DATASHEET

Crestron to Heatmiser Neo Interface

Revision: 3.02
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Summary

This datasheet relates to Ultamation's Heatmiser Neo interface modules for Crestron control systems. This module is compatible with both the NeoStat and the NeoPlug. It provides the essential information for integration between the Heatmiser system and the Crestron control processor, and for programming of the module with a host Crestron program.

IMPORTANT NOTICE:

This module has been written for 3-series Crestron control systems ONLY and is NOT compatible with the 2-series range. If you wish to use Heatmiser products with a Crestron 2-series processor we recommend the WiFi or wired (RS485) solution, combined with our appropriate control module for that technology. There is currently no control for the Heatmiser Neo Stat/Plug on a 2 series processor.

Installation Notes

The Crestron system communicates to Heatmiser installation directly via an IP connection to the Heatmiser Hub.

Equipment Setup

Connect the Heatmiser Neo equipment and setup the system using the Heatmiser Neo app as per Heatmiser's installation instructions.

http://neo.heatmiser.com/

Important - DHCP Reservation Requirements

There is currently no way to set the IP address on the Heatmiser Hub.
To ensure communications with the Crestron module the Heatmiser Neo Hub must have a DHCP reservation set in your router or DHCP server.

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Programming Notes

Each of the module files should be placed either in the host program's project folder, or to make the Heatmiser interface available to all Crestron programs, in the SIMPL Windows installation's User Macro (for .umc files) and User SIMPL+ (for .usp and .ush files) directories. This pdf should be placed in both directories for SIMPL's F1 help function to work properly.

The module is broken into two parts:

1. A hub module that handles all communications between the Crestron processor and Heatmiser Hub.
2. One or more device modules that present the control and feedback signals to the host program. It is normal to have one instance for each physical thermostat or plug.

The Hub Module

This module handles all of the IP communications to the Heatmiser Hub.
There can be more than 1 hub in a program.

1. Set the IP Address of the Hub (that is reserved by your router following the DHCP reservation step) into the IP_Address parameter.
2. Set the Poll_Interval parameter to a value between 10 seconds and 180 seconds. We've left the flexibility to change this as it is somewhat client dependant on what you set this to.
3. You must not put a 1 on the Heatmiser_Pages_Active. This must be high only when Heatmiser Neo device relevant pages are shown.

The NeoStat Module

This module talks to the Hub module (behind the scenes) and controls and monitors the Heatmier NeoStat device.
There should be one device module per physical Heatmiser NeoStat device.

1. Enter the Zone_Name exactly as it is set in the Heatmiser Neo app.
   Note: This *IS* case sensitive
2. Set the Lock_Code to be a value between 0000 and 9999 to be used if the Crestron system is required to lock the devices.

The NeoPlug Module

This module talks to the Hub module (behind the scenes) and controls and monitors the Heatmier NeoPlug device.
There should be one device module per physical Heatmiser NeoPlug device.

1. Enter the Plug_Name exactly as it is set in the Heatmiser Neo app.
   Note: This *IS* case sensitive

The Helper Module

This module has NO functional value whatsoever, but is included to aid debugging of issues with the Neo configuration. Include the module in the same slot as the Heatmiser Hubs and when you trigger the Query signal, the module will report each stat zone on the outputs for ALL hubs in this program slot. Plug reporting is currently not supported.

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The Hub Module

Initialise	Rising edge. Queries the hub for attached stats, and then communicates the hub IP to the device modules.
Hub_ID_To$	ID used to connect device to hub.
Heatmiser_Pages_Active	ONLY KEEP THIS HIGH WHEN HEATMISER NEO RELEVANT PAGES ARE SHOWN. This instructs the Hub to query all physical devices on the period defined in Poll_Frequency and to update feedback information on device modules.
Get_Statistics	Rising Edge. Gets the Energy Monitoring statistics from the Heatmiser Neo system.
Highest*#,Lowest*#	Updated when Get_Statistics is triggered. Shows the highest and lowest system wide energy monitoring values.
Holiday_Cancel	Rising Edge. Cancels any system wide holidays.
Holiday_In_Days#	Analog. Sets a system wide Holiday on change.
Last_Message$	For Debug Purposes. Updated with various messages during normal operation.

