

Claros Mobile Sensor Management
Getting Started Guide



Be Right™



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1. Introduction to Claros Mobile Sensor Management

Hach Claros Mobile Sensor Management (MSM) is a web-based software that gives you access to your registered controllers, sensors and photometers via a standard internet browser. The device status shows information like measurement values, device performance, and upcoming maintenance for specific analytical devices. Interactive and easy step-by-step guidance supports you with maintenance tasks. Additionally, you can integrate spectrophotometers (DR3900 or DR6000) into the MSM system, which enables easy and convenient verification and calibration of the analytical instrumentation.

Use this guide to get started with your Claros Mobile Sensor Management.

If you do not have a Claros account, and you are interested in learning more, please visit:

<https://www.hach.com/claros>

1.1 Technical Requirements for Claros Mobile Sensor Management

iOS

- Requires iOS phone or tablet (iOS 9.3.3 or higher)
- iPhone 5s or higher

Android

- Android phone or tablet with Android 4.0 or higher
- Google Chrome for Android

Compatibility

- Any mobile device with a supported web browser

Web Browsers

- Current and previous releases of Google Chrome, Safari®, and Microsoft® Edge™ desktop browsers

2. Getting Started

2.1 Login

A Hach representative will send the administrator an email with a link to **ACTIVATE YOUR ACCOUNT**. Click the link, then follow the instructions to set up your user account.

Note: Do not bookmark the link from the “Activate your account”-email. This link is **ONLY** to activate your account and will expire in 24 hours.

YOU MUST activate your account within 24 hours. If the link expires, you will have to contact Hach Technical Support to resend the invite.

Usernames have restrictions due to privacy and security rules. For example, it can be easy to guess a username if your name is used (i.e., jsmith@yourtown.com). Do not use your first name, last name, or email address as your username. Usernames must be 6 characters or more.

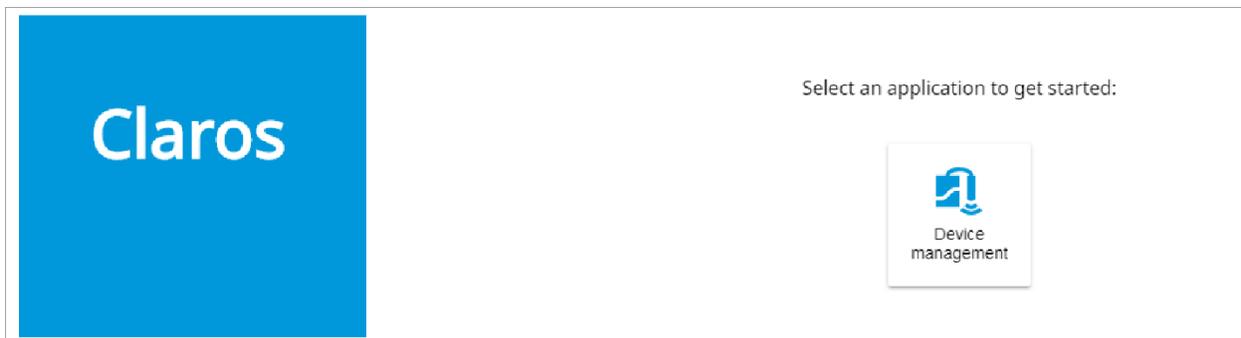
Here are some suggestions:

- Name with vowels removed - scctdrnr
- Initials with a favorite number – spd3637

After setting up the first username/account use the following links to log into Claros:

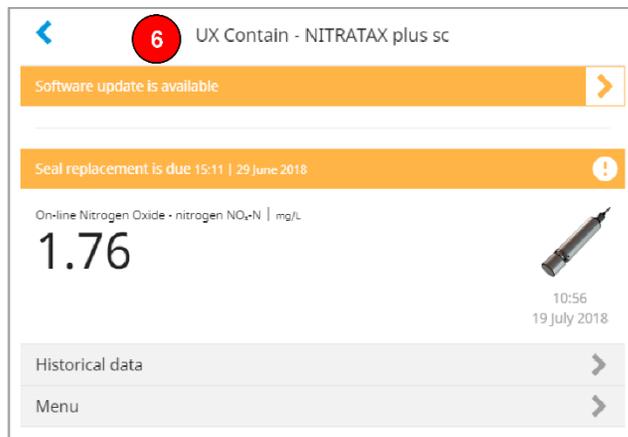
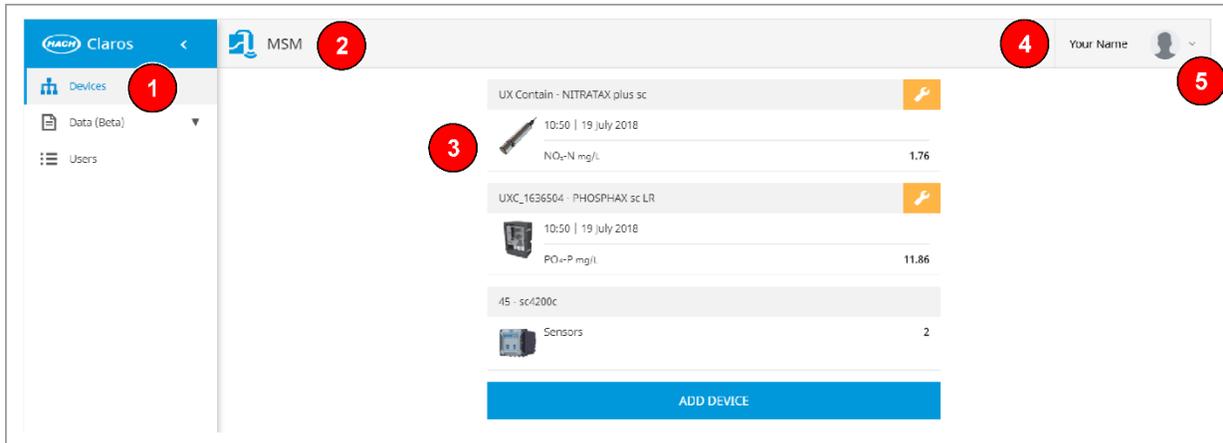
- North America: <https://us.fsn.hach.com>
- Europe: <https://eu.fsn.hach.com>

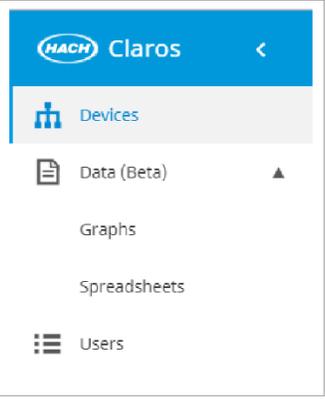
After logging in, select your application type from the Claros landing page. For the MSM application type, select “Device Management”.

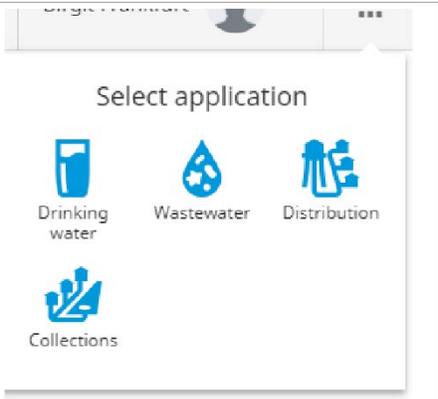


2.2 Toolbar and Navigation

The image that follows shows the basic overview and navigation of the MSM application.



<p>1</p>	<p>Click the chevron next to the application name “Claros” to show the whole menu:</p> 
<p>2</p>	<p>Name of selected application: Mobile Sensor Management (MSM)</p>
<p>3</p>	<p>Device list</p>

4	Shows the current user. Click to view/edit profile, get help, or log out of your account.
5	<p>Click to switch application if other Claros modules are available (e.g., Collect):</p> 
6	Device details page

2.3 Add users

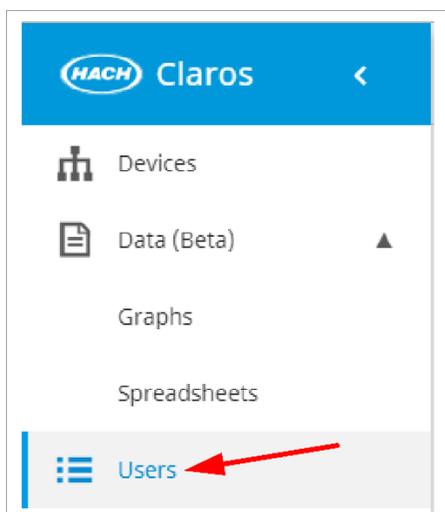
An administrator can add more users to the Claros system.

