



FOCUS GUIDE

HUMIDITY CONTROLLER

Configuration Guide for Prolon Focus Software

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1 - Prolon Humidity Controller

This guide will describe in detail the operating sequences and configuration variables used by the Prolon series *Humidity Controllers*.

The Prolon *Humidity Controller* is designed to control the relative humidity in a room or duct. Both humidification and dehumidification sequences are available. The built-in microprocessor offers precise digital control to maximize performance. The available control sequences are fully configurable, either locally or remotely with free software. The *Humidity Controller* uses proportional-integral (PI) control loops to optimize humidity control and offers a variety of functions such as outdoor temperature reset for the humidification set point, unoccupied mode set point offsets, safety limits and more.

The Prolon series *Humidity Controller* is in essence a collection of highly effective humidity control sequences designed by Prolon, based on the feedback of our trusted clients and contractors with years of field experience. The sequences offered are highly configurable, allowing for a greater flexibility in the final operation of the controller, but they are not programmable.

1.1 - Hardware Variations

The Prolon series *Humidity Controller* is in essence a collection of highly effective Humidity control sequences designed by Prolon, based on the feedback of our trusted clients and contractors with years of field experience. These sequences are then programmed into various hardware models, offering the user the choice of expanded functionality versus targeted pricing.

The sequences are identical between the various hardware platforms, and are only differentiated by the physical constraints of the chosen hardware. This guide will underline these differences whenever they apply.

The Prolon *Humidity Controller* has been offered on the following hardware platforms. Please see each platform's **HARDWARE GUIDE** for more information:

C1000 → 3 Analog Inputs / 1 Binary Input / 2 Digital Output / 1 Analog Output

VC1000 LT (Discontinued) → 3 Analog Inputs / 1 Binary Input / 1 Digital Output / 1 Analog Output.
(The VC1000 LT version is missing a digital output to activate the dehumidification sequence, but can still request dehumidification over the Prolon network).



2 - Networking

Prolon's Humidity Controllers can work completely independently, but can also be integrated into a network with other types of Prolon controllers, where they will share and exchange information for a more effective overall system. Prolon's default method of network communication is Modbus RTU over RS485

2.1 - Shared Information

When a **Humidity Controller** is networked with a Prolon Master Controller (such as a Rooftop controller), it will automatically be detected and start sharing information. Here is the list of current Prolon Master Controllers:

- ▷ Rooftop Controller (RTU)
- ▷ Heatpump Controller (HP)
- ▷ Make Up Air Controller (MUA)
- ▷ Hydronics Controller (HYD)

The Prolon Network Controller is a special case, as it acts as a link between all Master Controllers, so it will be treated in a class on its own.

The following table summarizes the information shared between **Humidity Controllers**, Prolon Master Controllers, and the Prolon Network Controller. This information is exchanged approximately every three seconds for Master Controllers, and every ten to thirty seconds for the Network Controller. If the information stops being received, it will be declared invalid after 720 seconds.

	Automatically received from Master	Can send to Master (Configurable)	Can receive from NC (Configurable)	Can send to NC (Configurable)
Outside Temperature	X		X	X
Fan Status	X			
Fan Restart Request		X		
Dehumidification Request		X		

Figure 1 - Shared Information Table

Note that this table applies to the most recent firmware revision of Prolon controllers, and may not accurately represent all older firmware revisions.

DESCRIPTION

- **Outside Air Temperature:** The outside air temperature will automatically be shared from the Master Controller to the **Humidity Controllers**. A Network Controller can also be configured to share the outside temperature with a **Humidity Controller** should a Master Controller not be present. In the case where both are present, the last received outside temperature value will be used. The outside temperature is used for setpoint selection and for humidification enabling.
- **Fan Status:** The Fan Status (fan call & proof of fan) will automatically be shared from the Master Controller to the **Humidity Controllers**. The Fan Status is required before any Humidification action can be taken. If the Master Controller does not have a physical input for proof of fan, it will assume that proof of fan is obtained any time there is a call for fan operation.



- **Fan Restart Request:** When the main unit fan stops, all humidification actions are disabled. However, the **Humidity Controller** can request that the Master Controller restart the main unit fan upon a call for either humidification or dehumidification.
- **Dehumidification Request:** When the **Humidity Controller** calls for dehumidification, it activates the appropriate physical output, but it can place a request to a Proton Master Controller to undertake dehumidification actions in its stead.



