RESI.MBUS.PRODUCTS

Easy integration of smart meters in your facilities

With our MBUS gateways and level converters, we deliver high sophisticated products to collect meter data with a MBUS interface.

MODBUS RTU Slave

To be able to integrate our products into as many control products as possible, we offer MODBUS/RTU slave on RS232/RS485 as an interface protocol.

Our gateways are able to read different numbers of meters:
• RESI-MBUS-LEVEL: 24 meters
• RESI-MBUS-MODBUS:8 meters
• RESI-MBUS2-MODBUS: 24 meters

Brand new RESI products are:
• RESI-MBUS3-LEVEL: 48 meters
• RESI-MBUS3-MODBUS: 48 meters
• RESI-MBUST-MODBUS: 2 meters

EXTREMELY COMPACT DESIGN

The dimensions of our gateways are 17,5mm length x 90mm width and 58mm height. Therefore they are suitable for every control cabinet.

RS232 and RS485

All our gateways have both serial interfaces on board. The interface is selectable with a dip switch.

SOPHISTICATED SOFTWARE

Since 2004 we are developing MBUS gateways. Our PC configuration software as well as our module firmware is very well engineered and is able to work with different kinds of meter manufacturers.

ADDRESSING OVER PRIMARY OR SECONDARY ADDRESS

Our gateways support both kinds of MBUS addressing: scanning (query) of the meters can be done with the primary address (1-254) as well as with the secondary address (serial number) of the meters.

FREE CONFIG SOFTWARE

On our website www.RESI.cc you can download the CONFIGURATOR software for free.

This software offers all functionalities to configure the meters. This includes also an automatic search function for meters in a MBUS network.

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RESI's MODBUS Configurator V1.0.5.19 - [Unnamed]

Project manager

- New Project
  - RESI-MBUS-MODBUS - [RESI-MBUS-MODBU...
    - Meter 1

Local Com-Port settings

Modbus unit:	255	IP-Address:	
Device:	COM4	Port:	
Baudrate:	57600	Parity:	NONE

Common

↓ Download config   ☑ Test connection   ⚙ Test

Device name:	RESI-MBUS-MODBUS	Device type:	MBUS to MODBUS/RTU converter for 8 meters (100 variables)
Software version:	4.1.0		
State:	no error		

Device specific

🔍 Search M-Bus slaves   🔍 Search M-Bus slaves via serial   Save CSV file

Modbus address:	255	Modbus baudrate:	19200	M-Bus Start	1
M-Bus baudrate:	300	Modbus parity:	NONE	M-Bus End	251
		M-Bus query timeout:	65535		

