PRODUCT CATALOGUE
ENLIT 2024

product wall on OMS both

Milan 22.10. – 24.10.2024

GW5: A Gateway Designed for Secure and Seamless Data Integration

We are proud to present the next generation of wireless M-Bus gateways: GW5.

Lansens GW5 is a cutting-edge gateway designed to seamlessly integrate with Lansens battery-powered repeaters, offering the perfect solution for secure and efficient meter data collection. This robust gateway simplifies data management while delivering top-tier performance and security.

With fully configurable suppression timers, the gateway provides complete control over how frequently data is collected from devices. You can adjust these settings at the system level, by meter type, or even down to specific individual meters. This flexibility ensures that your data is delivered exactly when and how you need it.

Security is a top priority. The gateway uses TLS certificates to guarantee absolute data security, ensuring that all information remains encrypted and safe. The gateway also supports secure remote configuration, allowing you to make changes from anywhere without compromising safety. For on-site configuration, the GW5 is compatible with the LAN-WMBUS-D2-TC, giving you the option to manage settings locally as well.

Lansens GW5 is built for endurance. Whether you prefer daily readings powered by its long-lasting battery, which offers up to 10 years of operation, or continuous readings via 230V power, the gateway is designed to meet the demands of your system. Plus, it can handle up to 2,000 meters, ensuring scalability for larger operations.

The gateway delivers transparent, untouched meter data through the MQTT and MBUS protocols, ensuring reliability and compatibility across systems. MBUS support is coming soon, further expanding the device's flexibility. Equipped with 4G and LTE-M1 connectivity, Lansens GW5 is future-proof and ready for the most demanding environments.

Wireless Bridge to Cloud

Wireless bridge to cloud (LAN-WMBUS-B4-BE-LR-A2-CATM1)

The wireless M-Bus bridge is a highly configurable plug-and-play device used for collecting data from Wireless M-Bus meters and transmitting the data using LTE-M1. The data is sent directly to the cloud, ensuring a high degree of safety by transmitting the data untouched. The bridge supports up to 2.000 OMS units and can either be battery or mains powered.

Long range and high sensitivity are achieved by using the latest technology in radio transceivers with sharp filtering and a lowest noise amplifier. Even in urban environments where a lot of radio disturbances can occur, the performance is guaranteed thanks to the high-performance front-end filter. This gives an excellent blocking even when placed close to RF-transmitters. Furthermore, the enclosure is designed to make the bridge as discrete as possible.

The device has many options regarding antennas. Both an internal and external antenna interface is selectable to achieve maximum performance in each given installation. The internal antennas are mounted at 90 degrees from each other to take advantage of both horizontal and vertical polarizations. This maximizes the range while minimizing multipath problems. The antenna diversity is important since it prevents losses due to different polarizations, especially indoors since meters and gateways can be mounted both to the sides and above/below the bridge. The external SMA-interfaces are suitable for antennas to cover larger areas or long distances, both for collecting wireless M-Bus data or to transmit the data using LTE-M1.

The expected battery-lifetime of the battery-powered bridge is 10 years. To maximize the battery lifetime and still get the data when needed, a number of possible configuration parameters can be used. In addition, the bridge firmware can be upgraded remotely using MQTT. Below is a list of possible configuration parameters:

• Number of minutes to be active / not active

• Specific time during the day to start listen for meter data (e.g., at 12:30)

• Specific days to be active (e.g., Mondays and Wednesdays)

• Suppression timer (limit number of packets stored per meter/week/day/hour)

Configuration can be done in different ways and is easiest with a Lansen Wireless M-BUS programming dongle together with our program, Lansen Configurator. However, configuration can also be done with other wireless M-BUS transmitters or by doing remote configuration using the MQTT protocol.

The bridges are built for a seamless integration with Lansen's repeaters, which ensures an easy installation and integration to the meter reading system. To summarize, the bridge combines thoughtful design and high-performance to complement your sensors and repeaters, all to ensure 100% coverage.

Ei6500-OMS

PRODUCT DESCRIPTION

The Ei6500-OMS alarm has been specifically designed for larger residential properties and can be fully inspected from remote.

The remote inspection of the alarm is enabled by the unidirectional wM-bus module. On 868.95 MHz, it transmits the following status information of the detector per radio within 120 second intervals:

Manufacturer ID; Serial number; Date of commissioning; Operating time; Battery, sounder and sensor status; Degree of soiling of the smoke chamber; Incidents since the last read out: Test button pressed, alarm, disassembly (frequency and duration); Detector removed.

The smoke alarm operates according to the scattered light principle and triggers an alarm as soon as smoke penetrates the optical smoke chamber. The built-in piezo-electric horn alerts with a sound pressure of at least 85dB (A) three meters away.

Features:

• Smoke alarm according to DIN EN 14604 with additional functions and complete remote inspection
• 10-year lithium battery (3V)
• Ultrasonic smoke entry obstacle detection system
• Reading of detector data by wireless M-Bus module
• Integrated microprocessor
• Test and mute button
• Advanced mute function
• Increasing test volume
• Dust compensation
• 5 year warranty
• 10 + 1 years product life
• Q-label
• Suitable for bedrooms (without LED flashing)
• Automatic self-test of the smoke chamber
• remote inspection certification according DIN SPEC 91388

µflow Sky-W2

PRODUCT DESCRIPTION

µflow Sky-W2:

The skyW-2 radio attachment modules enable simple integration of standard mechanical Modularis series water meters into existing OMS-compatible radio infrastructures by adding fully OMS compliant radio functionality.

µon2

PRODUCT DESCRIPTION

µon²:

The µon² electronic heat cost allocator is mounted on a radiator. The built-in sensors measure the temperature of the radiator and the ambient air. Using model-dependent correction factors (Kc values), it determines the heat output of the radiator. Via the built-in radio module, the consumption data can be transmitted by radio at adjustable intervals for remote reading or walk-by reading. Enables seamless and easy integration in existing OMS environments.

HYDROSONIC-M1

HYDRODIGIT S1

- HYDROSONIC-M1: Ultrasonic water meter designed for measuring of cold water consumption in households, blocks of flats and for industrial applications.
• High accuracy up to R500 (Q3/Q1)
• Mounting in any installation position
• No measurement of air
• Wireless M-BUS integrated transmission module

- HYDRODIGIT-S1: Single jet, digital display with 8 digits, inductive transmission. Produced in the versions for cold water or hot water in the diameters DN15 and DN20 mm (1/2"- 3/4"). 360° rotating dial. Wireless M-BUS integrated transmission module.

MUC.easy^{plus}

Having a compact design and featuring diverse meter interfaces and an intuitive and flexible software, the data concentrator of solvimus greatly facilitates the automatic capture of consumption data and load profiles in properties.

As powerful data hub, the MUC.easy^{plus} queries on its own data from sensors and meters of all sorts of media, analyses and transmits these.

To achieve that, the MUC.easy^{plus} disposes of an M-Bus interface supporting up to 80 unit loads. Additionally, three S0 pulse inputs can be read. It is further equipped with a wireless M-Bus interface compliant to OMS and also Modbus RTU via RS-485 as well as Modbus TCP for meter reading.

The connection of the MUC.easy^{plus} to the data acquisition system is established by an Ethernet interface, alternatively also by LTE (4G) or NB-IoT.

With its support of diverse XML formats, the MUC.easy^{plus} is compatible to numerous systems for automated meter reading (AMR) and energy data management systems (EDM). It also masters the data export to CSV or JSON files.

The data transmission itself can occur encrypted or unencrypted via FTP, MQTT, SMTP (e-mail) and TCP to an energy management system, billing system or for visualisation purpos.

MUC.one

Cost-efficient communication platform for meter data in the mass market

At present, our products contribute substantially to enhance energy efficiency in industry and commerce, while the end-use consumer respectively private household with his single meter does not contribute significantly as of now. A disproportionate effort-benefit ratio entails a high price sensitivity. The MUC.one will fill this gap.

It transmits M-Bus respectively wM-Bus data of individual meters via NB-IoT in the internet (in the cloud). Meter data can thus be transmitted fast and easily even in case of bad mobile radio connection or without network connection.
The design optimising both investment and functions combined with globally acknowledged standard technologies makes it your adequate choice in the international mass market.

