



# WEBLOG 250 V2



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# 1. Features

The WebLog250 is an M-Bus data logger and web server. Up to 250 meters (= unit loads á 1.5mA) can be connected directly to the internal M-Bus level converter. The device can manage and read a total of up to 1000 devices if appropriate M-Bus repeaters (PW100 / PW250) are used as an extension.

The integrated web server enables complete setup and operation via the network interface (LAN) or the optional WLAN module with a web browser. No additional software is required. Alternatively, the device can also be set up and operated via the display with capacitive touchscreen. Access to the Internet can be implemented via LAN or WLAN with the help of an additional DSL or cellular router. Access to the WebLog250 via the Internet usually requires port forward or a VPN connection.

The device offers structured user management with different access rights from the administrator to the tenant, who can only read his own meters.

Additional features:

- M-Bus Data Central for 120 end devices (meters / sensors ..)
- Integrated ARM-NXP i.MX 8M CPU (1.6GHz, Quad-Core) with 1GB RAM and 4GB eMMC Flash
- Operation by integrated 7" colour display with touch or by web browser
- Hierarchical access management (administrator, reader, tenant)
- M-Bus meter remote display and datalogger
- Automatic export of data to USB stick, FTP server or by E-Mail dispatch
- Several formats for exports (CSV, XLSX or XML)
- extensive range of interfaces (RS232, USB device, USB host, Ethernet, optional WIFI)

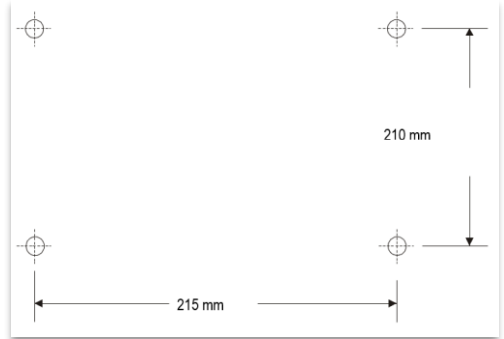
Illustration of principle:



## 2. Installation

### 2.1 Mounting

The case of the WebLog can be attached to a wall with four screws. The drill pattern is rectangular (215 mm horizontal, 210 mm vertical). The drillings shall have a diameter of 5 mm. You can alternatively fix a special rail holder to the case to enable the mounting on a rail of the type TS 35.

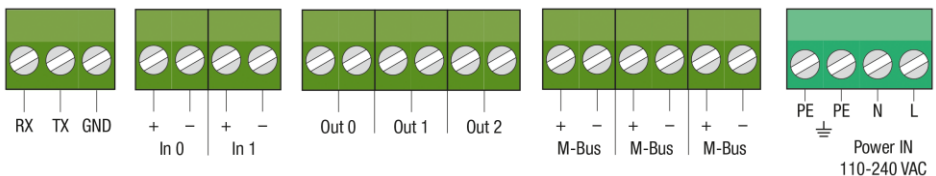


### 2.2 Connecting

The connection space accessible in the front area of the housing contains the plug-in screw terminals for the signals and the power supply, as well as other elements such as the reset button, the holder for the optional micro SD card and the buzzer.

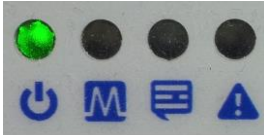


Three equivalent 2-pin plug-in screw terminals are available for connecting the M-Bus. The mains supply of 110 to 240VAC should be installed by an electrician to the plug-in screw terminal on the far right. Phase, neutral conductor and protective conductor are marked with L, N and PE. The remaining plug-in terminals are intended for future extensions.



## 2.3 LED Indicators

### 2.3.1 LEDs on the front



Four LED's on the front side of the WebLog show status information about the power supply of the CPU and important system events.

CPU			
<b>Power</b>	<b>M-Bus</b>	<b>Logbook</b>	<b>M-Bus Overcurrent</b>
green	yellow	orange	red

- Power**                                    supply voltage of the CPU
- M-Bus**                                    CPU uses the M-Bus communication channel
- Logbook**                                the log protocol (logbook) contains new unread error message(s)
- M-Bus Overcurrent**                overcurrent / short circuit on the M-Bus

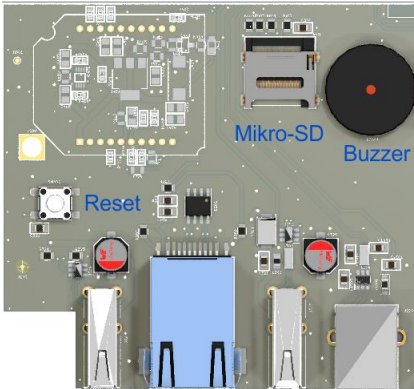
### 2.3.2 LEDs in the terminal area

M-BUS				
<b>ON</b>	<b>MASTER</b>	<b>SLAVE</b>	<b>MAX</b>	<b>SHORT</b>
green	green	yellow	orange	red