HELP

Test bench

Modbus register	Datatype	Content	Data source	Current value
4x00001	32 bit signed binary	Fabrication number - { 0 }	Meter 1 - { Prim.: 1 }	2544082
4x00003	32 bit IEEE floating point	Energy [Wh] - { 1 }	Meter 1 - { Prim.: 1 }	6632480.00
4x00005	32 bit IEEE floating point	Volume [m³] - { 2 }	Meter 1 - { Prim.: 1 }	5517.80
4x00007	32 bit signed binary	On time [hour(s)] - { 3 }	Meter 1 - { Prim.: 1 }	34353
4x00009	32 bit IEEE floating point	Flow temperature [°C] - { 4 }	Meter 1 - { Prim.: 1 }	30.82
4x00011	32 bit IEEE floating point	Return temperature [°C] - { 5 }	Meter 1 - { Prim.: 1 }	4.07
4x00013	32 bit IEEE floating point	Temperature difference [K] - { 6 }	Meter 1 - { Prim.: 1 }	26.75
4x00015	32 bit IEEE floating point	Power [W] - { 7 }	Meter 1 - { Prim.: 1 }	0.00
4x00017	32 bit IEEE floating point	max. Power [W] - { 8 }	Meter 1 - { Prim.: 1 }	0.00
4x00019	32 bit IEEE floating point	Volume flow [l/h] - { 9 }	Meter 1 - { Prim.: 1 }	0.00
4x00021	32 bit IEEE floating point	max. Volume flow [l/h] - { 10 }	Meter 1 - { Prim.: 1 }	0.00
4x00023	32 bit IEEE floating point	Volume [m³] (sub unit: 1) - { 11 }	Meter 1 - { Prim.: 1 }	1288.40
4x00025	32 bit IEEE floating point	Volume [m³] (sub unit: 2) - { 12 }	Meter 1 - { Prim.: 1 }	25992.00
4x00027	32 bit date & time	Timepoint [date & time] - { 13 }	Meter 1 - { Prim.: 1 }	8651528 => "04.04.00 03:08"
4x00029	32 bit IEEE floating point	Energy [Wh] (storage nr.: 1) - { 14 }	Meter 1 - { Prim.: 1 }	6632480.00
4x00031	32 bit IEEE floating point	Volume [m³] (storage nr.: 1) - { 15 }	Meter 1 - { Prim.: 1 }	5517.80
4x00033	32 bit IEEE floating point	max. Power [W] (storage nr.: 1) - { ... }	Meter 1 - { Prim.: 1 }	0.00
4x00035	32 bit IEEE floating point	max. Volume flow [l/h] (storage nr...	Meter 1 - { Prim.: 1 }	0.00
4x00037	32 bit IEEE floating point	Volume [m³] (storage nr.: 1 sub un...	Meter 1 - { Prim.: 1 }	46028.90

Leaving test mode...

M-Bus meter database

M-Bus slave

- RESI database
  - Actaris / Allmess
    - Integral-MK MaXX
    - EVK 3
    - CF-ECHO II / CF-51 / CF-55 / CF-800
    - Cyble M-Bus (default frame)
  - aquametro
    - CALEC ST
    - CALEC MB Standard
  - Kamstrup
    - Multical®
    - Multical® III
    - Multical® Compact
    - Multical® 401 (M-Bus module. 660S)
    - Multical® 401 (M-Bus module. 660P)
    - Multical® 601
    - Multical® 601 (old)
    - 162
    - 382
    - 351 Combi
    - 10EVL
    - Maxical® III
  - Hydrometer
    - Flypper
    - MWZ II (Combined energy meter)
    - MWZ II (Simple energy meter)
    - Sharky BR773 (Telegram "All")
  - ABB
    - DELTAplus DAM 13000
    - DELTAplus DBM 21000-112
    - F2
  - Danfoss

Available datapoints

Index	Caption	default Exponent	default Data
☑ 0	cur. Volume [m³]	0	32 bit IEEE f
☑ 1	first yearly due date [date]	0	32 bit date &
☑ 2	last monthly due date [date]	0	32 bit date &
☑ 3	next yearly due date [date]	0	32 bit date &
☑ 4	operating time during error [days]	0	32 bit signed
☑ 5	averaging time for max. values [min]	0	32 bit signed
☑ 6	max. volume flow - first yearly due date [m³/h]	0	32 bit IEEE f
☑ 7	max. power - last yearly due date [W]	0	32 bit IEEE f
☑ 8	max. volume flow [m³/h]	0	32 bit IEEE f
☑ 9	max. power [W]	0	32 bit IEEE f
☑ 10	cur. volume flow [m³/h]	0	32 bit IEEE f
☑ 11	cur. power [W]	0	32 bit IEEE f
☑ 12	flow temperature [°C]	0	32 bit IEEE f
☑ 13	return temperature [°C]	0	32 bit IEEE f
☑ 14	temperature difference [K]	0	32 bit IEEE f
☑ 15	cur. Energy [Wh]	3	32 bit IEEE f
☑ 16	Energy - last yearly due date [Wh]	3	32 bit IEEE f
☑ 17	Energy - last monthly due date [Wh]	3	32 bit IEEE f
☑ 18	cur. date and time [time & date]	0	32 bit date &
☑ 19	Serialnumber	0	32 bit signed

✓ OK   ✗ Cancel

RESI®
...feel the spirit of a new generation

www.RESI.cc

RESI.MBUS.PRODUCTS

High reliability – Easy handling

In the field of MBUS networks, we offer the following product range:

RESI-MBUS-LEVEL

A simple RS232 to MBUS level converter for max. 24 meters. Evaluation an interpretation of the MBUS protocol is made within the host software.

