



**PR0020-RMS**

# RS485 to IP Communications Module RMS® Compatible Installation & User Guide

## Resource Data Management

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*Before installing or using this product, read the contents of this guide thoroughly to familiarise yourself with all the operating parameters and features. Please refer to the safety information detailed in the [Specification](#) section.*



Ensure that all power is switched off before installing or maintaining this product

## The RS485 to IP Communications Module

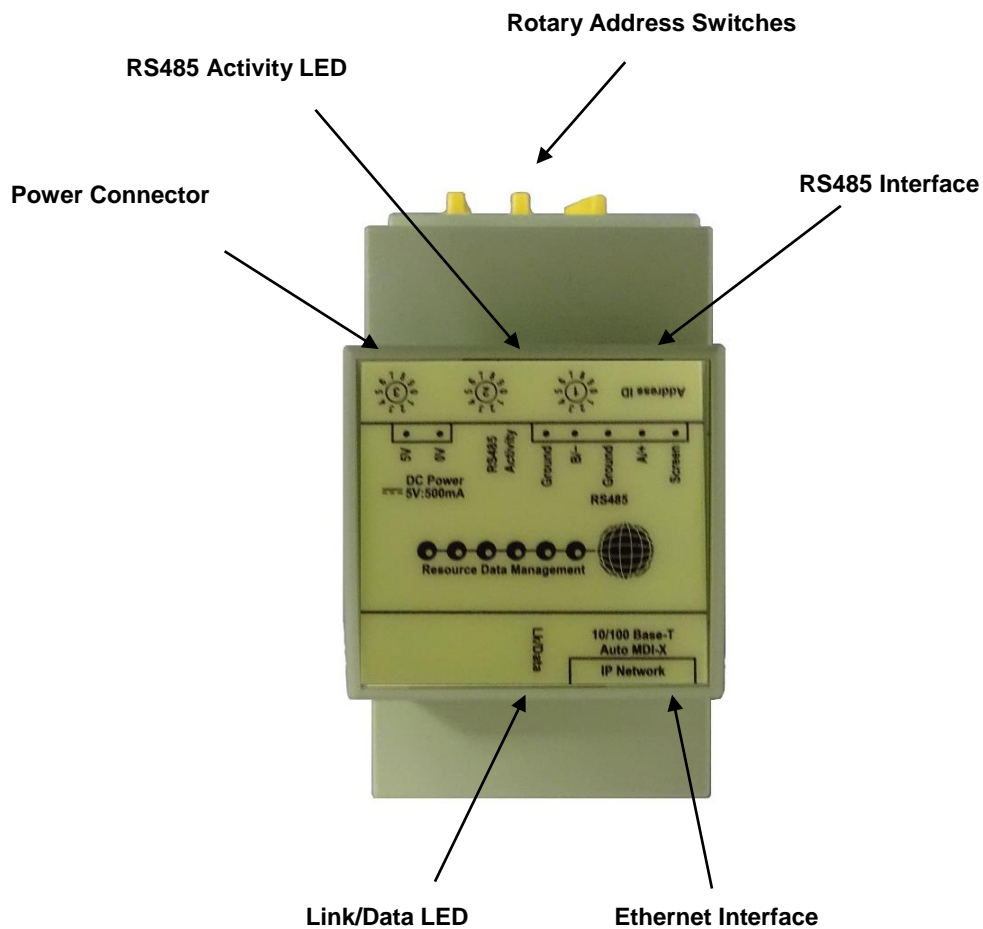
From Resource Data Management

RMS® Compatible Variant

### Description

The RS485 to IP module is used to convert RS485 traffic from an RMS® network into IP, for use with an RDM Data Manager. The module allows for up to 32 devices to communicate with the RDM Data Manager and is available in software version V1.5 or higher.

### Connections



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## Status LEDs

There are two LED's on the module. One for the Ethernet interface and one for the RS485 interface.



LED Description	Colour	State	Comment
Link / Data	Green LED	On	Connection Present
		Off	No Connection
		Flashing	Data
RS485 Activity	Green LED	Flashing	Network Activity
		Permanently off/on	Network Fault

## Configuration

The IP address of the module is dependent on the rotary switch positions.

Rotary Address	IP Address Range
000	The module is in static IP address mode.
001 to 254	The module is set to operate in the 192.168.0.XXX range with the last part of the IP address being a number between 1 and 254. The last part of the IP address is the rotary switch address entered.  For example if the rotary switch address is set to "150" then the module will be assigned the address 192.168.0.150.
255 - 999	The module is set to DHCP mode and will request an IP address from the DHCP server on the network.



