

MaxAir Technical – Creating Sensor Devices

Sensors are created as control devices; they need to be attached to nodes using a 'node_id' and 'child_id'. The nodes will typically be either 'MySensor', 'GPIOSensor' or 'Dummy'.

Identify the Node_ID and Child_ID

To show the nodes currently available select the Nodes menu item from the Settings/Node and Zone Configuration menu.

The listing shows a number of Sensor nodes and a GPIO Controller Node. For this example, three sensor devices will be attached to the relevant nodes.

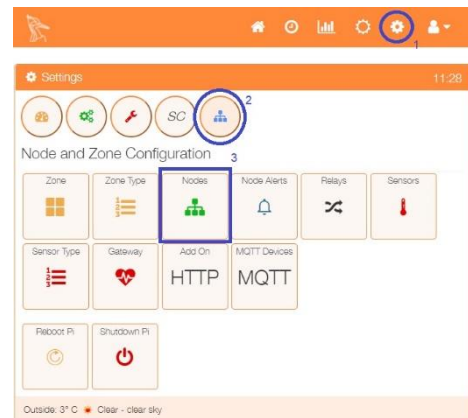
Node Setting

You can Add GPIO, I2C relay board as Node, Wireless Nodes are automatically discovered. Nodes attached to any Zone cannot be deleted until detached from the associated Zone.

Type	Node ID	Max Number of Child IDs	Name	
MySensor	21	1	Temperature Sensor	
MySensor	30	1	Temperature Sensor	
MySensor	23	0	Temperature Sensor	
MySensor	50	0	Kitchen Console	
MySensor	24	0	Temperature Sensor	
MySensor	27	0	Temperature Sensor	
MySensor	25	0	Temperature Sensor	
GPIO	0	0	GPIO Controller	
MySensor	60	0	Boost Console	
MySensor	80	2	Add-On Controller/Sensor	
Tasmota	110	55	Tasmota Controller	
Tasmota	120	50	Tasmota Controller	
Dummy	100	3	Dummy Sensor	
MySensor	70	1	Humidity Sensor	
GPIOSensor	28-f3a49d1964ff	0	Temperature Sensor	

Close

Add Node



For this example, will use three temperature sensors, one for the Central Heating, one for the Hot Water and a third to monitor a bedroom temperature. We will use the sensor attached to Node 21, Child ID 0 for the Central Heating, Node 20, Child ID 0 for the Hot Water and Node 28-f3a49d1964ff, Child ID 0 for Bedroom 1 (Note: this is a 1-wire sensor, connected directly to the controller device.).

Sensor Types

MaxAir is capable of supporting different sensor types, by default Temperature and Humidity sensors are supported. Sensor readings will be displayed and their data stored in the database depending on their type, for instance Temperature Sensor data will be displayed with a degree unit symbol and the value converted to either Centigrade or Fahrenheit, depending on if MaxAir is configured to work in either Centigrade or Fahrenheit.

To show the Sensor Types currently available select the Sensor Types menu item from the Settings/Node and Zone Configuration menu.

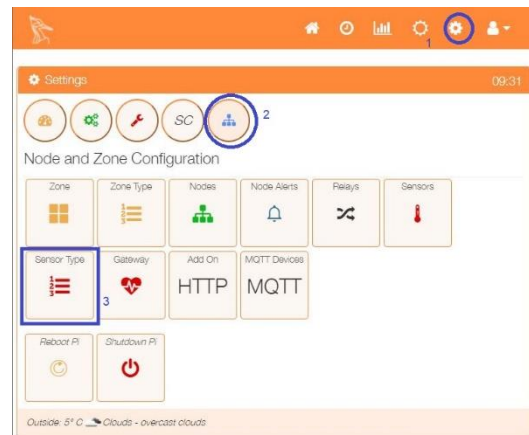
Sensor Type

Temperature, Humidity, etc

Type	Units Character	
Temperature	°	
Humidity	%	
Binary		

Close

Add Type



Sensor Types can be deleted or added. To add new type click on the 'Add Type' button to open the 'Add Type' menu.

Add Type

You can Add New Sensor Types.

