

## Introduction:



The GET-1008MB controller is a flexible data logging device targeted at metering, energy monitoring and general data logging applications. In addition to pulse meters, the GET-1032MB supports reading M-Bus meters with the addition of an external M-Bus to RS232 or M-Bus to RS485 adaptor. This provides the ability to log data from up to 63 meters or other M-Bus devices.

It provides a wealth of options for gathering data and storing it. In addition to the M-Bus interface, it supports pulse metering devices via its digital inputs. Communications with the PC is via BACnet/IP over Ethernet. For remote data logging, the GET-10008MB uses FTP to transfer the data logs as CSV files.

The controller provides 8 digital inputs which allows the GET-1008MB to record pulse meters and digital values.

## M-Bus

M-Bus (EN 13757) is an industry standard interface for smart meters which has gained particular popularity in the heat meter market. It uses an inexpensive 2 wire link which can support up to 250 meters on a single trunk. The M-Bus connection can provide both data transfer and power for the meter devices attached to it. M-Bus provides a means of getting a wide selection of data from the meter devices and not just a single consumption value as provided by pulse meters – instantaneous values, consumption per tariff values, temperature values, flow values etc.

The M-Bus interface on the GET-1008MB is not just useful for communicating with M-Bus meters. M-Bus to pulse modules can be used to connect more pulse meters to the controller than the standard 8 pulse inputs allow. It also allows pulse meters to be interfaced to the controller over distances of several hundred meters.

The GET-1008MB supports reading of up to 63 values over M-Bus. Multiple values can be logged from each meter to provide greater flexibility or single values can be logged from meters to provide wider meter coverage.

As well acting as an M-Bus data logger, the GET-1008MB can be used as an M-Bus to BACnet gateway to allow BACnet based systems access M-Bus devices.

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## Remote Configuration

Remote configuration via FTP allows the GET-1008MB automatically apply configuration changes without the need for site visits. A recovery mode allows untrained local staff initiate an update which can be applied from GLAS Energy Technology's servers.

## Trend logs

The GET-1008MB provides trend log storage in battery backed RAM for between 8 and 63 values depending on the number of readings required per value. In non-grouped configurations, the following combinations of log numbers and lengths are supported:

Number of logs	Readings per log	Days stored (15min interval)
8	4000	41
10	3200	33
16	2000	20
20	1600	16
25	1280	13
32	1000	10
40	800	8

Grouping of trend logs can provide up to 63 logs of 1000 entries each with common time bases.

The on board Real Time Clock provides time stamping down to 1 second resolution for all trend log readings and the time can be synchronised to internet time servers for automatic time correction

## Schedules

The GET-1008MB supports 8 BACnet schedules with 10 switching times per day each. These can be used to provide time control of external devices via the digital outputs or can be used with the logged data to provide alerts for "out of hours" usage to help track leaks or energy wastage due to lights or equipment being left on for example.

## BACnet support

The GET-1008MB controller supports BACnet/IP communications. The following BACnet objects are supported:

Accumulators, Analog Inputs, Analog Values, Binary Inputs, Binary Values, Device, Schedules, Trend Logs

The mapping of physical I/O points to BACnet objects is very flexible and supports the following combinations:

BACnet Object	Possible Physical I/O
Accumulator	Pulse inputs, Modbus values
Analog Inputs	Analog inputs, pulse inputs, Modbus values
Analog Values	Analog inputs, pulse inputs, Modbus values
Binary Inputs	Binary inputs, analog inputs
Binary Values	Binary outputs, analog outputs, Modbus values

## Inputs/Outputs

8 Digital inputs – These can be used for normal digital input operation or for pulse counting.

## Communications Interfaces:

The GET-1008MB comes equipped with a comprehensive collection of communications ports to ensure maximum flexibility.

Port	Protocols
RS485 Port A	Modbus Master
RS485 Port B	BACnet MS/TP (firmware option)

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RS232	Modbus Master
Mini USB	FTDI Serial interface for firmware upgrade
Ethernet 10baseT	BACnet/IP, SMTP for email alerts, remote firmware upgrade

## LEDs

There are several LEDs on board which indicate different statuses:

LED	Function
Power	Green LED for power OK
ZigBee Status	Green LED indicating status of ZigBee connection
Config/Status	Green LED. Flashes once per second in normal operation and more frequently for fault indication. Also used when config button is pressed
RS485 port A TX	Green LED. Flashes for transmit data
RS485 port A RX	Yellow LED. Flashes for receive data
RS485 port B TX	Green LED. Flashes for transmit data
RS485 port B RX	Yellow LED. Flashes for receive data
Ethernet Link	Orange LED, Ethernet link up
Ethernet Activity	Green, flashes for network traffic

## Specifications:

Dimensions: 213mm x 110mm x 33mm

Mounting: DIN rail mounting or wall mounting via integral slots on base.

