

How To Monitor a AKCP SensorProbe2 In Nagios XI

Purpose

This document describes how to monitor an AKCP sensorProbe2 device with Nagios XI in order to be alerted when temperature, humidity, or other environmental variables exceed specific thresholds.

This document outlines how to monitor the Dual Temperature/Humidity sensor connected to the sensorProbe2, however various AKCP intelligent sensors can be connected via the RJ45 connectors to the sensorProbe devices and then monitored in Nagios XI in a similar manor. This document will demonstrate how to monitor the device using Active or Passive monitoring.

The sensorProbe2, sensorProbe4, sensorProbe8 and Probe8-X20 are intelligent devices for monitoring environmental variables and notifies you through SNMP alerts to prevent any issues when environmental variables change

Target Audience

This document is intended for use by Nagios XI Administrators who want to monitor an AKCP sensorProbe2 Dual Temperature/Humidity Sensor device via SNMP

Prerequisites For Monitoring A Device Passively Via SNMP Traps

It is possible to monitor your AKCP sensorProbe2 actively or passively within your Nagios XI system. Active checks do not require any prerequisites for your Nagios XI system. Passive checks require you to set up your Nagios XI system to receive SNMP traps.

This document assumes you have already set your Nagios XI system to receive SNMP traps. If you have not already done this, please refer to the following documentation: [Integrating SNMP Traps With Nagios XI](#)

[Integrating SNMP Traps With Nagios XI](#)

Download The AKCP MIB Into Nagios XI

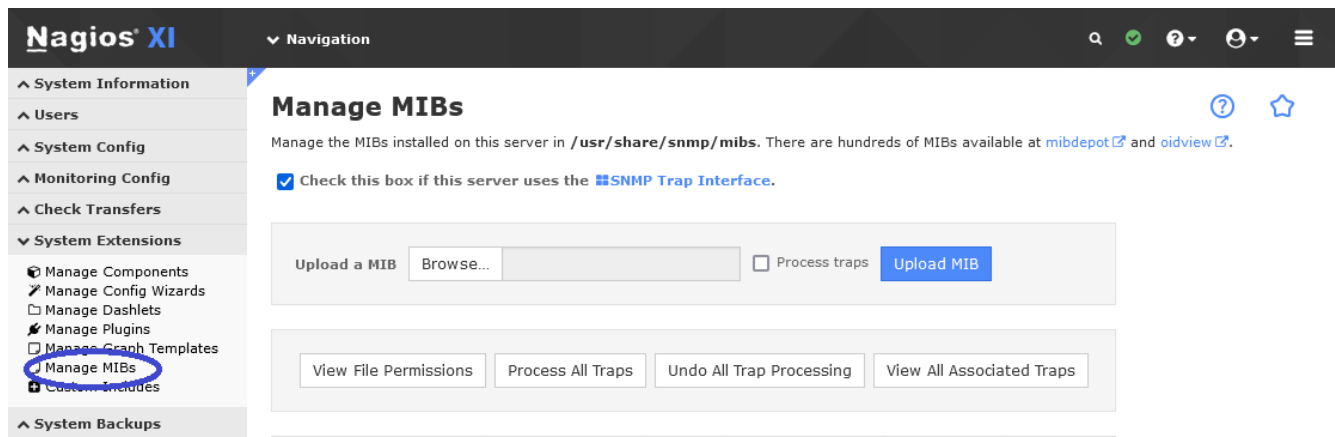
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Monitoring via SNMP requires the AKCP MIB definition. The first step is to download and install the correct MIB file. You can download the MIB for a AKCP device from the link below:

http://www.akcp.com/wp-content/uploads/2010/04/akcp_mib211210.zip

Once the MIB is downloaded, you need to unzip the *akcp_mib211210.zip* file which will provide you with the *akcp.mib* file that will be used in the next step.

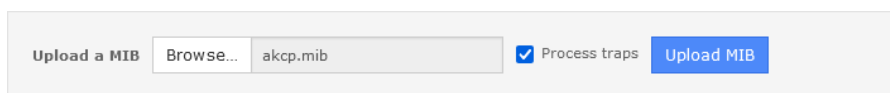
Next, you will install the *akcp.mib* from the Nagios XI Web interface by navigating to **Admin > System Extensions > Manage MIBs**



Click the Browse button and locate the *akcp.mib* file.

