

EMD5000 Quick Start Guide

Thank you for purchasing the Opengear EMD5000 Environmental Monitor (EMD). Once connected you will be able to use your Opengear console server to monitor the humidity and temperature of a remote location and receive alarms from environmental sensors and general purpose digital I/O at that site.

Step 1 Check kit contents



EMD5000
Environmental Monitor



449026/29
EMD Adapter



UTP Cable



Quick
Start

Note: Check you have ordered the correct EMD version for your console server pinout:

EMD5000	Classic pinout	44026 EMD adapter
EMD5000-02	Cisco pinout	44029 EMD adapter

Step 2 Connect the EMD hardware

The EMD can be used only with an Opengear console server and must not be connected to serial ports on other appliances. The EMD is powered over the serial connection and communicates using a custom handshake protocol.

The EMD connects to your console server serial port via a special EMD Adapter and a standard CAT5 cable. It is not an RS232 device and should not be connected without the adapter.

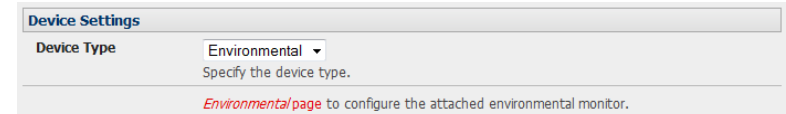
- Plug the male RJ plug on the EMD Adapter into EMD and then connect to the console server serial port using the provided UTP cable – the green EMD LED will turn on

Note: If you require a longer cable than the 6 foot (2 meter) UTP cable provided with the EMD kit, a standard Cat5 UTP cable up to 33 feet (10 meters) in length can be used.

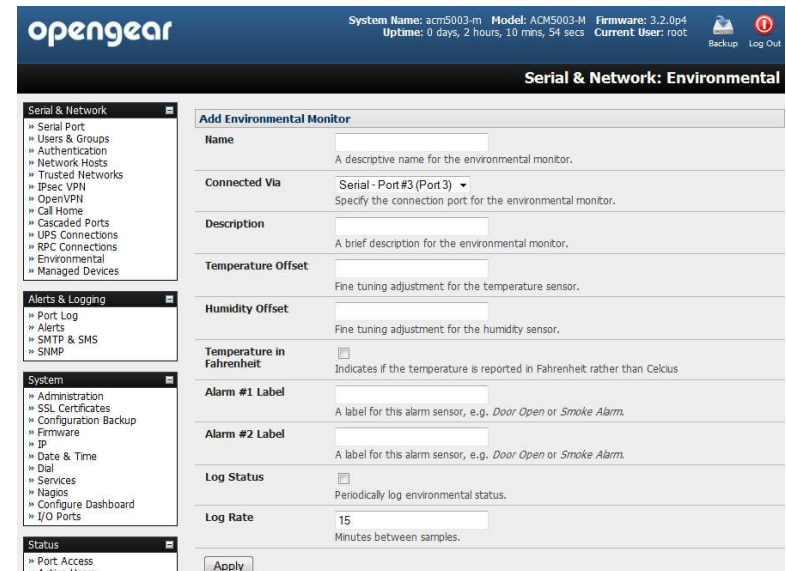


- The EMD5000 supports one (EMD5000-2) or two (EMD5000) externally connected sensors, such as smoke detectors, water detectors, vibration sensors, open-door sensors or general purpose open/close status sensors
- Screw the two bare wires of an external sensor into the two terminals labeled **1** or the two terminals labeled **2**

Step 3 Configure console server



- Select **Serial & Network: Serial Port** – no particular Common Settings are required for the serial port that the EMD is attached to
- Select **Environmental** as the **Device Type** and click **Apply**. This will turn the green EMD LED off



- Select **Serial & Network: Environmental** and click **Add**
- Enter a **Name** and **Description** for the EMD and select pre-configured serial port that the EMD will be **Connected Via**
- You may optionally calibrate the EMD with a Temperature Offset (+ or - °C) or Humidity Offset (+ or percent). Also if you check **Temperature in Fahrenheit** then the temperature will be reported in Fahrenheit. Otherwise it will be reported in degrees Celsius
- Name the **Labels** to be used for each of the two alarms

- If you wish the status from this EMD to be logged, check **Log Status** and specify the **Log Rate** (minutes between samples)
- Click **Apply**

Note: The LED on the EMD will turn on periodically as its status is monitored.