The NeoStat Device Module

IsRegistered	When NeoStat device is registered this signal will go high.
Zone_Name	Parameter. Set this to the same value as set in the Heatmiser Neo App for the device you want to control
Lock_Code	Parameter. Set this to a value between 0 and 9999 to reflect the lock code you wish the Crestron system to lock the device with.
Away_*	Rising Edge. Sets the Away state of the device.
Away_Fb	Real time feedback of the Away state of the device.
FrostProtect_*	Rising Edge. Sets the Frost Protection state of the device.
FrostProtect_Fb	Real time feedback of the Frost Protection state of the device.
Lock	Rising Edge. Locks the device with the lock code specified in the Lock_Code parameter.
Unlock	Rising Edge. Unlocks the device.
Locked_Fb	Real time feedback of the lock state of the device.
Hold	Rising Edge. Starts a hold period with the values set in Hold_Temp#, Hold_Hours# and Hold_Mins#

Hold_Cancel	Rising Edge. Cancels any in progress Hold. Has no effect if there is no Hold in progress.
Hold_Fb	Real time feedback of the hold state of the device.
Stat_Found	This is a diagnostic signal. If this isn't high the stat is not registered on the Heatmiser Neo system or the Zone_Name does not match a known Heatmiser Neo device.
Offline_Fb	This will show if the Heatmiser Neo system is aware of the device but it hasn't responded in a while. This can be due to comms or power failure.
IsHeating_Fb	Real time feedback of the Heating state of the device
IsCooling_Fb	For future use. Real time feedback of the Cooling state of the device.
InHoliday_Fb	Real time feedback of the Holiday state of the device
Is_Thermostat_Fb, Is_Timeclock_Fb	Real time feedback of the device type.
Timer_Hold_On#	For stats configured as timers, or stats with Hot Water functionality, set this to a value to turn on the timer/hot water for a given number of minutes. Set to 0 to switch off.
Timer_Hold_Off#	This is the inverse of the above signal and allows a timer/hot water mode that is currently active to be interrupted for the specified number of minutes.
Setpoint_Temp#	Sets the current set point of the device.
Setpoint_Temp_Fb#	Real time feedback of the current set point of the device.
Frost_Temp#	Set the frost protection set point of the device
Frost_Temp_Fb#	Real time feedback of the current frost protection set point of the device.
Current_Temp_Fb#	Real time feedback of the current temperature of the device.
Current_Floor_Temp_Fb#	Real time feedback of the current floor temperature of the device.
Hold_Temp#	Sets the Hold temperate set point to be used when the Hold signal is triggered.
Hold_Hours#, Hold_Mins#	Sets the Hold time to be used when the Hold signal is triggered.
Hold_Hours_Fb#, Hold_Mins_Fb#	Real time feedback of the current Hold time. This may be used as a countdown time feedback.

Program_Mode_Fb$	Real time feedback of the program schedule mode of the device.
SensorType_Fb$	Real time feedback of the attached sensor type of the device.
From_Hub_ID$	Enter the ID of the Hub_ID_To$ you wish to connect to.
Last_Message$	For Debug Purposes. Updated with various messages during normal operation.

The NeoPlug Device Module

Plug_Name	Parameter. Set this to the same value as set in the Heatmiser Neo App for the device you want to control
IsRegistered	When NeoPlug device is registered this signal will go high.
Set_On	Rising Edge. Sets the On state of the device.
Is_On_Fb	Real time feedback of the On state of the device.
Set_Off	Rising Edge. Sets the Off state of the device.
Is_Off_Fb	Real time feedback of the Off state of the device.
From_Hub_ID$	Enter the ID of the Hub_ID_To$ you wish to connect to.
Last_Message$	For Debug Purposes. Updated with various messages during normal operation.

The Neo Helper Module

Query	After Hub initialisation, trigger this signal to populate the outputs with all of the stat zones that have been discovered in the Heatmiser Neo system. The information will detail both the hub IP address and the case sensitive zone name. A hub must be reachable for the zones to appear in the list.
ZoneName[n]	Each stat zone will be listed by name, along with its parent's hub IP Address. This can then be checked against the Zone_Name parameters in the Stat modules.

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Future revisions of the software, whether bug fixes or additional features, will be provided free of charge to existing customers. If additional features are requested, there may be an additional charge, and resulting fixes or features may become part of the standard module, therefore benefitting the existing customer base.

The core software component is provided in a compiled form and is not suitable for modification.