RESI-MBUS-MODBUS
RESI-MBUS2-MODBUS
RESI-MBUS3-MODBUS
RESI-MBUST-MODBUS

Four different gateways from RS232/RS485 to MBUS. The communication protocol between host and gateway is MODBUS/RTU Slave. Our free software MODBUS CONFIGURATOR is used to configure all MBUS meters in the MBUS network.

All four gateways use the same firmware, but they support a different number of connectable meters. MBUS: 8 meters, MBUS2: 24 meters, MBUS3: 48 meters, MBUST: 2 meters.

For the central management and evaluation of the collected meter data we offer server based solutions:
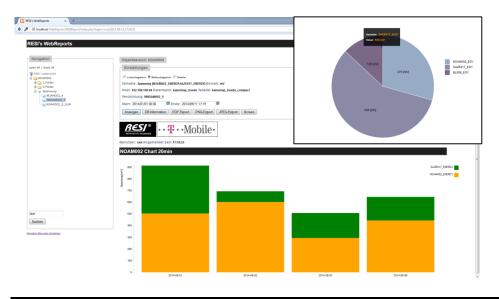
RESI-WEBREPORTS

Web platform for presentation and analysis of collected meter data. The Platform is optimized to show data on PC's, tablets and smart phones. Pie charts, line charts or bar graphics can be created.

RESI'S-MBUS

Windows software to capture data from decentralized meters over a RESI-MBUS-LEVEL level converter in a TCP/IP network. Perfect for large MBUS networks with many widespreaded meters. This tool automatically searches for connected meters and writes cyclically all meter data into a SQL data base for the further analysis with the RESI-WEBREPORTS tool.
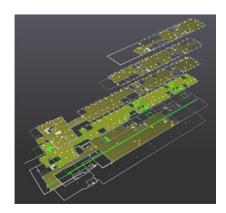
RESI'S-SQLCALC

A SQL tool to create compressed data tables in SQL data bases. e.g.. power consumption per 15 minutes, weeks or month. The tool can perform calculations. e.g.. Calculate the total amount of all heat meters assigned to "renter x"

RESI-SCADA-3D

Our innovative 3D visualisation offers a clear overview and easy handling of the complete building. The handling and searching is similar to Google Earth® and allows a quick finding of rooms or objects in the facility. The 3D model can be freely zoomed, panned and rotated in real time.

Here you find a short extract out of the list of tested meter manufacturers:

ABB
ACTARIS
ALLMESS
AQUAMETRO
BRUNATA
DANFOSS
ELSTER KROMSCHROEDER
EMH
ENGELMANN
HYDROMETER
ISTA
KAMSTRUP
LANDIS & GYR
METRIMA
SCHINZEL
SCHRACK
SENSUS
SIEMENS
SONTEX
VITERRA
ZENNER
and many more

RESI.MBUS.PRODUCTS

Overview of our different types of converters and gateways

HOST SYSTEMS

19" Server systems | PC Workstations | PLCs | DDCs | Industrial computer

RS232	RS232	RS232 RS485	RS232 RS485	RS232 RS485	RS232 RS485
RESI-MBUS-LEVEL	RESI-MBUS3-LEVEL	RESI-MBUST-MODBUS	RESI-MBUS-MODBUS	RESI-MBUS2-MODBUS	RESI-MBUS3-MODBUS
M-Bus	M-Bus	M-Bus	M-Bus	M-Bus	M-Bus
24x	48x	2x	8x	24x	48x
	NEW	NEW			NEW