Step 4 Configure EMD alerts

The EMD5000 has two kinds of sensors – the in-built environmental sensors (temperature and humidity) and externally connected alarm sensors (e.g. smoke detector, water detector, open-door sensor). To add an alert:

- Select **Alerts & Logging: Alerts**, click **Add Alert**
- Enter a **Description** for the new alert

The screenshot shows the 'Alerts & Logging: Alerts' section of the OpenGear web interface. The 'Add a New Alert' form contains the following fields and options:

- Description:** A text input field with a placeholder: "A brief description of this alert's purpose."
- Email Recipient:** A text input field with a placeholder: "The email address to send this alert to."
- SMTP SMS Email Recipient:** A text input field with a placeholder: "The SMTP SMS email address to send this alert to."
- SNMP:** A checkbox labeled "Use SNMP to notify of this alert."
- Nagios (NSCA):** A checkbox labeled "Use Nagios to notify of this alert. *NSCA must be enabled under System: Nagios. Nagios must be enabled for each applicable host or port under Network Hosts or Serial Ports.*"

- Nominate the email address for the **Email Recipient** and/or the **SMS Recipient** be notified of the alert, check **SNMP** to send an SNMP trap, check **Nagios** to send a Nagios notification

If you are adding an environmental sensor alert:

- Select the **Applicable Environmental Sensor(s)** to apply this alert to
- Scroll down and select **Environmental Sensor Alert**
- Select **Temperature** or **Humidity** for the **Sensor Type**
- Set the **High** and/or **Low Set Points** at which **Warning** and **Critical** alert notifications will be sent

Note: **Set Point** values are in degrees centigrade for **Temperature** and % (percentage) for **Humidity**.

- You may also specify a **Hysteresis** value used in resetting the alert – this number of degrees (for a **Temperature** alert) or percentage points (for a **Humidity** alert) the sensor reading must drop below a **High Set Point** or to rise above a **Low Set Point** before the alert is reset
- Click **Apply**

The screenshot shows the 'Environmental Sensor Alert' configuration page. Key elements include:

- Environmental Sensor Alert:** A radio button to enable the alert. Description: "An alert will be triggered at the value(s) below. This alert type will only be applied to UPSes, RPCs and environmental monitor temperature and humidity sensors."
- Sensor Type:** A dropdown menu set to "Temperature". Description: "Specify which environmental sensor type to alert on."
- Set Point (Low):** Two input fields for "Low Warning" and "Low Critical". Descriptions: "A warning alert will be triggered when the sensor reading falls to this value or lower." and "A critical alert will be triggered when the sensor reading falls to this value or lower."
- Set Point (High):** Two input fields for "High Warning" and "High Critical". Descriptions: "A warning alert will be triggered when the sensor reading rises to this value or higher." and "A critical alert will be triggered when the sensor reading rises to this value or higher."
- Hysteresis:** An input field. Description: "Value a sensor reading must drop below a high point or to rise above a low point before the alert is reset."

If you are adding an alarm sensor alert:

- Select the **Applicable Alarm Sensor(s)** to apply this alert to
- You may also specify the **Alarm Disable** periods, the alert is disabled during these time windows, and no notifications are sent – e.g. you may wish to disable a door open sensor alert during the working day
- Click **Apply**

Note: After adding alerts, select **Alerts & Logging: SMTP & SMS** to configure email server settings, **Alerts & Logging: SNMP** to configure SNMP server settings, or **System: Nagios** to configure Nagios server settings. These settings apply to all alerts. Refer to the *User Manual* on the CDROM for details on configuring these server settings.

Step 5 Monitor EMD status

- To monitor the current EMD status select **Status: Environmental Status**. This displays a summary of connected EMDs and externally connected sensors

The screenshot shows the 'Status: Environmental Status' page. It features a table with the following data:

Name	Description	Sensor Status			Connected Via	View Log
		Name	Type	Value		
Comms room	Telco closet	Temperature	Temperature	-u	Serial - Port 3	View Log
		Humidity	Humidity			
		Fire warning	Dry Contact			
		Alarm #2	Dry Contact			

- Click **View Log** or the **Environmental Logs** tab to view detailed historical logs of the selected EMD