

Introduction:



The GET-1032WM controller is a flexible data logging device targeted at metering, energy monitoring and general data logging applications. Its wireless metering capability provides an ideal solution for many retrofit applications and situations where cabling is difficult to run.

When teamed up with the GET-1001WM, the GET-1032WM provides an ideal way of transferring data wirelessly from standard pulse meters.

It provides a wealth of options for gathering data and storing it. In addition to the Wireless 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-1032 uses FTP to transfer the data logs as CSV files.

The controller provides 8 digital inputs, 8 digital outputs, 8 analog inputs and 8 analog outputs. This allows the GET-1032WM to record pulse meters, digital values, analog voltages, 4-20mA values and thermistor sensors.

Wireless M-Bus

The GET-1032WM is fitted with a Wireless M-Bus interface which allows the controller retrieve data from Wireless M-Bus meters. The retrieved data can be accessed via BACnet analog objects or as BACnet accumulator objects.

The standard Wireless M-Bus module supports line of site operation to approximately 100m. Operation within buildings will result in shorter ranges, typically in the 20m-30m range depending on the type of construction.

The GET-1032WM can support 63 individual Wireless M-Bus meter readings.

Remote Configuration

Remote configuration via FTP allows the GET-1032 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-1032WM 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-1032WM 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-1032WM controller supports BACnet/IP communications. The following BACnet objects are supported:

Accumulators, Analog Inputs, Analog Outputs, Analog Values, Binary Inputs, Binary Outputs, 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, Wireless M-Bus meters,
Analog Inputs	Analog inputs, pulse inputs, Wireless M-Bus meters
Analog Outputs	Analog outputs, PWM digital outputs
Analog Values	Analog inputs, pulse inputs, Wireless M-Bus meters
Binary Inputs	Binary inputs, analog inputs
Binary Outputs	Binary outputs, analog outputs
Binary Values	Binary outputs, analog outputs

Inputs/Outputs

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

8 Analog Inputs – These inputs have 12 bit resolution. They can be used for 0-10Vdc, 0-20mA/4-20mA, Temperature Sensors, binary input – no pulse capability.

8 digital Outputs – These Darlington pair outputs can be used as sinking digital outputs for up to 50V loads. Outputs 1 and 5 have a single Darlington pair driving the pins. All other outputs have 2 Darlington pairs in parallel to provide a higher drive current. Pass through mode allows digital outputs replicate pulses from digital inputs to avoid the need for pulse splitters in many applications.

8 Analog Outputs – 0-10Vdc, 12 bit resolution, maximum current capability is 20mA. It is not recommended to have maximum current on all outputs simultaneously. They can also be operated as 0-10Vdc binary outputs.

Communications Interfaces:

The GET-1032WM comes equipped with a comprehensive collection of communications ports to ensure maximum flexibility.

Port	Protocols
RS485 Port A	Currently unused
RS485 Port B	BACnet MS/TP (firmware option)
RS232	Currently unused
Mini USB	FTDI Serial interface for firmware upgrade
Ethernet 10baseT	BACnet/IP, SMTP for email alerts, remote firmware upgrade
Wireless socket	Wireless M-Bus.


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

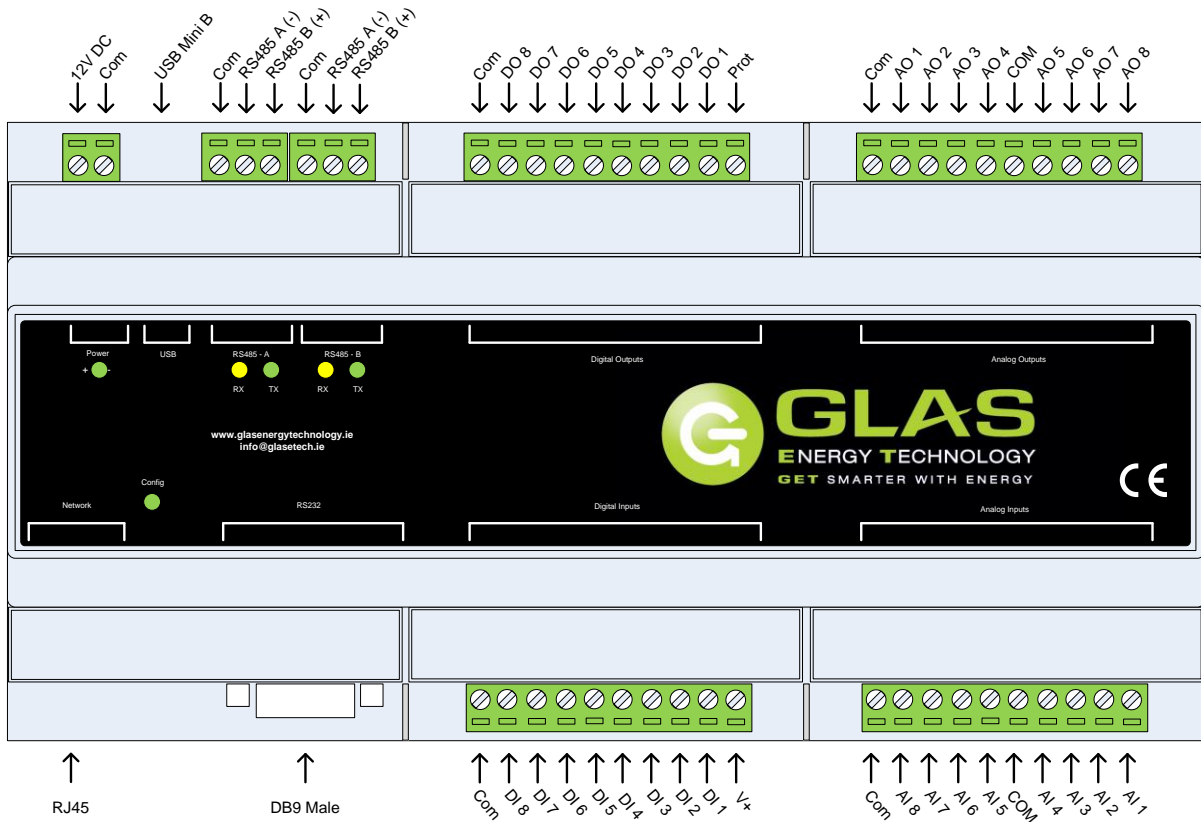
Specifications:

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-1032WM is  qualified.

GET-1032WM

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:

For more information please contact:

GLAS Energy Technology,
Johnstown Business Centre,
Johnstown House,
Johnstown,
Naas, Co. Kildare,
Ireland

+353 (0) 818 227050

www.glasenergytechnology.ie

info@glasotech.ie