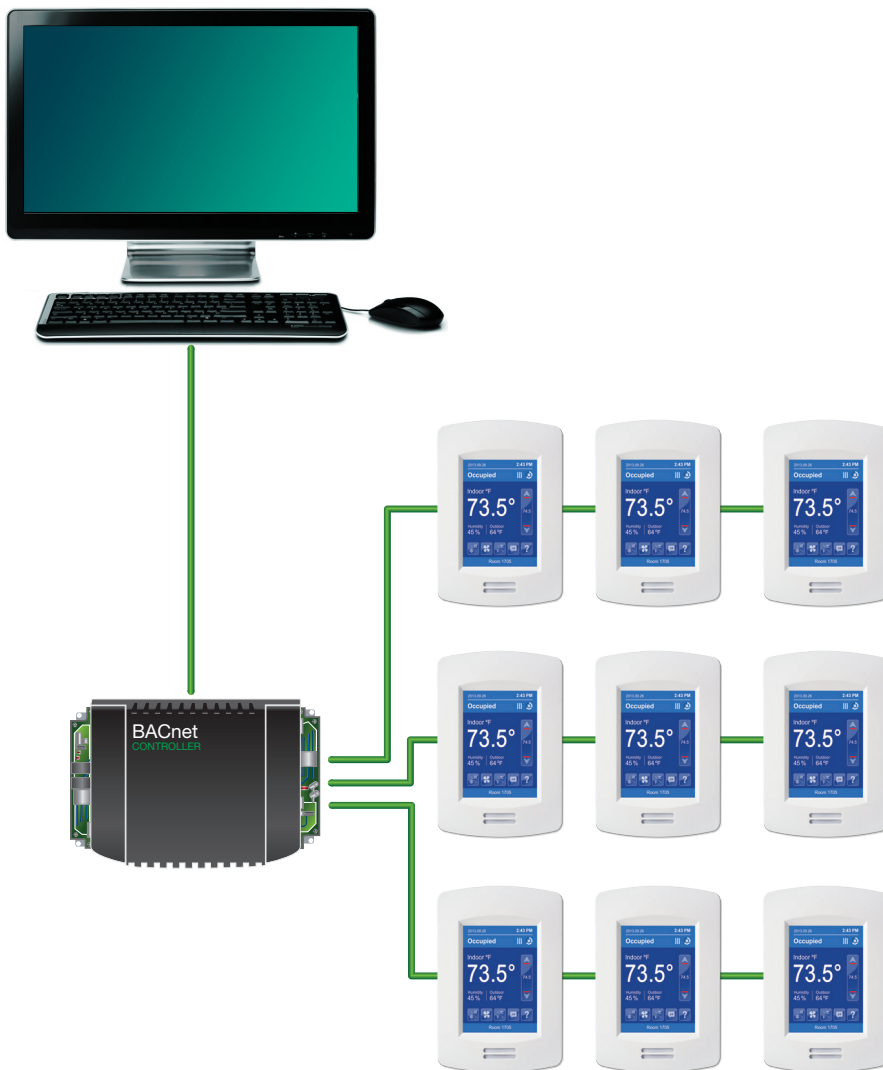


# VT8300 Series BACnet Integration

BACnet Integration for VT8300 Series Room Controller



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# BACnet Compatibility Specifications

**Note:** This document contains BACnet compatibility specifications of the Schneider Electric VT8300 Series Room Controllers and follows the BACnet PICS format. Objects common to all three models appear in one table, where are objects which are model specific appear in separate tables.

**Supported BACnet® Services:** The BACnet® communicating controller meets all requirements for designation as an Application Specific Controller (B-ASC). The BACnet controller supports the following BACnet Interoperability Building Blocks (BIBBs).