The MUC.one is configured locally via WLAN/WiFi.

With its support of diverse XML formats, the MUC.one is compatible to numerous systems for automated meter reading (AMR) and energy data management systems (EDM). It also masters the data export to CSV or JSON files.

The data transmission itself can occur encrypted or unencrypted via MQTT or HTTP to an energy management system, billing system or for visualisation purposes.

RelAir^{R2M PRO}

The **RelAir^{R2M Pro}** is a wM-Bus to M-Bus gateway and allows you to integrate up to 63 Wireless M-Bus meters into your existing M-Bus installation.

- Visit www.relay.de for full information

- Wireless M-Bus to M-Bus and USB gateway

- wM-Bus according to EN 13757-4 Mode S, T und C

- Frequency 868 MHz

- OMS conform and compatible (Spec 4.X.X)

- supports M-Bus application layer acc. to EN13757-3

- Optional encryption Mode 5 or 7, AES

- Power supply via M-Bus (6 unit loads) or USB

- Whitelist with up to 63 meters configurable

- Configuration with free Software via M-Bus or USB

- Internal antenna

- Pro version with robust housing for rough conditions

RelAir^{R2M Home}

The **RelAir^{R2M Home}** is a wM-Bus to M-Bus gateway and allows you to integrate up to 63 Wireless
M-Bus meters into your existing M-Bus installation.

- Visit www.relay.de for full information

- Wireless M-Bus to M-Bus and USB gateway

- wM-Bus according to EN 13757-4 Mode S, T und C

- Frequency 868 MHz

- OMS conform and compatible (Spec 4.X.X)

- supports M-Bus application layer acc. to EN13757-3

- Optional encryption Mode 5 or 7, AES

- Power supply via M-Bus (6 unit loads) or USB

- Whitelist with up to 63 meters configurable

- Configuration with free Software via M-Bus or USB

- Internal antenna

- Home version with elegant housing for living rooms

PadPuls M2W

The **PadPuls M2W** is a 2 chanel OMS conform pulse to wM-Bus converter.

- Visit www.relay.de for full information
- Wireless M-Bus according to standard EN 13757-4 Mode S, T and C
- OMS conform and compatible (Spec 4.X.X)
- Optional encryption Mode 5 or 7, AES
- Two seperated pulse inputs (for reed contacts, optocouplers,...)
- Save detection of up to 18 pulses per second on both inputs
- Debouncing
- Free adjustable pulse value
- Free choice of units (e.g. Wh, kWh, MWh, kJ, m3, l,...)
- Configuration via USB-converter cable
- Transmission interval adjustable between 10 seconds and 2 hours
- Battery supplied
- Battery lifetime about 14 years at 15min transmitting
- Distributionbox for wallmounting

WebLog²⁵⁰

The **WebLog²⁵⁰** is an M-bus Datalogger with integrated web server for 250 meters with large touch display for use on site. The internal database allows you to organize the M-Bus data in a structure which fits your requirements. Another convenient feature is the automatic export of data via email
or FTP upload. In addition to the standard interfaces (USB, RS-232C,
Ethernet) the customer can also add a WiFi option. Due to three different user types, it is possible to send individual meter readings to for example tenants once a month or the energy controller once a day.

- Visit www.relay.de for full information
- Web enabled M-Bus Logger for 250 meters
- Ideally suited to work with **RelAir^R2M** wM-Bus Gateways
- USB, Ethernet, WiFi and RS232C interface
- Readout and administration by webbrowser
- Exports data as XML, XLSX or CSV via E-Mail, FTP or USB
- 4 GB internal memory
- integrated 110 .. 250 VAC power supply
- 3 different user types for different access levels
- Automatic monthly export of meter readings per tenant possible (EED)

WebLog¹²⁰
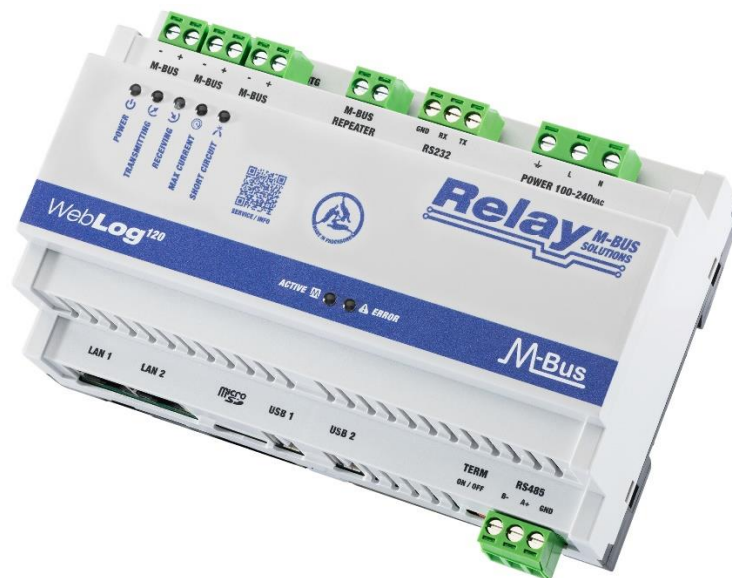
The **WebLog¹²⁰** now brings the full convenience and performance also to smaller installations. The M-Bus logger WebLog120 has an integrated web server, 4GB memory and adapts to your needs as flexibly as the WebLog250. The WebLog120 can supply M-Bus 120 meters with power and voltage and manage up to 1,000 meters. With the help of the implemented database, your data can already be structured individually in the central unit. A particularly convenient function is the automatic export of the read data via email or FTP upload. In addition to the standard interfaces (USB, RS232C, Ethernet, RS485, repeater), WiFi is also available as an option. Thanks to the integrated double LAN interface and the repeater input, very individual installations can be realized, for example with a second controller or with a second M-Bus master.

- Visit www.relay.de for full information
- M-Bus logger for 120 meters
- Integrated web server allows complete operation via web browser
- USB, Ethernet, W-LAN, RS232C, RS485, repeaters
- Data export as XML, XLS, CSV via email, FTP, USB or download
- Firmware update via web browser
- Compact dimensions and top-hat rail mounting
- Automatic, monthly export of meter readings per tenant possible (EED)
- Repeater input enables dual operation with a second M-Bus master

gateway 5.5 direct

QUNDIS Gateway

The Q gateway 5.5 direct enables the smart transition from walk-by meter reading to AMR remote readouts and is therefore ideal for small systems. The gateway receives data from all QUNDIS metering devices in C mode as well as wM-Bus compatible, uni-directional external meters from other manufacturers within the direct reception range.

The recorded consumption data from up to 1,000 metering devices are transmitted via 2G / 3G / 4G mobile radio transmission to the QUNDIS Smart Metering Platform (Q SMP). From there, the automatic data transmission by email or SSH FTP takes place at the desired interval directly to the metering service.

Thanks to its high-performance battery, the Q gateway 5.5 direct works without interruption throughout the entire contractual period. Depending on the operating scenario, a battery life of up to 10 years is possible. The product variant with power supply is the optimum solution for daily data retrievals.

More information: https://qundis.com/products/network-nodes-gateways/

Q caloric 5.5

Improved wireless transmission performance and flexible readout times

The Q caloric 5.5 heat cost allocator enables an even simpler and more flexible readout of meters. The significantly greater wireless transmission range simplifies remote readout, improves data quality and cuts readout times.

Meter reading can be implemented both on site and in mobile form, because parallel to walk-by wireless telegrams Q caloric 5.5 also sends AMR telegrams. In C-Mode operation the AMR telegrams meet 'Open Metering System' (OMS) specifications. In addition, parallel transmission also makes it possible for you to switch to AMR readout at any time, without re-configuration of the Q caloric 5.5. As a result you are well prepared for consumption recording at any time of year.

More information: https://qundis.com/products/heat-cost-allocators/

Q water 5.5

Electronic water meters

The MID-compliant Q water 5.5 meters represent a new generation of the tried-and-tested water meters from QUNDIS. The Q water 5.5 doesn't just reliably measure the consumption of cold and hot water in the building – it identifies leaks and transmits all its data by radio also. These features enable the provision of valuable useful additional services.