Check the Process trap check box.

Click the Upload MIB button.



You will receive a message to say the MIB file was successfully processed.

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Manage MIBs

Manage the MIBs installed on this server in `/usr/share/snmp/mibs`. There are hundreds of MIBs available at [mibdepot](#) and [oidview](#).

Check this box if this server uses the **SNMP Trap Interface**.

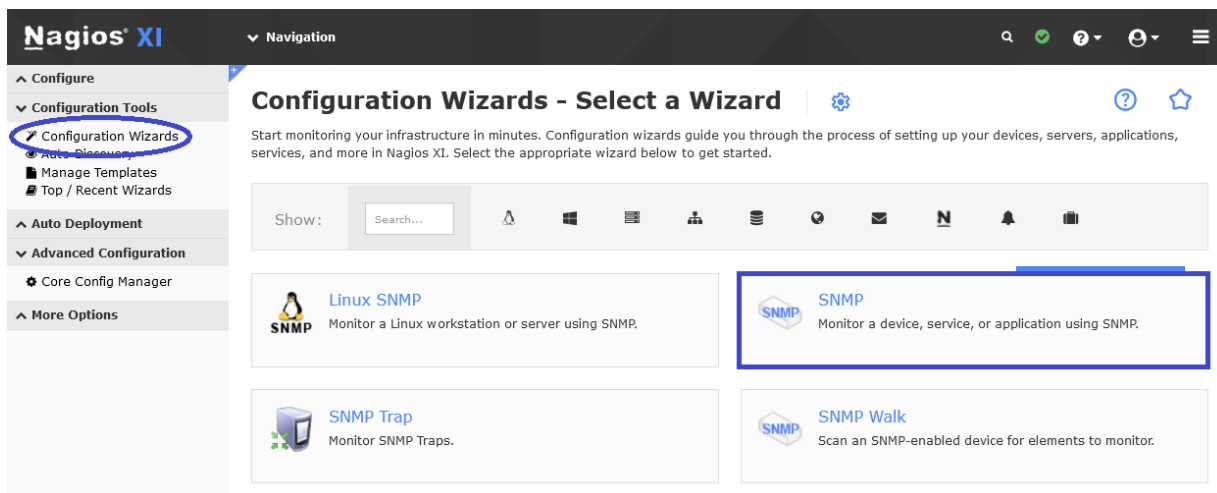
Upload a MIB Process traps

| MIB | First Uploaded | Status | Date Processed | # Assoc Traps | Actions |
|--------------------|---------------------|-----------|---------------------|---------------|--|
| akcp | 2024-12-04 03:22:02 | Processed | 2024-12-04 03:22:21 | 290 | ↓ ↶ ↷ 🗑️ |
| HOST-RESOURCES-MIB | 2024-11-14 03:40:33 | Processed | 2024-11-29 21:36:48 | 0 | ↓ ↶ ↷ 🗑️ |

You can also verify that your MIB was processed by Nagios XI, on your Nagios server check to see that the `akcp.mib` file is located in the `/usr/share/snmp/mibs/` directory. In addition to this an extensive amount of SNMP Trap *EVENTs* will be put into the `/etc/snmp/snmpd.conf` file (these are for passive monitoring).

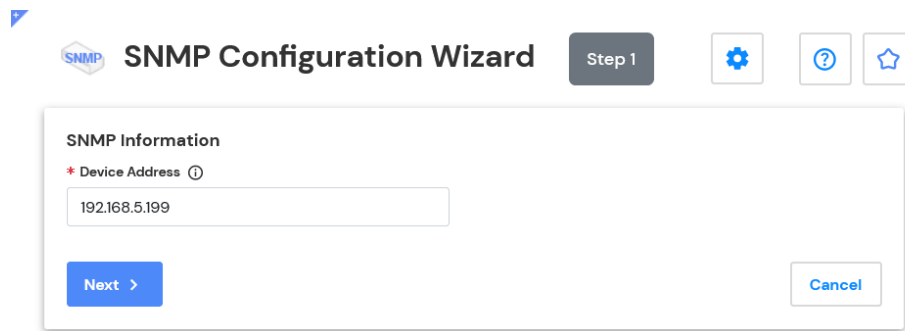
Run The SNMP Wizard To Set Up Active Checks

To begin using the SNMP wizard navigate via the top menu bar to **Configure > Run a configuring wizard** and select the **SNMP** wizard. In the following screenshot you can see how the search field allows you to quickly find a wizard.



