infiltration, provides information on the operation of the sanitation system, its infrastructure and equipment. This optimises management of the sanitation system and prioritises the measures to be taken.

IJINUS provides **smart instrumentation for continuous diagnostics** of the sanitation system.



Diagnostics of the sanitation system covers the measuring instruments required to monitor and supervise it:
rain gauge, level sensors, flow sensors, H2S sensors, pressure sensors and physico-chemical data logger, etc.

LEVEL

The **wired overflow detector CSC,**
see p.28

FLOW

The **autonomous ultrasonic level sensor** for **water level and flow measurement, LNU06,**
see p.32

H2S

The **LOGAZ smart H2S sensor,**
see p.46

iJiNUS GROUPE CLAIRE

Autonomous rain gauge RG20 / RG25

As rainfall measurement is crucial for flood prevention and management, as well as to more accurately anticipate potential water shortages, Ijinus offers an autonomous, smart rain gauge. The RG20 or RG25, together with its data logger, is very easy to install and set up and can be used for both temporary measurement campaigns and fixed installations. It enables the impact of rainfall on groundwater (water tables) and surface water (river flow) to be accurately monitored.

It can be connected to a data logger to retrieve data locally by radio, or to a remote monitoring tool. This tipping-bucket rain gauge consists of a funnel collector and two calibrated collection vessels, designed to prevent rain from splashing inside and outside, as recommended by the WMO (World Meteorological Organisation). Data can be logged as time-stamped bucket-tipping or as cumulative rainfall, with the option of sending alarms.

Advantages

Easy to install, interface and set up in the field Modular, to match your requirements, by configuring alarms on rain durations and intensities

Practical with the option of cross-referencing rainfall data with data from other sensors interfaced to the same data logger

Multifunctional design with time-stamped or cumulative rainfall operation

Where should it be installed?

- Pumping station
- Building
- CSO / SSO

We recommend installing one rain gauge per km² and distributing them uniformly over the area to cover the catchment area as effectively as possible

Additional products

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or

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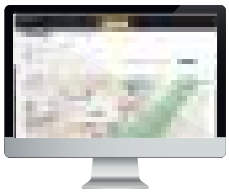

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Technical characteristics

__ **Memory:** 500,000 measurements

__ **Measuring range**: 0 - 300 mm/h

__ **Accuracy:**
<1% for rainfall intensity of 30 mm/h
<2% for 20 - 40 mm/h
<3% for 10 - 50 mm/h

__ **Configuration:** wireless by radio

__ **Communications:** locally via radio or remotely via GSM, GPRS, LTE-M and NB-IoT.
Depending on model, communications take place by pairing with an autonomous data logger or via the data logger integrated in the RG25

__ **Radio range:** 100 metres in open field conditions

__ **Data export:** CSV, Excel, HTML

__ **Temperature range:** -30°C to + 70°C

__ **Seal:** IP68

Designation

1 **Autonomous data logger from the LOG03 or LOG04 range** to collect and transmit data via a radio link or other
(see p.16)

2 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

3 **WIJI connection kit**
(see p.68)

4 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

5 **Screw-on support stand/ base,** stainless steel 658 mm x Ø 60.3 mm
(see p.76)

6 **Spike stand and mounting clamp** (Stand Ø: 60.3 mm)
(see p.76)

iJiNUS GROUPE CLAIRE

Wireless level sensor LNU06

The wireless LNU06 is an acoustic imaging level sensor, which is ideally suited to measuring water levels in harsh environments.

It facilitates network monitoring in accordance with regulations through continuous diagnostics, and it can also be used to monitor the levels of CSOs / SSOs and the overflows of the pumping stations as and when required. It is a useful ally in preventing wastewater from being discharged into the natural environment and in monitoring the state of decay of the network.

Advantages

Fully autonomous: long-life battery, data logger and built-in modem

Versatile: height measurements, can be coupled with a physico-chemical sensor or can be used to control samplers by indicating the volume to be taken for sampling based on the measured flows

Easy to install and use: safe programming by radio without actually having to touch the sensor

Reliable: accurate level measurements

Compact all-in-one: sensor/data logger/communications

Easy to maintain: not directly in contact with water

Where should it be installed?

- Drainage pipe
- Venturi flume
- CSO / SSO
- Overflow of pumping stations
- Wastewater treatment plant

Additional products

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Designation

1 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

2 **WIJI connection kit**
(see p.68)

3 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

4 **Display** to view the measured data
(see p.80)

5 **Mountings:** clamp only, single or double plate with clamp
(see p.74)

6 **Y connector**

Technical characteristics

- **Autonomy:** 5 years on average for 1 measurement every 15 minutes and 1 transmission per day
- **Memory:** 500,000 measurements
- **Measuring range:** 0.3 m to 6 m
- **Built-in conversion tables:** height/flow/volume
- **Configuration:** wireless by radio
- **Communications:** GSM, GPRS, LTE-M and NB-IoT
- **Seal:** IP68

iJiNUS GROUPE CLAIRE

Process level sensor CNU06

The CNU06 level sensor is an ultrasonic sensor that provides continuous level or flow measurement without coming into contact with water.

This powered sensor is designed for process applications by connecting to a PLC using MODBUS or 4-20mA.
It requires a fixed PLC to be installed beforehand to provide an alert if the water level or flow set on the PLC is exceeded.

Advantages

Easy to program by radio without line break

Intuitive through pre-assisted calibration

Practical with real-time data shown on the display

Switches over to internal battery in the event of a power failure

Where should it be installed?

- Drainage pipe
- Venturi flume
- CSO / SSO
- Lift station
- Tank and overflow of pumping stations
- Overflow of wastewater treatment plant

Additional products

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Designation

1 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

2 **WIJI connection kit**
(see p.68)

3 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

Technical characteristics

- **Measuring period:** 500 ms to 1 s depending on the conversions taken from the level measurement
- **Measuring range:** 0.3 m to 6 m
- **Configuration:** wireless by radio
- **Remote data:** Level (height of water), Flow (according to H/Q conversion table), Volume, Temperature
- **Output:** MODBUS RS485 / 4-20 mA
- **Input:** Digital (1Hz max.)
- **Seal:** IP68

iJiNUS GROUPE CLAIRE

Wired capacitive overflow data logger and sensor Overflow CSC

The capacitive overflow detector is a wired solution to measure overflow times from CSOs / SSOs into the natural environment. It is used to comply with regulations on overflow measurements (required when more than 2,000 inhabitants are connected to the same pumping station or CSO / SSO), or to carry out specific diagnostics of sanitation networks.

