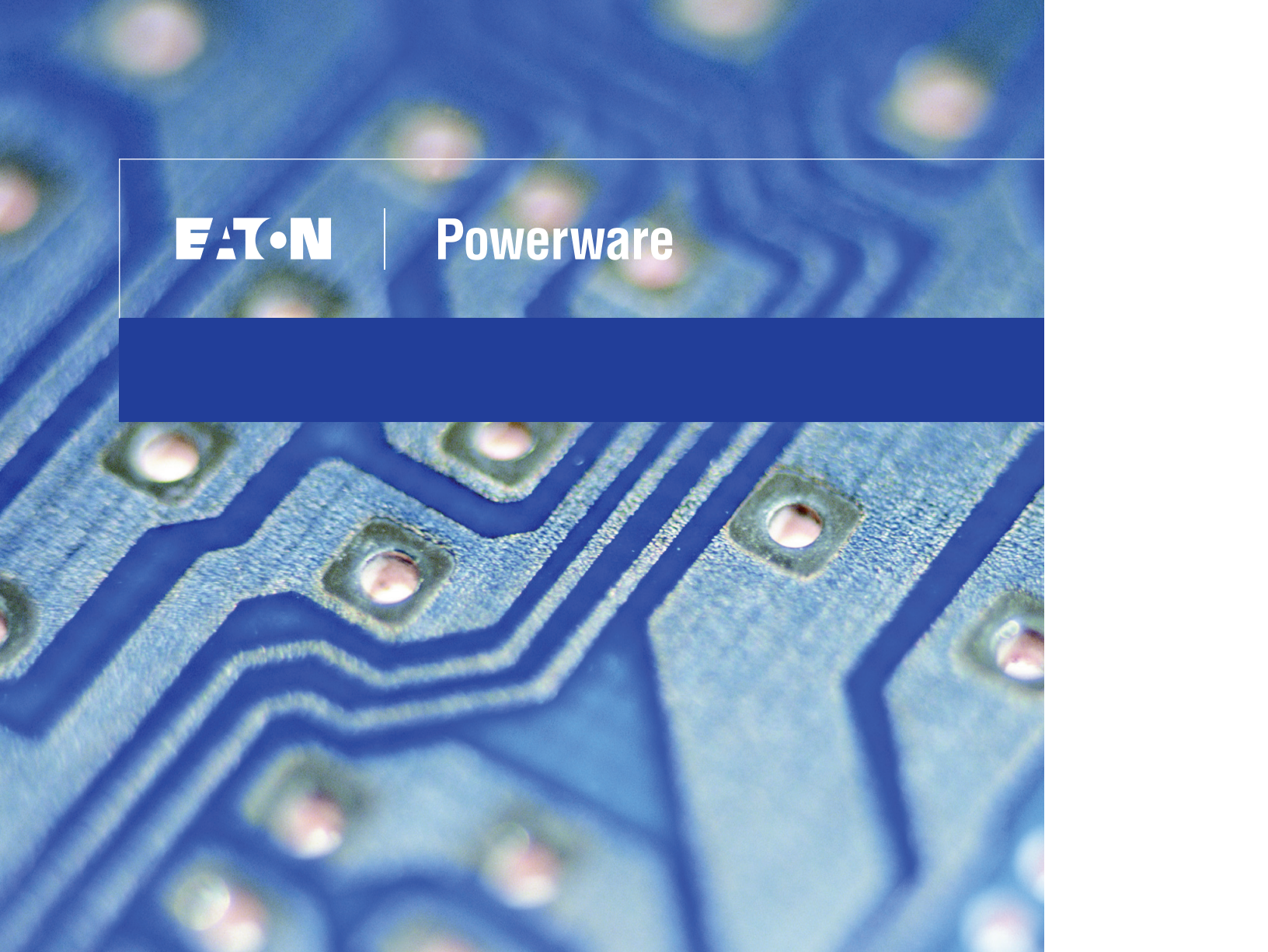




**EAT•N**

**Powerware**

**Powerware® Water Leak Sensor  
User's Guide**

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# Water Leak Sensor

## IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

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This manual contains important instructions that you should follow during installation and maintenance of the water leak sensor. Please read all instructions before operating the equipment and save this manual for future reference.

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The water leak sensor is a device that works with the Eaton Powerware Environmental Rack Monitor (ERM) and connects to the TH-Module. Through the ERM, the user can monitor if there is a water leak. If water permeates into a detective line, the conductivity enhances the intensity of electric current and the alarm is triggered.

