Smart Water Solutions

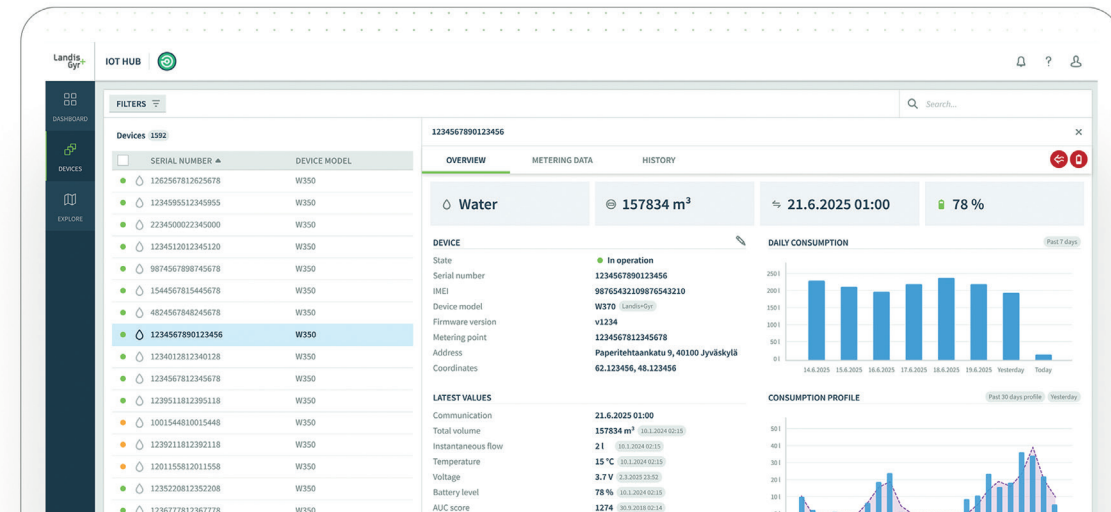## One platform, full control – Connectivity, Meter Reading and Data Management in a single End-to-End service

The easy way of managing water metering

Water management becomes simpler and more efficient with Landis+Gyr Smart Water Solutions. The service provides a fully integrated, end-to-end setup that combines connectivity, data handling, and device management. By removing the need for multiple vendors or complex integration, the solution reduces risk, shortens deployment times, and ensures reliable operations.

Based on NB-IoT technology, the system delivers secure and cost efficient connectivity, even in challenging indoor environments. Compliance with European regulations such as GDPR, NIS2, RED, CRA, and ISO 27001 guarantees that security and data protection are maintained at the highest standards.

At the heart of the service is the Landis+Gyr IoT Hub, a powerful platform that gives utilities full visibility and control. It enables seamless device monitoring, connectivity diagnostics, and data visualization, so decision makers always have the insights they need to manage networks efficiently.

Meters

NB-IoT Meters

Connectivity

Landis+Gyr IoT Connectivity Service

Meter Data Collection

Service

Platform

Device Inventory | Data Collection
Data Decoding | Data Storage
Alarms | Data Integration