Application Service	Designation
Data Sharing-COV-B	DS-COV-B
Data Sharing – Read Property - B	DS-RP-B
Data Sharing – Read Property Multiple - B	DS-RPM-B
Data Sharing – Write Property - B	DS-WP-B
Data Sharing - Write Property Multiple Service - B	DS-WPM-B
Device Management - Time Synchronization - B	DM-TS-B
Device Management - Device Communication Control - B	DM-DCC-B
Device Management – Dynamic Device Binding - B	DM-DDB-B
Device Management – Dynamic Object Binding - B	DM-DOB-B
Scheduling-Internal-B	SCHED-I-B

Note: The controller does not support segmented requests or responses

Object Name	Type and Instance	Object Property	Controller Parameter
VT8300 (all models)	Device	Object_Identifier Property 75 (R,W)	Unique ID number of a device on a network
		Object_Name Property 77 (R,W)	Unique name of a device on a network
		Model Name Property 70 (R)	Controller model number
		Firmware Revision Property 44 (R)	Current BACnet® firmware revision used by controller
		Protocol Version Property 98 (R)	Current BACnet® firmware protocol version Default is Version 1
		Protocol Revision Property 139 (R)	Current BACnet® firmware protocol revision Default is Version 2
		Max ADPU Length Property 62 (R)	Maximum ADPU Length accepted Default is 480
		ADPU Timeout Property 10 (R)	ADPU timeout value Default is 3000 ms
		Application-Software-Version Property 12 (R)	Controller base application software version Default is based on current released version
		Max_Master (R,W)	Maximum master devices allowed to be part of network. 0 to 127, default is 127
		Description Property 28 (R,W)	String of printable characters (Same as “Long Screen Message” CSV2)
		Location Property 58 (R,W)	String of printable characters (Same as “Short Screen Message” CSV1)
		Local Date Property 56 (R)	Indicates date to best of device knowledge
Local Time Property 57 (R)	Indicated time of day best of the device knowledge		

# Object Properties

## Analog Objects

Object Type Read/Write Settings			Object Property	Controller Parameter
Input AI	Output AO	Values AV		
Read Only	Read Only	Read Only	Event State Property 36	Indicates if object has an active event state associated with it
Read Only	Read Only	Read Only	Object Identifier Property 75	Unique ID number of an object on a network
Read Only	Read Only	Read Only	Object Name Property 77	Unique name of an object on a network
Read Only	Read Only	Read Only	Object Type Property 79	Indicates membership in a particular object type class
Read / Write	Read / Write	Read / Write	Out of Service Property 81	Indicates whether (TRUE/FALSE) the physical input object represents is not in service
Read / Write*	Read / Write	Read / Write	Present Value Property 85	Contains values of all properties specified
N/A	Read Only	Read Only	Priority Array Property 87	Read-only array of prioritized values
Read Only	Read Only	Read Only	Reliability Property 103	Indicates if Present_Value is "reliable"
N/A	Read Only	Read / Write †	Relinquish Default Property 104	Default value used for Present_Value when values in Priority_Array have a NULL value
Read Only	Read Only	Read Only	Status Flags Property 111	Represents flags that indicate general health of life safety point object
Read Only	Read Only	Read Only	Units Property 177	Indicates measurement units of Present_Value
N/A	Read Only	N/A	Hight Limit Property 1101	Specifies a limit Present_Value must exceed before an event is generated
N/A	Read Only	N/A	Low Limit Property 1100	Specifies a limit Present_Value must fall below before an event is generated

**N/A** = Not Applicable, property not used for objects of that type

\* The Present\_Value is only writeable when Out\_Of\_Service is TRUE.

† Relinquish default: the value can be changed at the thermostat and will remain in the thermostat after a power-cycle. Usage: temperature set-points, fan-mode, system-mode, etc.

### NOTE for BACnet Priorities:

- Written in eeprom, the value cannot be changed on the Room Controller and will remain after a power-cycle. To release it, do a "Restore Factory default" or from BACnet at same priority level. System configuration parameters that shouldn't be changed.
- Written in ram, the value is lost after a power-cycle. Usage: initialization of LUA4RC scripts.