3 - Adding a Humidity Controller to a Focus Project

Prolon Focus is a free visualization and configuration software for all Prolon controllers. Once the *Humidity Controller* has been physically wired to a Prolon network, it's time to add this controller to your Focus project.

3.1 - Assigning Addresses

The Prolon ***Humidity Controller's*** address can be assigned using the physical dipswitch found on the controller directly. The address will be encoded in binary. Please see each platform's **HARDWARE GUIDE** for more information.

3.1.1 - Address Locking

For hardware platforms with physical addressing dipswitches, be aware that Prolon Focus offers a feature that allows a user to lock the address of a controller to a specific value, regardless of what is present on the addressing dipswitch. This allows for protection against unwitting users from changing the addresses by playing with the dipswitches, but can also lead to confusion. Please see **Address Management** in the Prolon Focus User Guide for more information.

3.2 - Adding the Controller to the Screen

Once the controller has been physically wired to a Prolon network and it has an assigned address, it is time to add it to your Prolon Focus project screen.

3.2.1 - Master Get List

If the ***Humidity Controller*** is placed under a Master Controller in the network hierarchy, it can be added to your screen simply by performing a **GET LIST** on the Master. The Master Controller will take charge and scan its network for controllers, and all those that are found will automatically be added to the screen. To perform a **GET LIST**, right-click on your Master icon and select "Get List":

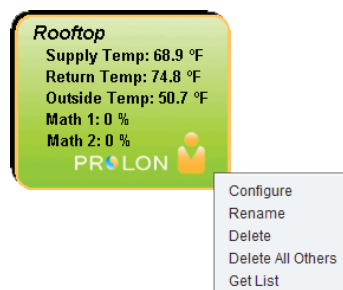


Figure 2 - Master Get List



Note that this step is **crucial**, as no communication will reach your **Humidity Controller** if it has not been added the Master's List. If no Master controller is assigned to the **Humidity Controller**, then this step can be ignored, and the new **Humidity Controller** button can be used instead (see below).

3.2.2 - New Humidity Controller Button

In the event where there is no Master Controller assigned to the **Humidity Controller** in the network hierarchy, then a **Humidity Controller** can be simply added onto the screen by clicking on the "New Humidity Controller" button, found in the Devices Drag and Drop list on the left side of the Focus screen (System View only):



Figure 3 - "New Humidity Controller" Button

Focus will ask for the address of the controller, attempt to locate it, and add it on the screen if successful.



4 - Humidity Controller Icon

Each *Humidity Controller* added to your system has its own icon. Each icon displays data about the *Humidity Controller* device it represents, and this data is updated regularly. You can open the configuration screen for a *Humidity Controller* by double-clicking on its icon. If the *Humidity Controller* is offline, all data values will show “N/A” (not applicable).

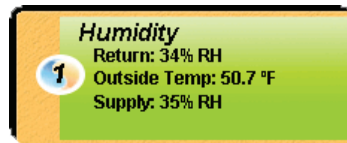




Figure 4 - Typical Humidity Controller Icon

Please note that the Supply Humidity reading will not be shown if the optional supply limits are not enabled ([see section 5.4.1](#)).

4.1 - Icon Data

- **Title:** The name of the *Humidity Controller*. You can change it by right clicking the icon and choosing Rename. By default it is set to “Humidity”.
- **Address Number:** This can be seen in the blue and orange circle (yin/yang) at the left side of the icon.
- **Return RH:** The current return relative humidity. Will display “N/A” if there is no return humidity sensor attached or if offline.
- **Outside Temperature:** The current outside temperature. Will display “N/A” if there is no outside temperature sensor attached or if offline.
- **Supply RH:** The current supply relative humidity. Will display “N/A” if there is no supply humidity sensor attached or if offline. Will not be shown if the option to show the high limit humidity sensor in the Supply Humidity Limits section is not selected ([see section 5.4.1](#)).
- **Humidification Status:** The current action taken by the humidity controller. This is represented by a symbol at the top right of the *Humidity Controller* Icon:
 - ▷  → The controller is actively humidifying
 - ▷  → The controller is actively dehumidifying or is requesting dehumidification from the Master Controller
 - ▷ Otherwise no action is being taken by the humidity controller