1. Click the chevron next to the application name “Claros” and go to Users.
2. Click + ADD and enter the user information. Check the Roles to setup what the user can do.

Note: The role description that is currently shown in your software application does not reflect the MSM roles.

MSM roles:

- **Administrator** – Can manage (add/edit/delete) users and hardware. Is authorized to start software updates. Can manage and maintain sensors. Can setup graphs and spreadsheets for data values reviews.
 - **Basic** – Can manage and maintain sensors. Can setup graphs and spreadsheets for data value reviews.
3. Click SAVE. The new user will receive an email ***within 24 hours to setup the account.***



MSM Your Name

4 users + ADD Search

Name Status

Add user

First name

Last name

Email address

Role

Administrator

Basic

- Collect and review data.
- Manage users.

CANCEL

The administrator can see the status of user invitations in the right column:

Name	Status
User Example 1	ACTIVE
John Doe	PENDING
User Example 2	ACTIVE
User Example 3	ACTIVE

ACTIVE: User has setup the account.

PENDING: Email has been sent and the user can activate the account by following the link in the email.

INVITE EXPIRED: User did not activate account within 24 hours. Click the specific user to resend the invite.

 John Doe

User invitation is expired 

First name

Last name

Email address

Username -unassigned

Account active

[DELETE USER](#)

Role

Administrator

Basic

- Collect and review data.
- Manage users.

Resend invite

Resend invite email?



FAQ:

How many user accounts can I setup?

You can have as many user accounts as you want. It is up to the administrator to decide whom to add as a user.

What do I do if I forget administrator account information?

Just like any other user, the administrator can receive help to recover their username and/or password at the login page. If the administrator is no longer available (e.g., left the company) and you do not have access to their email, please contact Hach Technical Support.

For this reason, we strongly recommend to have at least 2 administrator accounts.

What happens when a user account gets locked?

An user account will be locked due to 5 incorrect login attempts. When a user account gets locked, all administrators will receive an email and they can reactivate that user account.

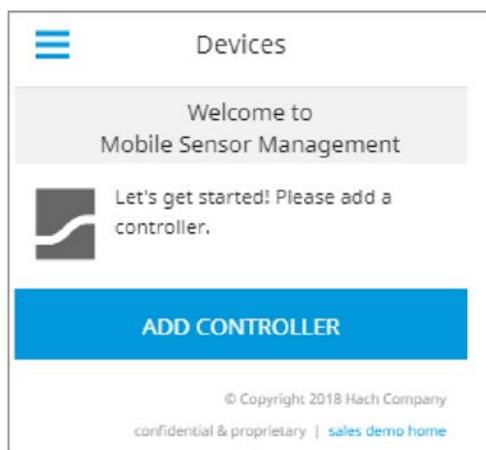
What happens if an user account needs to be removed?

If required, you can deactivate an user account through user management. You cannot delete the user account if the user has entered any data value (so an audit trail of the data value can be maintained). Instead, you can deactivate the user account so they can no longer login.

2.4 Add a controller

Make sure that mA output cards, relay cards, or Profibus cards are already installed in the controller. Refer to the SC1500 and/or SC4200c controller user manual for installation instructions and for connecting the controller to the HACH server.

1. Add your Hach controller with the sensors attached to the system. When all connections are made, supply power to the controller and log into the Claros web application using the URL provided above.
2. Select the Device Management application.
3. On the welcome page, only an administrator can push ADD CONTROLLER.



4. Enter the serial number of the controller. Push CONTINUE to confirm.
5. Wait approximately 30 seconds, then refresh the browser. The controller will be online in the device list.

6. Verify that the correct serial number and image of the controller are shown.
7. Select the controller on the device list to open the controller details page.
8. The sensors and communication cards connected to the controller are shown.

2.5 Add (more) sensors

1. Make sure that the controller is provisioned and connected to the HACH Server.
2. Verify that the controller is online on the device list.
3. Physically connect the sensor to the controller.
4. Wait approximately 30 seconds, then refresh the browser. The sensor is online on the device list and the device details page.
5. Verify that the correct serial number, image and the correct measurement parameters of the sensor are shown.
6. After approximately 30 seconds, the measurement values are updated for all devices.

2.5.1 How to correctly access and leave a sensor menu

When you enter a device menu, e.g., for configuration, calibration or maintenance task, the device will be locked for other users because of security reasons.