## Binary Objects

Object Type Read/Write Settings			Object Property	Controller Parameter
Input BI	Output BO	Values BV		
Read Only	Read Only	Read Only	Active Text Property 4	Characterizes intended effect of the ACTIVE state of Present_Value property
Read Only	Read Only	Read Only	Event State Property 36	Indicates if object has an active event state associated with it
Read Only	Read Only	Read Only	Inactive Text Property 46	Characterizes intended effect of INACTIVE state of Present_Value property
Read Only	Read Only	Read Only	Object Identifier Property 75	Unique ID number of an object on a network
Read Only	Read Only	Read Only	Object Name Property 77	Unique name of an object on a network
Read Only	Read Only	Read Only	Object Type Property 79	Indicates membership in a particular object type class
Read / Write	Read / Write	Read / Write	Out of Service Property 81	Indicates whether (TRUE/FALSE) physical input object represents is not in service
Read Only	Read / Write	N/A	Polarity Property 84	Indicates relationship between physical state of input and Present_Value
Read / Write	Read / Write	Read / Write	Present Value Property 85	Contains values of all properties specified
Read Only	Read Only	Read Only	Priority Array Property 87	Read-only array of prioritized values
N/A	Read Only	Read Only	Relinquish Default Property 104	Default value to be used for Present Value when values in Priority_Array have a NULL value
Read Only	Read Only	Read Only	Status Flags Property 111	Represents flags that indicate general health of life safety point object

**N/A** = Not Applicable, property not used for objects of that type

\* The Present\_Value is only writeable when Out\_Of\_Service is TRUE.

† Relinquish default: the value can be changed at the thermostat and will remain in the thermostat after a power-cycle. Usage: temperature set-points, fan-mode, system-mode, etc.

### NOTE for BACnet Priorities:

- Written in eeprom, the value cannot be changed on the Room Controller and will remain after a power-cycle. To release it, do a “Restore Factory default” or from BACnet at same priority level. System configuration parameters that shouldn't be changed.
- Written in ram, the value is lost after a power-cycle. Usage: initialization of LUA4RC scripts.

## Multi-state Objects

Object Type Read/Write Settings		Object Property	Controller Parameter
Input MSI	Values MV		
Read Only	Read Only	Event State Property 36	Indicates if object has an active event state associated with it
Read Only	Read Only	Number of States Property 74	Defines number of states Present_Value may have
Read Only	Read Only	Object Identifier Property 75	Unique ID number of an object on a network
Read Only	Read Only	Object Name Property 77	Unique name of an object on a network
Read Only	Read Only	Object Type Property 79	Indicates membership in a particular object type class
Read / Write	Read / Write	Out of Service Property 81	Indicates whether (TRUE/FALSE) physical input object represents is not in service
Read / Write*	Read / Write	Present Value Property 85	Contains values of all properties specified
N/A	Read Only	Priority Array Property 87	Indicates relationship between physical state of input and Present_Value
N/A	Read / Write	Relinquish Default Property 104	Default value used for Present_Value when values in Priority_Array have a NULL value
Read Only	Read Only	State Text Property 110	Represents descriptions of all possible states of Present_Value
Read Only	Read Only	Status Flags Property 111	Represents flags that indicate general health of life safety point object

**N/A** = Not Applicable, property not used for objects of that type

\* The Present\_Value is only writeable when Out\_Of\_Service is TRUE.

† Relinquish default: the value can be changed at the thermostat and will remain in the thermostat after a power-cycle. Usage: temperature set-points, fan-mode, system-mode, etc.

### NOTE for BACnet Priorities:

- Written in eeprom, the value cannot be changed on the Room Controller and will remain after a power-cycle. To release it, do a “Restore Factory default” or from BACnet at same priority level. System configuration parameters that shouldn't be changed.
- Written in ram, the value is lost after a power-cycle. Usage: initialization of LUA4RC scripts.

## CSV Objects

Read/Write	Object Property	Controller Parameter
Read Only	Event State Property 36	Indicates object has an active event state associated with it
Read Only	Object Identifier Property 75	Unique ID number of an object on a network
Read Only	Object Name Property 77	Unique name of an object on a network
Read Only	Object Type Property 79	Indicates membership in a particular object type class
Read / Write	Present Value Property 85	Contains values of all properties specified
Read Only	Status Flags Property 111	Represents flags that indicate general health of life safety point object