The CapAir® technology, capacitive measurement with air referential, provides reliable and unparalleled detection of overflows in wastewater networks in the toughest conditions. The CSC communicates with a smartphone application via Bluetooth to simplify regulatory control and maximise detection reliability.
The sensor is designed to be connected to a data logger for remote data transfer. The detection zone is marked by a silk-screen print on the surface of the casing, which enables the detector to be positioned in relation to the desired triggering threshold.

Advantages

Patented “CapAir®” capacitive technology makes it virtually insensitive to clogging

Practical with its clogging monitoring and management system (smartphone application)

Very easy to install with the integral mounting plate

Where should it be installed?

- CSO / SSO
- Overflow of pumping station

Additional products

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Designation

1 **Autonomous data logger from the LOG03 or LOG04 range** range to collect and transmit data
(see p.16)

2 **Ultrasonic level sensor LNU06** to modulate the measuring cycle
(see p.24)

3 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

4 **WIJI connection kit**
(see p.68)

5 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

6 **Smartphone application** to check and optimise remote detection reliability

Technical characteristics

- **Memory:** 200 events
- **Configuration** using a wireless programming kit via MODBUS, LOG or LNU sensor
- **Communications:** Bluetooth and MODBUS, GSM, GPRS, LTE-M and NB-IoT via a data logger from the Ijinus range
- **Data export**: CSV, Excel
- **Temperature range:** -40°C to +85°C
- **Seal:** IP68

iJiNUS GROUPE CLAIRE

CNR level-relative pressure sensor CNRT level and temperature sensor

The CNRT level sensor is an autonomous pressure type level sensor used to measure the level and temperature of wastewater, whereas the CNR sensor only measures its level by pressure.

Both sensors can be connected to a LOG03 or LOG09 data logger for data transmission.

The water flow can be deduced from the measured height without any additional equipment.

The range comprises sensors without a modem for your local measurement campaigns and other sensors with an integral modem for remote data transmission.

Advantages

Battery-powered: battery life > 5 years

Compact, robust and discrete

Very easy to program by radio

Suitable for any environment with cables from 5 to 60 m and incorporating an atmospheric pressure vent

Multifunctional design with temperature measurement (optional)

Where should it be installed?

- Drainage pipe
- Tank of pumping station

Additional products

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Designation

1 **LOG03 digital data logger/ connector on the side**, for applications in CSO / SSO, lift station monitoring, etc. and height and flow calculation by pressure sensor
(see p.16)

2 **LOG09 data logger/ underside connector**, for height and flow calculation by pressure sensor or for coupling with physico-chemical sensors
(see p.16)

3 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

4 **WIJI connection kit**
(see p.68)

5 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

Technical characteristics

- **Memory:** 500,000 measurements
- **Measuring range:** 1, 2, 5, 10, 20, 50, 100, 200 mH20 for the CNR - 5, 10, 20 mH20 for the CNRT
- **Configuration:** wireless by radio
- **Communications:** HF, GSM, GPRS, LTE-M and NB-IoT
- **Integral atmospheric pressure equalisation system**
- **Reverse polarity protection**
- **Connection** via connector on LOG data loggers
- **Seal:** IP68

iJiNUS GROUPE CLAIRE

Wireless flow sensor LNU06

The wireless LNU06 is an acoustic imaging ultrasonic level sensor that is ideally suited to flow measurements in harsh environments.

It can carry out continuous diagnostics of the network in response to the regulations and thus monitor how the network is ageing.
With this sensor, maintenance operations can be anticipated and the network infrastructure preserved.

Advantages

Fully autonomous: long-life battery, data logger and built-in modem

Versatile: height measurements, can be coupled with a physico-chemical sensor or can be used to control samplers by indicating the volume to be taken for sampling based on the measured flows

Easy to install and use: safe programming by radio without actually having to touch the sensor

Reliable: accurate flow measurements

Compact all-in-one: sensor/data logger/communications

Easy to maintain: not directly in contact with water

Where should it be installed?

- Drainage pipe

Additional products

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Level/flow converter OSRAI FLOW®

OSRAI FLOW® is the autonomous and communicating solution **to reliably convert a water level measurement into flow. It significantly reduces the margin of error** for flow calculations in the harshest environments. It is quick and easy to install in drainage pipes and can be adapted to the needs of the site, even in existing drainage channels. It can be used to calculate the flow rate over a wide range of upstream slopes using the measured water level. The patented Osrai Flow® system is based on the principle of the flow contracting through an "obstacle" in order to guarantee a hydraulic relationship between the flow and the water level upstream.
Its innovative shape reduces the risk of clogging and guarantees reliable flow rates for upstream slopes of up to 4%. It can be installed in an existing manhole.

Designation

1 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

2 **WIJI connection kit**
(see p.68)

3 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

4 **Mountings:** clamp only, single or double plate with clamp
(see p.74)

5 **Display** to view the data in real time
(see p.80)

6 **Y connector**

Technical characteristics

Memory: 500,000 measurements
Autonomy: 5 years on average for 1 measurement every 15 minutes and 1 transmission per day
Measuring range: 0.3 m to 6 m
Configuration: wireless by radio
Communications: GSM, GPRS, LTE-M and NB-IoT
Seal: IP68

iJiNUS GROUPE CLAIRE

Doppler velocity sensor UB-V

The UB-V sensor is a Doppler sensor for optimal velocity measurements.

This sensor accurately measures even very low velocities, from a water height of 35 mm, even in water with low particle content. It is particularly suited to continuous diagnostics of sanitation networks.

Advantages

Very low power consumption

Smart digital velocity sensor

Ultra-compact and ultra-long battery life

High-quality and accurate velocity measurement

Quick and easy to install

Deduces flows from a height of water

Where should it be installed?

- Inlet of wastewater treatment plant
- CSO / SSO
- Storm water basin
- Overflow of pumping station

Additional products

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Designation

1 **LNU06 level sensor,** to deduce flow rates from water level measurements (see p.24)

2 **LOG data logger,** to collect, transfer and cross-reference data from several sensors (see p.16)

3 **CNR pressure sensor,** for cross-analysis of water velocity/ pressure (see p.30)

4 **Relative pressure level sensor with adapter,** for mounting on UB-V velocity sensor**,**

5 **Power pack,** for longer battery life (see p.70)

6 **Mounting ring,** stainless steel, adjustable up to 100 cm (see p.78)

Technical characteristics

__ **Technology:** 1MHz pulsed submerged Doppler

__ **Minimum height** for velocity measurement: 35 mm

__ **Dimensions H x W x L:** 2.7 cm x 2.8 cm x 16.2 cm

__ **Cable length:** 10, 15 m or 20 m

iJiNUS GROUPE CLAIRE

Height | velocity sensor VLI

The VLI sensor is a multi-purpose, highly accurate height and velocity sensor.