Customer Systems

Utility Billing

Meter Data Management

Analytics & Reporting

Customer Engagement

Metering Services

Landis+Gyr Cloud Platform

Security & Compliance

Updates & Patching

Device Management

W370

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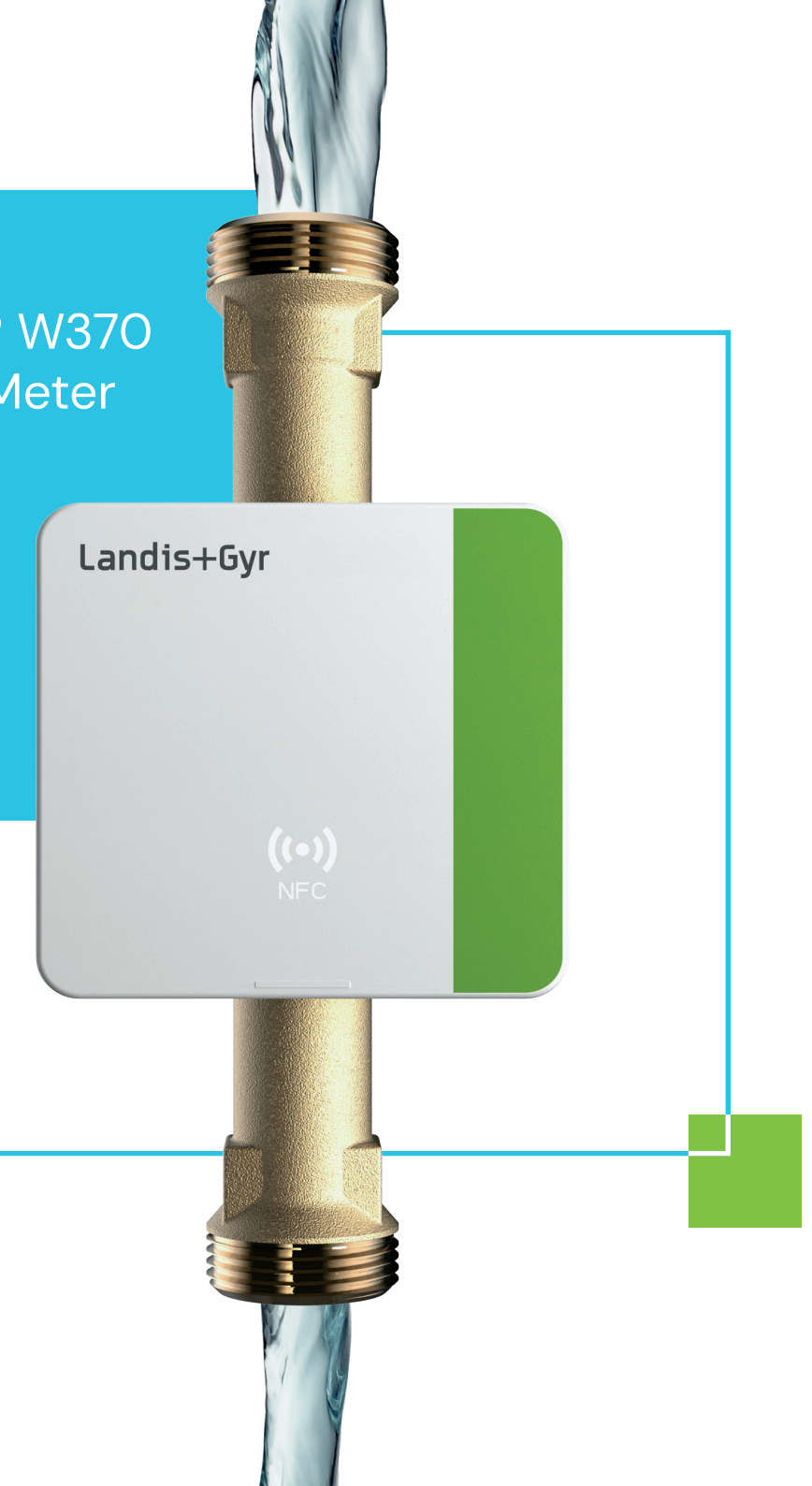**Landis+Gyr GmbH**

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manage energy better

Landis+Gyr ULTRAWATER® W370 Smart Water Meter Solutions

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Smart functions for Metering Intelligence

Near-field communication (NFC)

Parameterization, data read-out, or fault finding: The integrated NFC interface allows easy meter access on site for different user roles (installers, consumers, etc.) via smartphone and UltraConnect app.

Temperature measurement

Freezing can lead to broken pipes and leaks, high temperatures to accelerated bacteria growth. The W370 triggers a frost warning or ice alarm when the temperature gets too low and a hot temperature warning when it gets too warm (cold water meter).

FOTA (Firmware update over-the-air)

Via the NB-IoT interface and cellular network, remote updates with new features, new standards, and bug fixes are possible. A meter exchange is unnecessary.

Advanced battery management

Thanks to its low-power design with NB-IoT, the W370 can operate for 15 years without battery exchange. The power consumption is monitored, and the remaining battery life is continuously predicted.

Reverse flow detection

In case of an installed meter or a flow in the wrong direction, a warning is triggered. For determination of the risk of contamination and non-revenue water, the reverse volume is registered.