## PG Objects

Read/Write	Object Property	Controller Parameter
Read / Write	Description Property 28	String of printable characters whose content is not restricted. Contains the LUA program script (max size = 480 bytes)
Read Only	Description Of Halt Property 29	Describes the reason why a program has been halted Text is also displayed in the HMI debug log
Read Only	Instance Of Property 48	Local name of the application program being executed by this process
Read Only	Object Identifier Property 75	Unique ID number of an object on a network
Read Only	Object Name Property 77	Unique name of an object on a network
Read Only	Object Type Property 79	Indicates membership in a particular object type class
Read Only	Out Of Service Property 81	Indicates whether (TRUE/FALSE) the process this object represents is not in service
Write Only	Program Change Property 90	Used to request changes to the operating state of the program. Writing to property affects all 10 PG objects
Read Only	Program State Property 92	Current logical state of all 10 PG objects executing application programs
Read Only	Reason For Halt Property 100	If program halts, this property reflects the reason for halt for all 10 PG objects
Read Only	Status Flags Property 111	Represents flags that indicate general health of life safety point object

**N/A** = Not Applicable, property not used for objects of that type

\* The Present\_Value is only writeable when Out\_Of\_Service is TRUE.

† Relinquish default: the value can be changed at the thermostat and will remain in the thermostat after a power-cycle. Usage: temperature set-points, fan-mode, system-mode, etc.

### NOTE for BACnet Priorities:

- Written in eeprom, the value cannot be changed on the Room Controller and will remain after a power-cycle. To release it, do a “Restore Factory default” or from BACnet at same priority level. System configuration parameters that shouldn't be changed.
- Written in ram, the value is lost after a power-cycle. Usage: initialization of LUA4RC scripts.

## CAL Object Properties

Read/Write	Object Property	Controller Parameter
Read / Write	Date List Property 23	List of calendar entries.
Read Only	Object Identifier Property 75	Unique ID number of an object on a network
Read Only	Object Name Property 77	Unique name of an object on a network
Read Only	Object Type Property 79	Indicates membership in a particular object type class
Read Only	Present Value Property 85	This property is TRUE when current date matches an entry.

## SCH Object Properties

Read/Write	Object Property	Controller Parameter
Read Only	Effective Period Property 32	Range of dates within which the Schedule object is active. All dates are in range, so always Effective
Read / Write	Exception Schedule Property 38	Sequence of schedule actions that takes precedence over normal behavior on a specific day or days. By default, this property refers to the calendar.
Read Only	Object Identifier Property 75	Unique ID number of an object on a network
Read Only	Object Name Property 77	Unique name of an object on a network
Read Only	Object Type Property 79	Indicates membership in a particular object type class
Read / Write	Present Value Property 85	Contains the current value of the schedule (0:unoccupied, 1:occupied) Only writeable when Out Of Service is TRUE
Read / Write	Out Of Service Property 81	Indicates whether (TRUE/FALSE) the internal calculations of the schedule object are used to determine the value of the Present Value property
Read Only	Reliability Property 103	Indicates if Present Value is "reliable"
Read Only	Status Flags Property 111	Represents flags that indicate general health of life safety point object
Read / Write	Weekly Schedule Property 123	7 elements that describe the sequence of schedule actions for each day of the week.
Read Only	Schedule Default Property 174	Default value to be used when no other scheduled value is in effect. Always Unoccupied

**N/A** = Not Applicable, property not used for objects of that type

\* The Present\_Value is only writeable when Out\_Of\_Service is TRUE.

† Relinquish default: the value can be changed at the thermostat and will remain in the thermostat after a power-cycle. Usage: temperature set-points, fan-mode, system-mode, etc.

### NOTE for BACnet Priorities:

- Written in eeprom, the value cannot be changed on the Room Controller and will remain after a power-cycle. To release it, do a "Restore Factory default" or from BACnet at same priority level. System configuration parameters that shouldn't be changed.
- Written in ram, the value is lost after a power-cycle. Usage: initialization of LUA4RC scripts.