4.2 - Icon Right-Click

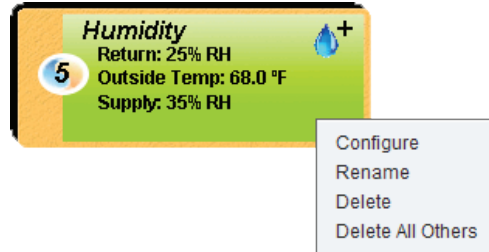


Figure 5 - Icon right-click for Humidity Controller

- **Configure:** Opens the configuration screen for this *Humidity Controller*.
- **Rename:** Allows you to rename this Humidity Controller. Names are limited to 16 characters.
- **Delete:** Removes this *Humidity Controller* from your Focus Project.
- **Delete All Others:** Removes all other icons from the current system. This is useful for debugging purposes, for example when trying to exclusively establish communication with this controller, and the presence of the other controllers in your project is causing communications to slow down.



5 - Configuration of a Humidity Controller

To view the configuration of a *Humidity Controller* in detail, double-click on its icon to see its configuration screen. Use the menus in the top left corner to navigate between the different sections, or simply double-click any item in the *Humidity Controller* Home screen to transfer you to its corresponding page. ([See Icon Quick Jumps for more details, p.13](#)).

5.1 - Humidity Controller Home Screen

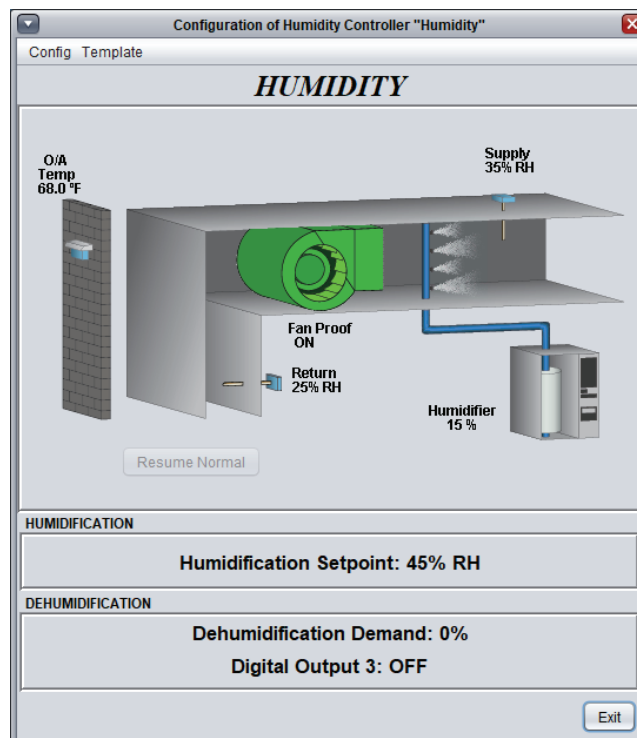


Figure 6 - Humidity Controller Home Screen

This screen shows the status of all inputs and outputs of the *Humidity Controller*, as well as the Humidification Setpoint. All values will be "N/A" (Not Applicable) when offline.

Note that the contents of this screen may vary depending on the sequences and display choices that are selected. The following section lists all possible parameters that can be displayed on the screen, but some are mutually exclusive of others due to hardware constraints or sequence logic. The list below outlines the requirements for each element.



5.1.1 - Displayed Information — Inputs

- **Return Humidity Sensor:** The relative humidity in the return duct (in percentage). Will be “N/A” if no sensor is attached. This is the main control point for the humidity controller. This will be absent from the screen if the user has chosen to display a zone humidity sensor instead ([see section 5.2](#)).
- **Zone Humidity Sensor:** The relative humidity in the zone (in percentage). Will be “N/A” if no sensor is attached. This is the main control point for the humidity controller. This will be absent from the screen if the user has chosen to display a return duct humidity sensor instead ([see section 5.2](#)).
- **Supply Humidity Sensor:** The relative humidity in the supply duct (in percentage). Will be “N/A” if no sensor is attached. This will only be displayed when Supply Humidity Limits have been enabled ([see section 5.4.1](#)).
- **Outside Temp:** The current outside air temperature. Will be “N/A” if no outside air sensor is attached or if none is provided from the network.
- **Fan Proof:** An icon representing the state of the fan can be seen in the middle of the drawing. When there is a proof of fan signal (physical or sent by network), the icon animates by rotating the fan blades. The fan can be hidden from the screen ([see section 5.2](#)).
- **Humidification Setpoint:** Displays the current calculated Humidification setpoint (in %RH), based a scale determined by the outside temperature.