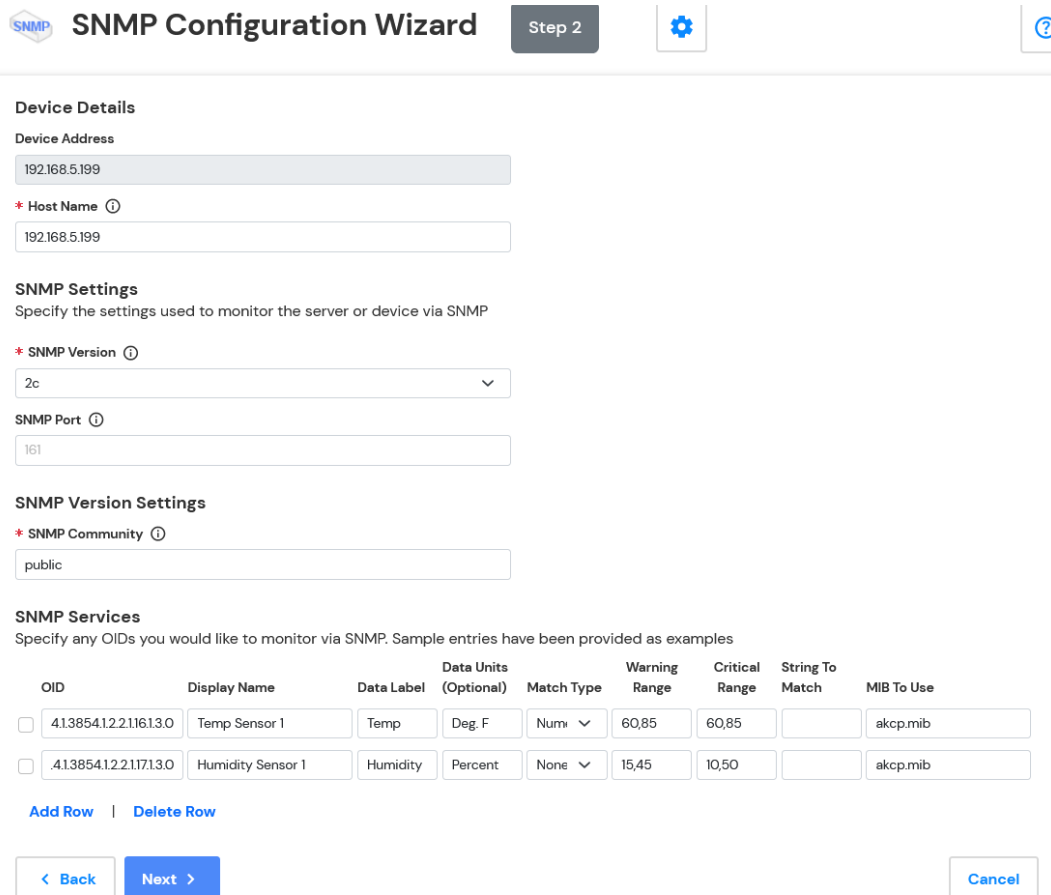
In Step 1 enter the address for the AKCP sensor in the Device Address box and click Next.

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The screenshot shows the 'SNMP Configuration Wizard' at 'Step 1'. The title is 'SNMP Configuration Wizard' with a 'Step 1' indicator. There are three icons: a gear, a question mark, and a star. The main content area is titled 'SNMP Information' and contains a field for '* Device Address' with the value '192.168.5.199'. Below the field are 'Next >' and 'Cancel' buttons.

In Step 2 you are required to enter a **SNMP Community** string (it is not suggested to use the default of "public") and also the **SNMP Version**. For this example we used version 2.



