HYDRUS 2.0
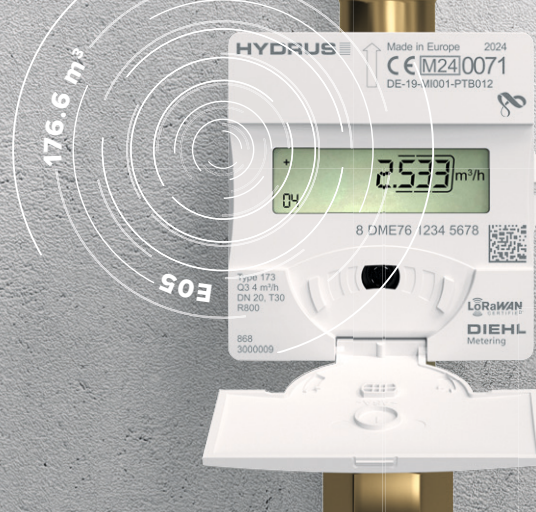## SMART ULTRASONIC WATER METERING

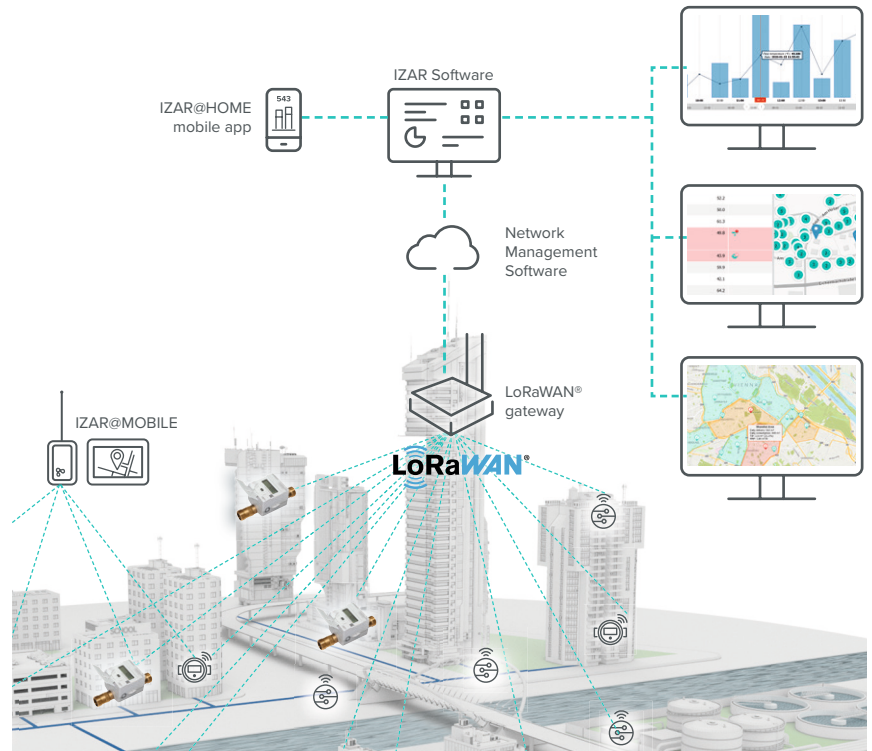**With integrated LoRaWAN®
IoT connectivity technology**

DIEHL
Metering

LoRaWAN®

You are interested in setting up a fixed network with LoRaWAN® IoT connectivity technology? Or you're looking for the perfect LoRaWAN® ultrasonic water meter for your existing network?

Then our state-of-the-art smart ultrasonic water meter HYDRUS 2.0 is the ideal choice. Now featuring integrated LoRaWAN® technology, HYDRUS 2.0 empowers seamless two-way communication and is ready for any smart metering project.

EXCELLENCE THROUGH PRECISION.

Metrology and connectivity at its best
The domestic meter with its approved measuring range up to R800 allows you to measure a wide range of water flows, effectively reducing non-revenue water. Diehl Metering's proven ultrasonic measurement technology also sets new standards in water metering, with high accuracy and stability over a long service life. This minimizes the need for frequent calibration or replacement.

