

M-Bus Gateway

Programmable M-Bus IoT converter



M-Bus Gateway is designed for easy integration of M-Bus and **Modbus RTU/TCP**. With this device, M-Bus slave devices can be seamlessly added into an existing Modbus network, and M-Bus slaves can be made accessible to serial masters.

It also has a **remote web access panel** that allows you to manage groups of devices. That makes integration customizable and easy.



M-Bus Gateway

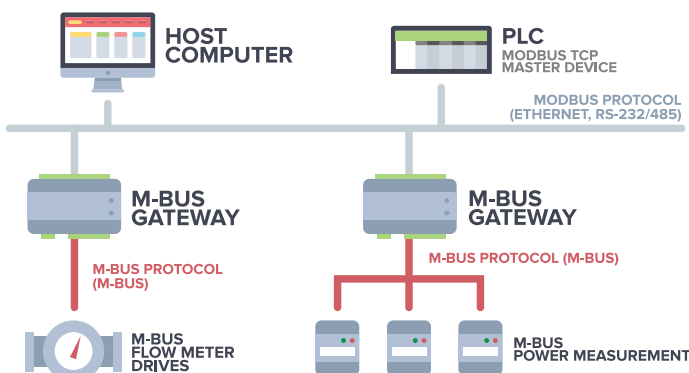
M-Bus Gateway can be used as:

- Protocol and Interface Converter
- Data logger
- Embedded Web Server
- Embedded Computer
- Telemetry/IoT Module
- PLC
- Industrial Modem and GPRS, 3G, 4G/LTE Router
- I/O Expansion Module
- GPRS, 3G, 4G/LTE Notify Module
- Access via Website (Visualize)
- GPS module

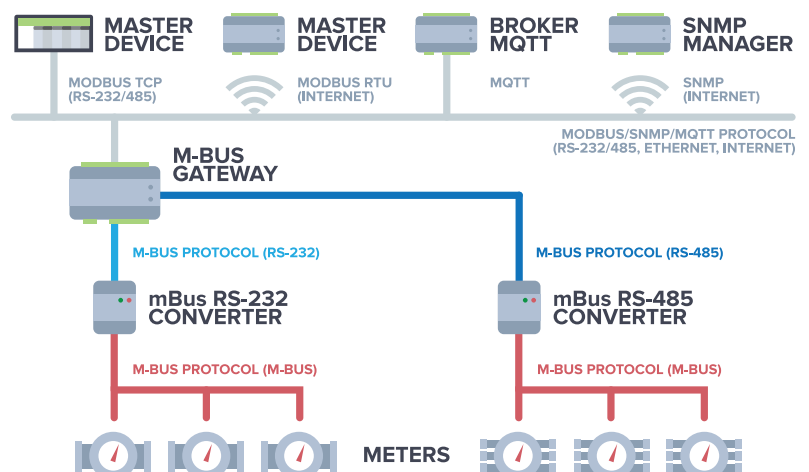
Features of adaptation to industrial conditions:

- Low energy consumption
- RTC Battery-powered Real Time Clock (RTC)
- WatchDog function ensures hardware operation control of selected services
- Effective file systems used for FLASH memory, ensuring long, failure-free operation
- Compact, durable housing made from ABS plastic, adapted to installation on a DIN bus
- Easy installation due to the use of disconnectable screw terminals
- No moving elements (fans, platter disks)
- Operating temperature range: -25 ~ 80°C

M-Bus Slave Mode



Sample Application



ETHERNET INTERFACE

Protocols	Modbus TCP
Number of ports	up to 2 ports
Bandwidth	100 Mbit/s
Connectors	RS45

SERIAL INTERFACE

Protocols	Modbus RTU/ASCII Master/Slave
Number of ports	1/2/4/8
Serial communication standard	RS-232/485
Connectors	Screw terminal
Isolation protection	Overvoltage protection transil bidirectional 24V DC, Peak 600W

SERIAL INTERFACE SIGNALS

RS-232	TxD, RxD, GND
RS-485	Data+, Data-

M-BUS INTERFACE

M-Bus slave devices	up to 400
Interface	M-; M-; M+; M+; +24V
Connector	Screw Terminal Block
Baudrate	300 to 19200 baud/sec
Surge / Overvoltage protection	24V peak 600W/1ms (up to 3 devices) 43V peak 600W/1ms (4 and more devices)
Optoisolation up to 3 devices	2.5kV
Optoisolation up to 4-10 devices	M-BUS - RS-232: 100V AC/DC
Optoisolation up to 11-400 devices	M-BUS - RS-232: 100V AC/DC Power Supply - RS 232: 100V AC/DC
Additional M-Bus power input	Up to 10 devices: not required 11-400 devices: 20-35 Vdc

SOFTWARE

Configuration	Web-panel, SSH console, Telnet console, serial console
Software type	Linux (Kernel 4.0+), iMod, iModCloud
Network protocols	TCP, UDP, HTTP, SMTP, NTP, DNS, DHCP Client, SNMPv1 (agent), SNMPv2 (agent), ARP, Telnet
Multi-master and Multi-drop	Master mode: 128 TCP slaves/servers Slave mode: 256 TCP masters/clients

POWER SUPPLY

Supply voltage	7 ~ 30 V DC, recommended: 12V DC 1A
Power consumption w&w/o modem	2 W - 5 W (typically 3 W) / 4 W - 10 W (typically 5 W)

MECHANICAL CHARACTERISTICS

Data storage	Internal memory 4GB EMMC, External storage USB
Casing and mounting	ABS, DIN rail mounting
Dimensions	MBUS Gateway 10: 142.3 x 91 x 62mm / MBUS Gateway 60, 200, 400: 213 x 91 x 62mm
Work/storage conditions	-25 ~ 80°C, humidity: 5 ~ 95% RH (non-condensing)

MANUFACTURER

TECHBASE Group Sp. z o.o., ul. Pana Tadeusza 14, 80-123 Gdańsk, Poland