

## **AXIS Sensor Metrics Dashboard**

**User manual**

# AXIS Sensor Metrics Dashboard

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# AXIS Sensor Metrics Dashboard

## About

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### About

AXIS Sensor Metrics Dashboard allows you to collect and store data from sensors connected to your device in a structured manner.

A list of supported devices can be seen on the *product page on axis.com*.

### Supported sensors

A list of the currently supported sensors:

- Axis built-in accelerometer.
- Satellite navigation systems using RS232 serial port mode.
- All single register data holder Modbus devices over IP or RS485 serial port mode.

#### Note

You have to choose which serial port mode to use.

The modbus data sources read from only one register. To access more registers, add more data sources.

# AXIS Sensor Metrics Dashboard

## Get started

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### Get started

#### Download and install the application

To install the application, go to the *AXIS Sensor Metric Dashboard product page* and download the latest version. Log in to the camera you want to install the application on and follow these steps:

1. Go to **Apps**.
2. Click **Add app**.
3. Select the file in your downloads folder.
4. Click **Install**.
5. Turn on the app to activate the application.

**Note**

To upgrade the application, just install the new version. There is no need to uninstall the previous version.

# AXIS Sensor Metrics Dashboard

## Configure the application

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### Configure the application

#### Add data source to AXIS Sensor Metrics Dashboard

1. Log in to the device interface.
2. Go to **Apps**.
3. Go to **AXIS Sensor Metrics Dashboard** and click **Open**.
4. Go to **Data sources**.
5. Click **+ Add data source**.
6. Type the name of the source.
7. Select the type in the drop-down menu.
8. Configure the type specific settings.

#### Download data files

You can download collected sensor metrics data to a file for expanded usability in applications such as Microsoft® Excel. The file format is CSV.

1. Go to **Data files**.
2. Select the file you'd like to download.
3. Click the download icon next to the filename.

Download could take a while depending on the file size.

#### Note

The GPS data columns for longitude and latitude are represented in radians.

#### Remove data source

You might want to remove sensor metrics data sources that you no longer require. Data from that source will no longer be collected, but it doesn't affect stored data from that source.

1. Go to **Sources**.
2. Click the menu button on the source you'd like to remove.
3. Select **Remove** in the drop-down menu.
4. Click **Yes** to confirm.

# AXIS Sensor Metrics Dashboard

## Connect sensors

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### Connect sensors

You can connect sensors to the main unit using either the network or the serial port.

#### Modbus over IP:

Connect the sensor to the same Wi-Fi network as the camera. Be sure to assign an IP address that is within the same subnet as the camera.

#### Modbus over Serial:

Connect a Modbus serial (RS485) device to the camera serial port. A description of the pin configuration of the F9114/F91111 serial port can be found *in the F9114 user manual*.

#### GPS:

Connect a GPS (RS232) to the correct pins of the serial port of the camera. A description of the pin configuration of the F9114/F91111 serial port can be found *in the F9114 user manual*.

# AXIS Sensor Metrics Dashboard

## Add a serial Modbus data source

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### Add a serial Modbus data source

In this example use case we are going to add a Modbus data source over a serial connection.

1. Click **+ Add Data** source.
2. Type the name of the source.
3. Select **Modbus over serial** in the **Type** drop-down menu.
4. Click the link **Current serial port configuration on main unit** to configure your serial port to match the requirements of your modbus device.
5. Back in the application, configure the **Device ID**. Consult the modbus vendor manual if necessary.
6. Configure which **Register** to read from. Typically this can also be found in the vendor manual.
7. Specify **Scaling** and **Offset**. This can be used to do a measurement unit conversion of the sensor data.
8. Click **Test read** to see what sensor value is being read. It's a quick way to confirm that the device is configured and wired correctly.
9. Set a **Sample time** and select a unit of time.
10. Set a **Retention time**. Retention time specifies for how long the created datafiles will remain on the SD card. After the specified time they will be automatically deleted.
11. Click **Add**.
12. Click **Start** to start reading from the data source.

#### Note

In the section **Write to Modbus device**, it is possible to change the value of certain registers. That could be for example changing the baud rate of the modbus sensor. Another use case is if you have multiple identical devices, you need to assign different Device IDs to them to be able to communicate with them in parallel.

# AXIS Sensor Metrics Dashboard

## Add a GPS data source

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### Add a GPS data source

In this example use case we are going to add a GPS device connected over the RS232 serial connection.

1. Click **+ Add Data source**.
2. Type the name of the source.
3. Select **Satellite navigation (GPS)** in the **Type** drop-down menu.
4. Click the link **Current serial port configuration on main unit** to configure the serial port of the camera to match the requirements of your RS232 GPS device. Consult the GPS vendor manual if necessary.
5. Back in the application, set a **Retention time**. Retention time specifies for how long the created datafiles will remain on the SD card. After the specified time they will be automatically deleted.
6. Click **Add**.
7. Click **Start** to start reading from the data source.

#### Activate logging of events (Optional):

1. Go to the data source configuration.
2. To enable the speed event functionality, toggle **Speed event**.
3. Select an appropriate threshold value.
4. To use the event as a condition in a rule, perform steps 7-14 of .

#### Note

GPS data sources only work when the serial port mode is set to RS232. Use of GPS connected with RS485 is not supported.



# AXIS Sensor Metrics Dashboard

## Use sensor data in event management

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### Use sensor data in event management

In this example use case we will flash a LED based on data from a device's accelerometer.

Go to the app in the device web interface.

1. Go to **Sources**.
2. Go to **Accelerometer** and click on the ... menu.
3. Select **Edit** in the drop down menu.
4. Enable **Shock** event.
5. Set the **Shock** trigger level to a threshold value that will trigger an event when exceeded.
6. Click **Save**.
7. Go to **System > Events**.
8. Click on **+Add a rule**.
9. Type a name for the rule.
10. Under **Condition**, select **AXIS Sensor Metrics Dashboard: Shock** in the drop-down menu.
11. Under **Action**, Select **Flash status LED**.
12. Select color.
13. Select duration of the flash.
14. Click **Save**.