# Analog Objects

## Analog Input Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Thermistor	1	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Light Sensor Level	2	0	0	30000	---
Thermistor Self Heat	3	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Relative Humidity Value	4	0	20	80	%
UI20 Raw Value	5	0	0	4095	---
UI23 Raw Value	7	0	0	4095	---
UI22 Raw Value	8	0	0	4095	---
UI24 Raw Value	9	0	0	4095	---
UI19 Raw Value	31	0	0	4095	---
Wireless Device 1 - Address	210	0	-32768	32767	ZigBee Pro
Wireless Device 2 - Address	220	0	-32768	32767	ZigBee Pro
Wireless Device 3 - Address	230	0	-32768	32767	ZigBee Pro
Wireless Device 4 - Address	240	0	-32768	32767	ZigBee Pro
Wireless Device 5 - Address	250	0	-32768	32767	ZigBee Pro
Wireless Device 6 - Address	260	0	-32768	32767	ZigBee Pro
Wireless Device 7 - Address	270	0	-32768	32767	ZigBee Pro
Wireless Device 8 - Address	280	0	-32768	32767	ZigBee Pro
Wireless Device 9 - Address	290	0	-32768	32767	ZigBee Pro
Wireless Device 10 - Address	300	0	-32768	32767	ZigBee Pro
Wireless Green Power - Address	314	0	-32768	32767	ZigBee Green Power
Wireless Device 1 - Temperature	315	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 2 - Temperature	316	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 3 - Temperature	317	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 4 - Temperature	318	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 5 - Temperature	319	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 6 - Temperature	320	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 7 - Temperature	321	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 8 - Temperature	322	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 9 - Temperature	323	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Wireless Device 10 - Temperature	324	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius

## Analog Input Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Wireless Green Power - Temperature	326	0	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Remote Relative Humidity	327	0	0	100	%
Paired Devices	330	0	0	11	Number of paired devices

## Analog Output Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
PI Heat Demand	21	0	0	100	%
PI Cool Demand	22	0	0	100	%
UO11 Analog Output	123	0	0	10	Voltage
UO12 Analog Output	124	0	0	10	Voltage
UO9 Analog Output	125	0	0	10	Voltage
UO10 Analog Output	126	0	0	10	Voltage
UO9 Analog Output	125	0	0	10	Voltage
UO10 Analog Output	126	0	0	10	Voltage

## Analog Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
User HMI Icons	2	0	0	12	Show/Hide screen icons
Low Backlight	3	60	0	100	%
Night Backlight	4	5	0	100	%
Purge Sample	5	2	0	4	Hours
Purge Open	6	2	1	3	Minutes
Calibrate Temperature	7	0	-5°F (-20°C)	5°F (10°C)	Fahrenheit/ Celcius
Calibrate Humidity	8	0	-15	15	%
COM Address	10	254	0	254	COM address
BACnet Stack Poll Rate	16	4	1	5	----
Param. A (AV25)	25	0	-32768	32767	----
Param. B (AV26)	26	0	-32768	32767	----
Param. C (AV27)	27	0	-32768	32767	----
Param. D (AV28)	28	0	-32768	32767	----
Param. E (AV29)	29	0	-32768	32767	----
Param. F (AV30)	30	0	-32768	32767	----
Occ. Heat	39	72°F (22°C)	40°F (4.5°C)	90°F (32°C)	Fahrenheit/ Celcius
Occ. Cool	40	75°F (24°C)	54°F (12°C)	100°F (38°C)	Fahrenheit/ Celcius
Standby Heat	41	69°F (21°C)	40°F (4.5°C)	90°F (32°C)	Fahrenheit/ Celcius
Standby Cool	42	78°F (21°C)	54°F (26°C)	100°F (38°C)	Fahrenheit/ Celcius
Unocc. Heat	43	62°F (17°C)	40°F (4.5°C)	90°F (32°C)	Fahrenheit/ Celcius
Unocc. Cool	44	80°F (27°C)	54°F (26°C)	100°F (38°C)	Fahrenheit/ Celcius
Default Heat	45	72°F (22°C)	65°F (18°C)	80°F (27°C)	Fahrenheit/ Celcius
Standby Differential	46	4°F (1.5°C)	1°F (0.5°C)	5°F (2.5°C)	Fahrenheit/ Celcius
Number of Pipes	52	2	2	4	Number of pipes
Main Password	56	0	0	9999	Installer password