There are five LEDs in the upper middle of the terminal area showing the present status of the M-Bus. The individual LEDs have the following meaning (if lighted):

- ON**                                        the M-Bus output voltage is switched on
- MASTER**                                the Master transmits data
- SLAVE**                                    at least one meter replies with data
- MAX**                                      the maximum number of connectable meters has been exceeded (warning current)
- SHORT**                                    M-Bus overcurrent / short circuit (LED flashes twice per second)

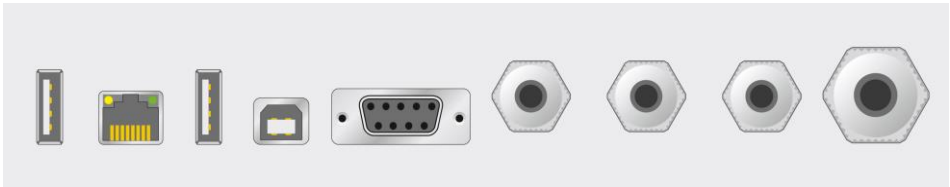
## 2.4 RESET button and acoustic signal generator



In the unlikely event that the WebLog is operable neither by touchscreen nor by web browser, the user can initiate a restart of the system by pushing the RESET button in the upper left corner of the terminal area.

There is also a piezo signal transmitter (buzzer) and a holder with a hinge lock for an optional micro SD card in the terminal area.

## 2.5 Interfaces at the housing



USB1 Host   Ethernet   USB2 Host   USB Device   RS232C   cable glands  
for mains supply, M-Bus and I/Os

**RS232C**                      RS232 D-SUB 9-pin jack (female) for use of the WebLog as a level converter.  
Attention: The logger function of the device should be deactivated!

**USB-Device**                      USB connector of the integrated USB-to-RS232 converter (FTDI). This interface can be used to operate the WebLog as a level converter (see RS232C).  
A USB cable of type A/B is required to connect this port to a notebook or PC. The driver for the virtual comport can be either installed from our CD "Tools&Docs" or downloaded from the website of the chip manufacturer: [www.ftdichip.com](http://www.ftdichip.com)

**USB-Host 1 / 2**                      USB host interfaces e.g. to connect a USB memory stick to transfer exported logger data or to perform a firmware update or to connect an external computer mouse or keyboard

**Ethernet**                              10/100 MBit RJ45 Ethernet jack for a network connection

**Cable glands**                              for connection to mains supply, M-Bus and I/O lines

## 3. Ordering information

Artikelnummer	Beschreibung
WEBLOG250	Web-based M-Bus Central for 250 meters
GHZ TSH35-2	DIN rail holder TH35 for WebLog250 housing incl. screws
GHZ Lock	Cylinder lock for front lid of WebLog housing incl. 2 keys
KA003	Power cable (German connector), length 2m
IWLAN	WIFI Adapter, internally installed, with external antenna

## 4. Technical Data

Operating voltage	110 to 240 VAC, 47 to 63 Hz
Power consumption	max. 100W
Operating temperature range	0 to 45°C
M-Bus voltage	42 V (Mark)
M-Bus basic current	max. 375 mA
Overcurrent threshold	500 mA
Internal bus resistance	8 Ohm
Communication speeds	300 bis 9600 Baud
Galvanic isolation	included
Housing	Lightgrey ABS plastic, protective class IP52 H x W x D: 264 x 234 x 86 mm Mountable on a wall or rail TS35 (optional accessory GHZ TSH35-2) optional cylinder lock available (GHZ Lock)
LED indicators	Front: power, M-Bus, event, overcurrent M-Bus Terminal area: Power, TXD Master, TXD Slave, warning current, overcurrent M-Bus
CPU and memory	Integrated ARM-NXP i.MX 8M CPU (1.6GHz, Quad-Core) with 1GB RAM and 4GB eMMC Flash. The log database uses up to 750 MB of this memory.
Display	7" LED display with capacitive touch, 1024 x 600 Pixel
Interfaces	10/100 Mbit Ethernet, USB host, USB device, RS232, <b>optional:</b> WIFI
Terminals	3 plug-in terminals for M-Bus, 3 plug-in terminals for relay outputs and 2 plug-in terminals for potential-free contacts, plug-in terminal for mains connection

**The operation of the device via the touch display and the web interface is described in a separate manual, which is available for download on our website.**