5.1.2 - Displayed Information — Outputs

- **Humidifier:** Humidification activity is indicated next to an icon of a humidifier, complete with a nozzle spraying water into the supply duct. When the digital output is controlling the humidifier (see section 5.3.1), its ON/OFF state is displayed. If instead the analog output is used, then the output’s value (in percentage) is displayed. The spray pump animates accordingly. This will be absent from the screen if the user has chosen to display a valve instead ([see section 5.2](#)).
- **Valve:** Humidification activity is indicated next to an icon of a valve, complete with a nozzle spraying water into the supply duct. When the digital output is controlling the humidifier ([see section 5.3.1](#)), its ON/OFF state is displayed. If instead the analog output is used, then the output’s value (in percentage) is displayed. The spray pump animates accordingly. This will be absent from the screen if the user has chosen to display a humidifier instead ([see section 5.2](#)).
- **Dehumidification Demand:** Displays the dehumidification demand that will be sent to a ProLon Master controller to remotely undertake steps for dehumidification. The dehumidification demand is determined by a PI (Proportional / Integral) loop and is a number ranging from 0 to 100%. The higher the number, the more that this controller is requesting dehumidification from the Master unit.
- **Digital Output 3:** Digital Output 3 is an output dedicated to dehumidification. When the humidity gets too high at the control point (return duct or zone sensor), the output will turn on. NOTE: this output is **unavailable** for the VC1000LT hardware platform.



5.1.3 - Icon Quick Jumps

Certain items in the Home screen will direct you to their corresponding configuration screen when they are double-clicked. A red contour will surround the object if this feature is available.

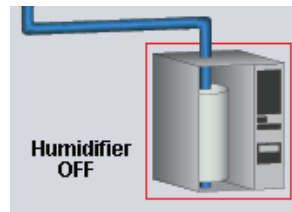


Figure 7 - Icon Quick Jump Example

The following is a list of the featured items and their corresponding destination:

ITEMS	QUICK JUMP
Humidifier	Humidification Configuration
Nozzle	Humidification Configuration
Valve	Humidification Configuration
Digital Output 3	Humidification Configuration
Return RH Sensor	Calibration
Zone RH Sensor	Calibration
Supply RH Sensor	Limits Configuration
Outside Temp Sensor	Limits Configuration

Figure 8 - Icon Quick Jumps Table

Please note that if the advanced password is enabled, you will not be able to double-click on any objects.

5.1.4 - Icon Manual Override

There are two elements on the Home page that can be overridden: the Humidifier and Digital Output 3. To use the override feature, simply right-click on the element you wish to override. A pop-up menu will appear if this feature is available. Note: Overrides are not available in Offline mode.

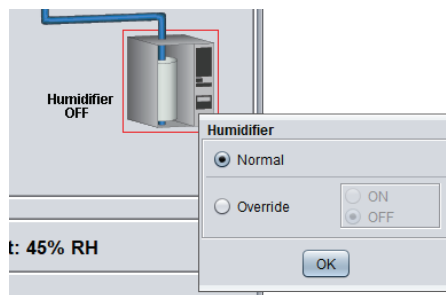


Figure 9 - Manual Override of the Humidifier

- **Normal:** Selecting the “Normal” button will revert the selected item back to its normal automatic behavior. Any override applied to this object will be disabled.
- **Override:** Selecting the “Override” button will allow the user to manually override the selected item until Normal mode is resumed.

When the override is applied, a yellow contour appears around the icon and any text associated with the item starts to flash. For example, in the figure below, the Humidifier has been overridden to ON.

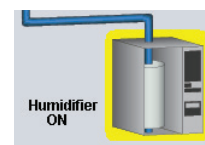


Figure 10 - The Humidifier is Overridden

Please note that if the advanced password is enabled, or if you are offline, you will not be able to over ride any items.