Stagnation detection

Microorganisms can grow if no water is consumed. The W370 triggers a stagnation warning according to the preset number of days without flow.

Sampling rate

The W370 measures the flow 1/s (1 Hz). That allows to measure also short, intermittent consumptions.

ULTRAWATER® W370 – Excellence for Metering Intelligence

Excellent connectivity for smart communication

The W370 is available with NB-IoT (LwM2M for interoperability) interface or a combined LoRa® and wM-Bus interface. The NB-IoT model doesn't need any additional infrastructure: It uses the cellular network for data transmission, remote parameterization, FOTA, planned reports, and real-time alarms. The combined LoRa/wM-Bus (OMS 4) model can easily be integrated in an existing LoRa or wM-Bus infrastructure and allows protocol switching in the field.

Excellent information for improved decision-making

The W370 generates smart data to improve water networks. It displays and transmits vital information like detailed alarms and warnings regarding temperature, stagnation, fraud etc. Its comprehensive logbook can keep track of up to 40 events to provide a full overview over the meter's history. Its datalogger offers an extensive in-built memory to provide interface-independent historic data. And a flow histogram allows analyzing the flow profile, e.g. to estimate the water quantity lost through leaks.

Excellent design for greater sustainability

The robust and long-term stable ultrasonic measurement technology is based on more than 40 years of experience in developing and deploying this technology. It's resistant against abrasion and particles and needs no moving parts. That reduces the wear to zero. The compact UV-stabilized housing and tubes consisting of robust lead-free brass ensure a long lifetime. The low-power design enables a battery life of up to 15 years. And an advanced sealing concept ensures IP68 and IP66 protection.

Excellent sensors for intelligent leakage detection

The W370 has an integrated downstream leakage detection as standard to detect leakages within the building or appartement. Additionally, it is also available with an optional upstream leakage detection (LD): Using an acoustic vibration sensor, it helps water utilities to detect leaks within the distribution system.

If several sensors in the surrounding area detect vibrations, the noise levels can even be used to locate the leak. Additional data such as measured flow during detection or occurring errors support a plausibility check.

Sizes

Connection	Length [mm]	Q3 [m³/h]
DN15 G ¾	110	2.5
DN15 G ¾	134	2.5
DN15 G ¾	165	2.5
DN20 G1	105	4
DN20 G1	130	2.5
DN20 G1	130	4
DN20 G1	154	4 (LD)
DN20 G1	190	2.5 (LD)
DN20 G1	190	4 (LD)

Technical data

Operation / Storage temperature	+0.1 ... +65 °C / -20 ... +70 °C
Water temperature range	MID Class T50: +0.1 ... +50 °C MID Class T30/70: +30 ... +70 °C
Protection class	IP68 and IP66: Submersible and protected against water jets
Power supply	1x Li/SOCl₂ battery, lithium content: 5 g
Installation	Orientation: Vertical, horizontal, tilted Installation like non-smart meters: All start-up procedures are carried out automatically
Pressure class/loss class	MAP 16 / ∆P40, ∆P63
Sampling rate	1 Hz (1 integration per second)
Logbooks	Metrological log: 10 firmware updates, 5 adjustments (calibrations); event log: up to 40 events; communication log
Datalogger	Set of 9 values; 15 years, 72 months, 200 days, 168 hours
NFC user roles	– Consumer: Read only, check and analyze consumption, only own meter – Installer: Commissioning only – Service technician (certificate secured): Commissioning, parameterization, analyze meter, all own meters, test, reset – Lab (certificate secured): Adjustment, test, reset
NB-IoT	Standard: NB1 & NB2 – SIM card: Landis+Gyr or customer supplied – Protocol: OMA LwM2M – Frequency Bands: 3, 5, 8, 20, 28
LoRa	Version: 1.0.3 – Class: A (bidirectional) – Protocol: M-Bus – Frequency: 868 MHz – Activation: OTA or ABP – Transmission int.: 15min, 30min, 60min, 12h, 24h
wM-Bus	OMS Generation 4 – Modes: T1 or C1 – Protocol: wM-Bus – Frequency: 868 MHz – Security profile: Unencrypted, 5/A, 7/B – Data content: Preselected or customized – Transmission int.: 20s, 15min