There are two types of water leak sensors:

- **Type A** - 1m water leak sensor connected to a 1.2m electrical cable with a termination
- **Type B** - 4m water leak sensor connected to a 1.2m electrical cable with a termination

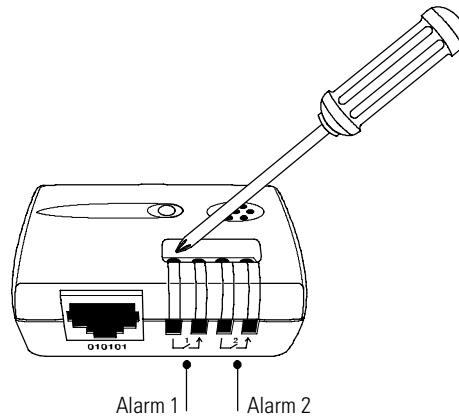
## Recommended Location of Water Leak Sensors

- Common usage are areas where mission-critical equipment is being maintained, including data rooms, data centers, clean rooms, utility corridors, laboratories, telecommunication facilities, storage areas, elevator shafts, drip pans under water-cooled equipment, and many more.
- The most common application for water leak detection is under raised floors. It is not unusual for the water leak detection cable to be installed under the raised floor as well as in the ceiling above equipment.
- Facilities and equipment that use water-cooled technology have started to add water leak sensors to provide early warning of leaks that could potentially cause costly equipment damage and downtime. The cable is installed around the supply and return water lines to continuously monitor for leaks.

## Installation

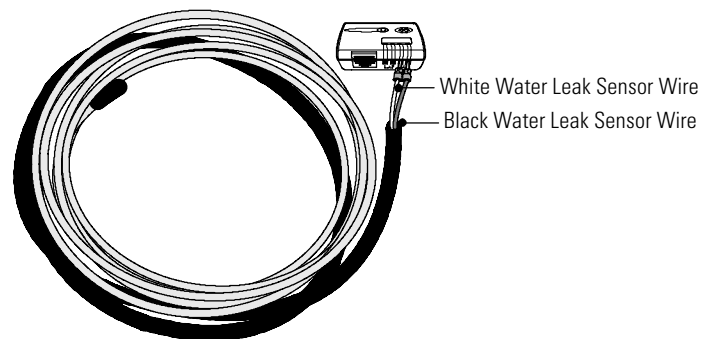
To install the water leak sensor:

1. Loosen the screws on the TH-Module (see Figure 1).



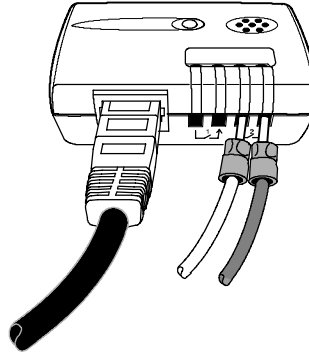
**Figure 1. Adjusting TH-Module Screws**

2. Connect the water leak sensor wires to the TH-Module alarm 1 or alarm 2 connectors, then tighten the TH-Module screws (see Figure 2).



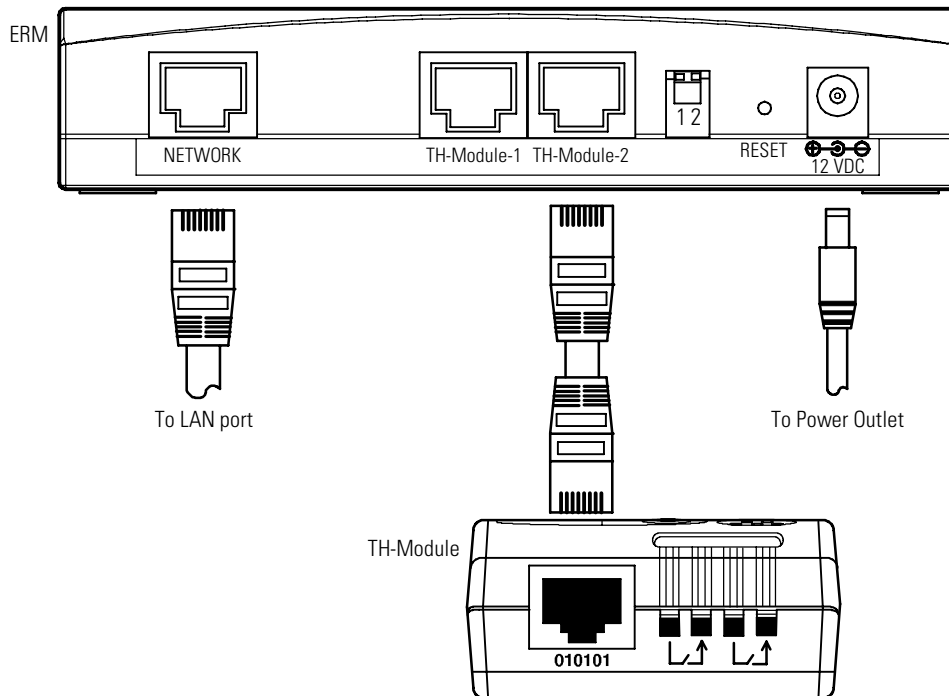
**Figure 2. TH-Module with Water Leak Sensor**

