



Advanced X-Monitor gateway with 4G/LTE-M modem and Wi-Fi™

- 4G/LTE-M, Wi-Fi™ and X-Monitor (X-MP) connectivity
- Bidirectional RS485 port
- ModBUS TCP/IP Server
- Native integration with X-Platform

The **KET-RTU-310 Gateway**, the central core of the **X-Monitor** network, stands out for its **advanced functions** and **large memory capacity**, key elements for efficient data management.

Connection flexibility is ensured by the **integrated 4G/LTE-M modems (optional)** and **Wi-Fi™ support**, eliminating the need for a LAN connection and expanding installation possibilities even in environments without cabling.

Thanks to the **Linux** operating system, the gateway utilizes standard libraries to ensure a high level of security and reliability in data transmission.

The installation and management of sensor networks, even complex ones, are extremely simple thanks to the included **X-Manager** software and the intuitive **integrated web interfaces**. These allow for quick configuration of the necessary parameters and real-time monitoring of acquired measurements.

In addition to the ability to export data to external platforms like **X-Platform**, the device offers a **large internal SD memory** capable of storing data for periods exceeding three months, ensuring operational continuity and the availability of measurement history.

The integrated **RS485 port** supports both **Master RTU** and **Slave RTU** modes, offering dual functionality: direct connection of devices to the gateway or access to the registers of connected devices via an external Master RTU.

The **ModBUS TCP/IP server** incorporated in the KET-RTU-310 facilitates the integration of the **X-Monitor** network with **SCADA systems**, **PLCs (programmable logic controllers)**, and **HMI (human-machine interface) systems**, expanding data control and visualization possibilities.

Interoperability with proprietary data collection systems is further enhanced by support for data transmission via **REST / JSON web services** and the **IEC 60870-5-104 protocol**, ensuring flexible and standardized communication.



APPLICATIONS
monitoring consumption
Building management system
Smart City
Thermoregulation



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TECHNICAL FEATURES	
GENERAL SPECIFICATIONS	Protection Range: Front: IP40; Screw Terminals: IP20 Operative Temperature: -20 ÷ +70 °C Storage Temperature: -20 ÷ +85 °C Relative Humidity: MAX 80% not condensing
CASE	Dimensions: 106 x 90 x 60 mm (W x H x D) Mounting: Wall mounting or on DIN rail Required DIN modules: 6 DIN modules Electric Board Type: Industrial or switchboard Material: Blend PC/ABS self extinguishing UL94-VO
POWER SUPPLY	Supply Voltage: 100 ÷ 240 VAC (50-60 Hz) or 12 ÷ 24 VDC, 12 ÷ 20 VAC Consumption: 6 W @ 100 ÷ 240 VAC / 6 W @ 12 ÷ 24 V AC/DC Connectors types: Removable screw terminals
UPS	Battery Type: Internal lithium 1 Ah Approximate Battery Life:
DATALOGGER FUNCTION	Memory Type: Flash up to 128GB internal microSD card not accessible, 1GB RAM DDR3 Data Storage Capacity: For a period of over 3 months
PROCESSORS	Processor Type: Allwinner A20 CPU for the Linux operating system
RS485 INTERFACE	Channels: Supported Protocols: Master or slave ModBUS RTU Communication Rate: Isolation: Connectors types: Removable screw terminals
ETHERNET INTERFACE	Supported Protocols: 10/100/1000 Base-T Communication Rate: Connectors types: RJ45
ANALOG OUTPUTS	Output Type: Video: HDMI output for OEM use; Touch: a dedicated USB for OEM use; 2 USB ports for FW upgrade and data transfer
RADIO MODULE	Supported Protocols: X-Monitor Protocol (X-MP) / IEEE 802.15.4 Radio Frequency: 2.4 GHz ISM Band Output Power: +3 ÷ +20 dBm Sensitivity: -104 dBm Antenna Type: RPSMA connector, 90° antenna supplied Max Distance (Free Air): Over 1000 m
MODEM	Supported Protocols: 4G/LTE-M Radio Frequency: Antenna Type: SMA connector SIM Type: Mini-SIM
WI-FI	Supported Protocols: IEEE 802.11b/g/n standards: 64/128-bit WEP, TKIP, AES, WPA, WPA2 Radio Frequency: 2.4 GHz ISM Band Antenna Type: RPSMA connector, 90° antenna supplied
FUNCTIONALITY	Radio Signal Indicator: Output Power Adjustment: Firmware Upgrade: Remotely User menu: Support for public environment:
INTEGRATED FUNCTIONS	Services: Gateway function between X-Monitor™ network to Wi-Fi™, Ethernet and cellular; ZigBee™ network coordinator; Server ModBUS TCP/IP; ModBUS RTU master and slave on RS485 port
CERTIFICATIONS	Referends Standard: 2014/35/UE, 2014/30/UE, 2014/53/UE, 2011/65/UE Approvals: CE Security: EN 61000-6-2 / -6-3 / -4-2 / -4-3 / -4-4 / -4-5 / -4-6 / -4-11; EN55022 (cl. B), EN55016-2-1 / -2-3 Metrology:

