Flexible und modular architecture

SMART METERING GATEWAY

DATA PLATFORM

pironex wM-BUS and LoRaWAN gateways record encrypted consumption data from meters for water, gas, electricity and heat cost allocators. This data is regularly transmitted via a secure channel to the pironex backend, "pironex-iot", and stored in secure databases. Users gain access to this data via an intuitively designed dashboard that provides a clear visualisation of the information. The data can be easily decrypted within the platform. Alternatively, authorised users can retrieve the data via a secure API interface to ensure maximum flexibility and control.

REST API

Mobile apps for iOS and Android

Thanks to the apps for Android and iOS, systems, devices and machines can be accessed from any location via mobile radio or on site via short-range radio. Current operating data can be monitored and controlled. Over-the-air updates can also be installed.

Cloud Portal pironex-iot.de

The scalable IoT cloud is a device management tool with numerous visualization options. The central portfolio dashboard provides a clear overview of all projects and operational data. The system supports usage-based role and permission models and is multi-tenant capable.

Client-Interface REST-API

For integration into backend systems, REST API interfaces and WebSocket functionality are available. These interfaces allow for further processing of collected data and exchange of content between different modules.

pironex
electronic and software solutions

MANUFACTURER-INDEPENDENT

SMART METERING
with wM-Bus-Gateways

pironex

THE ALL-ROUNDER

LoRa | wM-Bus | Modbus | S0/D0 - Input | LTE CAT-1

Multi-NRG-Gateway

SKU: 911131158

Overview

The Multi-NRG Gateway represents an innovative key component for the digital utility room, functioning as a central gateway system. It is specifically designed to capture a variety of consumption data and sensors, as well as bidirectionally manage systems and control devices. Communication between the Multi-NRG Gateway and the secure cloud platform is continuously protected to ensure the integrity and confidentiality of the data.

- 1x wM-Bus radio interface
- 1x LoRa radio interface
- 1x mBus Master
- 1x S0
- 1x Modbus
- 1x eHZ
- 1x LTE CAT-1
- WLAN 802.11 b/g/n
- External power supply

All-in-one - the complete solution

LONG RANGE

LoRaWAN | LTE CAT-M1 / NB-IoT / 2G | 230V external power supply

LoRa-NRG-Gateway

SKU: 911131148

Overview

The LoRaWAN gateway significantly extends the range of data collection by reading a variety of LoRaWAN sensors over long distances. The LoRaWAN gateway is powered by an external or internal power supply. There are no restrictions on the data collection frequency and its cyclic transmission to the IoT cloud. All transmitted data is encrypted according to the highest security standards to ensure data privacy and security, preserving the integrity of the collected information.

- 1x LoRa radio interface
- 1x LTE CAT-M1
- WLAN 802.11 b/g/n
- External power supply
- Optional internal power supply

Very high range

REAL-TIME ANALYSIS

wM-Bus | LTE CAT-M1 / NB-IoT / 2G | 230V external power supply

wMBus-NRG-Gateway-230V

SKU: 911131159

Overview

The wMBus-NRG-Gateway-230V is an advanced solution for metering service providers requiring comprehensive data collection. It is specifically designed to capture data from energy and consumption meters at high frequencies. This capability allows for the utilization of the acquired information for direct control of heating, ventilation, and air conditioning systems. Especially in conjunction with photovoltaic systems and heat pumps, the wMBus-NRG-Gateway-230V supports innovative concepts such as energy self-sufficient houses or tenant electricity models.

- 1x wM-Bus
- 1x LTE CAT-M1
- WIFI 802.11 b/g/n
- External power supply

Enables real-time scanning and analysis

BATTERY-OPERATED

wM-Bus | LTE CAT-M1 / NB-IoT / 2G | Long runtime due to battery

wMBus-NRG-Gateway-Batt

SKU: 911131157

Overview

The wMBus-NRG-Gateway-Batt represents an energy-efficient solution for metering service providers that can be deployed in municipal, industrial, and private sector facilities. The device is characterized by its independence from external power sources and offers maintenance-free operation over many years. The device's lifespan depends on both the frequency of data access and the capacity of the battery used. This gateway is specifically designed to read consumption sensors within a mesh network.

- 1x wM-Bus
- 1x LTE CAT-M1
- Internal high-performance battery

Independent with extended battery life