Daikin: ITC

This module controls a Daikin Intelligent Touch Controller over TCP-IP

GENERAL INFORMATION

SIMPLWINDOWS NAME:	Daikin ITC Unit V3_1.umc
CATEGORY:	HVAC
VERSION:	3_1
SUMMARY:	This module controls a Daikin Intelligent Touch Controller over TCP-IP
GENERAL NOTES:	Due to reports of instability we have rewritten the original Daikin modules and created a version 3.4 demo program. This program includes three main modules: - Daikin ITC IO V3_1 - Daikin ITC Feedback Splitter V3_1 - Daikin ITC Unit V3_1 - Please refer to each module's help file and the demo program for correct use. This module controls one of the Daikin HVAC units connected to the ITC. Note that with every command sent out, the module will poll for all current values of the specific unit it is set to control. Therefore when controlling the Daikin system with Crestron only (or mainly), the use of active polling can be avoided. Every change made to the unit will result in an update of all current values for that unit. In the demo program, polling is enabled for only the currently visible unit. Since controlling the unit results in updates of all values, the poll time can be kept large. An update every 30 seconds or so should be sufficient to display accurate "Room Temperature" in most installations. Note that the module combines all changes made in the same O.1 second and sends them out in the same command. In other words, when making different changes (Mode, Speed, Direction) it is OK to perform those changes at the same time.
CRESTRON HARDWARE REQUIRED:	2-series processor with Ethernet Card. Use a "TCP-IP Client" symbol set to the IP address of the ITC on port 80.
SETUP OF CRESTRON HARDWARE:	The demo program was written for a PRO2 with an X-Panel
VENDOR FIRMWARE:	V 4.30.01R
VENDOR SETUP:	Daikin's ITC (Intelligent Touch Controller) with the Web control option, connected to the LAN network

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CONTROL:

To_Units	S	Recommended: To be connected to the "To_Units" serial output of the "Daikin ITC Feedback Splitter V3.0.umc" modules.
[Power_On]	D	Pulse to turn the unit on
[Power_Off]	D	Pulse to turn the unit off
[Fan]	D	Pulse to activate Fan operation mode
[Heat]	D	Pulse to activate Heat operation mode
[Cool]	D	Pulse to activate Cool operation mode
[Dependant]	D	Pulse to activate Dependant operation mode. When multiple indoor units are connected to one outdoor unit, only one can be the changeover (heat/cool) master. The other units must be in Dependant mode.
[Set_Temperature]	A	Set the setpoint temperature for the unit. Valid range is 160d to 320d for Celsius (16 to 32 degrees C) or 60d to 90d for Fahrenheit. Use the "Time Out" parameter field to specify when to set the setpoint. For example: when "Time Out" is set to 2 seconds. Ramping up this signal will result in 1 command being sent out 2 seconds after the last signal change. If the signal would change again within those 2 seconds the module waits for another 2.
[Fahrenheit]	D	Hold high for analog input/output temperatures to be in degrees F
[Celsius]	D	Hold high for analog input/output temperatures to be in degrees C
[Fan_Speed_X]	D	Pulse to set the units fan speed
[Fan_Direction_X]	D	Pulse to set the units fan direction
[Poll]	D	Hold high to automatically poll the unit once every ("Poll Time") seconds.

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FEEDBACK:		
[Power_On_Fb]	D	High when the unit is turned on
[Power_Off_Fb]	D	High when the unit is turned off
[Fan_Fb]	D	High when the unit is in Fan operation mode
[Heat_Fb]	D	High when the unit is Heat operation mode
[Cool_Fb]	D	High when the unit Cool operation mode
[Setpoint_Fb]	D	High when the unit is in Setpoint operation mode
[Ventilation_Fb]]	D	High when the unit is in Ventilation operation mode
[Dry_Fb]	D	High when the unit is in Dry operation mode
[Auto_(Heat)_Fb]]	D	High when the unit is in Auto operation mode and is heating
[Auto_(Cool)_Fb]	D	High when the unit is in Auto operation mode and is cooling
[Set_Temp_Fb]	A	Feedback of the unit's setpoint
[Room_Temp_Fb]	A	Feedback of the actual room temperature
[Fan_Speed_X_Fb]	D	Shows fan speed of the unit
[Fan_Direction_X_Fb]	D	Shows fan direction of the unit
[Status_X]	D	Show basic status of the unit
From_Units	S	To be connected to the "From_Units" serial input of the "Daikin ITC IO V3_1.umc" module

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PARAMETERS:

Address	S	Specify which unit to control. For example controlling Unit 5 in Group 1, Subgroup 2: Address = “1:2-05”
Time Out	T	Specify how long the [Set_Temperature] analog input must stop changing before a command is sent out.
Poll Time	T	Specify how often the module should perform a poll when the [Poll] digital input is high.

TESTING:

OPS USED FOR TESTING:	3.155.1240
COMPILER USED FOR TESTING:	2.08.38
SAMPLE PROGRAM:	Daikin ITC Demo Program V3.4.smw
REVISION HISTORY:	Daikin.usp: Original Daikin ITC module Daikin V2.usp: Small changes made to clear bugs Daikin V3_1 (demo program and modules): Total rewrite of the modules

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