Remote meter reading can be implemented either on site or in mobile form, because in addition to walk-by radio telegrams the Q water 5.5 also transmits AMR telegrams. In C-Mode operations the latter also conform to the requirements of the Open Metering System (OMS). In addition these parallel transmission operations ensure that you can switch to AMR readout at any time and without any reconfiguration, e.g. if you wish to use the leak detection function.

More information: https://qundis.com/products/water-meters/

Q heat 5.5 US R

Radio integrated ultrasonic heat meter

The new ultrasonic heat meter combines precision, high material quality and easy handling during installation with integrated radio technology.

Thanks to the high level of metering accuracy with a dynamic range of up to 1:100, even the smallest flow rates are recorded precisely, which is also ideal for separating out hot water.
The familiar, diverse range of applications has been expanded to include combined heat/cooling meters. For recording the energy consumption of heating, cooling and hot-water heating systems, there are screw-type meters available in the flow rates 0.6 / 1.5 and 2.5 m3 /h.

Thanks to the compact design and the removable calculator unit as standard, the Q heat 5.5 US R is ideally suited for installation situations where space is limited or access is diffi cult. The installation position can also be selected as desired, which means that overhead installation is also possible without any problems. In addition, it is possible to switch between flow and return on site, without having to change the temperature sensors, as well as between the energy units (GJ - MJ <-> kWh - MWh).

The device parameters are set in a user-friendly way via the IR interface using software, or directly via the device keys. All ultrasonic heat meter variants can also be ordered with optional AES encryption; decryption is possible on request within the Q SMP on a tariff basis.
More information: https://qundis.com/products/heat-meters/#qheat5.5usr

iSmart2

iSMART2

The UG iSMART2 series meters are the 2nd generation of smart gas meters of Apator Metrix, being the base for many smart gas meters project in Europe and beyond. The design uses proven and durable diaphragm measuring principle with low power, solid state Hall effect sensors for volumetric measurement. The volumetric measurement principle is highly convenient for changing composition of gases in the networks. The iSMART2 electronic index can be integrated with each meter within our product portfolio to add proven measurement with smart functionalities like shut-off valve, communication and Graphical User Interface. The device uses microkernel-based, real-time operating system ensuring flexibility and security in rising IoT world.

uniSmart2

uniSMART2

uniSMART2 is a communication module, pre-mounted & configured on new gas meters or as a retrofit module for already installed gas meters of Apator Metrix. The robust uniSMART2 has smart solid-state sensors for volumetric measurement of values of the mechanical index of the diaphragm gas meter. The sensors detect possible return flow and secure against "false pulses". Index values and events as tampering and overflows are logged and communicated following 868 MHz Wireless M-Bus (cooperates with devices working in OMS standard), T-mode, security mode 7, profile B in the M-Bus telegram. A lifetime of battery mounts up to 20 years, communicating every 5 minutes. Communication is compliant with German BSI specifications. For retrofit modules on installed gas meters, Apator has developed a special tool for easy and fast installation.

ULTRIMIS

The ULTRIMIS ultrasonic water meter of Apator has been OMS certified by DVGW in May 2021.

DVGW confirmed that radio communications compliance with OMS requirements: Encryption mode 7 - Profile B and Encryption mode 5 Profile A (selectable).

Both synchronous and asynchronous radio frames meet OMS standards in the version chosen by the customer.

ULTRIMIS will also be available with dual stack communications on board: LoRaWAN and wMBus, where wMBus communications will meet OMS Encryption mode 5 - Profile A standards.

Very important argument for customers for using OMS-compliant ULTRIMIS water meters is the data security. It is provided among other things by a unique 128-bit AES key and free access to data transmitted by the water meter, such as current volume, stored volume, backflow volume, battery status and tampering.

CHENOA Pulse adapter

Product description

The CHENOA pulse adapter is a wM-Bus / OMS radio communication adapter for subsequent connection (retrofitting) to an Elster / Honeywell gas meter to establish remote readability.

Depending on the version, the radio link can be established either via OMS over wM-Bus[*1] or OMS over mioty ®[*2].

The CHENOA communication module is a battery-powered, wireless pulse adapter that is connected directly to the gas meter's counter as a clip-on module.

The CHENOA communication adapter detects rotations by scanning a magnet inside the mechanical counter and transmits the simulated counter reading via wM-Bus/OMS or mioty ® to a suitable gateway.

The adapter uses OMS with wM-Bus to connect to the BSI SMGW and OMS over mioty® to communicate with a mioty® infrastructure.

The initial configuration of the unit can be realized in a user-friendly way via an NFC interface using the WEPTECH app (Android app).

Features:

- Radio technology wM-Bus / OMS - mioty®, frequency 868 Mhz
- Acc. BSI TR 03109-1 /
- OMS specification 4.5.1,
- Tarif application case TAF1 + TAF6
- Unidirectional, Mode T & Mode C
- DVGW Merkblatt G 694 (M)
- Transmission intervall: 4 min / 1h
- RED-2014/53/EU
- IP 54 protection class, UV resitant
- Optimised for Smart Metering
- Battery lifetime appr. 20 years
- Key shipping via eLs
- NFC configuration interface
- * available appr. (*1,Q2) (*2,Q4) illustration may differ

SWAN2-C NB IoT Gateway

Product description

The SWAN2-C is an investment-friendly and powerful battery-powered gateway that uses the new LTE Cat. NB1 technology to securely transmit up to 250 wireless M-Bus / OMS meters to an IoT platform.

The SWAN2-C is equipped with two 3.6 VDC lithium batteries (C-cells), which, depending on the configured collect & upload frequency, enable an operating time of more than 10 years.

The SWAN2-C impresses with its simple and intuitive handling during configuration and commissioning. Using the WEPTECH Configurator APP, all relevant parameterizations can be carried out quickly and safely via the NFC interface of the SWAN2-C - even by non-technicians. Alternatively, it is possible to transfer predefined profiles from a smartphone or by remote configuration via HTTP/S and/or LwM2M.

The available wireless M-Bus meters are selected via the "Radio Scan List" function. Configurable filters can be used to exclude unwanted meter manufacturers and meter types in advance, so that only the relevant meter data are included in the "whitelist", which is then forwarded by the SWAN2-C gateway via UPD /HTTPS or LwM2M to the desired IoT platform for billing.

Features:

- 3GPP licensed technology
- Wall / pole mounting
- Internal antenna
- Dimensions: 160x 90 x 50 mm
- Weight < 400 g
- IP 67 enclosure, UV resistent
- Ideal for smart metering
- Deep building penetration
- Low power consumption
- Usage within the temperature range: -20 − +55 ° C
- WM-Bus mode S, T and C
- 868 MHz
- OMS 3.x and 4.x compliant
- Opt. L-Bus, RS-485
- LTE band 3, 8, 20
- Supported protocols: UDP,
- HTTP/S, LwM2M
- Micro SIM card holder, eSIM
- Firmware update via NFC or FUOTA
- Configuration via NFC

JONAH communication adapter

Product description

JONAH is an AE5 mioty® adapter for subsequent connection (retrofitting) to the Elster gas meter to establish remote readability.

The adapter is intended for the Elster gas meter BK-G series with an AE5 interface. Other meter types are not supported.

The meter values are transmitted to a background system via OMS over mioty®.

The adapter is available as a clip-on module (see gas meter illustrations). With the help of the rear guide rails, the communication module can be easily and precisely "docked" onto the gas meter.

Initial parameterization (recording of the meter reading) is not necessary; the meter data of the absolute encoder are automatically adopted or provided via the absolute encoder interface. This is done by opto-electronic scanning of the counter mechanism consisting of 8 rollers. The meter number and the meter reading are transferred to the communication adapter, and are wirelessly and encrypted transmitted to a mioty® gateway via OMS over mioty®.

