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M-Bus/Wireless M-Bus DATALOGGER

EQUOBOX RTU1T (SIN.EQRTU1T) is a datalogger to acquire data from SIN.EQRPT868XT, which, through the mesh network, collect information from devices that use M-Bus wired and wireless protocol such as meters, heat cost allocators, digital inputs / outputs, analog inputs / outputs. Manages up to 500 meters providing storage of daily readings for 10 years. The web interface allows accessing data, reports generating, the setup of the M-Bus networks and the management of I / O.

It is equipped with a graphical display for setup, accessing data in real time and the status of the I / O without the need of a PC. It has inputs and outputs through which it is possible to interact with the system and sending emails, acting with combinatory AND / OR logics and manual controls via WEB interface.

At the datalogger up to 20 M-Bus meters* can be directly connected, with the help of SIN.EQLC1 level converters it is possible to increase the number of up to 250 meters.

For an easy installation a remote antenna with 1.5 mt of cable is included in the box.

*Meter means 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 guided by a setup wizard.
The main settings can be performed locally on the display or via WEB interface.
Equipped with two Ethernet ports with switch functionality, it allows to connect multiple devices in cascade without the aid of network devices, moreover it is possible to power the device also via Power over Ethernet (PoE).

Maximum number of meters for interface	
WIRED METERS	WIRELESS METERS
250 (with SIN.EQLC1 level converters)	250
20	480
0	500

ALWAYS UPDATED

Through the Internet the device will check for updates and notify the user who can decide to install them with a simple click in the web interface.
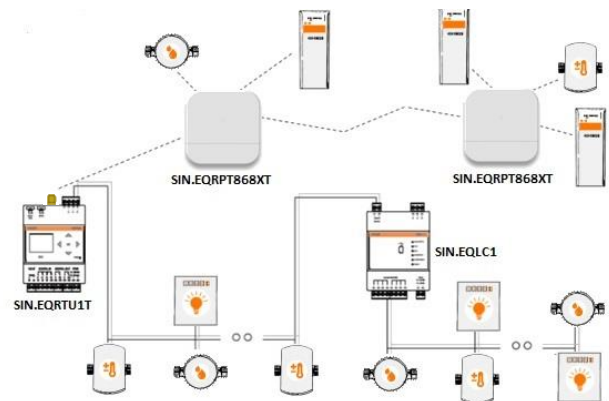
SMART

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.

Web Interface

ELECTRICAL CHARACTERISTICS

Power Supply	24Vdc +/- 10%, 24 Vac (min 20 Vac, max 40 Vac) or PoE (IEEE 802.3)
Installation category	Class II
Maximum consumption	7.5W
Ethernet	N°2 (1 MAC): ETH1: Ethernet 1(PoE), ETH2: Ethernet 2
Fieldbus	Total number of supported meters: 500 (wireless + wired) Wired M-BUS interface max 20 meters radio interface
Digital Inputs	N°3 - OFF=Vin<12Vdc, ON=Vin>12Vdc, max Vin=24vdc
Digital Outputs	N°2Relays, Contact load: 5A@30V ac/dc (Resistive Load) 2A@30Vac/dc (Inductive Load cosfi=0.4; L/R=7ms)
Auxiliary voltage for digital Inputs	15Vdcmax10mA

MECHANICAL CHARACTERISTICS

Temperature range	Operative: -20°C a +55°C / Storage: -25°C a +65°C
Dimensions	90x71x62 mm (HxLxP) – DIN
Mounting	35mm DINRail (EN60715)
Protection Grade	IP20 (EN60529)

WIRED M-BUS INTERFACE

Reference standard	EN13757-2 (Physical Layer), EN13757-3 (Application Layer)
Baud rate	Min. 300bps – Max. 9600bps
Number of supported M-Bus meters	Without level converters M-Bus: 20, with level converters: max 250
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

Frequency	868MHz
Number of supported concentrator	23
Supported application Layer	Wireless M-Bus
Methods of meters recognition	Automatic or via import system file

DATALOGGING

Data storage	1 year for intra-day data from wired meters, 2 months for intra-day data from radio meters
Reports	XLS or CSV format
Download report	Mail SMTP, FTP (Client), Webserver (report generation and downloading)
Report scheduling	Daily / Monthly / Two-monthly/ Three-monthly / Four-month/ Biannual / Yearly

USER INTERFACE

Display	Graphic, bright, 16 grayscales, multilingual
Keyboard	6 tactile membrane keys
Led Power	Operating status
HTTP	Multilanguage web server for data consulting and configuration

LOGICS / ALARMS/PLANNING

Alarm notification from M-Bus network	Anomalies /alarmsmeters, communication failure, thresholds violation
On board I/O	notification by e-mail of digital Inputs status
Logic	AND/OR based on local I/O and M-Bus network Thresholds violation (max value, min value, range, maximum consumption)
Planned actions	Sending of readings reports

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