It is equipped with a digital Doppler velocity sensor, and coupled with a pressure level sensor. It can measure velocity from a water height of 25 mm. This makes it easier to operate and monitor the sanitation system.

Advantages

Very compact

High measuring accuracy

Extremely versatile and can be interfaced with other sensors via a data logger for cross-referenced measurements

Smart as it has Overflow technology to check the relevance of velocity measurements in storm overflows to increase sensor battery life

Where should it be installed?

- Drainage pipe
- Inlet of wastewater treatment plant
- CSO / SSO
- Storm water basin
- Pumping station

Additional products

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Designation

1 **LOG04 data logger** to collect, transfer and cross-reference data from several sensors
(see p.16)

2 **Power pack** for longer battery life
(see p.70)

3 **Fixed stainless steel mounting ring,** available for pipe diameters from 150 to 380 mm

4 **Stainless steel mounting ring,** adjustable up to 100 cm
(see p.78)

Technical characteristics

- **Memory:** 500,000 measurements
- **1 open-collector output**
- **Configuration:** wireless by RFID
- **Data retrieval:** in HF, GSM, LTE-M and NB-IoT via a data logger from the Ijinus range
- **Report:** Excel
- **Seal:** IP68

iJiNUS GROUPE CLAIRE

Clamp-on ammeters

Dual clamp-on ammeters are sensors that convert current into an on/off signal.

They connect to pump starting cables and operate in an “on/off” or “quick & clip” mode.
These clamp-on ammeters need to be coupled to a data logger that will collect the measured data.

On/Off

Advantages

“On/off” contact

Easy to install

High detection threshold

Safety provided by no contact between the clamps and the cables

Magnetically powered clamps

Where should it be installed?

- Pumping station

Additional products

1

2

Designation

1 **LOG03 data logger** for height and flow measurements using pressure probe (see p.16)

2 **LOG04 data logger** for flow measurements using height / velocity (see p.16)

Technical characteristics

- **2 models** depending on the required detection range
- **Frequency:** 50/60 Hz
- **Cable length:** 1.5 m
- **Dimensions:** 43 x 123 x 23.5 mm or 26 x 89 x 64 mm depending on model

iJiNUS GROUPE CLAIRE

Transit time flowmeter

The transit time is a portable ultrasonic flowmeter that calculates the flow of water as a function of its velocity.

Through specific and efficient signal processing, this portable flowmeter offers high performance measurement capabilities under all conditions.
It can be used for temporary measurement campaigns, for pump control, or on a continuous basis.

Advantages

Non-intrusive and easy to install

Easy to use with Minisonic II's new processor and improved performance

User-friendly with the installation assistance feature

Lightweight and portable (less than 750g)

Robust with an IP68 ABS casing

Where should it be installed?

- Wastewater treatment plant
- Pumping station

Additional products

1

2

Designation

1 **External probe kit** to be applied to the pipe to measure the flow through it

2 **LOG03 data logger** to collect data via a 4-20mA signal (see p.16)

FOR YOUR WORKSITES

This product is available for RENT. Please contact our teams!

Technical characteristics

- **Memory:** 2 GB
- **10 flow calculations/s**
- **Data retrieval** via USB
- **Pipe diameter:** 10 to 10,000 mm
- **Easy-to-read OLED graphic display**
- **Autonomy:** >70 hours continuous and more with sequencer function
- **Automatic on-site 0-point calibration**
- **Technology:** transit time ultrasound - continuous and two-way measurement
- **Diagnostic assistance:** oscilloscope function (echo display), gain, quality index, alarms
- **Temperature range:** -20°C to 50°C and 0°C to 45°C under load
- **Seal:** IP68
- **Dimensions:** 220 x 115 x 74 mm

iJiNUS GROUPE CLAIRE

Physico-chemical data logger

The physico-chemical data logger is a battery-powered solution to monitor wastewater quality. It is used to simultaneously measure one or more parameters to comply with regulatory requirements or to carry out network diagnostics: urban wastewater treatment (inlet monitoring and monitoring of groundwater infiltration) or treatment of industrial effluents.

It is quick and easy to install, including on-site calibration.
Data can be retrieved optionally on site by radio or remotely for the integrated GSM / GPRS versions.
Several water quality probes are available:
- pH / Redox / Temperature
- Conductivity / Salinity / Temperature
- Induction Conductivity / Salinity / Temperature
- Redox potential / Temperature
- Dissolved oxygen / Temperature
- Turbidity NTU-SS / Temperature

Advantages

Compact 2-in-1: sensor + data logger

Modular with multiple sensors, and the option of collecting data on site or remotely via a supervision tool

Multiple-parameter with the option of connecting several water quality probes to the same data logger

Easy on-site calibration

Very long battery life with the option of extending it with a battery pack

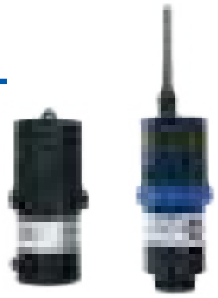
Automatic cleaning available

Where should it be installed?

- Drainage pipe
- Inlet of wastewater treatment plant

Additional products

1



2

3

4

5

6

Designation

1 **LOG04 or LOG09 data logger** to collect and transmit data via a radio link or other
(see p.16)

2 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

3 **WIJI connection kit**
(see p.68)

4 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

5 **Adaptors:** Y connector or junction box

6 **Power pack,** for longer battery life
(see p.70)

FOR YOUR WORKSITES

This product is available for RENT.
Please contact our teams!

Technical characteristics

- **Memory:** 500,000 measurements
- **Configuration:** wireless by radio
- **Communications:** locally via radio or remotely via GSM, GPRS, LTE-M and NB-IoT
- **Radio range:** 100 metres in open field conditions
- **Temperature range:** -40°C to + 85°C
- **Seal:** IP68

iJiNUS GROUPE CLAIRE

Two-axis inclinometer

**As well as being suitable for a wide range of applications, this slope sensor is also ideal for monitoring valves.
It is a compact device that can be connected to a LOG03 data logger with 4-20 mA.**

Data can be collected directly in the field via RFID or transmitted to a monitoring platform when the inclinometer is interfaced to a data logger.

Advantages

Two-axis slope measurement

Measuring accuracy

Easy to install

4-20 mA sensor configuration model already integrated in the AVELOUR software

Secure on-site radio configuration

Where should it be installed?

- Drainage pipe
- Non-return valve

Additional products

1

2

3

4

Designation

1 **LOG03 data logger** to collect and transmit the data to a supervision tool
(see p.16)

2 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

3 **WIJI connection kit**
(see p.68)

4 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

Technical characteristics

__ **Configuration:** wireless by radio

__ **Measuring range:** -90°C to 90°C

__ **Resolution:** 0.1°

__ **Cable length:** 5 m

__ **Connectors:** M12 8 pins

__ **Weight:** 45 g (excluding cable)

iJiNUS GROUPE CLAIRE

Smart H2S sensor LOGAZ

The Logaz smart sensor can detect and locate the presence of H2S gas. By taking accurate measurements, it plays a key role in:

- safeguarding the sanitation system infrastructure, for which hydrogen sulphide is highly corrosive
- providing a clean and healthy environment for local residents
- quantifying the effectiveness of anti-H2S treatment, and adjusting it as required

The range comprises sensors without a modem for your local measurement campaigns and other sensors with an integral modem for remote data transmission.
They can be connected to a PLC via their 4-20mA and MODBUS output.

Advantages

Easy to use with on-site interchangeable measuring head, which incorporates a built-in calibration function

Multi-modal: can communicate with several types of technical platforms (supervisors and FTP)

Self-contained with replaceable lithium battery

“Backup” mode to continue measurements and logging in the event of a power failure, on the LOGAZ PRO version

Where should it be installed?

- Wastewater treatment plant
- Pumping station

Additional products

1

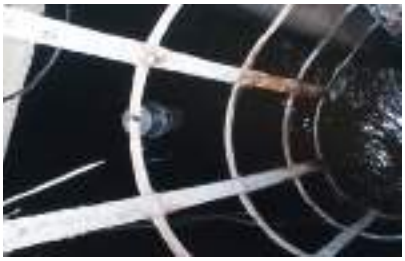
2

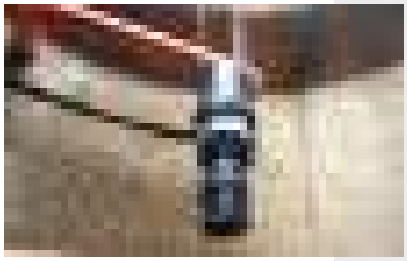
3

4

LOGAZ PRO H2S data logger with process outputs

This new sensor incorporates the H2S gas sensor, data logger and **4-20 mA and MODBUS process outputs**. Thanks to its radio feature, it can be configured remotely at a **distance of up to 100 m** in open field conditions. It operates as a data logger and can therefore **record data from other nearby sensors**, with which it communicates by radio.
The H2S sensor with process outputs can be used for the same applications and just as easily as the LOGAZ smart H2S sensor.





Designation

1 **Gas cells**

2 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

3 **WIJI connection kit**
(see p.68)

4 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

Technical characteristics

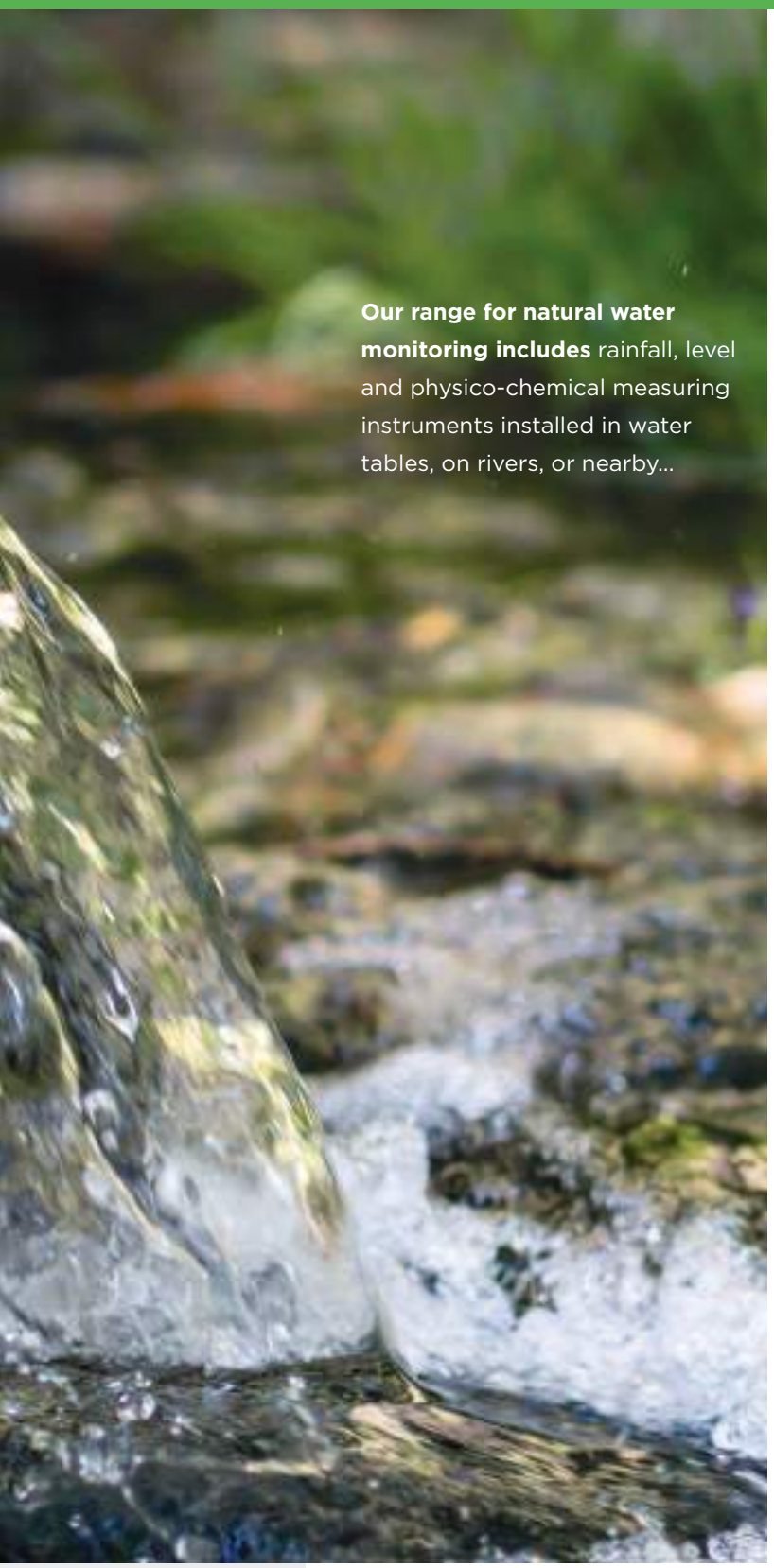
Memory: 500,000 measurements
Measuring range: 0-2,000 ppm
Resolution: 1 ppm
Configuration: wireless by radio
Communications: 2 versions - radio only or HF, GSM, GPRS, LTe-M and NB-IoT
Autonomy:
5 years on average for 1 measurement every 15 minutes and 1 transmission per day – replaceable batteries
Seal: IP68

Conserving resources

Natural water, which is used for agriculture (mainly irrigation), drinking water supply and industry, is a scarce and precious commodity. It is taken from natural environments such as rivers, lakes and groundwater.