The screenshot shows the 'SNMP Configuration Wizard' at 'Step 2'. The title is 'SNMP Configuration Wizard' with a 'Step 2' indicator. There are two icons: a gear and a question mark. The form is divided into several sections:

- Device Details**: Fields for 'Device Address' (192.168.5.199) and '* Host Name' (192.168.5.199).
- SNMP Settings**: A dropdown for '* SNMP Version' (2c) and a field for 'SNMP Port' (161).
- SNMP Version Settings**: A field for '* SNMP Community' (public).
- SNMP Services**: A table for specifying OIDs to monitor.

| OID | Display Name | Data Label | Data Units (Optional) | Match Type | Warning Range | Critical Range | String To Match | MIB To Use |
|---|-------------------|------------|-----------------------|------------|---------------|----------------|-----------------|------------|
| <input type="checkbox"/> 4.13854.1.2.2.116.13.0 | Temp Sensor 1 | Temp | Deg. F | Num | 60,85 | 60,85 | | akcp.mib |
| <input type="checkbox"/> .413854.1.2.2.117.13.0 | Humidity Sensor 1 | Humidity | Percent | None | 15,45 | 10,50 | | akcp.mib |

Below the table are 'Add Row' and 'Delete Row' links. At the bottom of the form are '< Back', 'Next >', and 'Cancel' buttons.

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Finally, you will need to enter information in to the SNMP Service section. Create a row for each sensor. For example the SNMP OID for the temperature sensor on RJ45#1 is:

`1.3.6.1.4.1.3854.1.2.2.1.16.1.3.0`

The SNMP OID for the humidity sensor on RJ45#1 is:

`1.3.6.1.4.1.3854.1.2.2.1.17.1.3.0`

If you added an additional sensor in the second port (#2) their OID would be very similar to the temperature and humidity sensors. You will have to change the 0 (zero) at the end of the OID to 1 (one). These sensors would be added to the SNMP service section as:

`1.3.6.1.4.1.3854.1.2.2.1.16.1.3.1` and `1.3.6.1.4.1.3854.1.2.2.1.17.1.3.1`

Continue to fill in the remaining fields in the SNMP Service section. It is important to note the warning and critical values in this example are set up as ranges. A critical alert occurs when the temperature is outside of the range 60-85 degrees. Finally, select the check boxes next to the temperature sensor and humidity sensor OIDs and click Next.

Click Next and then complete the wizard by choosing the required options in Step 3 - Step 5. To finish up, click on **Finish** in the final step of the wizard. This will create the new host and services and begin monitoring

Once the wizard applies the configuration, click the **View status details for your AKCP sensor** link to see the new service that was created.

Service Status for this Host

Last updated: 2024-12-04 18:29:13

| Service | Status | Duration | Attempt | Last Check | Status Information |
|-----------------------------------|---|-----------------|---------|---------------------|--------------------------------|
| Humidity Sensor 1 | Warning | 10d 15h 40m 29s | 1/5 | 2024-12-04 16:06:38 | SNMP WARNING - Humidity "50" % |
| Temp Sensor 1 | Critical | 13h 21m 1s | 5/5 | 2024-12-04 16:08:45 | SNMP CRITICAL - Temp "78" F |

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This completes configuring Nagios XI to monitor the AKCP sensorProbe2 using **Active** monitoring.

Configuring The Sensor To Send Passive Checks Via SNMP To Nagios XI

Sending Passive Checks to Nagios requires some set up on the AKCP sensorProbe2. To do this we need to log into the AKCP Web interface by entering the IP address in to your browser. The web interface will require you to enter your user account and password.

First you will want to set up your check thresholds on each sensor, and for this example we will set up the Temperature sensor on Port 1. Click on the Sensor tab, then under Environmental select Temperature, and finally select the Temperature sensor on port 1. From this screen enter your threshold information for critical events

Next click on the Traps tab to enter pertinent information for sending SNMP traps to Nagios XI. Enter the IP of your Nagios server for the Destination IP.

Next enter a community string. It is always a good idea to change the default community string from "public" to something else.

