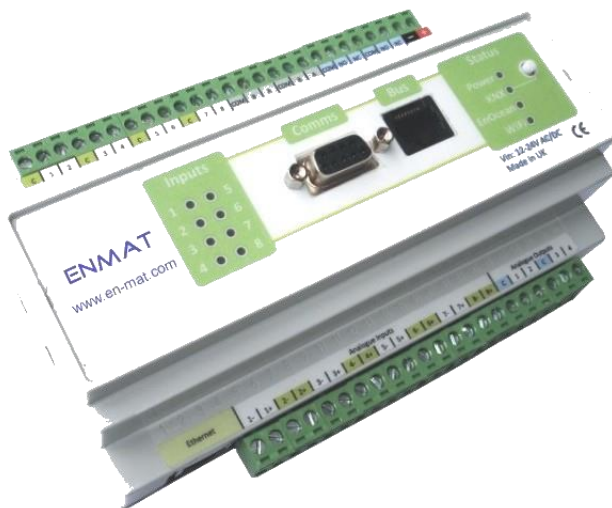


## ENMAT Premium Data Logger User Manual



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**This manual contains setup and general use instructions. Should you require any further information please contact the ENMAT support team on 0161 448 7722**

## Contents

<b>1. Specifications.....</b>	<b>5</b>
<b>2. Installation.....</b>	<b>7</b>
<b>3. Field Connections.....</b>	<b>9</b>
<b>4. After Sales Service.....</b>	<b>10</b>
<b>5. Guarantee.....</b>	<b>10</b>

## Specifications

Ethernet

Speed: 10/100Mbps

Protocols: HTTP, FTP, SMTP, SNMP, Telnet

### Modbus RS485 / RS232

Two serial bus connections are available for the connection of RS485 or RS232 Modbus devices.

Mode RS485: 2-wire, half-duplex, un-terminated Baud: selectable up to 115200 bps Connector: 3-way, 5.08mm pitch, 2.5mm<sup>2</sup> CSA

Mode RS232: 3-wire, full-duplex

Baud: selectable up to 115200 bps

Connector: RJ45 Bus port

### Diagnostics – COMMS port - RS232

A serial terminal is available for low-level configuration and diagnostic purposes. This is not usually needed but can be used in case of problems with the Ethernet connection, for example, unknown IP address.

Baud: fixed at 115200

Mode: 8 None 1, hardware handshake

Connector: 9-way female D-type

Cable: null modem

## **Mechanical**

Dimensions: 157mm x 86mm x 58mm

Weight: 0.5Kg

Mounting: symmetrical DIN rail

Connectors: 5.08mm pitch, 2.5mm<sup>2</sup> CSA

## **Electrical**

Power Supply: 12-24Vac/dc  $\pm$ 10%

Consumption: <5W (typical)

Fuse: 500mA resettable (internal)

## **Input/Output Connections**

Digital Inputs 8 x 50 volt-free contact

or open collector

Digital Outputs 2 x change-over relays

Analogue Inputs\* 8 x 0-10Vdc (non-isolated)

The ENMAT Premium Data Logger is pre-configured before dispatch to customer site to send data to ENMAT Cloud Software or an ENMAT engineer will be installing as part of the service. For more information please see: <http://www.en-mat.com/store/enmat-installation-services>

If we are dispatching we may need further information from you such as SMTP Server and Static assigned IP configuration. Please ask your systems administrator to contact ENMAT Support for more details.

## **Installation**

The ENMAT Premium Data Logger is an Internet connected device for the collection, storage and transmission of meter data for energy management and environmental monitoring.

Powered by a high speed ARM® processor the ENMAT Premium Data Logger has the capacity to acquire, process, record, present and stream data from multiple energy meters, sensors and networked devices.

The ENMAT Premium Data Logger has meter pulse inputs for direct connection to energy meters and analogue inputs for use with the LEM range of AC Current Transformers.

The Modbus serial port enables communication with additional meters, Building Management Systems, PLCs and other networkable devices. TCP Modbus devices can also be read using the Ethernet network connection.

Energy consumption is recorded at selectable intervals, typically ½ hourly. This data is stored on the ENMAT Premium Data Logger and automatically sent to the ENMAT Cloud server software.

## **Installation Procedure**

- Using a standard Ethernet cable (RJ45 plugs), connect the ENMAT Premium Data Logger to the Ethernet network.
- Connect the field devices to the ENMAT Premium Data Logger IO terminals, such as a Modbus network or pulse meters, as described in the Field Connections section.
- Connect a suitable power supply to the Vin terminals.