## Analog Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
User Password	57	0	0	999	User password
Maximum Heating	58	90°F (32°C)	40°F (4.5°C)	90°F (32°C)	Fahrenheit/ Celcius
Maximum Cooling	59	54°F (26°C)	54°F (26°C)	100°F (38°C)	Fahrenheit/ Celcius
Temp Occ. Time	62	2	0	24	Hours
Minimum Deadband	63	3°F (1.5°C)	2°F (1°C)	5°F (2.5°C)	Fahrenheit/ Celcius
Proportional Band	65	3	3	10	----
Standby Time	67	0.5	0.5	24	Hours
Unoccupied Time	68	0.5	0.5	24	Hours
Dehumidification Setpoint	71	50	30	95	%RH
Dehumidification Hysteresis	72	50	30	95	%RH
Dehumidification Maximum Cool	73	100	20	100	%
Econo Maximum Position	81	0	0	100	%
Heating CPH	84	4	3	8	Cycles/Hour
Heat Dehumidification Limit	88	0	0	100	%
Cool Dehumidification Limit	89	0	0	100	%
Floating Time	90	1.5	.5	9	Minutes
Heat Lockout	91	120°F (49°C)	-15°F (-26°C)	120°F (49°C)	Fahrenheit/ Celcius
Keyboard Value	92	0	0	35	----
Room Temperature	100	0°F (0°C)	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Outdoor Temperature	101	0°F (0°C)	-40°F (-40°C)	150°F (65.5°C)	Fahrenheit/ Celcius
Supply Temperature	102	0°F (0°C)	-40°F (-40°C)	122°F (50°C)	Fahrenheit/ Celcius
Room Humidity	103	0	0	100	%RH
UI19 Changeover Temperature	104	0°F (0°C)	-40°F (-40°C)	150°F (65.5°C)	Fahrenheit/ Celcius
UI20 Remote Temperature	105	0°F (0°C)	-40°F (-40°C)	150°F (65.5°C)	Fahrenheit/ Celcius
CO <sub>2</sub> level	106	0	0	5000	ppm
Terminal 24, 10 V	107	0	0	10	Voltage
UI24 Temperature	109	0°F (0°C)	-40°F (-40°C)	150°F (65.5°C)	Fahrenheit/ Celcius

## Analog Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
UI19 Lua	202	0	-32768	32767	----
UI20 Lua	203	0	-32768	32767	----
UI22 Lua	204	0	-32768	32767	----
UI23 Lua	205	0	-32768	32767	----
UI24 Lua	206	0	-32768	32767	----
Threshold	209	40°F	32°F	45°F	Fahrenheit
Hysteresis	210	4°F	0°F	100°F	Fahrenheit
Shed Offset	211	4°F (2°C)	4°F (2°C)	10°F (5.5°C)	Fahrenheit/Celcius
ECM Fan Low Voltage	212	22	20	40	Unit= Voltage Factor = 0.1
ECM Fan Medium Voltage	213	60	41	70	Unit= Voltage Factor = 0.1
ECM Fan High Voltage	214	86	71	100	Unit= Voltage Factor = 0.1

# Binary Objects

## Binary Input Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
UI16 Binary Input	29	0	0	1	0 = Activated 1 = No Activated
UI17 Binary Input	30	0	0	1	0 = Activated 1 = No Activated
UI19 Binary Input	91	0	0	1	0 = Activated 1 = No Activated
UI20 Binary Input	94	0	0	1	0 = Activated 1 = No Activated
UI22 Binary Input	95	0	0	1	0 = Activated 1 = No Activated
UI23 Binary Input	96	0	0	1	0 = Activated 1 = No Activated
UI24 Binary Input	97	0	0	1	0 = Activated 1 = No Activated

## Binary Output Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
UO9 Binary Output	93	0	0	1	0 = Off 1 = On
UO10 Binary Output	94	0	0	1	0 = Off 1 = On
BO4 High Speed Fan Output	95	0	0	1	0 = Off 1 = On
BO3 Medium Speed Fan Output	96	0	0	1	0 = Off 1 = On
BO2 Low Speed Fan Output	97	0	0	1	0 = Off 1 = On
BO1 Aux. Out	98	0	0	1	0 = Off 1 = On
UO11 Binary Output	101	0	0	1	0 = Off 1 = On
UO12 Binary Output	102	0	0	1	0 = Off 1 = On