To preserve this resource and provide overall management of the water cycle (drinking water and sanitation), it is essential to monitor natural water: rainfall, water levels in the water tables and rivers form the basis for preventive management of floods or anticipation of potential water shortages. Other equipment monitors the quality of surface water.

Ijinus supplies **monitoring systems** for **natural water.**



Our range for natural water monitoring includes rainfall, level and physico-chemical measuring instruments installed in water tables, on rivers, or nearby...

RAINFALL

A **battery-powered, smart rain gauge, RG,**
see p.50

FLOOD PREVENTION

A **smart radar level sensor-data logger, LNR**
see p.54

SURFACE WATER QUALITY

A **physico-chemical data logger,**
see p.56

iJiNUS GROUPE CLAIRE

Autonomous rain gauge RG20 / RG25

As rainfall measurement is an obligation in terms of regulatory self-monitoring, and is essential in terms of monitoring groundwater infiltration, Ijinus offers an autonomous, smart rain gauge. The RG20 or RG25, together with its data logger, is very easy to install and set up and can be used for both temporary measurement campaigns and fixed installations. It enables groundwater infiltration to be accurately monitored and floods or water shortages to be anticipated in order to provide a faster response.

It can be connected to a data logger to retrieve data locally by radio, or to a remote monitoring tool.
This tipping-bucket rain gauge consists of a funnel collector and two calibrated collection vessels, designed to prevent rain from splashing inside and outside, as recommended by the WMO (World Meteorological Organisation).
Data can be logged as time-stamped bucket-tipping or as cumulative rainfall, with the option of sending alarms.

Advantages

Easy to install, interface and set up in the field

Modular, to match your requirements, by configuring alarms on rain durations and intensities

Practical with the option of cross-referencing rainfall data with data from other sensors interfaced to the same data logger

Multifunctional design with time-stamped or cumulative rainfall operation

Where should it be installed?

- CSO / SSO
- Building
- Civil engineering structure

We recommend installing one rain gauge per km² and distributing them uniformly over the area to cover the catchment area as effectively as possible

Additional products

1

2

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Designation

1 **Autonomous data logger from the IJINUS LOG range** to collect and transmit data via a radio link or via GSM/GPRS
(see p.16)
- **LOG03** to record rainfall data
- **LNR** for level/flow measurements in the natural environment

2 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

3 **WIJI connection kit**
(see p.68)

4 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

5 **Screw-on support stand/ base,** stainless steel
658 mm x Ø 60.3 mm
(see p.76)

6 **Spike stand and mounting clamp** (Stand Ø: 60.3 mm)
(see p.76)

Technical characteristics

- **Memory:** 500,000 measurements
- **Measuring range:** 0 - 300 mm/h
- **Accuracy:** <1% for rainfall intensity of 30 mm/h, <2% in the measuring range 20 - 40 mm/h, <3% in the measuring range 10 - 50 mm/h
- **Resolution:** 0.2 mm for the RG20 and 0.254 mm for the RG25
- **Configuration:** wireless by radio
- **Communications:** locally via radio or remotely via GSM, GPRS, LTE-M and NB-IoT.
  Depending on model, communications take place by pairing with an autonomous data logger or via the data logger integrated in the RG25
- **Radio range:** 100 metres in open field conditions
- **Data export:** CSV, Excel, HTML
- **Temperature range:** -30°C to + 70°C
- **Seal:** IP68

iJiNUS GROUPE CLAIRE

CNR level-relative pressure sensor CNRT level and temperature sensor

The CNRT level sensor is an autonomous pressure type level sensor that also measures the temperature of natural water in water tables, whereas the CNR sensor only measures water level by pressure.

Both sensors can be connected to a LOG03 or LOG09 data logger for data to be transmitted by radio.

They facilitate monitoring of water levels in water tables through alerts to anticipate possible water shortages.

The range comprises sensors without a modem for your local measurement campaigns and other sensors with an integral modem for remote data transmission.

Advantages

Battery-powered: battery life > 5 years

Compact, robust and discrete

Very easy to program

Suitable for any environment with cables from 5 to 60 m and incorporating an atmospheric pressure vent

Multifunctional design with temperature measurement (optional)

Where should it be installed?

- Boreholes

Additional products

1

2

3

4

or

5

Technical characteristics

__ **Memory:** 500,000 measurements

__ **Measuring range:** 1, 2, 5, 10, 20, 50, 100, 200 mH20 for the CNR - 5, 10, 20 mH20 for the CNRT

__ **Configuration:** wireless by radio

__ **Communications:** HF, GSM, GPRS, LTE-M and NB-IoT

__ **Integral atmospheric pressure equalisation system**

__ **Reverse polarity protection**

__ **Connection** via connector on LOG data loggers

__ **Seal:** IP68

Designation

1 **LOG03 digital data logger/ connector on the side,** it provides feedback of data measured for underground water resources, rainfall, etc. height and flow calculation by pressure sensor (see p.16)

2 **LOG09 data logger/ underside connector,** it is used to calculate the height and flow using a pressure sensor and to cross-reference the height and flow measurements with water quality analyses using a physico-chemical sensor (see p.16)

3 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data (see p.60)

4 **WIJI connection kit** (see p.68)

5 **IJITRACK** web platform to display and process data, set alerts, etc. (see p.62)

iJiNUS GROUPE CLAIRE

Wireless level sensor LNR06

The wireless LNR06 is a radar level sensor that is particularly well suited to outdoor use in locations exposed to adverse weather conditions. Therefore, it facilitates monitoring and preventive management of watercourses:
low and high water, with alerts when critical levels are reached.
It can also be used to monitor water storage or retention basins, and at the inlet and outlet of wastewater treatment plants.

It is fully autonomous with a long-lasting battery, data logger and built-in modem, and is easy to install and use.
It can be safely programmed via radio link without any physical action on the sensor.
It is suitable for both one-off measurement campaigns and permanent installations.

Advantages

Fully autonomous: long-life battery, data logger and built-in modem

Impervious to wind and temperature variations, etc.

Versatile: height measurements, can be coupled with a physico-chemical sensor or can be used to control samplers by indicating the volume to be taken for sampling based on the measured flows

Easy to install and use: safe programming by radio without actually having to touch the sensor

Reliable: accurate level measurements

Compact all-in-one: sensor/data logger/communications

Easy to maintain: not directly in contact with water

Where should it be installed?

