

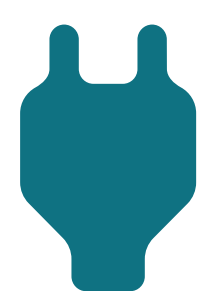
WUM-CDC-L

Advanced Wireless IIoT Controller and Data Concentrator
for Smart Metering and Management Systems



WUM (Wireless Universal Multi-Mesh) Controllers and Data Concentrators are multifunctional wireless devices for collecting, storing, and transmitting data.

LoRaWAN technology integrates wired and wireless networks into a unified system, providing reliable communication between meters, controllers, and central hubs.



easy to
connect



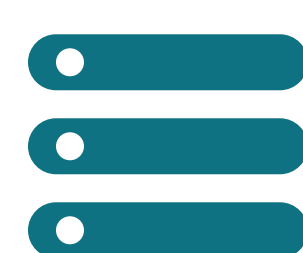
communication technology
LoRaWAN



integration with
various smart meters



remote management
& configuration



secure data
transmission & storage



flexible operation
& power supply



The **WUM** controller and data concentrator can integrate various types of meters, as well as other controllers, modules, and devices from different manufacturers.



SPECIFICATIONS

ARCHITECTURE

Integrates wired (RS-485) and wireless nodes (LoRaWAN/LoRa Mesh, GSM/LTE) into a unified system. Ensures reliable communication between meters, controllers, and gateways, as well as overall network scalability.

DEVICE CONNECTION

One RS-485 bus allows to connect one smart meter to one controller.

TIME SYNCHRONIZATION

Constant time synchronization with the central system, ensuring the accuracy of primary data collection, processing, and storage.

DATA PROCESSING AND STORAGE

The device creates an hourly archive for each meter and stores data in its internal memory for 30–45 days, including periods of power outage.

SECURITY AND ENCRYPTION

Data transmission is carried out using the AES-128 (Advanced Encryption Standard) algorithm, which prevents unauthorized access.

POWER SUPPLY AND INSTALLATION

Interface for direct 220 V power supply. The compact housing is designed for DIN-rail mounting.

AUTONOMOUS OPERATION

Concentrator keeps accumulated data during power outages.

DATA COLLECTION AND TRANSMISSION

- Support for main communication protocols: DLMS/COSEM, IEC 62056-21, Modbus. Capability to integrate proprietary, yet publicly available protocols.
- WUM Data Concentrators use wired connection via RS-485 for reading data from smart electricity meters.
- The device sends data to LoRaWAN/LoRa Mesh gateways, which in their turn direct data via mobile internet (GSM/LTE) to the central management system (HES) for processing, storage, and analysis.



DIMENSIONS

| | |
|----------------------------|-------------------|
| Enclosure with | DIN-rail mounting |
| Dimensions | 36 x 66 x 113 mm |
| Weight including enclosure | 78 g |

OPERATIONAL CHARACTERISTICS

| | |
|-----------------------|-----------------------------------|
| Operating temperature | -30...+80 °C |
| Humidity | up to 92% without condensation |

POWER SUPPLY

| | |
|---------|-------|
| Voltage | 220 V |
|---------|-------|

COMMUNICATION SPECIFICATIONS

| | |
|---------------------|--------------------------------------|
| Supported protocols | DLMS/COSEM IEC 62056-21 Modbus |
|---------------------|--------------------------------------|

AREAS OF APPLICATION

- ✓ Advanced Metering Systems (AMI) and Automated Commercial Electricity Metering System.
- ✓ SCADA Systems, as an integrated component for operational control and data acquisition.
- ✓ BMS (Building Management Systems) and Smart Home systems, serving as a nodal communication gateway for managed devices and/or a data concentrator for telemetry.





CONTACTS

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