Click on the Save button and you are done with the set up required for the AKCP sensor

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The screenshot displays the configuration interface for the AKCP sensorProbe2 v2.0. It features a top navigation bar with 'Traps', 'Mail', and 'Network' tabs. The main content area is titled 'Trap Settings' and is divided into sections for 'Trap 1', 'Trap 2', and 'Resend Warning and Error Traps'. Each section contains fields for 'Send Trap', 'Destination IP', and 'Community', along with 'Save' and 'Reset' buttons. The 'Resend Warning and Error Traps' section includes a 'Resend Interval (secs)' field.

| Trap 1 | |
|--|-------------------|
| Send Trap | On |
| Destination IP | 192.168.4.114 |
| Community | nagiosprivate |
| Send Keep Alive Trap | Off |
| Keep Alive Trap Resend Interval (mins) | 3600 2 day 12 hrs |
| Save Reset | |

| Trap 2 | |
|----------------|---------------|
| Send Trap | On |
| Destination IP | 192.168.4.127 |
| Community | nagiosprivate |
| Save Reset | |

| | |
|--------------------------------|--------------------|
| Resend Warning and Error Traps | On |
| Resend Interval (secs) | 3600 1 hrs, 0 secs |
| Save Reset | |

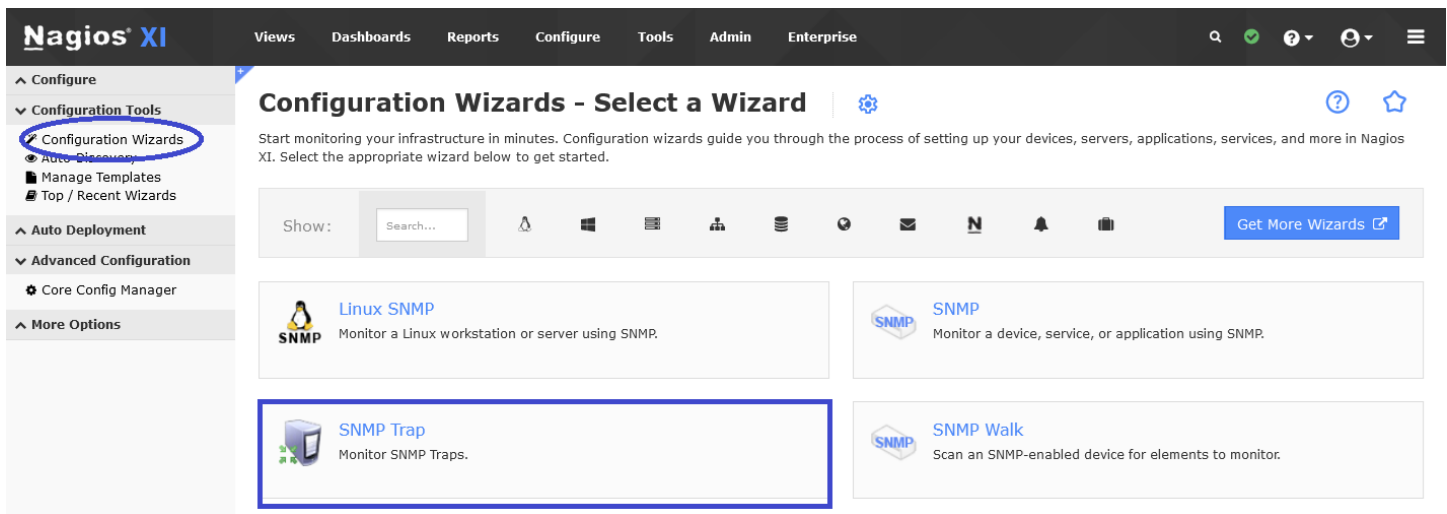
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Configuring Nagios XI To Receive Passive Checks

Once you have your Nagios server set up to receive SNMP Traps as outlined in the prerequisite section, you will be able to set up Nagios XI to receive passive checks from the AKCP sensorProbe2.