1. Go to the device details page of your device.
2. Click on “Menu”. A pop-up shows to inform you that the menu will be locked for other users while you are in the menu.
3. Click CONTINUE.
4. If necessary, refer to the sensor manual and the MSM addendum for more detailed information about the configuration of your device.
5. Make sure to use the  or  when leaving the menu. This way you will return to the device details page and the device menu is no longer locked for other users.

Note: If you leave in a different way, the menu will remain locked for other users!

2.6 Add a photometer

You can add HACH laboratory devices (DR3900 and DR6000 spectrophotometers) to the MSM system to quickly verify and adjust process instrument measurements using laboratory reference values.

1. Verify that the photometer is prepared for Claros integration. On the photometer you should see the “Process Jobs” button in the toolbar on the right-hand side of the screen. If not, please contact Hach Technical Support.
2. Set the photometer to ON.
3. Connect the photometer to the HACH Server. Refer to the photometer user manual.
4. In the Claros web application push Device management to start MSM.
5. Push ADD DEVICE in the device list to add the photometer.
6. Enter the serial number of the photometer. Push Continue to confirm.
7. Wait approximately 30 seconds, then refresh the browser. The photometer will be Online on the device list.
8. Verify that the correct serial number and image of the photometer are shown.

2.6.1 Verification/grab sample

A notification is shown when a verification/grab sample is due. Click on that notification and you will be guided through the verification process.

The job (Measurement values) that will be sent from your measurement device to the DR photometer only shows when

- The photometer is powered on.
- The photometer is connected to Claros before starting the workflow.

Note: As well, the workflow can be started when the photometer is switched off. The job will show when the photometer is powered on. As a pre-requisite, the connection to the Cloud must have been established before.

Refer to “List of notifications” for more information about notifications.

2.7 Remove a device from the system

When removing a device from the system, all historical data will be deleted. For best practice, download your historical data prior to the device removal from the system. Refer to “Historical data” for more information.

If you need to remove a sensor from your system, disconnect the sensor from the controller. The sensor will be shown as inactive in the device list.

If you want to remove a controller or a photometer from your system, disconnect power to the controller or photometer. The controller will be shown as inactive after approximately 10 minutes in the device list. The photometer will be shown immediately as inactive in the device list.

1. Go to the device details page and click on “Remove device”.
Note: “Remove device” only shows when the device is shown as inactive in the device list.
2. Click REMOVE to fully remove the device from the system.
3. The “Done” page will confirm when the device was successfully removed.

3. Historical data

Download the historical data of your device from the device details page.

1. Click on your device to enter the device details page.
2. Click on “Historical data” and select the data logs you would like to download.
3. Push START. The preparation of the files can take up to 10 minutes.
4. When ready, click on the download links. The files will be saved to your download folder.

4. List of notifications

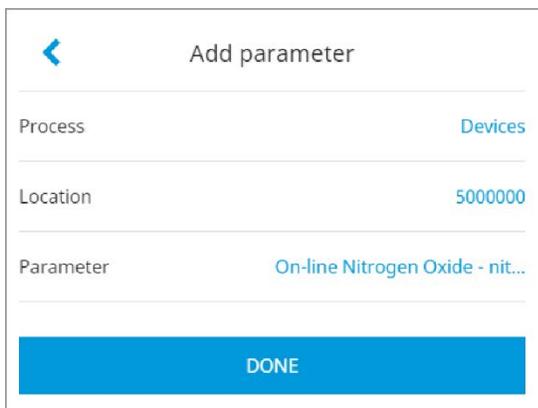
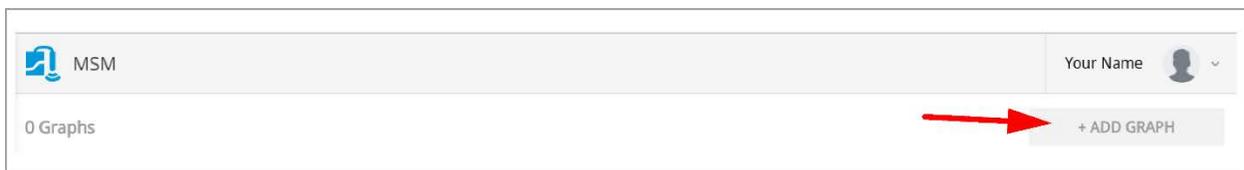
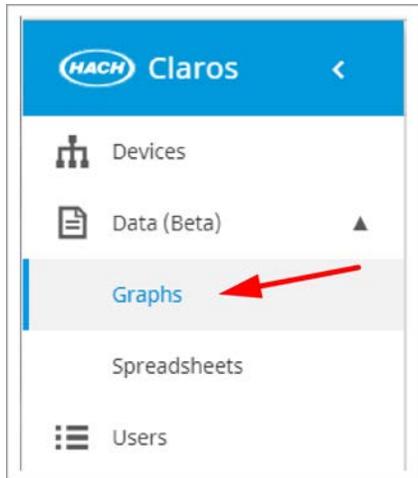
Notifications are shown to inform about important states in a process, the device status or they will inform you about upcoming or pending maintenance tasks.