All overrides are **removed** when the **Humidity Controller** is reset or loses power.

5.1.5 - "Resume Normal" Button

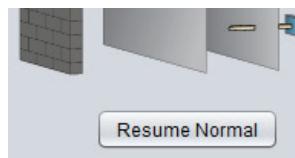


Figure 11 - “Resume Normal” Button

This button allows the **Humidity Controller** to return to its fully automated behavior. All overrides previously applied to the **Humidity Controller** will be disabled. However, before any action is taken, a dialog box will appear to confirm your choice.



5.2 - Display Configuration

This screen is used to configure the display preferences of the Home Screen. These settings do not affect the operation or sequences of the **Humidity Controller**. They are for display purposes only.



Figure 12 - Display Configuration Screen

- **Show Outside Temperature Sensor:** This option hides the outside temperature sensor from the Home screen. Note that even if it is hidden, the controller will still operate based on any available outside temperature information.

This option is useful for setups where the user wants a fixed humidity setpoint and does not want it to scale with the outside temperature. In this case they will omit connecting a physical outside temperature sensor and will also select this option to hide it from the screen.
- **Means of Humidification:** Displays the main humidity sensor on the Home page as either in the return duct or in the zone. The chosen location does not affect the control sequence.
- **Show Fan:** This option hides the fan icon from the Home screen. Note that even if it is hidden, a confirmation of proof of fan is still required for the sequences to operate.

This option is useful for setups where no proof of fan is available. In this case, the user must short the physical fan proof input to the common, thus assuring proof is always obtained. It can then be desirable to hide the fan from the Home screen so as not to imply that the fan's status is actually being monitored.
- **Humidity:** Displays the humidification control equipment on the Home page as either a humidifier or as a valve. The chosen setup does not affect the control sequence.



5.3 - Humidification Configuration

This section defines the main operation of the **Humidity Controller** for both humidification and dehumidification sequences.

5.3.1 - Humidifier Setup

This section defines the operation of the **Humidity Controller** for humidification.

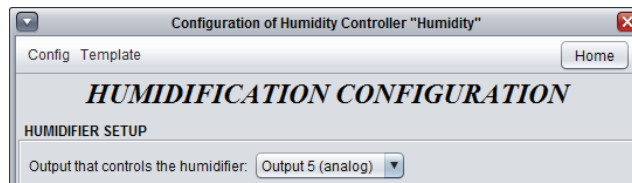


Figure 13 - Humidifier Setup

- **Output that Controls the Humidifier:** This selects which output will drive the humidification sequence and consequentially, whether the control sequence is digital (on/off) or analog (modulating). Humidification can also be deactivated here, in the case of a dehumidification-only sequence. This setting will affect the control options below.

5.3.1.1 - Humidity Scale

The Humidification Setpoint is calculated based on a reset curve determined by the outside air temperature.

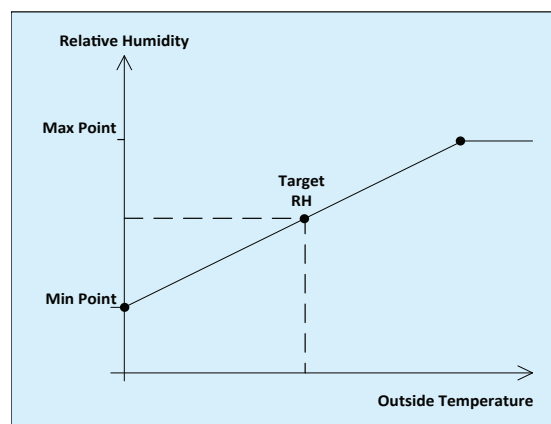


Figure 14 - Humidity Scale Line

Note: If the outside temperature is not available and is not provided by the network, then the minimum humidity scale limit will be used as the Humidification Setpoint.



5.3.1.2 - Control

This section defines the control loop for humidification. The options here are dependent on the type of humidification output, selected above.

5.3.1.2.1 - Digital Output

When a digital output is used to activate the humidifier, it is controlled by a differential band:

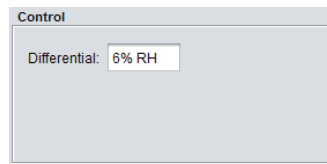
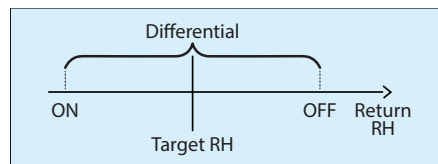


Figure 15 - Digital Output Setting

The output turns on when the relative humidity drops below the activation point. Once the relative humidity rises above the deactivation point, the output is turned off. These activation and deactivation points are determined by the differential band, centered on the current Humidification Setpoint:



The humidification output requires proof of fan operation before it can be enabled. If proof of fan is lost, the output cuts out immediately.

5.3.1.2.2 - Analog Output

When an analog output is used to activate the humidifier, the output voltage is determined by a PI loop (Proportional / Integral).

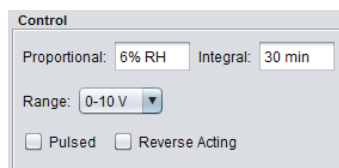
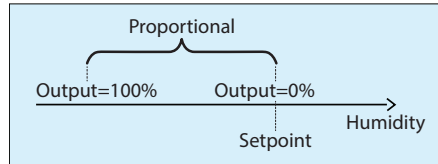


Figure 16 - Analog Output Settings

The **Proportional** component of the PI loop is determined as follows:



As the relative humidity drifts below the setpoint, the **Proportional** component ramps up to compensate.

The **Integral** component is defined as the amount of time required to increase the output's value by 100% to compensate for an error of 1%RH. Its purpose is to correct small errors over time.

The **Proportional** component is then added to the **Integral** component to calculate the final output value. When properly tuned, this PI loop will efficiently maintain the Humidification Setpoint.

The humidity controller's modulating output will be directly proportional to the PI loop's calculated result.

- **Range:** This option selects the voltage range provided by the **Humidity Controller** at the terminals of the modulating output. The range always corresponds to a full 0-100% output scale. For example, in the 2-10V range, a 0% output corresponds to 2V, and a 50% output corresponds to 6V.
- **Pulsed:** This option causes the analog output to use a one-second pulse width modulation instead of the normal voltage modulation.
- **Reverse Acting:** The output voltage will be inversely proportional to the calculated PI loop result. For example, in a range of 0-10VDC, if the calculated value is 30%, it will output 7 volts at the terminals.

The humidification output requires proof of fan operation before it can be enabled. If proof of fan is lost, the output is deactivated.

5.3.2 - Dehumidifier Setup

This section defines the control loop for dehumidification.

DEHUMIDIFIER SETUP		
<input checked="" type="checkbox"/> Enable dehumidification with a setpoint of: 60% RH		
Digital Output 3		
Differential:	6% RH	
Central Dehumidification (Network)		
Proportional:	5% RH	Integral: 20 min

Figure 17 - Dehumidification Setup

Dehumidification can be enabled or disabled from the first checkbox in this section. When enabled, a fixed dehumidification setpoint is always used.

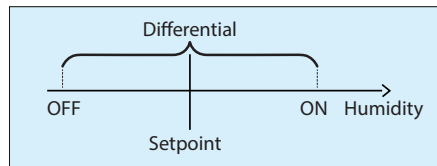
The dehumidification sequence **simultaneously** calculates the status of Digital Output 3 (not available for VC1000LT), as well as the Dehumidification demand that is to be sent to a Proton Master over the network.



5.3.2.1 - Digital Output 3

Digital Output 3 on the Proton **Humidity Controller** is used to activate the Dehumidification input on HVAC air handling equipment (if such an input is available). It is controlled by a differential band.

The output turns on when the relative humidity rises above the activation point. Once the relative humidity drops below the deactivation point, the output is turned off. These activation and deactivation points are determined by the Differential band, centered on the dehumidification setpoint:

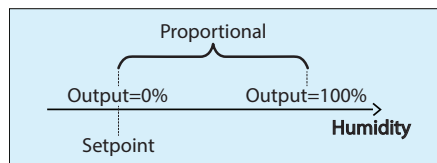


The dehumidification output requires proof of fan operation before it can be enabled. If proof of fan is lost, the output cuts out immediately.

5.3.2.2 - Central Dehumidification (Network)

In setups where HVAC equipment allows for heating and cooling to be activated simultaneously, the Proton humidity controller can, over the network, request that the Proton Master take steps to begin dehumidifying. This is done by sending the Master controller a dehumidification demand. The dehumidification demand is determined by a PI (Proportional / Integral) loop and is a number ranging from 0 to 100%. The higher the number, the more it is requesting dehumidification from the Master unit.

The **Proportional** component of the PI loop is determined as follows:



As the relative humidity rises above below the setpoint, the **Proportional** component ramps up to compensate.

The **Integral** component is defined as the amount of time required to increase the output's value by 100% to compensate for an error of 1%RH. Its purpose is to correct small errors over time.

The **Proportional** component is then added to the **Integral** component to calculate the final output value. When properly tuned, this PI loop will efficiently maintain the Dehumidification Setpoint.



5.3.3 - Fan Restart

In most cases, a Proton Master Controller is configured to stop the main fan in unoccupied mode for energy savings purposes. However, even in unoccupied mode, the Proton **Humidity Controller** continues to monitor the humidity levels.

Should the humidity levels get too low or too high, the **Humidity Controller** can place a request to the Master Controller over the communication network to restart the fan.

FAN RESTART

Restart the fan in unoccupied mode if the relative humidity is:

lower than the humidification setpoint, minus: 3% RH

higher than the dehumidification setpoint, plus: 3% RH

Figure 18 - Fan Restart Request Setup

A fan request is sent based on a configurable offset from the normal humidification and dehumidification setpoints.

5.4 - Limits Configuration

This section is used to set limits that can block humidification or dehumidification actions based on the humidity levels detected in the supply duct, or based on outside temperature.

5.4.1 - Supply Humidity

The Proton **Humidity Controller** can optionally monitor the humidity in the supply duct and limit the humidification accordingly.

Supply Humidity

Use supply humidity limits

Modulate Output 5 for a maximum of 70% RH in the supply.

Stop humidifying when supply RH is higher than: 85% RH Restart at: 60% RH

Figure 19 - Supply Humidity Limits

Use Supply Humidity Limits: This option instructs the **Humidity Controller** to monitor the relative humidity levels in the supply duct. A supply sensor icon will appear on the Home page to that effect.

The limits that are enforced will vary based the chosen output used for humidification ([see section 5.3.1](#)).

For the **Analog Output**, the humidification will gradually be reduced so as to remain below a fixed humidity setpoint in the supply. If the gradual reduction does not respond fast enough, a failsafe limit is imposed that will simply cut the



humidifier's output completely. Once the humidity levels drop back down below the modulating limit, the output can start ramping up gradually again.

For the **Digital Output**, the humidification will be stopped as soon as the humidity in the supply duct rises above a fixed deactivation point, and will only be enabled again when it drops back below a re-activation point.

5.4.2 - Outside Air Temperature

The Proton **Humidity Controller** will also limit humidification and dehumidification actions based on outside air temperature.

Outside Air Temperature

Stop humidifying when the outside temperature is higher than: 55.4 °F

Stop dehumidifying when the outside temperature is lower than: 55.4 °F

Figure 20 - Outside Air Limits

If the outside air reading is invalid and not provided over the network, then these limits are ignored.

5.5 - Calibration Configuration

This screen allows the user to adjust the controller's various input readings, in case a noticeable offset is observed. Positive or negative values can be entered

Configuration of Humidity Controller "Humidity"