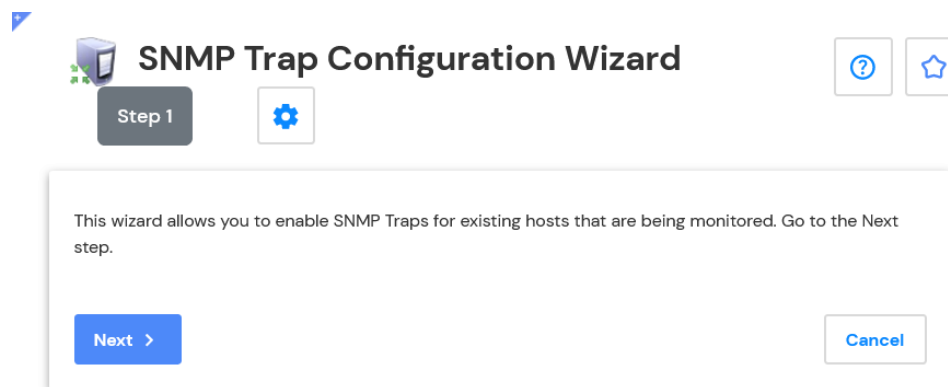
To begin using the SNMP Trap wizard navigate via the top menu bar to **Configure > Run a configuring wizard** and select the **SNMP Trap** wizard. In the following screenshot you can see how the search field allows you to quickly find a wizard.

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The screenshot shows the Nagios XI interface. The top navigation bar includes 'Views', 'Dashboards', 'Reports', 'Configure', 'Tools', 'Admin', and 'Enterprise'. The left sidebar has a 'Configuration Tools' section with 'Configuration Wizards' circled in blue. The main content area is titled 'Configuration Wizards - Select a Wizard'. Below the title is a search bar and a 'Get More Wizards' button. Four wizard cards are displayed: 'Linux SNMP', 'SNMP', 'SNMP Trap' (highlighted with a blue border), and 'SNMP Walk'.

In Step 1 there are no options, click Next.



The screenshot shows the 'SNMP Trap Configuration Wizard' at Step 1. The wizard title is 'SNMP Trap Configuration Wizard' and the step is 'Step 1'. The text says: 'This wizard allows you to enable SNMP Traps for existing hosts that are being monitored. Go to the Next step.' There are 'Next >' and 'Cancel' buttons.

In Step 2 select the host you wish to enable SNMP traps for and click Next.

Click Next and then complete the wizard by choosing the required options in Step 3 - Step 5. To finish up, click on Finish in the final step of the wizard. This will create the new host and services and begin monitoring.

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SNMP Trap Configuration Wizard Step 2

SNMP Trap Details

Select the hosts you would like to enable SNMP Traps for

- Host Name
- 10.25.200.68
- 192.168.5.199
- 192.168.157.129
- 192.168.157.131
- 192.168.157.133
- BPI
- exchange.nagios.org
- jdm-ubuntu24
- localhost
- www.nagios.com

< Back Next > Cancel

Once the wizard applies the configuration, click the **View status details for your AKCP sensor** link to see the new service that was created.

Service Status for this Host

Last updated: 2024-12-04 18:29:13

| Service | Status | Duration | Attempt | Last Check | Status Information |
|-------------------|----------|-----------------|-----------|---------------------|-------------------------------|
| Humidity Sensor 1 | Warning | 10d 15h 40m 29s | 1/5 | 2024-12-04 16:06:38 | SNMP WARNING - Humidity "50%" |
| SNMP Traps | Ok | N/A | 18h 5m 3s | | |
| Temp Sensor 1 | Critical | 13h 21m 1s | 5/5 | 2024-12-04 16:08:45 | SNMP CRITICAL - Temp "78" F |

This completes configuring Nagios XI to monitor the AKCP sensorProbe2 using Passive monitoring.

Troubleshooting

If for some reason you don't see SNMP traps changing the status of your service check in Nagios XI, check your **Unconfigured Objects** page (accessed via **Admin > Monitoring Config > Unconfigured Objects**).

Also, reviewing the logs created by SNMPTT can help you troubleshoot the issue as well.

```
tail /var/log/snmptt/snmptt.log
```

```
tail /var/log/snmptt/snmpttunknown.log
```

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```
tail /var/log/messages
```

More Information

[Using Configuration Wizards](#)

Finishing Up

This completes the documentation on configuring Nagios XI for monitoring the Dual Temperature/Humidity Sensor on AKCP sensorProbe2 device via SNMP (active monitoring) and SNMP Traps (passive monitoring).

If you have additional questions or other support related questions, please visit us at our Nagios Support Forums or Knowledgebase:

[Visit Nagios Support Forum](#)

[Visit Nagios Knowledgebase](#)