	Error message: Shows an urgent alert that needs immediate attention.	<ol style="list-style-type: none"> 1. Push on the notification to show the error message. 2. If available, push to open a workflow.
	Shows an error message that needs immediate attention.	Refer to the device user manual for troubleshooting information.
	Warning message: Shows an alert to inform about upcoming maintenance.	<ol style="list-style-type: none"> 1. Push on the notification to show the warning message. 2. If available, push to open a workflow.
	Shows a warning message.	Refer to the device user manual for troubleshooting information.
	Notification shows a pending status, e.g. remaining waiting time or that another user is currently working on a maintenance workflow.	Push on the notification to show the notification.
	Shows that the device is in waiting status.	Wait until the automatic action is done or the user has completed the task.
	Shows that lab values are available.	Push the icon to complete the workflow.
	Opens a workflow to do a maintenance task or guides you to the next page or step.	<ol style="list-style-type: none"> 1. Push the icon to go to the next step. 2. Follow the workflow to complete a maintenance task.
	Goes back to the previous screen.	<ul style="list-style-type: none"> • Push the icon to go back to the previous screen. • Push the icon a couple of times to return to the device details page and to unlock the device so that other users can access the menu.
	Exits the workflow or maintenance task and goes back to the device list.	Push the icon to immediately return to the device list. Then the device is unlocked, and other users can access the device.

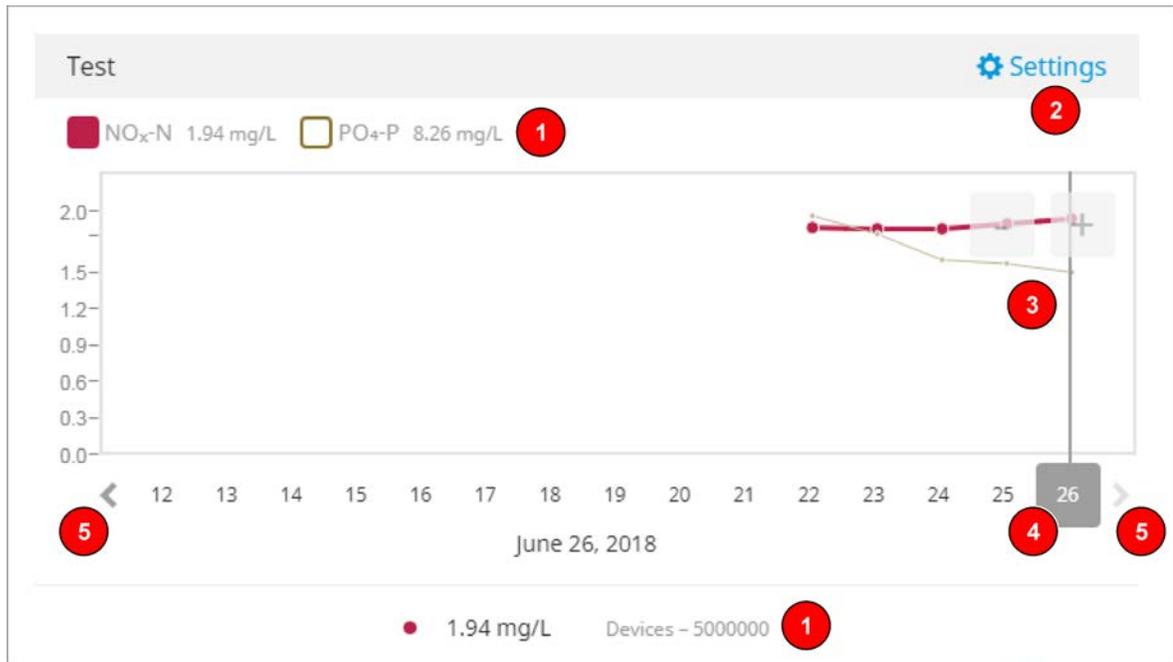
5. Create a graph (Beta-Version*)

The measurement values of the connected sensors can be visualized in Graphs. The created graphs are specific to each user. Therefore, each user only can see the graphs they created. Up to 4 location parameters can be placed on a graph.