**Check the following:**

- The green Power LED illuminates, indicating the power supply is connected
- The Input LEDs perform a start-up routine indicating the ENMAT Premium Data Logger processor is initialising, after which they will remain off
- The Status LED flashes periodically to indicate the ENMAT Premium Data Logger is operational

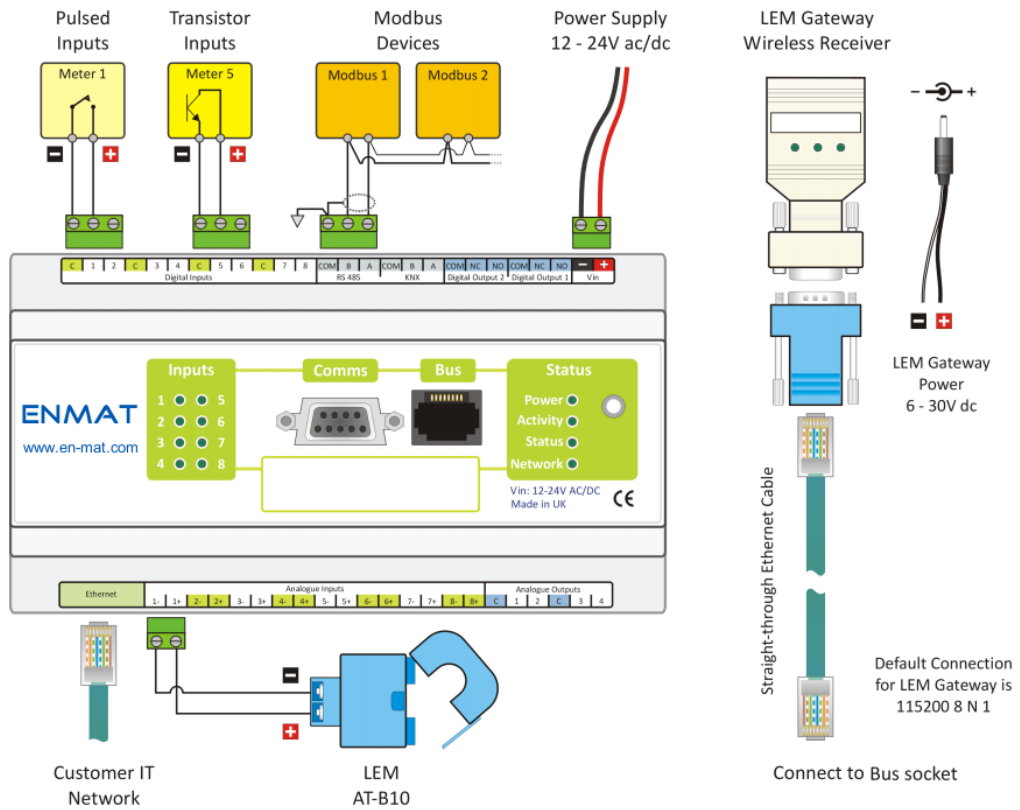
Each time a pulse is detected at a digital input, the corresponding Input LED will flash.

The Modbus network should be connected according to the remote device manufacturer's guidelines. The COM terminal at the ENMAT Premium Data Logger is not internally connected and is only intended to facilitate the connection of a suitable ground to the network cable shield. No termination resistor is installed in the ENMAT Premium Data Logger.



# Field Connections

## Field Connections



## After Sales Service

“We will provide unlimited telephone support for 30 days following purchase of the product.

Following this period, we will provide unlimited e-mail support. This will allow us to keep the cost of the product “competitive.”

When contacting us for support, please have the following information to hand

(or include in e-mail):

- Serial number of unit (usually on base of product)
- Where purchased from? (i.e. directly from us or a reseller)
- Your contact details including telephone and e-mail address
- Description of the problem

## Guarantee

Your ENMAT product is guaranteed for 1 year from the date of purchase. Please keep your invoice as proof of purchase. Should a problem arise with the product, please contact: [support@en-mat.com](mailto:support@en-mat.com) for technical assistance. If you wish to return your product, please contact us via the details on the back page and instructions for returning the product will be given. If you send any items back to us without arranging a returns number then we do not guarantee any repair or refund of the item. This guarantee does not affect your statutory rights.



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