



# **General Settings Profile Definition for Rest API**

**Monnit Corporation**

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## Overview

Monnit's® wireless sensors monitor changing conditions in physical environments. A variety of settings are customizable using the iMonnit® Rest API. All values are stored on the iMonnit database. However, a number of actions or “endpoints” are adjustable through the API/UI.

All sensor profiles have different numerical application identifiers (ApplicationID). This list of application identifiers can be found by calling the “GetApplicationID” endpoint. It can be found under the Lookup Section of the API page.

There are two main categories of sensor profiles; measurement sensors and trigger sensors. Values for sensors can be individually adjusted, but understanding the Base API Url makes it easier to configure multiple sensors at one time. Available fields to configure will depend on the category of the temperature sensor(s).

It is recommended that developers have a general understanding of Monnit sensor's Standard and Aware States to implement configuration changes to the iMonnit Rest API. Sensor profiles report in two states:

The **Standard State** provides the sensor with the longest available battery life while performing its required activity.

The **Aware State** allows the sensor to utilize more power if needed when certain conditions are met. These conditions will typically coincide with the application the sensor is being used to monitor.

## Base API Url Explained

The Monnit Rest API End-Point commands may be accessed by going to the following link: <https://www.imonnit.com/api>.

The base API Url should follow the proceeding format:

**Protocol://Host/ResponseType/Method/AuthorizationToken?Parameters**

The online API only supports https for 256 bit ssl encryption or http for non-encrypted communication and is hosted by iMonnit. Response type must be xml or json. The method will be the method to call and the AuthorizationToken identifies you to the server.

## Authentication

An Authorization Token is required for the base url. To get you token, find “GetAuthToken” in the Authentication Section. Authorization Tokens are created using your iMonnit username and password. Entering these in the fields under **Get Auth Token** and

selecting the button will return the token. The Logon Result will return the message: "Success."  
This will remain active until your iMonnit password is changed.

Check your authorization token by selecting the "Logon" option and replacing the authorization token in the example with your token. You may also choose to update or reset your password in this section.

## Endpoints

### Sensor Reset Defaults Endpoint

The sensor reset default endpoint will both remove your sensor from the network and set it back to factory defaults. This could be useful if the sensor is damaged or not behaving properly. It is recommended that you verify there no other contributing factors affecting the sensor's performance before clearing its data back to factory settings.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor

**Sensor ID:** This will be the number attached to your sensor. Every sensor has a different id. You can find it attached to the sensor in iMonnit, or you can check the back label for this information. Don't confuse it with the security code, which is a made up of letters. The label will look like this:



### Example

Sensor ID: 123456

Authentication Token: ABCDEFG

Full URL from example:

<https://www.imonnit.com/xml/SensorResetDefaults/ABCDEFGH=?sensorID=123456>

## Remove Sensor Endpoint

This API endpoint removes the sensor object from the network. This is different from the sensor reset default endpoint in that you're just removing the sensor. The settings for the sensor object are not reset back to factory defaults.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor

### Example

Sensor ID: 123456

Authentication Token: ABCDEFG

Full URL from example:

<https://www.imonnit.com/xml/RemoveSensor/ABCDEFGF=?sensorID=123456>

## Assign Sensor Endpoint

This assigns your sensor to a selected gateway network. This is an alternate way of registering sensors to your account outside of iMonnit and the offline local interface.

Parameter Name	Parameter Type	Parameter Description
NetworkID:	Integer	Identifier of network on your account.
sensorID:	Integer	Identifier of Sensor to move.
CheckDigit:	String	Check digit to prevent unauthorized movement of sensors.

### Example

Network ID: 789098

Sensor ID: 123456

Check Digit: AAAAA

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/AssignSensor/ABCDEFGF=?networkID=789098&sensorID=123456&checkDigit=AAAAA>

## Sensor Get Endpoint

This will return current information on the sensor including its battery level, present reading, and check digit number.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor

### Example

Sensor ID: 123456

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/SensorGet/ABCDEFGH=?sensorID=123456>

## Sensor Get Extended Endpoint

Returns current sensor properties with a more extended selection than the “SensorGet” endpoint. Extended properties available here include the report interval and threshold information.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor

### Example

Sensor ID: 123456

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/SensorGetExtended/ABCDEFGH=?sensorID=123456>

## Sensor Get Calibration Endpoint

This endpoint will return the calibration settings for the sensor. These parameters are set in the “SensorSetCalibration” endpoint.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor

### Example

Sensor ID: 123456

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/SensorGetCalibration/ABCDEFGG=?sensorID=123456>

### Sensor Application ID Get Endpoint

Returns the application identifier of the sensor. This is the type of sensor your device is associated with. When input in an API url, it will filter out all the sensors attached to that application type.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
CheckDigit:	String (optional)	Check Digit required if sensor not already on your account.

#### Example

Sensor ID: 123456

Check Digit: AAAAA

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/SensorApplicationID/ABCDEFGG=?sensorID=123456&checkdigit=AAAAA>

### Sensor Name Get Endpoint

Returns the name of the sensor. This is a unique title given to this particular sensor for easy identification. When input into an API url, this will filter sensors down to those containing this case sensitive name.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
CheckDigit:	String (optional)	Check Digit required if sensor is not already on your account.

#### Example

Sensor ID: 123456

Check Digit: AAAAA

Authentication Token: ABCDEFG

Full URL example:



<https://www.imonnit.com/xml/SensorNameGet/ABCDEFGH=?sensorID=123456&checkdigit=AAA>  
[AA](#)

## Sensor List Endpoint

Returns the list of sensors that belongs to user.

Parameter Name	Parameter Type	Parameter Description
name:	String (optional)	Filters list to sensors with names containing the string (case-insensitive)
networkID:	Integer (optional)	Filters list to sensors that belong to this network id.
ApplicationID:	Integer (optional)	Filters list to sensors that are this application type.
Status:	Integer (optional)	Filters list to sensors that match this status

### Example

Name: HIJ

Network ID: KLMN

Application ID: OPQRS

Status: 1

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/SensorList/ABCDEFGH=?name=HIJ&network=KLMN&applicationID=OPQRS&status=1>

## Sensor List Extended Endpoint

Returns the list of sensors that belongs to user.

Parameter Name	Parameter Type	Parameter Description
Name:	String (optional)	Filters list to sensors with names containing this string.
networkID:	Integer (optional)	Filters list to sensors that belong to this network id.
ApplicationID:	Integer (optional)	Filters list to sensors that are this application type.
Status:	Integer (optional)	Filters list to sensors that match this status.

### Example

Name: HIJ  
Network ID: KLMN  
Application ID: OPQRS  
Status: 1  
Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/SensorList/ABCDEFG=?name=HIJ&network=KLMN&applicationID=OPQRS&status=1>

### Network ID From Sensor Get Endpoint

Returns the network that the sensor belongs to.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
CheckDigit:	String (optional)	Check Digit required if sensor not already on your account.

### Example

Sensor ID: 123456  
Check Digit: AAAAA  
Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/NetworkID/ABCDEFG=?sensorID=123456&checkdigit=AAAAA>

### Sensor Set Name Endpoint

Sets the display name of the sensor.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
sensorName:	String	Name to give the sensor.

### Example

Sensor ID: 123456  
Sensor Name: ZYXWVUT  
Authentication Token: ABCDEFG

Full URL from example:

<https://www.imonnit.com/xml/SensorSetName/ABCDEFGH=?sensorID=123456&sensorname=ZYXWVUT>

### Sensor Set Heartbeat Endpoint

Sets the heartbeat intervals of the sensor. Heartbeats cannot be set to lower than ten minutes.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
reportInterval:	Numeric	Standard state heart beat (Minimum 10 minutes)
activeStateInterval:	Numeric	Aware state heart beat (Minimum 10 minutes. Must be equal to or less than reportInterval).

#### Example

Sensor ID: 123456

Report Interval: 10

Active State Interval: 11

Authentication Token: ABCDEFG

Full URL from example:

<https://www.imonnit.com/xml/SensorSetHeartbeat/ABCDEFGH=?sensorID=123456&reportinterval=10&activestateinterval=11>

### Sensor Set Alerts Endpoint

Sets alerts active/inactive for network containing sensor

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
Active:	Boolean	State to set the notifications. [True   False]

#### Example

Sensor ID: 123456

Active: false

Authentication Token: ABCDEFG

Full URL from example:

<https://www.imonnit.com/xml/SensorSetAlerts/ABCDEFGH=?sensorID=123456&active=false>

## Sensor Attributes Endpoint

Returns the list of attributes that belong to a sensor.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor

### Example

Sensor ID: 123456

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/SensorGetCalibration/ABCDEFGG=?sensorID=123456>

## Sensor Attribute Set Endpoint

Creates/Updates sensor attribute.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
Name:	String	Name of the attribute
Value:	String	Value for the attribute

### Example

Sensor ID: 123456

Name: ZYXWVUT

Value: 1

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/SensorAttributeSet/ABCDEFGG=?sensorID=123456&name=ZYXWVUT&value=1>

## Sensor Attribute Remove Endpoint

Removes an attribute from the assigned sensor.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
Name:	String	Name of the attribute

### Example

Sensor ID: 123456

Name: ZYXWVUT

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/SensorAttributeRemove/ABCDEFG=?sensorID=123456&name=ZYXWVUT>

### Sensor Send Control Command Endpoint

This endpoint will send a control command through iMonnit.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Identifier of sensor to send command to.
RelayIndex:	Integer	Identifier of which relay to use by index. (Relay1 = 0, Relay2 =1)
State:	Integer	Identifier of what the relay should do. (Toggle =3, on = 2, off = 1)
Seconds:	Integer	Identifier of how long after receiving the command the command should initialize.

### Example

Sensor ID: 123456

Relay Index: 1

State: 2

Seconds: 3

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/SensorSendControlCommand/ABCDEFG=?sensorID=123456&relayindex=1&state=2&seconds=3>

### Get Datum Name List Endpoint

Get the datum name by entering the sensor ID in the api url.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor

### Example

Sensor ID: 123456

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/GetDatumNameList/ABCDEFGG=?sensorID=123456>

### Set Datum Name Endpoint

This endpoint will allow you to set the Datum Name. Use the name parameter to assign the desired label.

Parameter Name	Parameter Type	Parameter Description
sensorID:	Integer	Unique identifier of the sensor
Index:	Integer	Unique identifier of the datum
Name:	string	New name for the datum

### Example

Sensor ID: 123456

Index: 1

Name: ZYXWVUT

Authentication Token: ABCDEFG

Full URL example:

<https://www.imonnit.com/xml/SetDatumName/ABCDEFGG=?sensorID=123456&index=1&name=ZYXWVUT>