Features:

- OMS over mioty®,
- Frequency band 868 MHz
- Protocol: OMS
- IP 54 protection class, UV resistant
- Easy clip-on mounting
- Dimensions: 125 x 102 x 45 mm
- weight: < 40 g
- Optimised for smart metering
- Low power consumption
- Battery: lithium cell, 3,6 V
- Battery lifetime: app. 20 years
- Temperature range: -25 to +55° C
- Humidity: 0% bis 95%

ORIOL Pulse adapter

Product description

The ORIOL pulse adapter is a wM-Bus / OMS radio communication adapter for subsequent connection to various types of consumption meters (e.g. gas meters; heat meters and/or water meters).

The wireless M-Bus pulse adapter counts the pulses of consumption meters with pulse output. The meter reading of the connected device is replicated. The pulse value is configurable.

Via an alarm input, tampering can also be detected and displayed in the radio telegram. The pulse adapter is battery-operated and supports different consumption meters.

Depending on the version, the radio connection can be selected either via OMS over wM-Bus or OMS over mioty ® (*) and therefore communicates in a simple form with the BSI SMGW or other wM-Bus gateways.

The adapter is available as an external module. The wired pulse output of the meter is connected to the pulse interface of the adapter. The configuration and initial parameterization (meter reading) is carried out easily and conveniently via NFC interface using the WEPTECH app. This allows various types of existing meters to become "smart" by retrofitting.

Features:

- wM-Bus mode / EN 13757-4 integrated antenna
- Frequency 868 MHz
- Integrated impulse interface
- RED 2014/53/EU
- Dimension: 145 x 90 x 38 mm
- Weight < 200 g
- IP 67 protection class, UV resistant
- Optimised for Smart Metering
- Battery lifetime appr. 20 yeards
- Temperature range: from -25 bis +55 ° C
- Transmission power: 14,0 dBm
- Power supply: 3,6 V
- OMS 4.5.1 conform, Mode 7
- NFC configuration interface
- * in planning stage

HCA e2 – THE heat cost allocator
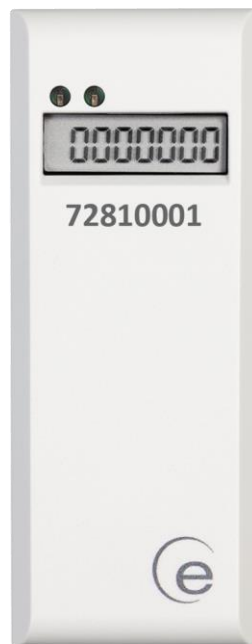
HCA e2 – THE heat cost allocator

With the **HCA e2**, you can easily and conveniently record the consumption data of your radiators and create a consumption-based heating bill. The heat cost allocator meets all requirements of the amended German Heating Cost Ordinance (HKVO) and the European Energy Efficiency Directive (EED).

Thanks to the radio transmission of consumption values, you can conveniently provide consumption information during the year and are thus ideally equipped to meet the requirements of the HKVO. Say goodbye to time-consuming manual readings and create your heating cost billing easily and quickly with the electronic heat cost allocator **HCA e2**.

#ThatsWhyEngelmann

SensoStar U – THE ultrasonic heat and cooling meter

SensoStar U – THE ultrasonic heat and cooling meter

The **SensoStar U** is the latest generation of compact meters. Regardless of whether it is heat meter, cooling meter or hybrid (heat/cooling meter), the SensoStar U enables high-precision measurements and offers a wide range of advantages.

Flexibility in handling, installation and communication is ensured by the wide range of sizes and overall lengths as well as the modular solution for different communication interfaces. With radio communication via wireless M-Bus, up to 15 monthly and semi-monthly values are transmitted at individually adjustable transmission intervals, which, in addition to the connection to an AMR system, also enables convenient walk-by readout. OMS-compliant radio communication in OMS Mode 5 or Mode 7 encryption mode guarantees secure transmission of measurement data.

Thanks to ultrasonic technology, the SensoStar U delivers high-precision measurement results in any installation position. For maximum flexibility, temperature sensors with up to 6 m cable length and the possibility to connect an external power supply for real-time monitoring are provided.

The **SensoStar U** is the perfect choice for precise measurements and easy error analysis.

#ThatsWhyEngelmann

WaterStar M – THE water meter

WaterStar M – THE water meter

The radio-integrated **WaterStar M** is the perfect solution for recording cold and hot water consumption. With a wide range of single-jet and multi-jet flow sensors for cold and hot water applications, the meter is suitable for all common installation locations and applications. The digital display shows the consumption values in real time, so you always have an overview of your water consumption.

Thanks to the integrated radio, the consumption values can be transmitted wirelessly at any time. OMS-compliant radio communication in T1 or C1 mode enables reliable remote reading of the devices. Installer work is done quickly, as the device is easy to install and can be adjusted at any time. Up-to-date notices and alerts ensure that you are always up to date and can quickly identify potential problems.

The radio-integrated **WaterStar M** is the perfect choice for reliable, accurate and efficient collection and measurement of your water consumption.

#ThatsWhyEngelmann

# FlowStar U – THE ultrasonic flow sensor

FlowStar U – THE ultrasonic flow sensor

The **FlowStar U** impresses with its flexible usability and high temperature range. With a temperature range of 1 – 130 °C, the flow sensor fulfills all requirements. This makes it an ideal solution for a wide range of applications and demanding environments. From DN 50 to DN 300, it is the ideal extension to the compact meters **SensoStar U**.

The **FlowStar U** flow sensor records the flow rate using high-precision ultrasonic measurement technology, guaranteeing you reliable and accurate volume measurement that meets the highest demands. In combination with the **SensoStar C** calculator and the temperature sensors, the thermal energy can be calculated precisely and efficiently. This enables comprehensive and exact energy control and billing.

#ThatsWhyEngelmann

Engelmann Connect Gateway
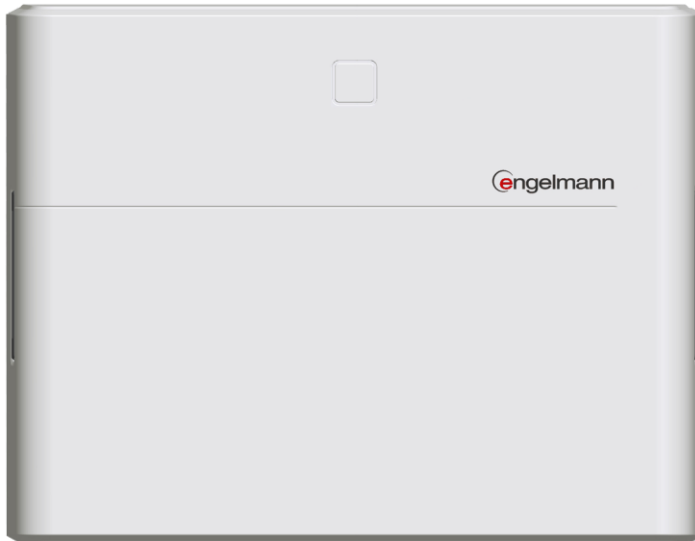
Gateway with open system, according to wireless M-Bus and OMS
Platform for gateway and data management optional
Number of devices in battery mode: up to 1000
High density wireless M-Bus receiver (LTE disturbance filter)
Compatible with OMS radio devices
10 years + battery lifetime
Remote configuration
GPRS or Ethernet available

|	
Interface/Communication:	USB or Portal for configuration
	Wireless M-Bus for data collection
	GPRS for data forwarding, firmware update
Output file format	CSV; XML; RAW
Data transmission	e-mail dispatch; FTP upload
Ambient temperature	- 20 to 60 °C
Protection class	IP65
Power supply	1 or 2 batteries; Main supplies, PoE
AMR software	automated data preparation, merges multiple input files