Smart Functions
HYDRUS 2.0 provides you with a wealth of valuable information: precise consumption data, water usage history and leak detection alerts. Its self-diagnostic function ensures quick identification and resolution of operational issues.

SMART INFORMATION

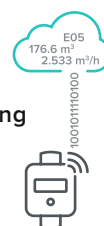**Accurate billing & metrological information**
▶ Total volume
▶ Due date volume
▶ Current & reverse flow volume
▶ Temperature (ambient/medium)

Advanced anomaly detection
▶ Leakages
▶ Air in the pipe
▶ Reverse flows

Device health monitoring
▶ Low battery
▶ Measurement interferences

DATA LOGGING

▶ Data logging memory capability with hourly, daily, weekly, monthly values and due dates. Logging can be read-out with an opto head or radio on-site.

Your benefit
Increase the efficiency of your data collection to get values and obtain information to take actions in your distribution network.

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CONNECTIVITY FOR DIGITALIZED PROCESSES

Connectivity for digitalized processes

The HYDRUS 2.0's integrated communication function gathers data (e.g. for billing) via AMR/AMI meter read-outs, making it a smart and essential component of a connectivity solution that eliminates the need for manual meter reading processes.

Connectivity for analysis

Imagine a fully automated system infrastructure combining HYDRUS 2.0 and smart bulk meters, enabling simultaneous meter readings and insights into the entire distribution network. The IZAR software visualizes highly granular (up to hourly) consumption history and metrological information, aiding in water supply and usage analysis. Receive real-time alerts on device status and leakages, allowing for quick, cost-effective decisions to reduce non-revenue water, save resources, and enhance sustainability.

TWO-WAY COMMUNICATION USE CASES

1. Remote meter configuration:
- ▶ Fixed Networks: Utilize LoRaWAN® for seamless configuration updates throughout the meter's lifespan.
- ▶ Mobile Walk-by: Leverage wireless M-Bus for convenient meter configuration during walk-by reading tours.

2. Remote Alarm Resetting:
- ▶ Remotely reset alarms as soon as any water network-related issues are rectified, ensuring optimal performance.

3. Clock synchronization:
- ▶ Maintain precise clock synchronization between meters and the network to ensure highest data quality for seamless operations and effective network management.

STILL LOOKING FOR THE IDEAL IOT GATEWAY?

LoRaWAN®
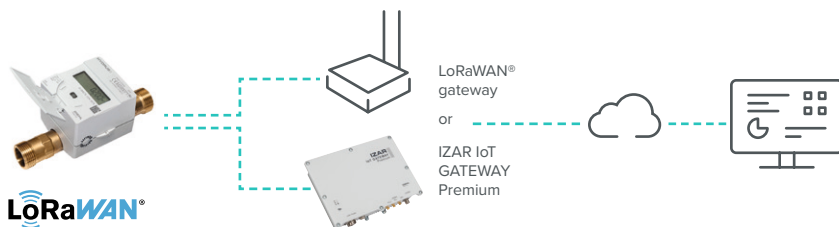gateway

or

IZAR IoT
GATEWAY
Premium

DIGITAL TWIN

Improve operational efficiency using HYDRUS 2.0's digital twin technology. Easily import meter production configurations into IZAR MDM software or alternative MDM systems, removing manual configuration requirements. This plug-and-play feature guarantees easy installation and instant functionality.

Your benefit: Stay always informed about your meter configuration even after changes.

OTHER KEY HIGHLIGHTS

- ▶ **Interoperability:** Telegram interpretation made easier with OMS over LoRaWAN®.
- ▶ **Security**: Advanced data protection according to LoRaWAN® v1.0.3 for fixed networks and OMS 4, Profile B for mobile networks.
- ▶ **Strong battery:** Lasts for up to 16 years even under challenging LoRaWAN® network conditions.

HYDRUS
MORE THAN 8 MILLION SOLD WORLDWIDE SINCE 2009

25+ YEARS
OF EXPERIENCE IN RADIO AND ULTRASONIC TECHNOLOGIES

60 MILLION
COMMUNICATIVE METERS AND RADIO MODULES INSTALLED WORLDWIDE

INTERESTED?
LET'S TALK ABOUT **YOUR** CHALLENGES!