Config Template Home

CALIBRATION

Supply Relative Humidity Calibration : 0 %

Return Relative Humidity Calibration: 0 %

Outside Temperature Calibration : 0.0 °F

Refresh Apply Exit

Figure 21 - Calibration Screen



5.6 - COM Port Settings

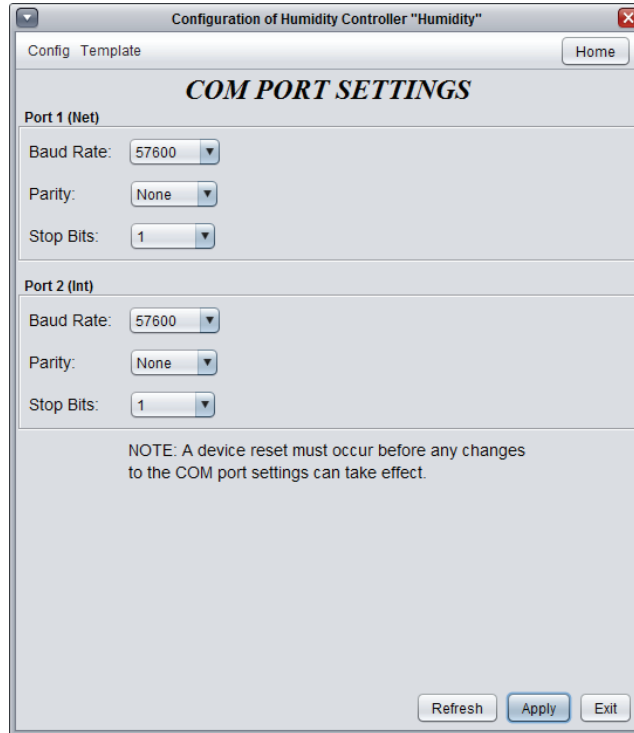


Figure 22 - COM Port Configuration Screen

Changes to the settings in this section will only take effect once the **Humidity Controller** is reset or has power cycled. Each port on the **Humidity Controller** has the same options. Please refer to each platform's hardware guide for more details on the COM ports.

- **Baud Rate:** This sets the baud rate value for the COM port. The default baud rate used by the **Humidity Controller** is 57600 bps but may be set to any of these standard values:
 - ▷ 9600 bps
 - ▷ 19200 bps
 - ▷ 38400 bps
 - ▷ 57600 bps
 - ▷ 76800 bps
 - ▷ 115200 bps
- **Parity:** This sets the parity for communication on the COM port. The default parity used by the **Humidity Controller** is "None" but may be set to any of these standard values:
 - ▷ None
 - ▷ Odd
 - ▷ Even
- **Stop Bits:** Sets the number of stop bits used by the COM port. By default, it is set to 1, but can also be set to 2.



5.7 - Device Properties



Figure 23 - Device Properties Screen

This screen shows all the intrinsic properties of the device you are configuring. This helps you determine its capabilities without having to visually inspect the device.

- **Device Type:** The type of controller you are configuring.
- **Software Version:** The current software in the controller. The greater the software version, the more advanced the device is. Devices can be upgraded by reprogramming them (see “Reprogram”).
- **Hardware Version:** This is the physical nature of the controller. Different hardware has different features. The hardware can only be changed by replacing it physically.
- **Device Number:** The network address of the controller, which is configured manually using the dipswitches, or even through software.
- **Device Name:** This field indicates the current name of the controller, which you can modify. Alternatively, you can just right-click on the icon and select the rename option.
- **Reset Device:** Causes the device to perform a reset. All configuration properties REMAIN SAVED. However, resetting the controller removes all active overrides. This function is useful for debugging purposes.
- **Reprogram:** This function is used to upgrade the controller to a new software version. Focus will begin by asking you for the HEX file that contains the software update. Software update HEX files can only be provided by Proton. At the end of the procedure, Focus will automatically reapply all the parameters you have previously configured into the device.

Should there be any interruption during the programming procedure (due to intermittent communication or other), the procedure is halted to allow time for the problem to be fixed. When ready, the whole upgrade procedure can be resumed at any time by pressing this button again. It is normal for the icon to turn grey and become unresponsive during this period. Simply continue with the procedure anyways.



5.8 - Template Menu

5.8.1 - Save as Template

The **Humidity controller** template function gives you the ability to save the configuration of a particular **Humidity controller**. Selecting this menu item opens a dialog box where you select a location on your computer to save the template file. Each configurable property of the **Humidity controller** is then saved into this template file. This function is very useful if you have many **Humidity controllers** with the same or very similar configurations. Now you will be able to quickly copy and paste the configuration from **Humidity controller** to **Humidity controller**.

5.8.2 - Load Template ...

After saving a **Humidity controller** configuration in a template, you can load this template into another **Humidity controller** by selecting this menu item in the configuration screen of the **Humidity controller** you wish to change. All configuration properties found in the template are then copied into the configuration screen for your viewing or possible modification. Once you are satisfied with the set of properties, click the "Apply" button.

NOTE: The template configuration will not be applied to the **Humidity controller** until you click on the "Apply" button. If you do not wish to use the configuration properties of a loaded template, click on the "Refresh" or "Exit" buttons.

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