RmCU / MiDASS
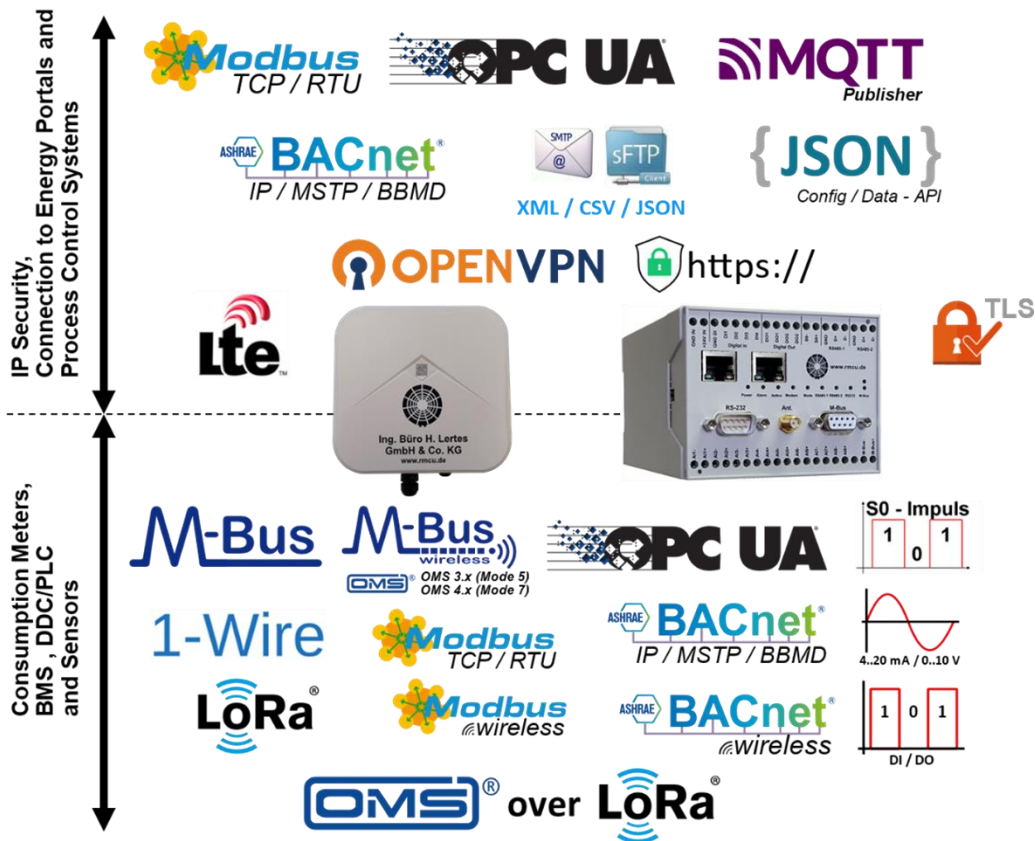
We are a manufacturer of data loggers and multi-protocol gateways called RmCU and MiDASS in the industrial environment and energy management / ISO50001.
In addition to wired fieldbus protocols such as M-Bus, Modbus and BACnet, sensors and consumption meters can also be connected via wireless technologies, such as LoRaWAN,
OMS over LoRaWAN, wireless M-Bus (OMS 3 & 4) and wireless BACnet/Modbus (2.4 GHz).
The recorded measured values can be transferred to higher-level process control, building management and energy management systems via a total of 7 interfaces.
 OPC UA, BACnet and Modbus are available for technical applications, while IoT platforms can be connected via MQTT and JSON. An XML/CSV/JSON interface is also available for fiscal applications.
Our private LoRaWAN infrastructure, which can be scaled from a single property to an area-wide system with several thousand sensors, has already been used in over 500 projects.
As an engineering office, we are also available to you as a system integrator, accompanying projects from the initial inspection through to implementation and commissioning.

CLS Adapter - Submetering

The "CLS Adapter Submetering" is the ready-to-go solution for multi-fuel metering through the iMSys, the German metering system.
With the "CLS Adapter Submetering" new and existing submetering systems can be easily connected to the iMSys.

- collects and transfers all data of OMS compliant submeters
- Integrated update and configuration module
- certified security and interoperability by german cyber security agency (BSI)

LTE450 Smart Meter Gateway

The LTE450 Smart Meter Gateway secures digital communication in the German smart metering system and offers a secure data communication channel for smart services.

- Certified by the GermanFederal Office for Security in Information Technology (protection profile BSI-CC-PP-0073)
- Type examination certificate in accordance with PTB-A 50 by the National Metrology Institute of Germany
- Meets the requirements of technical guideline TR-03109 and FNN specifications
- Highly secure data encryption and data protection thanks to security-by-design concept and security module
- Easy installation and commissioning thanks to its compact design and plug-in connection
- WAN connection via LTE450
- Interoperable with all German Gateway Administration systems
- Supports tariff use cases 1, 2, 6, 7, 9, 10 and 14
- Supports communication scenarios HKS 1-5
- IPv4 and IPv6 support
- FNN compliant SLAAC
- Multi-APN enabled
- No SIM card required
- Updateable for future application profiles and functions

The devices from the WECOUNT family manufactured by E. Wehrle GmbH stand for premium solutions in the field of metering potable water. The fully integrated electronic water meter reliably records even the smallest consumption. It can be used with a variety of hydraulic connection housings for communal applications as well as in the submetering sector. Thanks to the high IP68 protection code, the register can also withstand high humidity and is resistant to temporary submersion.

In addition to the current register value, the LC display provides additional helpful information such as the current flow rate or status codes when unusual consumtion is detected. This includes leaks, pipe bursts and magnetic manipulation attempts, providing valuable information in the event of faults in the pipe system, among other events. The radio standard with a frequency of 868 MHz according to OMS offers the transmission modes C1, T1, with or without monthly end values. This makes the device suitable for walk-by/drive-by solutions as well as for automated meter reading within a fixed network. The water meters of the WECOUNT family are equipped with encryption according to OMS Security Mode 5 and 7, which fulfils requirements for system solutions in combination with smart meter gateways. Alternatively, the meter can be ordered with data transmission via LoRaWAN. Furthermore, the register is available with different battery capacities (Up to 16 years) to suit the requirements for the lifespan of the meters.

In terms of operation, the device has been designed to make commissioning and parameterisation as simple as possible. The desired parameters can be chosen within an online configurator at the time of ordering and the meters will be delivered with the chosen parameterisation, simplifying the commissioning. After installation, no manual activation is required, as the meter independently switches to operating mode by means of flow detection. The WECOUNT series can be read out and parameterised via the NFC interface and the associated Android app, or by means of associated hardware (NFC head). This allows the operator to easily and quickly access the stored consumption data or adjust the radio settings. The WECOUNT water meters are available as single-jet meters, measuring capsules and piston cartridge meters.

Single-Jet Dry Meter
WECOUNT

Inline 500
WECOUNT

config.wehrle.de

SHARKY 775

HYDRUS 2.0 DOMESTIC

HYDRUS 2.0 DOMESTIC

HYDRUS 2.0 DOMESTIC is a static water meter operating on ultrasonic measuring technology. This technology enables accurate calculation of water consumption with long-term stability and eliminates measuring deviations caused by sand, suspended particles, scale or air pockets. Its integrated radio based on Open Metering telegram (OMS Generation 3 or 4, Profile B) enables remote reading of the meter's index and alarms both in mobile (walk-by, drive-by, passive drive-by) and fixed network mode. HYDRUS 2.0 DOMESTIC offers a wide choice of connectivity with an excellent coverage for large areas with less receivers and high data granularities and timeliness, which makes high responsive networks to take actions immediately.

SHARKY 775

SHARKY 775, a smart ultrasonic energy meter, gives accurate measures for heating or cooling applications. Its excellent interoperability with an integrated radio based upon the compatible Open Metering System (OMS - Version 4, Profile B) enable you to fulfill data security requirements. Compatible with remote reading solution such as walk-by, drive-by or passive drive-by, it can be also upgrated to a fixed-network at any time – without additional meter configuration.

ELECTO WATER METERS

Maddalena's list of products that have officially received the certificate of conformity to the OMS specification continues to grow.

ELECTO SJ - ELECTRONIC SINGLE JET METER
ElecTo SJ is single jet meter offering built-in data communication thanks to its innovative electronic radio register. Designed specifically for residential installations, it is available for both cold and hot water applications. Its large LCD display makes it very easy to read, while providing additional information to both users and operators. Suitable for remote data reading using mobile and fixed systems, it fully meets the requirements of the European Directive on energy efficiency.