## Binary Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Door Status	1	0	0	1	0 = Closed 1 = Open
Door Installed	2	0	0	1	0 = No 1 = Yes
Window Status	3	0	0	1	0 = Closed 1 = Open
Window Installed	4	0	0	1	0 = No 1 = Yes
Low Battery	5	0	0	1	0 = Off 1 = On
Force High Backlight	6	0	0	1	0 = Off 1 = On
Long Message Display	7	0	0	1	0 = Off 1 = On
Clock Alarm	8	0	0	1	0 = Off 1 = On
Exception Status	10	0	0	1	0 = Off 1 = On
Local Motion	32	0	0	1	0 = No motion 1 = Motion
Window Alarm	35	0	0	1	0 = Off 1 = On
Filter Alarm	36	0	0	1	0 = Off 1 = On
Service Alarm	37	0	0	1	0 = Off 1 = On
Dehumidification Status	38	0	0	1	0 = Off 1 = On
Recovery Status	40	0	0	1	0 = Off 1 = On
Water Leak	44	0	0	1	0 = Off 1 = On
Water Installed	45	0	0	1	0 = No 1 = Yes
Water Status	46	0	0	1	0 = Normal 1 = Leak
Low Temperature	47	0	0	1	0 = Off 1 = On
Shed Demand	48	0	0	1	0 = Closed 1 = Open
Shed Status	49	0	0	1	0 = No 1 = Yes
Shed Override	50	0	0	1	0 = Closed 1 = Open
ZigBee PIR Status	200	0	0	1	0 = No 1 = Yes
ZigBee Sensor Motion	201	0	0	1	0 = No motion 1 = Motion

# CSV Objects

## CSV Property Value Ranges

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Short Screen Message	1	0	0	64	----
Long Screen Message	2	0	0	480	----
Ext. Mem. Revision	3	0	0	9	----

# Multi-State Objects

## Multi-State Input Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
BACnet Status	1	1	1	2	1 = Offline 2 = Online
Network Status	2	1	1	5	1 = Not det. 2 = Pwr on 3 = No NWK 4 = Joined 5 = Online
Effective Occupancy	33	1	1	4	1 = Occupied 2 = Unoccupied 3 = Override 4 = Standby
Wireless Device 1 - Status	210	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 1 - Battery	211	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 1 - Communication Status	212	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline
Wireless Device 2 - Status	220	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak



## Multi-State Input Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Wireless Device 2 - Battery	221	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 2 - Communication Status	222	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline
Wireless Device 3 - Status	230	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 3 - Battery	231	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 3 - Communication Status	232	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline
Wireless Device 4 - Status	240	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 4 - Battery	241	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 4 - Communication Status	242	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline
Wireless Device 5 - Status	250	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 5 - Battery	251	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 5 - Communication Status	252	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline

## Multi-State Input Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Wireless Device 6 - Status	260	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 6 - Battery	261	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 6 - Communication Status	262	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline
Wireless Device 7 - Status	270	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 7 - Battery	271	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 7 - Communication Status	272	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline
Wireless Device 8 - Status	280	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 8 - Battery	281	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 8 - Communication Status	282	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline
Wireless Device 9 - Status	290	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 9 - Battery	291	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 9 - Communication Status	292	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline

## Multi-State Input Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Wireless Device 10 - Status	300	1	1	7	1 = None 2 = Closed 3 = Opened 4 = No motion 5 = Motion 6 = Normal 7 = Leak
Wireless Device 10 - Battery	301	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Device 10 - Communication Status	302	1	1	4	1 = Not paired 2 = Online 3 = Invalid 4 = Offline
Wireless Green Power - Communication Status	309	1	1	5	1 = Not paired 2 = Online 3 = Invalid 4 = Offline 5 = Paired
Wireless Green Power - Battery	310	1	1	3	1 = None 2 = Normal 3 = Low
Wireless Green Power - Remove	311	1	1	2	1 = No 2 = Yes
Effective Temperature Sensor	312	1	1	14	<b>1</b> = Wired, <b>2</b> = Internal, <b>3</b> = WL IO, <b>4</b> = WL 1, <b>5</b> = WL 2, <b>6</b> = WL 3, <b>7</b> = WL 4, <b>8</b> = WL 5, <b>9</b> = WL 6, <b>10</b> = WL 7, <b>11</b> = WL 8, <b>12</b> = WL 9, <b>13</b> = WL 10, <b>14</b> = WL GP
Effective Relative Humidity Sensor	313	1	1	13	<b>1</b> = None, <b>2</b> = Internal, <b>3</b> = WL 1, <b>4</b> = WL 2, <b>5</b> = WL 3, <b>6</b> = WL 4, <b>7</b> = WL 5, <b>8</b> = WL 6, <b>9</b> = WL 7, <b>10</b> = WL 8, <b>11</b> = WL 9, <b>12</b> = WL 10, <b>13</b> = WL GP