(* This feature is in "Beta-Version" and may change until final release.)



1. Navigate to Data>Graphs.
 2. Click + ADD GRAPH.
 3. Enter a name for the graph.
 4. Click + ADD PARAMETER.
 5. Select "Devices" under process.
 6. Then select your sensor under location and the applicable parameter.
- Note:** Process and location must be selected prior to parameter selection:



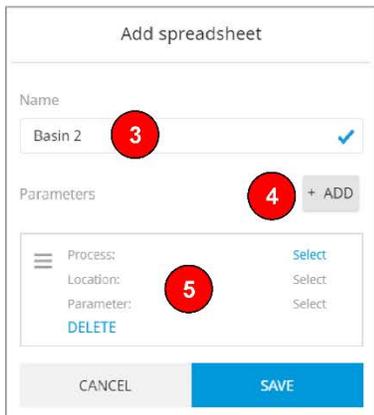
Controls for a graph

1	Check to set the primary line. Primary line Location—Selected process is shown at bottom of the graph.
2	Settings—Change Location/Parameters shown on graph or delete graph.
3	+ zoom in (monthly to daily to hourly to minutely) - zoom out (minutely to hourly to daily to monthly)
4	Click on a date to see the current value. Zoom in will zoom to selected date.
5	Scroll back: < Scroll forward: >

6. Create a Spreadsheet (Beta-Version*)

Spreadsheets give you a tabular view of your data values and allows you to browse your data. Spreadsheets are specific to each user.

(* This feature is in “Beta-Version” and may change until final release.)



1	Navigate to Data>Spreadsheets.
2	Click + ADD.
3	Enter the name for the tabular data.
4	Click + ADD to add the specific parameters for the tabular data.
5	Select "Devices" under process. Then select your sensor under location and the applicable parameter. Note: Process and Location must be selected prior to parameter selection.

	A	B	C
1		Rainfall in Rainfall Misc Rainfall	Flow mgd Influent Influent Flow
2	3/01/2018	0.62	4.55
3	3/02/2018	0.01	3.75
4	3/03/2018	0.12	3.74
5	3/04/2018	1.44	7.20
6	3/05/2018	0.37	5.44
7	3/06/2018	0.01	2.77
8	3/07/2018	0.01	2.40
9	3/08/2018	0.25	4.05
10	3/09/2018	0.10	3.68
11	3/10/2018	0.01	3.51

1	Use the < Previous and Next > buttons to scroll between months.
2	Buttons allow you to zoom in or out on the data: <ul style="list-style-type: none"> • View Year will display monthly averages of the data for a calendar year • View Month will display daily values/averages by day • View Day will show daily values/averages by hour • View Hour will show values by minute
3	Settings allows you to edit the spreadsheet (i.e. change the name, rearrange columns, add and delete devices or parameters) from the form.
4	Click the bar to expand or contract the Details panel. This allows you to view audit history, see notes, and see detail values (i.e. the values making up the average) for the currently selected value.

7. Troubleshooting

Problem	Solution
No device shows in the device list.	Refresh the browser.
	Make sure that the controller is on and connected to the HACH Server.
	Set the controller to off and then on again.
	Contact Hach Technical Support.
The sensor connects to the controller. The controller shows "online" in the device list, but the sensor does not show in the device list.	Refresh the browser.
	Make sure that the sensor connection to the controller is correct, and the controller is on.
	Disconnect the sensor from the controller and then connect the sensor again.
The sensor connects to the controller, but the sensor shows the message 'Inactive since'.	Make sure that the sensor connection to the controller is correct.
	Disconnect the sensor and connect the sensor again to controller.

Error or warnings are shown on the device list or device details page of the sensor.	Complete the guided maintenance workflow.
	Refer to the sensor user manual for more information.



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