

DATALOGGER M-Bus - W.M-Bus



EQUOBOX RTUEVO2T is a datalogger for M-Bus and wM-Bus devices capable of handling up to 3000 matrices (2500 radio and 500 cable**).

It interfaces directly with M-Bus protocol-compatible cable meters via two separate lines, one of which has a built-in M-Bus master for up to 20 physical devices**, and a second line on RS232 bus via an external level converter from the SIN.EQLCx family.

There is also an 868MHz radio interface with mesh technology that establishes a multi-hop network between one or more SIN.EQRPT868XT repeaters with which data can be received from devices compatible with the wM-MBus / OMS standard (EN13757).

The web interface allows data consultation, report generation, and setup of M-Bus and mesh radio networks.

It has a graphical display for setup, real-time data consultation, and on-board I/O status without the need for a PC.

* In the case of connection with Wireless M-Bus gateway to M-Bus, the M-Bus M1M2 line supports a maximum of 2500 serial number. The maximum total number of serial numbers (wireless + cable) managed, however, remains 3000.

** A physical device is defined as an M-Bus load unit ≤ 1.5 mA

EASY TO USE

The graphic display allows to make the commissioning of the metering system in a few steps.

The main settings can be performed locally on the display or via WEB interface.

REACHABILITY SERVICE - WEB ACCESS

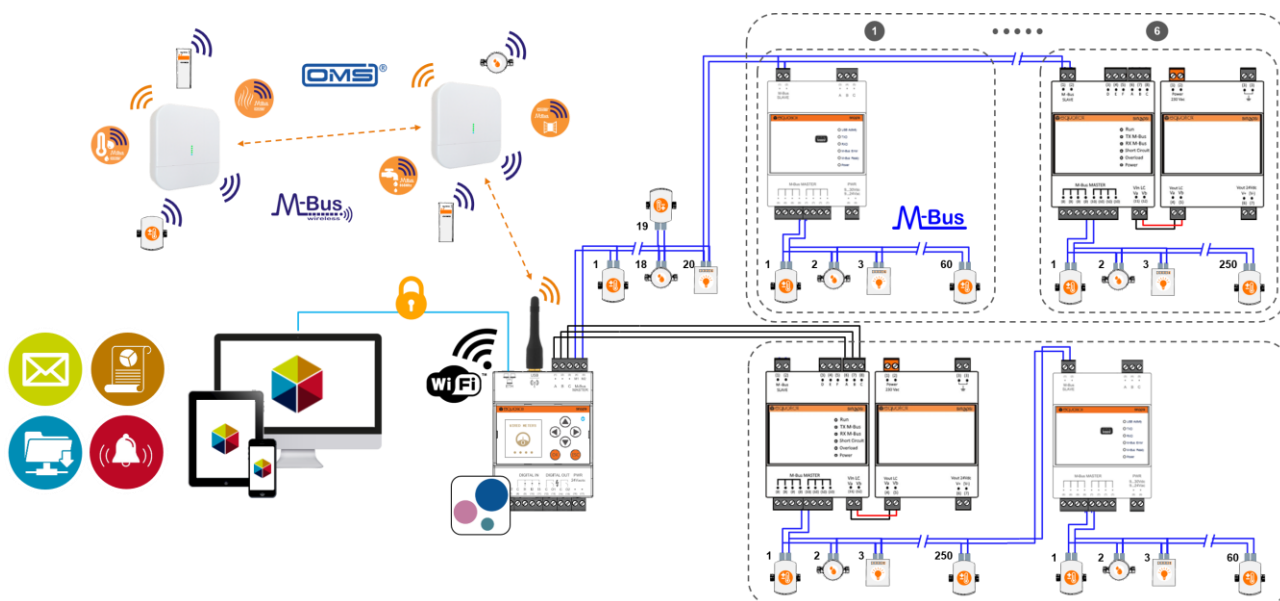
It integrates a cloud VPN service that ensures remote reachability of the web server or take advantage of the integrated REST API service without the need for additional user configuration of routers or modems. For cellular connections, the use of a SIM with public IP is not essential.

SECURE

It implements the latest available security protocols for transmission of reports via e-mail (SMTP over SSL or TLS protocol), and sending to remote SFTP or FTP servers over SSL connection (FTPS). Data can be accessed locally or remotely using a browser or by taking advantage of the built-in REST API service over HTTPS protocol.

SMART

The user can start scanning the M-Bus network to allow the acquisition of devices connected via cable or via radio through a single button. Automatic recognition of detected devices allows to immediately start the data acquisition and the automatic creation of reports using predefined data sets, user-changeable, complete with measurement unit, size type and description (language), with resulting elimination of need for further user activities.



ELECTRICAL CHARACTERISTICS

Power Supply	AC/DC 24 V +/- 10% (SEV)
AC frequency	50/60 Hz
Maximum Power Consumption	14.5 W, 15VA
Installation category	Class II
Ethernet	N°1
RF	Mesh radio interface
Wi-Fi	Access Point Wi-Fi
M1, M2	M-Bus cable interface: max. 20 meters supported without using Level Converter (LC); with use of LC supports up to 250 serial numbers*. * with M-Bus Wireless Gateway connection to M-Bus supports up to 2500 serial numbers.
A, B, C	Serial RS232 for connections with Level Converters; max. 250 serials managed for further applications
B1, B2	for further applications
USB connection	for further applications
Digital Inputs	N°3 for dry contacts
Digital Outputs	N°2 Relays

MECHANICAL CHARACTERISTICS

Temperature range	Operative: -10°C a +55°C / Storage: -25°C a +65°C
Dimensions	90x71x62 mm (HxLxP) – DIN
Mounting	35mm DIN Rail (EN60715)
Protection Grade	IP20 (EN60529)

WIRED M-BUS INTERFACE

Reference standard	EN13757-2 (Physical Layer), EN13757-3 (Application Layer)
Baudrate	Min. 300bps – Max. 9600bps
Number of supported M-Bus meters	Without M-Bus level converters: 20 (M1, M2); with level converters: max 500 by using at least one level converter for each Bus (A, B, C and M1, M2)
Reading frequency	15 min / 60 min / 6 hours / 12 hours / 1 day / 7 days/ 1 month
Recognition of collisions on M-Bus network	Yes
Devices search / acquisition	Via Primary and Secondary Address

WIRELESS INTERFACE

Radio communication protocol with gateways	MESH / 868MHz
Number of supported Multi-hop gateways	23
Number of supported W. M-Bus devices [EN 13752-4] / OMS	2500 meters (through gateway / each one supports 500 meters)

DATALOGGING

Data storage	1 year for intra-day data from wired meters, 2 months for intra-day data from radio meters
Reports	XLS, CSV, TXT format
Download report	Mail SMTP, FTP (S) (Client), Webserver (report generation and downloading)
Report scheduling	Daily / Weekly / Monthly / Two-monthly/ Three-monthly / Four-month/ Six-month/ Annually
Third-party integration	RESTful API

USER INTERFACE

Display	128x128px 262k colors graphic display
Keyboard	6 tactile membrane key
Led Power	Operating status
HTTPS (secure)	Multilanguage and secure (SSL) web server for data consulting/exporting and configuration

ALARMS

Alarm notification from M-Bus network	Anomalies /alarms meters, communication failure, thresholds violation
On board I/O	notification by e-mail of digital Inputs status; on-board output management