ELECTO MVM - ELECTRONIC VOLUMETRIC METER
ElecTo MVM is a rotary piston meter for domestic water, featuring an innovative multiprotocol radio electronic register. Robust, durable, suitable for the most challenging environments and types of installation. Its low starting flow rate and its wide measuring range provide excellent consumption accounting. Its large LCD display makes it very easy to read, while providing additional information to both users and operators. ElecTo MVM offers the maximum short and long distance data communication flexibility, and can be used with both mobile and fixed reading systems.

ELECTO SONIC - ELECTRONIC ULTRASONIC METER
ElecTo SONIC is the ultrasonic meter offering built-in data communication thanks to its innovative electronic register with multi-protocol radio communication facilities. It ensures excellent performance in all installation conditions and is insensitive to the chemical and physical characteristics of water. It is the ideal solution for Utility installations. Its wide 9-characters LCD display (digits and symbols) makes it very easy to read, while providing additional information to both users and operators. ElecTo SONIC supports remote data reading with fixed and mobile system, while offering maximum interoperability.

Maddalena also guarantees a high level of interoperability with third party reading systems in order to offer flexible solutions designed to meet the needs of the Smart Cities of the future.

Elvaco Sense series - wireless M-Bus sensors for indoor use

The new Sense series from Elvaco contains nine wireless M-Bus sensors for indoor applications that measure temperature, humidity, CO_2 level, motion, light, sound and room occupancy.
The series offers both battery- and solar-powered sensors, and several of them are multi sensors, meaning they can measure multiple medias in the same device.
The Elvaco Sense series have a minimalistic Scandinavian design and can be discreetly installed in any commercial, public, or private building.

The sensors are easily configured with Elvaco's mobile app and the maintenance costs are low thanks to their long battery lifetime of up to ten years, and their uncomplicated battery-changing process. The solar powered sensors can function for up 30 days in compete darkness in normal operation.

The main target group of the new Sense series are submetering and energy efficiency applications. Measuring and monitoring buildings have great benefits. For instance - measuring the indoor climate helps to save energy and prevents the growth of mold, or measuring room occupancy allows for intelligent control. If a room is empty, the light, heating and air conditioning can be automatically adjusted.

The objective with the Sense series is that Elvaco will be able to offer wireless M-Bus solutions for all common building applications in the future.

Elvaco Edge - New battery-powered wireless M-Bus Gateway

The new Elvaco Edge is a battery-powered wired and wireless M-Bus Gateway for metering and submetering applications with best-in-class battery lifetime.

With the battery supply you are completely free in the choice of your installation location and independent of the availability of a mains supply**. The gateway will calculate and inform about expected battery lifetime for configured data granularity and data actuality.**
If a power connection is available, the unit can also be operated with a power supply unit.

Elvaco Edge has an e**xtremely high sensitivity on wireless M-Bus reception,** can be easily wall-mounted and is available with internal or external antenna.

The new gateway enables easy plug & play installation in the field, without IT knowledge.
You can connect any M-Bus meter (wired or wireless) conforming to EN-13757 (EN1434) and OMS standard.

A user friendly app supports the installation of meters for direct integration into a cloud.
The data collected by the new Edge gateway is transmitted either via NB-IoT, LTE or CAT-M.

Elvaco has also developed a special design feature: The distinctive LED ring of Elvaco Edge shows the functional status of the device and gives the installer immediate feedback during installation.

ZENNER

Ultrasonic water meter IUWS

The IUWS is an ultrasonic water meter with wM-Bus radio interface for the precise
measurement of water consumption and for remote transmission of meter and status data to mobile or stationary receivers.
The IUWS is used in metering and submetering.
Available variants: OMS Gen. 4, Sec. Profile A / B

ZENNER

Ultrasonic thermal energy meter zelsius® C5 IUF

The thermal energy meter zelsius® C5-IUF operates with an innovative ultrasonic technology, specially developed for a
broad scope of application from submetering to
domestic and district heating and cooling.
Optional interfaces: M-Bus, wireless M-Bus, LoRa® and 3 pulse inputs or outputs
Available variants: OMS Gen. 4, Sec. Profile A / B

Ultrasonic water meter IUW plus NDC

The IUW is used for recording high and fluctuating flows in water supply and commercial & industrial applications. The consumption data and status information are transmitted to mobile or stationary receivers via the connected NDC module by wireless M-Bus.
Available variants: OMS Gen. 4, Sec. Profile A / B

Electronical heat cost allocator caltos E

The heat cost allocator caltos E with integrated wM-bus radio interface serves to record the share of heat produced by radiators. The caltos E with its many possible uses and its convenient recording and data transfer technology fully satisfies the high level of requirements for the housing industry and the increasing demand for comfort by homeowners and tenants.
Available variants: OMS Gen. 4, Sec. Profile A / B

TOPAS® Sonic Ultrasonic Meter / CALEC® ST III Standard & Smart

TOPAS® SONIC

Our TOPAS® SONIC is an ultrasonic water meter for domestic applications. As a smart metering solution, it enables remote data readout via LoRaWAN® and wM-Bus. Thanks to its brass pipe with free-flow design, not only does it feature high mechanical robustness, but there are no mechanical parts in the pipe. Hence, the TOPAS® SONIC offers the highest possible resistance against bacteria or dirt adhesion.

CALEC® ST III Standard & Smart

The CALEC® ST III Standard & Smart is a multifunctional heat and cold calculator for applications in local/district heating and building technology. The calculator provides accurate meter measurements remotely and enables bidirectional energy measurement, namely cooling and heating measurements in the same device. Thanks to its large panel of communication technologies, its modularity is beyond optimal.

PiiGAB 900T Multi-protocol gateway
LoRa WAN, wM-Bus and M-Bus.

Multi-protocol gateway supporting LoRa WAN, wM-Bus and M-Bus in the same gateway. It opens up entirely new possibilities when you can combine meters and sensors regardless of the protocol in the same gateway.

COST-EFFECTIVE
With a gateway that supports the two most common data collection protocols, only one gateway is needed. This helps reduce the costs of network infrastructure and maintenance.

HYBRID USAGE
With this multi-protocol gateway, you can choose the meter or sensor that best suits your purpose, whether the protocol is LoRa WAN, wM-Bus and M-Bus.

PiiGAB 900T wM-Bus with LTE-connectivity

The PiiGAB 900T with LTE is the optimal gateway if the property lacks an internet connection or if the fixed connection goes down. Maximize simplicity by ordering with a SIM card directly.

MORE SECURE
A 4G/LTE-connected gateway can be used as a redundant connection to ensure availability even if the fixed network goes down.

REMOTE ACCESS
Allows you to connect to the gateway remotely without the need for access to the property's network. This increases flexibility and efficiency in configuration and technical support.

COMPLETE WITH SIM CARD
Experience the convenience of PiiGAB SIM Card Service, a gateway complete with a SIM card. No complicated activation or additional purchases required. Stable connection on Telia's network, with or without an administration portal. The SIM card is, of course, an optional choice.

WG Electronic Flow - TwoinOne

The latest generation of water meters
WG-ElectronicFlow
with integrated OMS-capable radio system

You decide on site whether it will be a cold or hot water meter.

The Unimeter KOAX-SHORT version
with an unbeatable height of 64.5 mm

TWO in ONE COLD WARM Temperature range 0.1 - 90 C°

| On-wall meters R200H/100V | Replacement program R100H/50V | Measuring head R100H/50V | Multy-Jet dry R160H/80V |

SmartIO US water meter

- o SmartIO short description:
  Ultrasonic water meter, main characteristics:
    - Metrological Excellence - Up to R1000.
    - Communication Protocols: NB-IoT or multiprotocol LoRaWAN / wM-Bus.
    - On Demand Alarms configurable: leak, burst, backflow, battery status, tamper, temperature, air in pipe, etc.
    - Long battery life up to 16 years in standard profile.
    - Temperature monitoring: Anticipates the probability of freezing and possible sanitary risks.
    - Withstands harsh conditions.

- o eREGISTER short description:
  Water meter with electronic register, main characteristics:
    - Brass or Composite
    - Volumetric or Single-jet
    - Metrology excellence – Up to R800
    - Communication Protocols: multiprotocol LoRaWAN and wM-Bus.
    - Long battery life up to 13 years in standard profile
    - Alarms On Demand configurable: leak, overflow, backflow, blocked meter, reversed meter, battery status.

Wired/Wireless M-Bus Stack
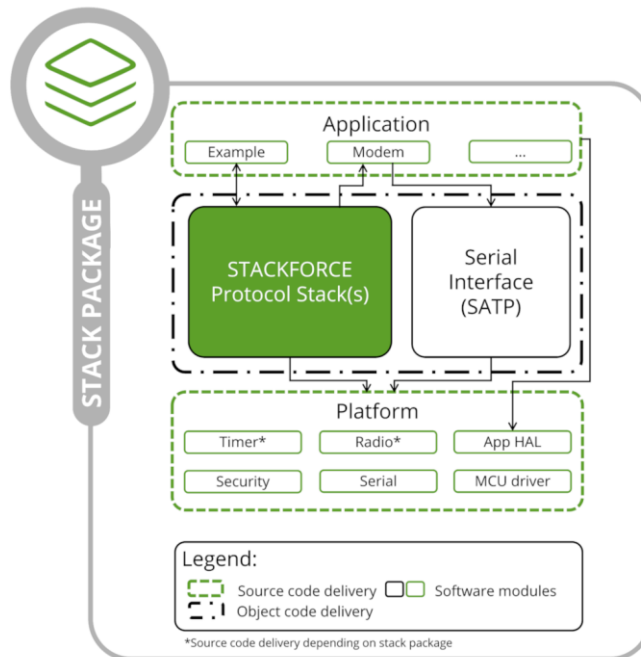
OUR STANDARD OMS® STACK PORTFOLIO:

- **Single Stack OMS® v5.0.1 LPWAN Splitting Mode UL-S1**
  - New OMS® generation for excellent robustness due to the integration of Telegram Splitting Technology
  - Physical Layer specified according to TS-UNB – ETSI TS 103357
- **Single Stack OMS® v4.5.1**
  - Proven software solution for metering applications from our product portfolio comes with some new features in OMS® version 4.5.1
  - Optimized for a compromise between small footprint, excellent modularity and scalability, but still rich in features
  - Available as end device and gateway device stack
- **Dual Stack OMS® v4.5.1 + LoRaWAN® v1.0.4**
  - The dual stack enables both remote meter reading via fixed networks and via walk-by / drive-by to ensure 100% data collection
  - Smooth transition from OMS® to LoRaWAN® possible
- **Dual Stack OMS® v4.5.1 + OMS® over LoRaWAN®**
  - The dual stack enables both remote meter reading via fixed networks and via walk-by / drive-by to ensure 100% data collection
  - OMS® over LoRaWAN® defines how OMS® compliant data packets can be exchanged bidirectionally via LoRaWAN®

Cordonel

Ultrasonic bulk water meter for potable water up to 50 °C
Drinking water supply
Building services engineering (e.g.: high-rise buildings)
Fire extinguishing / fire protection / sprinkler systems
Irrigation technology / agriculture
Process water
Cordonel is a high-performance bulk meter that enables you to manage your distribution network more efficiently and provides accurate and reliable data in any installation or environmental condition.

- Install in any environment with a meter that meets U0D0. Install in horizontal and vertical pipe orientations with no straight upstream and downstream pipe required.

- Integrate easily with a Sensus communication network for two-way information and data transfer.

- Receive accurate, reliable readings over a 20-year battery life—enabled by new technology that ensures all water entering passes through one of its three individual measuring paths.

- Measure beyond water consumption with pressure monitoring (optional) to proactively identify leaks, improve efficiency, and examine overall health of your water network.

- Ensure revenue assurance with a solid-state meter featuring no moving parts.

PolluStat

Compact ultrasonic thermal energy meter
District Heat / Industry Heat
Commercial Heating / Cooling (HVAC)
Domestic Warm Water Generation / Charging Systems

The compact PolluStat ultrasonic meter measures energy consumption in heating or cooling circuits. Thanks to its high-precision flow sensor, the application range stretches from district heating stations to consumption billing for individual apartments.
It is equipped with a large comprehensive LC display with programmable screens.
The following modules for remote readout and data communication are available as options:

- Wireless M-Bus according EN13757-4
- Wired M-Bus per EN 1434-3 with arbitrary readout frequency, the values update every 2 min.
- Wireless M-Bus and 3 pulse inputs for consumption meters with remote meter pulse output
- LoRaWAN® communication
- M-Bus per EN 1434-3 and 3 pulse inputs for consumption meters with remote meter pulse output
- Pulse output
- Modbus

Ultrasonic Smart Water Meter

Product Description: The Ultrasonic Smart Water Meter by ADD Grup is a cutting-edge device designed for precision and reliability. With its high accuracy class 2 and dynamic range of R1600, it ensures consistent performance throughout its lifespan. The meter is equipped with dual stack communication module, including Wireless-MBus, LoRaWAN, and Bluetooth Low Energy, enabling seamless data transfer and remote monitoring. Its robust design, free of moving parts, makes it resistant to water impurities, capable of detecting leaks, bursts, reverse flow, and tampering. This meter is an ideal solution for modern smart metering systems, providing detailed consumption data and ensuring resource efficiency.
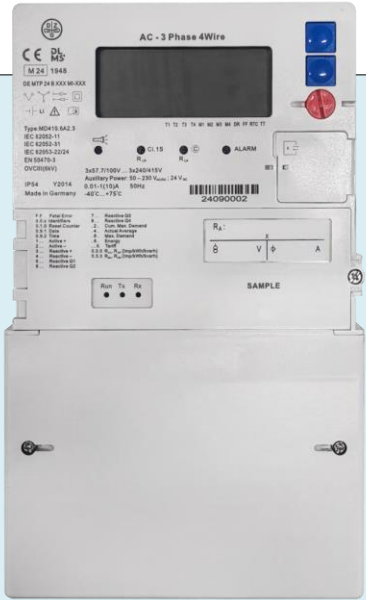
Water Flow Modulation Valve

Product Description: The Water Flow Modulation Valve by ADD Grup is an innovative solution unmatched in the European market. Designed to work in tandem with the Ultrasonic Smart Water Meter, this valve uses Bluetooth communication to receive commands for precise water flow control. It allows for flow adjustments of 10%, 50%, 90% or 100%, enabling automatic shut-off in case of leaks or breaks. Additionally, the valve facilitates remote control of water supply, including disconnection for non-payment. With a battery life of up to 16 years and an IP68 protection rating, this shut-off valve is a reliable and durable component for smart water management systems.

Specification	GSH6225.8B
Type	DIN-Rail DC Meter
Standards	EN 50470 4:2023 IEC 62052-31:2015 IEC62053-41:2021
Main features	-Flexible two wire measurement -OCMF 1.3 -Bidirectional measurement -line loss measurement -Support external display
Voltage	
Rated voltage Un	150V-1500V
Current	
Minimum current Imin	9A
Start current Ist	1.2A
Reference current In	300A
Maximum current Imax	1500A
Accuracy	class C
Pulsating Indicator	LED
Pulsating (meter constant)	1000 Imp/kWh, Total Mains Energy
Environment	
Temperature range	Operation: -40~80℃
	Storage: -40~85℃
Insulation Class	II
Typical Power Consumption	
Voltage circuit active/apparent power	< 0.5 W at Un
Current circuit apparent power	< 40mW/A x Imax
LCD Display	Dot-Matrix, with configurable backlight, configurable contents
Communication Interface	RJ12
Weight Of Meter	About 0.5 kg
Dimension(LxWxD)	DIN-Rail 105 mm (L) x 125 mm (W) x 80 mm (H), 6TE