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## Assigning a Static IP Address

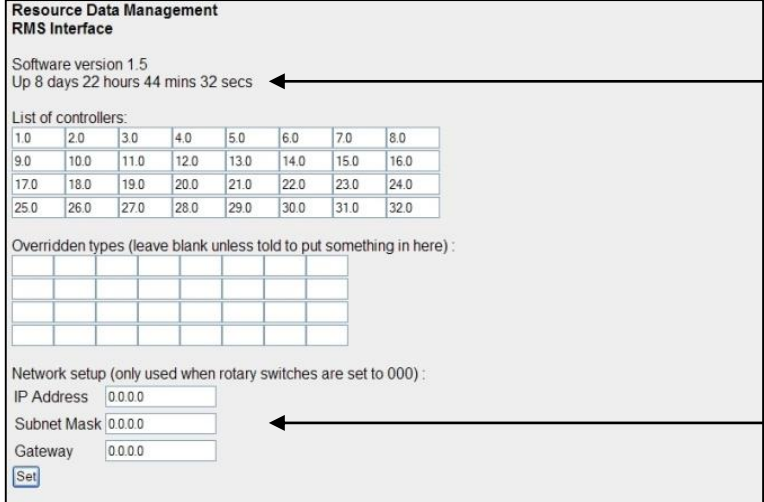
Follow the steps below to assign a static IP address to the RS485 to IP module.

- 1) With the RS485 to IP module powered off set the rotary switch positions to one of the predefined IP addresses e.g. 001 to 254.
- 2) Power the module on.
- 3) Connect a CAT5 patch cable to the Ethernet interface of the RS485 to IP module.
- 4) Now connect the patch cable to the PC or Laptop which will be used to configure the module. Note the RS485 to IP module has an Auto MDI-X feature which allows either a standard or cross-over patch cable to be used.
- 5) Assign the Laptop or PC a static IP address in the "192.168.0.XXX" range ensuring the IP address selected doesn't clash with the IP address set in the module.
- 6) Once configured open a web browser session and browse to the IP address of the module.
- 7) On the webpage shown enter the desired information. An IP address, Subnet Mask and Gateway can be assigned. Once the correct details have been entered press the "Set" button.
- 8) Now set the rotary switch address of the module to 000.
- 9) Power the module off for 10 seconds and power back on.
- 10) The operation is now complete and the module will have the static IP address entered.

**Note** It is also possible to place the module into DHCP mode when configuring a static IP address.

## Webpage Interface

Below is a screenshot of the webpage interface and the data displayed once connected on the assigned IP address.



The screenshot shows the 'Resource Data Management RMS Interface' webpage. Annotations point to specific features:

- Current Software Version of the module:** Points to 'Software version 1.5'.
- Uptime of the module since last power on:** Points to 'Up 8 days 22 hours 44 mins 32 secs'.
- Devices entered for the RS485 interface:** Points to the 'List of controllers:' table.
- IP address of the module when using a static IP address:** Points to the 'IP Address' input field in the 'Network setup' section.

1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0
17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0
25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0

Under the heading "List of controllers:" is a table. Enter into here the controller ID of each device you wish to communicate with. A maximum of 32 devices can connect to the module. Left click on an empty field and enter the desired ID, repeat for additional devices. Once the appropriate information has been entered click "Set" to save the changes. A message "Setup Changed" will be shown along with a review of the details entered, when the page refreshes ensure the list of controllers has been updated with the correct device names. The controller ID can be found from either the existing frontend or by connecting to the controllers directly using a handheld. Example controller names are shown in the image above. Controller names will always appear in the following formats xxx.x or xx.x or x.x, where x is a number between 0-9.

Once the above has been carried out please start an IP network scan from Data Manager to log devices on.

## Specification

**Note** the product must be used as detailed by the manufacturer, failure to comply may result in the level of protection being affected.

### Power requirements

Supply Voltage Range:	5 Vdc $\pm$ 5%
Typical supply current:	<1 Amp
Operating temperature range:	+5°C to +50°C
Operating Humidity:	80% maximum
Storage temperature range:	-20°C to +65°C
Environmental:	Indoor use at altitudes up to 2000m, Pollution Degree II,
Size:	110mm (L) x 52.5mm (W) x 68mm (D)
Weight:	125 Grams
EMC:	EN 61326-1: 2013
Ventilation:	There is no requirement for forced cooling ventilation
Class 2 Insulation:	<b>No</b> protective Earth is required and <b>none</b> should be fitted.

Disposal Please observe local legislation with regards to electrical products.  
Origins Product designed in the UK manufactured in Taiwan.

### Ethernet Interface

10/100 Base-T with Auto MDI-X feature

### External Power Supply Requirements

5Vdc : 500mA

### Mounting Instructions

Standard DIN rail mountable with additional mounting holes 103mm apart.

### Cleaning

Do not wet the module when cleaning. Clean by wiping with a slightly dampened lint free cloth.



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## Power Supply

Included in the box is a 5Vdc supply for use with the module.

The orange connector block comes prewired to connect to the PR0020 out of the box. (Output Voltage - 5Vdc)

**Note** for the 5Vdc output wiring, the black cable is the 0V connection and the black cable with white markings is 5V.



### Mains Wiring

Blue = Neutral  
Brown = Live

Input Voltage Range - 90 to 264VAC

**Note** a standard 3 pin UK plug is fitted by default. This can be removed to expose the Live and Neutral wires depending on the site wiring requirements.

## Disclaimer

The specifications of the product detailed in this document may change without notice. RDM Ltd shall not be liable for errors or omissions, for incidental or consequential damages, directly or indirectly, in connection with the furnishing, performance or misuse of this product or document.



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