- Bridge
- Constructed parts of watercourses (pipes, ducts, etc.)

Additional products

1

2

3

4

5

6

Designation

1 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

2 **WIJI connection kit**
(see p.68)

3 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

4 **Mountings:** clamp only, single or double plate with clamp
(see p.74)

5 **Display,** to view the data in real time
(see p.80)

6 **Y connector**

Technical characteristics

__ **Memory:** 500,000 measurements

__ **Measuring range:** 0.3 m to 6 m

__ **Configuration:** wireless by radio

__ **Communications:** GSM, GPRS, LTE-M and NB-IoT.

__ **Integral atmospheric pressure equalisation system**

__ **Seal:** IP68

iJiNUS GROUPE CLAIRE

Physico-chemical data logger

The physico-chemical data logger is a battery-powered solution to monitor natural water quality.
It is used to simultaneously measure one or more parameters to comply with regulatory requirements or to carry out network diagnostics: surface water monitoring, fish farming and aquaculture.

It is quick and easy to install, including on-site calibration. Data can be retrieved optionally on site by radio or remotely for the integrated GSM / GPRS versions.
Several water quality probes are available:
- pH / Redox / Temperature
- Conductivity / Salinity / Temperature
- Induction Conductivity / Salinity / Temperature
- Redox potential / Temperature
- Dissolved oxygen / Temperature
- Turbidity NTU-SS / Temperature

Advantages

Compact 2-in-1: sensor + data logger

Modular with multiple sensors, and the option of collecting data on site or remotely via a supervision tool

Multi-modal with the option of connecting several water quality probes to the same data logger

Easy on-site calibration

Very long battery life with the option of extending it with a battery pack

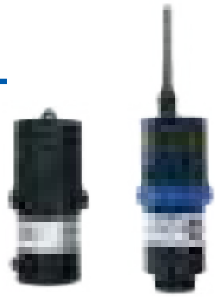
Automatic cleaning available

Where should it be installed?

- Riverbank
- Bridge

Additional products

1



2

3

4

Battery-powered physico-chemical GSM buoy

Installation on watercourses

The ingenious physico-chemical buoy is the "all-in-one" single-parameter solution for physico-chemical monitoring of natural waters. It integrates both a data logger and a water quality probe that can be changed to suit the type of measurement required (pH, dissolved oxygen, turbidity, conductivity). It monitors natural water quality and can easily be installed by one person.

Designation

1 **LOG04 or LOG09 data logger** to collect and transmit data via a radio link or other (see p.16)

2 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data (see p.60)

3 **WIJI connection kit** (see p.68)

4 **IJITRACK** web platform to display and process data, set alerts, etc. (see p.62)

Technical characteristics

Memory: 500,000 measurements
Configuration: wireless by radio
Communications: locally via radio or remotely via GSM, GPRS, LTE-M and NB-IoT
Radio range: 100 metres in open field conditions
Temperature range: -40°C to + 85°C
Seal: IP68

FOR YOUR WORKSITES, DREDGING, ETC.

This product is available for RENT. Please contact our teams!

Supervision includes platforms, software and applications that collect the data transmitted by communicating equipment installed in the field, with the aim of carrying out a global remote analysis.

Conserving resources

A wide range of equipment can be positioned at various points in water networks or near watercourses to monitor them. This often communicating equipment, which is installed temporarily or permanently, measures parameters and collects data to provide information on the state of the network and to provide an alert in the event of an anomaly.

Supervision solutions (platform, application, software, etc.) can be used to monitor equipment globally and remotely for relevant analysis and suitable monitoring.

The monitoring tools are a decision-making aid for operators in their management of the water network: prioritisation of actions and work. They improve response in the event of an anomaly.

Ijinus offers **industry-specific tools** to **monitor your equipment remotely and to respond quickly.**

CONFIGURATION AND ANALYSIS SOFTWARE

AVELOUR configuration software, see p.60

SUPERVISION PLATFORM

A **platform to view and analyse sensor data, IJITRACK,** see p.62

APPLICATION

The **WIJI application to activate real-time notifications and alerts,** see p.64

iJiNUS GROUPE CLAIRE

AVELOUR configuration software

Configuration and data collection

AVELOUR is the IJINUS software to configure your sensors, data loggers, detectors and hubs. It can also be used to collect and analyse data and export the data to Excel files or reports.
Configuration via AVELOUR does not require any manual activation.
It guarantees the safety of your employees and saves them time.

Multiple configuration options are available: measured data, frequency, sensor name, GPS coordinates, etc. Sensor settings and data collection can be carried out locally by radio or remotely via a data logger.
For remote collection, alerts can be configured on your monitoring tool.

Advantages

Intuitive interface

Unique configuration tool, compatible with all IJINUS sensors

Fast assisted configuration

Settings are saved so that they can be duplicated for several sensors

Summary display of your data in graph form, with the option of comparing data from several devices

Remote configuration and supervision means security is guaranteed

Additional products

1

2

3

4

5

Designation

1 **IJINUS device:** Sensors, data loggers

2 **WIJI programming kit** including radio transmitter, USB cable and antenna to configure the sensors in IJITRACK (see p.68)

3 **WIJI app** to quickly set up your IJITRACK account (see p.64)

4 **IJITRACK** web platform to collect and analyse data (see p.62)

5 **PC or tablet:** Minimum version Windows 7

Technical characteristics

__ **Data export:** GIF, JPEG, Excel and CVS format

__ **Update:** availability notified at each connection

__ **Required operating system:** Windows 7 or later

IJITRACK web platform

Data display and management

IJITRACK is a web-based platform where your sensor data is compiled and displayed to be analysed and interpreted. It can be used to set up e-mail or SMS alerts, and to export measurements in .csv, Excel or graph format.
In this way, you can customise how your network is monitored, thereby improving the relevance of your field operations.

You can use the platform to view the location of your sensors on a map and quickly interpret their measurements by displaying graphs with multiple curves.
It is also easy to create and manage customer accounts or groups, by assigning different levels of rights to them.