Sensor Type Temperature, Humidity, etc

Units Character used to identify the units, eg for temperature - ° followed by deg; for humidity - %

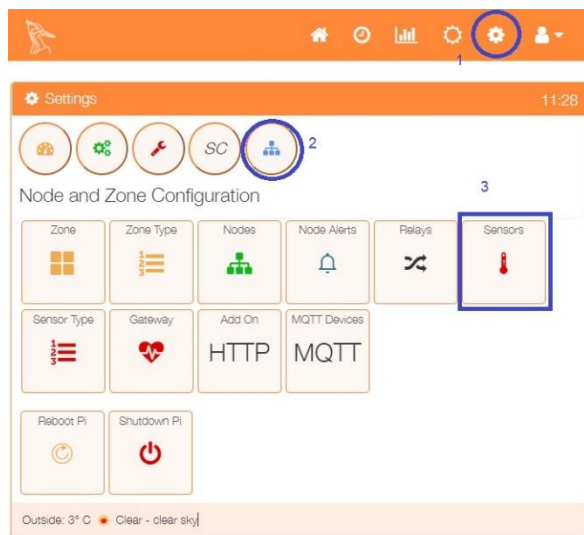
Close

Save

Define a name for the sensor and the character to be used for the units. In some instance to it may be necessary to use a 'special' sequence of characters to display the unit's symbol, for example to display the temperature degree symbol ° enter °

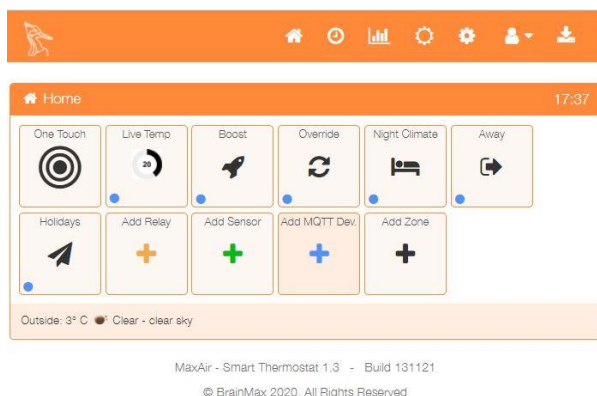
Click on 'Save' to finish.

Adding a New Sensor



Select the Sensors menu item from the Settings/Node and Zone Configuration menu to display a list of any currently configured sensors.

Click on the 'Add Sensor' button to configure the first sensor



An alternative method to go directly to the Add Sensor dialogue, is from the Home screen click on the 'One Touch' button then select the 'Add Sensor' menu item.

Sensor Settings

Edit or Delete the Sensor's Configuration.
Sensors Allocated to a Zone Cannot be Deleted.
Last Seen Date/Time is shown with Sensor Name.

Sensor Name	Node ID	Sensor Child ID	Correction Factor	Zone Name	Show	

Close

Save

Add Sensor

+ Add Sensor 11:58

☒ Before System Controller: When Sensor is NOT Allocated to a Zone, Locate Tile either Before or After the System Controller Tile on the Home Screen

Index Number In the List of sensors where you want to place this sensor on home screen

1

Sensor Type Temperature, Humidity, etc

Temperature

Sensor Name

Central Heating

Sensor ID Node ID for the Sensor

21 - Temperature Sensor

Sensor Child ID Node Child ID for the Sensor

0

Sensor Correction Factor Positive or Negative Correction Factor

0.00

Frost Protection The System will protect itself against frost. To Disable protection you can set the temperature to 0

3

Frost Controller The zone controller to be activated when frost protection is triggered by this temperature sensor:

Central Heating

Submit Cancel

Outside: 17° C ☁ Clouds - overcast clouds

Show either before or after the system controller on the Home screen

Used to order where on the Home screen the sensor is displayed

Either Temperature or Humidity

Provide a name for this sensor device

Select the Sensor ID from the dropdown list of available Nodes

Choose the Child ID from the dropdown list, for nodes with only 1 sensor, this will be 0

Positive or Negative correction to be applied to the sensor reading. correction factor

Select the frost protection temperature or 0 to disable this feature

If frost protection is enabled, then select the zone to be activated on protection

Click on 'Submit' to add the device.

Repeat the process to add any other temperature sensors.

Re-selecting the Sensors menu item from the Settings/Node and Zone Configuration menu will display the updated list of currently configured temperature sensors.







This dialogue can be used to Add/Delete/Edit the sensor configurations.

The 'Show' tickbox can be used suppress displaying a sensor on the Home screen, with the exception of any sensors allocated to a zone.

This example shows one unallocated and two allocated sensors.

Sensor Settings

Edit or Delete the Sensor's Configuration.
Sensors Allocated to a Zone Cannot be Deleted.
Last Seen Date/Time is shown with Sensor Name.

Sensor Name	Node ID	Sensor Child ID	Correction Factor	Zone Name	Show	
Bedroom 1 (2020-10-10 07:37:43)	28-f3a49d1964ff	0	0	Not Allocated	<input checked="" type="checkbox"/>	 
Ground Floor (2020-12-17 07:29:25)	21	1	0	Ground Floor	<input checked="" type="checkbox"/>	 
Hot Water (2020-10-20 17:45:28)	20	1	0	Hot Water	<input checked="" type="checkbox"/>	 

Close Save Add Sensor