3. Connect the RJ-45 network cable to the TH-Module port labeled "010101" (see Figure 3).



**Figure 3. Connecting the RJ-45 Network Cable**

4. Connect the other end of the RJ-45 network cable to the ERM (see Figure 4).



**Figure 4. ERM and TH-Module**

- 5. Verify that the ERM is connected to the network. Open the ERM Web page and select **Monitoring**, then **TH-Module-1 Setup** or **TH-Module-2 Setup**. The setup screen displays (see Figure 5).
- 6. Change the status of the TH-Module from “Disable” to “Auto” on the Device Name line. Verify that the TH-Module LED (Power/Status) is flashing.
- 7. Set the status of alarm 1 and/or alarm 2 to “Normal Open” and select “Water Leak.”
- 8. Select **Set Value** to confirm the water leak sensor setup.

| Sensor           | Sensor Name   | Set Point (Low)                        |                                        | Set Point (High)                       |                                        | Hysteresis | Calibration Offset |
|------------------|---------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|------------|--------------------|
|                  |               | Warning                                | Critical                               | Warning                                | Critical                               |            |                    |
| Temperature (°C) | Temperature-1 | <input checked="" type="checkbox"/> 20 | <input checked="" type="checkbox"/> 15 | <input checked="" type="checkbox"/> 30 | <input checked="" type="checkbox"/> 35 | 2          | 0.0                |
| Humidity (%)     | Humidity-1    | <input checked="" type="checkbox"/> 13 | <input checked="" type="checkbox"/> 10 | <input checked="" type="checkbox"/> 35 | <input checked="" type="checkbox"/> 40 | 1          | 0.0                |
| Alarm 1 (Sec)    | Door Contact  | Normal Close                           | Informational                          | Door Contact                           |                                        | 0          |                    |
| Alarm 2 (Sec)    | Water Leak    | Normal Open                            | Informational                          | Water Leak                             |                                        | 0          |                    |
| Device Name      | TH-Mod-3      | Auto                                   |                                        |                                        |                                        |            |                    |

Set Value

Figure 5. Water Leak Sensor Settings

- 9. When the sensor detects the water leak, the ERM Web page displays the alarm. The Web page for the alarm table and sensor events also records the alarm.

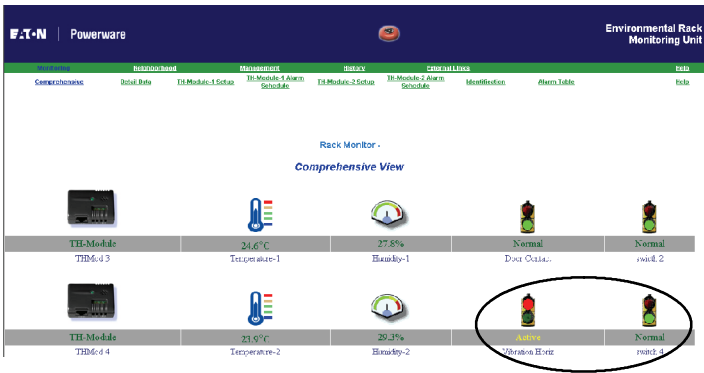


Figure 6. Comprehensive View Screen

| Date (dd/mm/yyyy) | Time (hh:mm:ss) | Event Description                                                         |
|-------------------|-----------------|---------------------------------------------------------------------------|
| 03/10/2006        | 16:19:50        | Alarm 2 of SENSOR 1 back to normal                                        |
| 03/10/2006        | 16:19:51        | Alarm 2 of SENSOR 1 triggered                                             |
| 03/10/2006        | 16:19:52        | Alarm 2 of SENSOR 1 back to normal                                        |
| 03/10/2006        | 15:54:50        | Temperature-2 of SENSOR 2 (22.8 °C) under low warning temperature (23 °C) |

Figure 7. Events Log Data

| Number of Active Alarms: 4 |                     |                                                                           |
|----------------------------|---------------------|---------------------------------------------------------------------------|
| Alarm ID                   | Alarm Time          | Alarm Description                                                         |
| 3                          | 03/10/2006 14:11:20 | Temperature-1 of SENSOR 1 (21.9 °C) under low warning temperature (23 °C) |
| 5                          | 03/10/2006 14:12:31 | Alarm-1 of SENSOR 2 triggered                                             |
| 21                         | 03/10/2006 14:16:21 | Humidity-1 of SENSOR 1 (60.2 %) over high warning humidity (50 %)         |
| 44                         | 03/10/2006 15:04:50 | Temperature-2 of SENSOR 2 (22.8 °C) under low warning temperature (23 °C) |

Figure 8. Alarm Table



**NOTE** For more detailed information that is not included in this manual, first register your product at [warranty.powerware.com](http://warranty.powerware.com), then visit our Web site: [www.powerware.com/rackmonitor](http://www.powerware.com/rackmonitor). You can also download firmware upgrades, the latest manuals, and other documentation.











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