Advantages

Unique supervision tool, compatible with all IJINUS sensors

Fast assisted configuration

Customised monitoring of your data with tailor-made exports (Excel or graph format, by sensor, by group, from one date to another, can be automated by http request)

Fast response in the field with customised alerts

Increased operator safety through remote supervision

Data security through a secure HTTPS connection and 128-bit encryption

Additional products

1

2

3

4

5

Designation

1 **IJINUS device:** Sensors, data loggers

2 **WIJI programming kit** including radio transmitter, USB cable and antenna to configure the sensors and data loggers in IJITRACK
(see p.68)

3 **WIJI app** to quickly set up your IJITRACK account
(see p.64)

4 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

5 **PC or tablet** with Internet access

Technical characteristics

__ **Data export:** GIF, JPEG, Excel, CVS format - can be automated by HTTP request

__ **Data import:** by SMS, GPRS (FTP), LTE-M, NB-IoT

__ **Multiple-curve display:** up to 7 curves

__ **Alert recipients:** up to 20 numbers or e-mail addresses

iJiNUS GROUPE CLAIRE

WIJI App

Mobile configuration application

The WIJI app will help you to get your IJITRACK account set up quickly. It is available on Google Play and on the App Store and provides real-time notifications and alerts to optimally monitor critical points in the network.

The app also displays the latest data sent by the sensor, as well as photos taken during installation.

Advantages

Time saved by scanning the QR code on the data logger/recorder to activate automatic GPS positioning

Fast response in the field with customised notifications and photos of the installation to make it easy to locate the sensor

Remote configuration and supervision means security is guaranteed

ANDROID APP ON Google play

Available on the iPhone App Store

Additional products

1

2

3

4

5

Designation

1 **IJINUS device:**
Sensors, data loggers

2 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

3 **WIJI programming kit**
including radio transmitter, USB cable and antenna to configure the sensors and data loggers in IJITRACK
(see p.68)

4 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

5 **Smartphone** running iOS or Android

Technical characteristics

__ **Free**

__ **Compatibility:** Android and iOS

__ **Languages:** French and English

__ **Memory required:** 25 MB

Conserving resources

To make the most of how you operate and use Ijinus products, a range of accessories is available.

Some compile data from several sensors (displays), others improve connectivity in underground and difficult environments (antennas) or transfer data (hubs). There are also connection kits to export data, along with other equipment such as the power pack to maximise the autonomy of sensors.

Ijinus offers **a range of accessories for sanitation diagnostics and to monitor natural water.**

Diagnostic accessories are complementary parts to Ijinus sensors and data loggers.

CONNECTION

WIJI connection kit, see p.68

POWER

High capacity power pack, see p.70

TRANSFER

Outdoor GSM antenna, see p.72

iJiNUS
GROUPE CLAIRE

WIJI connection kit

The WIJI connection kit is a small device that can be used to connect to the various IJINUS devices, to set them up and then to collect, display and export data from the IJITRACK platform.

It consists of a pedestrian hands-free kit with antenna and a USB stick to connect to your PC or tablet to transmit the data by radio between the sensors or data loggers and IJITRACK.
Its pocket size makes it easy to carry with you wherever you go in the field.
Depending on signal quality, the USB stick alone may be all that is needed to connect to the sensors and data loggers in the field.
In some cases, the antenna is required to amplify the signal.

Advantages

Easy-to-carry compact format

Intuitive interface that recognises nearby sensors

Quick, assisted setup, with summary

Fast and easy access to equipment measurement and diagnostic data

Increased operator safety through remote configuration of sensors and data loggers

Additional products

1

2

3

4

Designation

1 **IJINUS LNU** or **LNR sensors,** for measurements in sanitation systems or watercourses

2 **IJINUS LOG data logger,** to concentrate the data from the sensors located within its radio field and send the data to the supervision tools
(see p.16)

3 **AVELOUR software** to swiftly program sensors and to retrieve, analyse and export data
(see p.60)

4 **IJITRACK** web platform to display and process data, set alerts, etc.
(see p.62)

Technical characteristics

- **Connection:** Instant HF
- **Communications:** radio
- **Required operating system:** Windows 7 on PC or tablet
- **Compatible software:** AVELOUR and the IJITRACK platform or any other industry tool
- **Pedestrian hands-free kit dimensions:** 60 x 90 x 31.20 mm (excluding antenna)
- **Pedestrian hands-free kit weight:** 115 g

iJiNUS GROUPE CLAIRE

High capacity power pack

The high-capacity power pack consists of 9 long-life lithium batteries to extend the battery life of IJINUS sensors.

Sensor power management can be configured using an IJINUS logger.

Advantages

Ultra-long battery life

Sealed (IP68)

Fast installation with mounting tabs

Additional products

1

2

3

Designation

1 **UB-V sensor,** for velocity measurements
(see p.34)

2 **VLI sensor,** for height / velocity measurements
(see p.36)

3 **LOG04 data logger,** to configure sensors and their power management, and to collect and transmit data
(see p.16)

Technical characteristics

- **Connector:** 5-pin M12 for VLI and UB-V sensors 8-pin M12 for LOG04 data logger
- **Dimensions:** 269 x 154 x 80 mm
- **Weight:** 2,593 g
- **Seal:** IP68

Power pack

Doppler velocity sensor UB-V

LOG04 data logger

iJiNUS GROUPE CLAIRE

Outdoor GSM antenna

The outdoor cellular antenna facilitates data transmission between sensors, data loggers, and monitoring tools, especially in underground environments or in manholes, where the device's antenna is insufficient.

It can easily be used in combination with underground sensors and data loggers thanks to its robust seal and long cable.

Advantages

Insertion antenna requiring little installation work

Optimised signal quality, even in harsh environments

Seal: IP68

Where should it be installed?

- Manhole
- Underground networks

Additional products

1

2

Designation

1 **IJINUS LNU** or **LNR sensors,** for which the signal will be amplified

2 **IJINUS LOG data loggers,** to record measurements for which the signal will be amplified (see p.16)

Technical characteristics

- **Length:** 2 m as standard, other lengths available on request
- **Frequencies:** GSM 900 (890-960 MHz) / GSM 1800 (1710-1880 MHz)
- **Seal:** IP68
- **Diameter:** 45 mm
- **Weight:** 97 g

iJiNUS GROUPE CLAIRE

Mounting kit (clamp + plate)

for IJINUS LOG data LOGGER

The mounting kit for IJINUS LOG data loggers is designed to make them easy to install in any environment.

The double plate enables it to be installed in a variety of configurations, and it can be folded back to leave enough space for a technician to pass through.

Advantages

Easy to install

Foldable to make it easier for the technician to pass through the manhole

Where should it be installed?

- Sanitation network manhole
- Pumping station
- CSO / SSO
- Riverbank
- Bridge
- Constructed parts of rivers (pipes, ducts, etc.)

Additional product

1

Designation

1 **IJINUS LOG data loggers,** to record measurements
(see p.16)

Technical characteristics

__ **Compatibility:** all data loggers from the IJINUS LOG range

__ **Materials:** stainless steel plate, composite plastic clamp

Mounting kit

for RG20 and RG25 rain gauges

Rain gauges can be installed using different types of mountings depending on the location of the measuring point.