EMC Immunity: EN6100-4-2 (ESD), EN6100-4-3 (Radiated Immunity), EN6100-4-4 (EFT), EN6100-4-6 (Conducted Immunity). Additional shielding or filtering may be required for heavy industrial environments. Maximum allowed cable lengths of 10m.

EMC Emissions: CISPR 22 Class B, FCC Part 15 Class B. Your results may vary, depending on your application, so additional shielding or filtering may be needed to maintain the Class B emission qualification. Maximum allowed cable lengths of 10m.

Power Supply: 12Vdc, 300mA

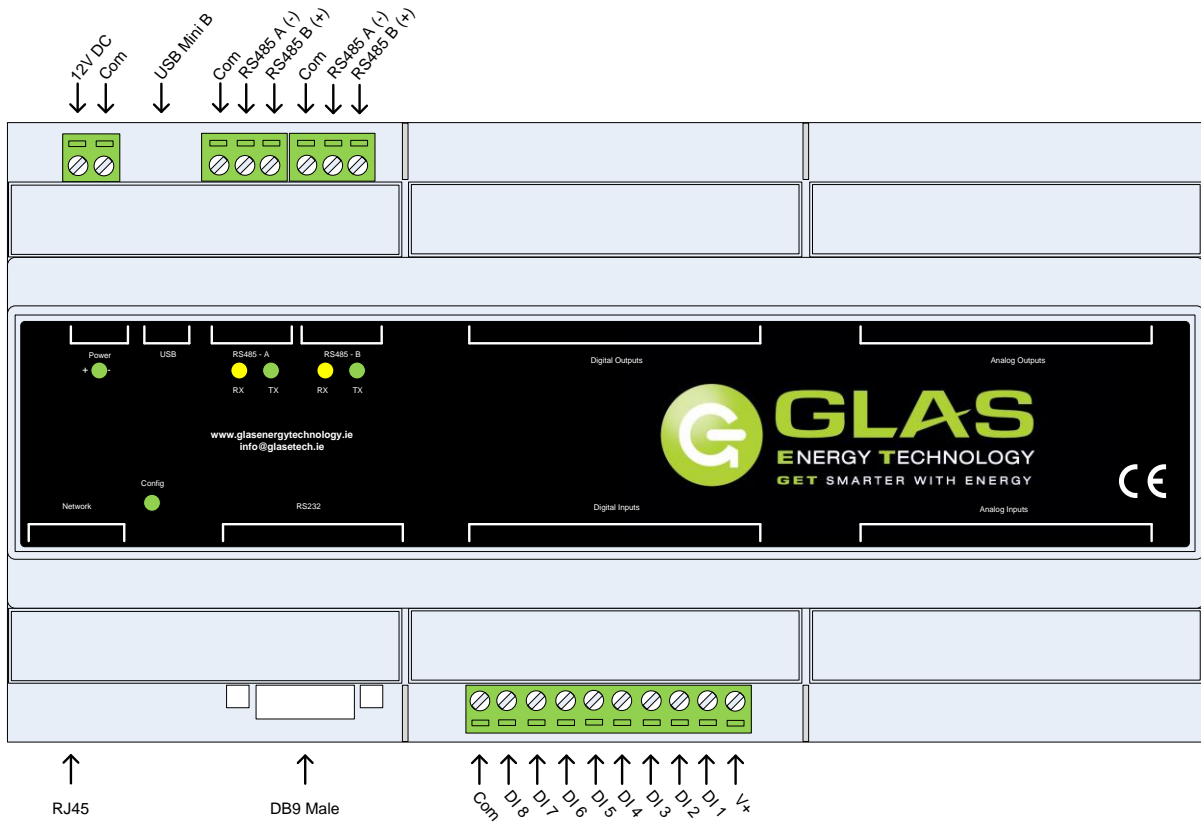
Fuse: 1000mA resettable.

Operating Environment: 0°-50°C, Maximum Relative Humidity 70%

The GET-1008MB is  qualified.

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## Connections:



## RS232 Pinout

1 – no connection (DCD), 2 – RxD, 3 – TxD, 4 – no connection (DTR), 5 – Gnd, 6 – no connection (DSR), 7 – RTS, 8 – CTS, 9 – no connection (RI)

## Further Information:

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