Specification MD410.6A2.3

Type	3P3W/3P4W Smart Meter
Standards	IEC 62052-11 IEC 62052-31 IEC 62053-22/24 EN 50470-3
Main features	--Wide operating voltage and various current ranges --3P/4W and 3P/3W networks --Import and Import/Export --Active, Reactive and Apparent energy measurement --Multi tariff energy and power measurement --Load profiles --Control in- and outputs --Pulse outputs --Relay output --Build in RS485/RS232 communication --In field exchangeable communication module (4G, Ethernet) --DLMS protocol --Anti-Tampering capabilities (abnormal detection, event push, configurable alarm reporting, etc.) --Support no power reading --Power quality monitoring (31 x voltage and current harmonics detection) --Multi-Functional I/O interface --Auxiliary Power Supply DC and AC/DC
Voltage	
Rated voltage Un	3P3W: 3*100V 3P4W: 3*57.7/100 V ... 3*240/410 V
Voltage range	80%Un~120%Un
Current	
Minimum current Imin	0.01A
Reference current Ib	1A
Maximum current Imax	6A/10A
Rated Frequency Fn	50Hz/60Hz
Accuracy	Class C for Active Class B for Reactive
Pulsating Indicator	LED
Pulsating (meter constant)	3*58/100V, 1(6) A: 40.000 imp/kWh 3*230/400V, 1(6) A : 10.000 imp/kWh
Environment	
Temperature range	Operation: -40~75℃
	Storage: -40~85℃
Protection Degree	IP 54
Insulation Class	II
Power Consumption	
Voltage Circuit	＜1.2W
Current Circuit	1VA
LCD Display	8 digitals
Communication Interface	Remote : LTE/Ethernet Local : RS232/RS485
Communication Protocol	DLMS
Auxiliary Power Supply	AC 100V~240V or DC 50V DC 12V~36V
Weight Of Meter	About 1 kg
Dimension(LxWxD)	172 x 90 x 286mm

QOWISIO
by Groupe OCEA

Wireless M-Bus Gateway from Qowisio is a device that acts as a **communication interface** between any wireless M-Bus sensors and a central management system.

The gateway enables **secure, reliable, and efficient communication** between sensors and the management system.

OPERATION

1 Easy installation

The device can be easily installed (indoor or outdoor), without the need for specialized skills, making it ideal for both new and existing metering systems

2 Advanced security features

The gateway provides advanced security features, including encryption and authentication, to ensure that the communication between the sensors and the management system is secure and reliable.

3 Real-time data transmission

Qowisio gateway enables real-time data transmission between the meters and the management system, enabling managers to monitor and manage energy consumption more efficiently for instance.

4 Cost-effective

The device is cost-effective, as it eliminates the need for manual meter reading, reducing the time and cost associated with meter management.

5 Accurate meter readings

Qowisio gateway provides accurate meter readings, ensuring that the energy bills are based on actual usage rather than estimates.

6 Easy data access

Qowisio gateway provides easy access to meter data, enabling managers to make informed decisions about energy consumption and usage.
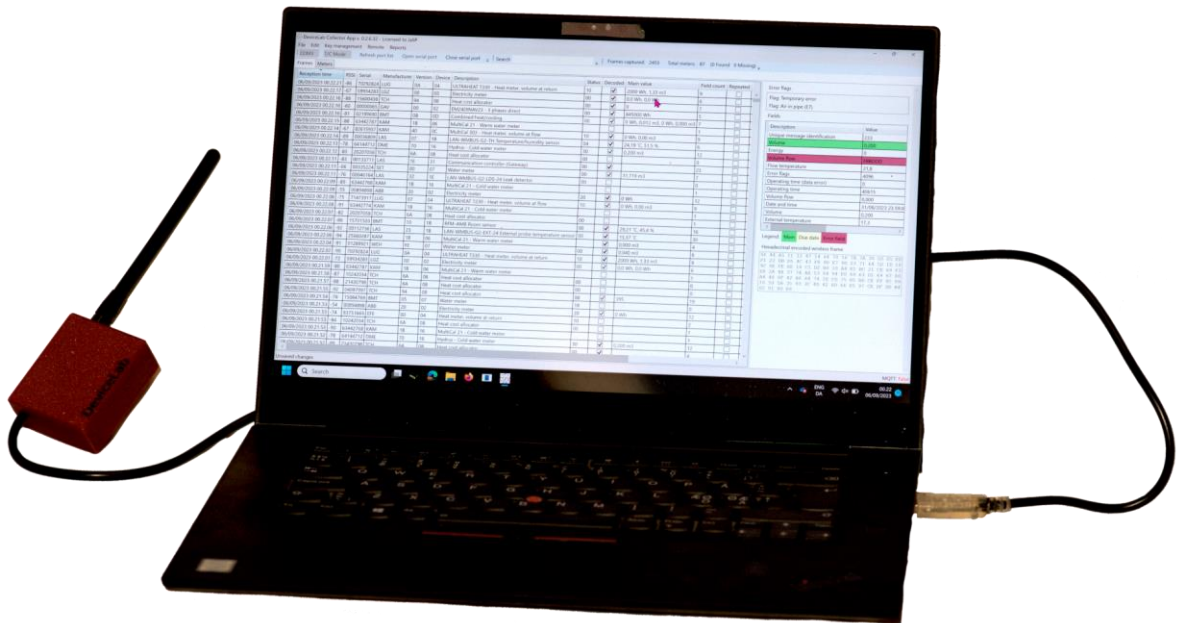
7 Long autonomy

Qowisio W M-bus gateway is designed to be used **up to 15 years** with its internal lithium battery

8 Remote management and configuration

Qowisio gateway can be configured and managed remotely using the web interface application, allowing a very easy and fast deployment.

Payload Extractor & Payload Collector software from Devicelab

Decrypt and decode data from a wide and growing range of wireless M-bus and OMS compliant meters and sensors.
Get richer data faster for your energy management headend application1

- Richer: Every bit of information transmitted by the meter, including the device error flags1
- Faster: Low requirements to your AMR infrastructure removes data delays. And implemented on your server in a few days.

The Payload Extractor on-premise server app fills the tricky gap between your AMR infrastructure and your energy
management or utility applications. Let DeviceLabs Payload Extractor technology handle datagram decryption and decoding for you, and
focus your resources on building the product features that your customers want.

DeviceLabs Payload Extractor technology "translates" the raw encrypted datagrams - transmitted by
your devices - into a JSON or XML data structure. Ready to be stored in your database, ready to be used for your energy
management or utility applications.

kamstrup

MULTICAL® 603
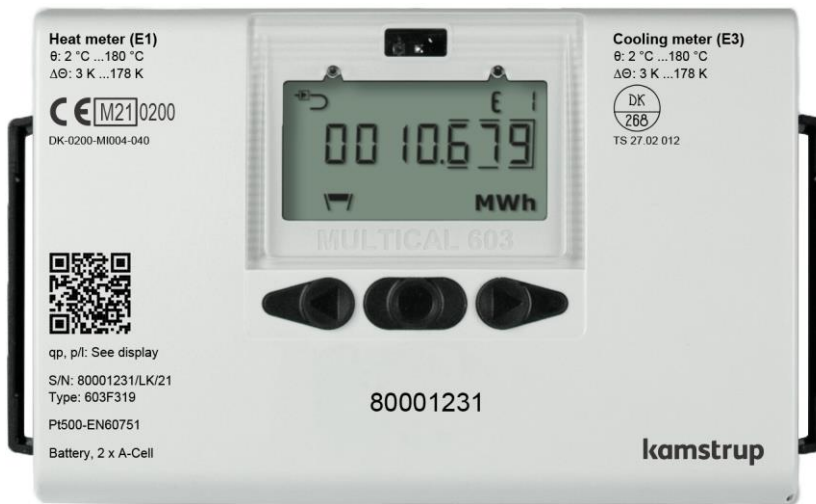
Une seule plateforme – d'innombrables possibilités

- Des coûts réduits avec un stock réduit
- Des coûts d'investissement réduits sur la durée de vie totale
- Votre installation de chauffage et de refroidissement parée pour l'avenir avec une totale flexibilité

kamstrup

Flow IQ 3100

Un compteur d'eau pour le commerce et l'industrie

- Technologie des ultrasons éprouvée, sans risque d'usure

- Excellente précision de mesure quels que soient les débits, élevés comme faibles

- Détection des fuites limitant les pertes d'eau pour les utilisateurs finaux

- Interopérabilité de la communication pour la télérelève