IJINUS offers two screw-on or spike support stands / bases to be used in accordance with the type of ground where the rain gauge is being installed, as well as a clamp to fit the data logger to the rain gauge stand.

Advantages

Several mounting options available depending on the characteristics of the measurement site

Adjustment via integrated spirit level (in PVC mount)

Additional products

1

2

3

Designation

1 **RG20/RG25 rain gauges,** for rainfall measurements to monitor sanitation networks and watercourses
(see p.22 and 50)

2 **LOG03 data logger,** to collect and transmit the data to a supervision tool
(see p.16)

3 **IJINUS LNU** or **LNR sensors,** for measurements in sanitation systems or watercourses

Technical characteristics

- **Mounting mode:** screw-on or spike
- **Material:** stainless steel
- **Diameter:** 60.3 mm for the RG20, 35 mm for the spike RG25 or 50 mm for the screw-on RG25
- **Length:** 65 cm for the screw-on support stand and 150 cm for the spike stand

iJiNUS GROUPE CLAIRE

Mounting kits

for VLI and UB-V height/velocity sensors

The mounting kits for VLI and UB-V height/velocity sensors make it easy for water to pass through, even at low flow rates, to provide a reliable analysis of the network or watercourse.

Advantages

Fixed or adjustable mounting kits for different applications

Fixed version: suitable for all types of pipes up to Ø910 mm

Adjustable version: Ø180 mm to Ø1,000 mm

Accurate measurement even at low flow rates

Where should it be installed?

- Constructed parts of watercourses (pipes, ducts, bridges, etc.)
- Drainage pipe

Additional products

1

2

Designation

1 **VLI height/velocity sensor,** for accurate height and flow measurements
(see p.36)

2 **UB-V velocity sensor,** for accurate velocity measurements
(see p.34)

Use

__ Plates to be assembled in the recommended configurations in accordance with the pipe diameter

__ 1 spreader, 1 plate and 4 extensions available to fit all types of pipes

iJiNUS GROUPE CLAIRE

Touch screen display

**The display can be used to easily view the measurement data recorded in the field.
It is a useful ally for monitoring the sanitation network, self-monitoring CSOs / SSOs, or managing and preventing floods.**

The data from the sensors located in the radio field (approx. 100 m) are retrieved by the hub and displayed directly on the screen. It allows 3 values to be displayed per screen up to 20 channels.

Advantages

Extremely easy to use

Automatic or manual page scrolling

Additional products

1

Designation

1 **IJINUS LNU** or **LNR sensors,** for measurements in sanitation systems or watercourses

Technical characteristics

__ **Definition:** 128 x 64 pixels

__ **Brightness:** 70 cd/m²

__ **Display:** Up to 20 channels and 3 values

__ **Programming:** By software or using the buttons on the front panel

Alphanumeric contents

Categories

Products

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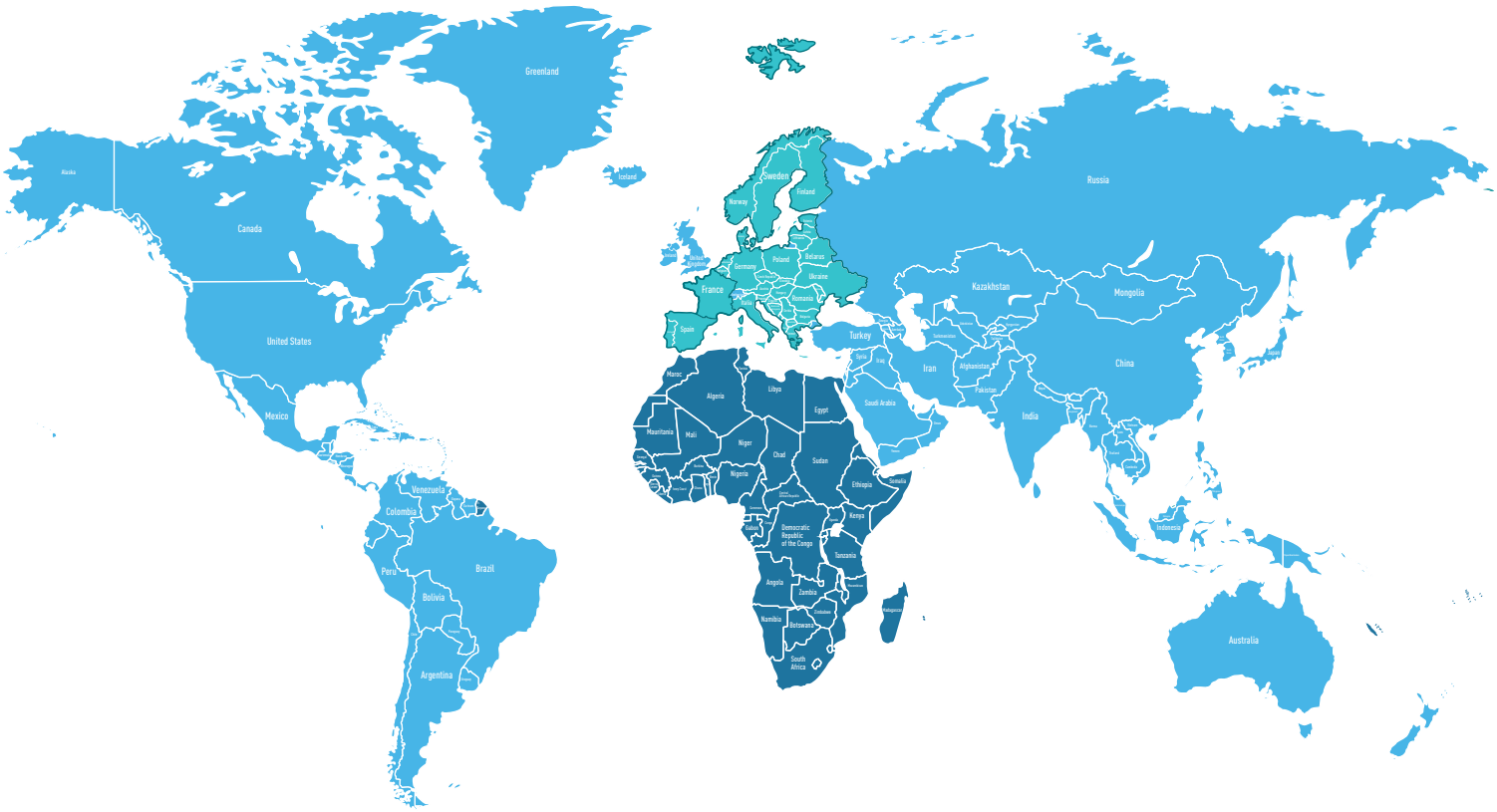

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