## Multi-Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Long Message Background Color	1	1	1	11	1 = White 2 = Green 3 = Blue 4 = Grey 5 = Dark grey 6 = Pink 7 = Purple 8 = Red 9 = Orange 10 = Black 11 = Default
HMI Color	2	1	1	10	1 = White 2 = Green 3 = Blue 4 = Grey 5 = Dark grey 6 = Pink 7 = Purple 8 = Red 9 = Orange 10 = Black
Main Display	3	1	1	2	1 = Temperature 2 = Setpoint
Language	4	1	1	21	<b>1</b> = English, <b>2</b> = French, <b>3</b> = Spanish, <b>4</b> = Chinese, <b>5</b> = Russian, <b>6</b> = Arabic, <b>7</b> = Bulgarian, <b>8</b> = Czech, <b>9</b> = Danish, <b>10</b> = Dutch, <b>11</b> = Finnish, <b>12</b> = German, <b>13</b> = Hungarian, <b>14</b> = Indonesian, <b>15</b> = Italian, <b>16</b> = Norwegian, <b>17</b> = Polish, <b>18</b> = Portuguese, <b>19</b> = Slovak, <b>20</b> = Swedish, <b>21</b> = Turkish <b>22</b> = Japanese, <b>23</b> = Hebrew
Time Format	5	1	1	2	1 = AM-PM 2 = 24 Hours
Network Units	6	1	1	2	1 = SI 2 = Imperial
Network Language	7	1	1	3	1 = English 2 = French 3 = Spanish

## Multi-Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Baud Rate	8	7	1	7	1 = 9600 2 = 19200 3 = 38400 4 = 57600 5 = 76800 6 = 115200 7 = Auto
No Active Sleep Mode	9	1	1	2	1 = Disabled 2 = Enabled
Occupancy Command	10	2	1	3	1 = Loc. occ 2 = Occupied 3 = Unocc.
Standby Mode	11	1	1	2	1 = Absolute 2 = Offset
Dehumidification Lockout	13	2	1	2	1 = Disabled 2 = Enabled
Operation Sequence	15	2	1	6	1 = Cool only 2 = Heat only 3 = Cool-rht 4 = Heat-rht 5 = Cool/Heat 6 = Cl/ht-rht
System Mode	16	4	1	4	1 = Off 2 = Auto 3 = Cool 4 = Heat
Fan Mode	17	2	1	3	1 = On 2 = Auto 3 = Smart
Standby Screen	32	1	1	4	1 = No 2 = Yes 3 = Occ. only 4 = Screen sav
UI16 Configuration	46	1	1	5	1 = None 2 = Rem NSB 3 = Motion NO 4 = Motion NC 5 = Window
UI17 Configuration	47	1	1	5	1 = None 2 = Door dry 3 = Override 4 = Filter 5 = Service
UI19 Configuration	49	1	1	4	1 = None 2 = COC/NH 3 = COC/NC 4 = COS
Auto Mode	50	1	1	2	1 = Disabled 2 = Enabled
Temperature Units	51	1	1	2	1 = °C 2 = °F

## Multi-Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Fan Menu	57	5	1	5	1 = L-M-H 2 = L-H 3 = L-M-H-A 4 = L-H-A 5 = On-Auto
Setpoint Function	58	2	1	2	1 = Dual SP 2 = Attach SP
Auto Fan Function	66	1	1	2	1 = AS 2 = AS/SD
Relative Humidity Display	70	1	1	2	1 = Disabled 2 = Enabled
Smart Recovery	71	1	1	2	1 = Off 2 = On
Schedule Menu	73	2	1	4	1 = Disabled 2 = Enabled 3 = Dis. no. clk. 4 = En. no. clk.
Control Type	81	2	1	3	1 = On/Off 2 = Floating 3 = Analog
BO8 Aux Out Time Base	91	1	1	2	1 = 15 minutes 2 = 10 seconds
BO8 Aux Output Configuration	92	1	1	5	1 = Reheat 2 = Aux NO 3 = Aux NC 4 = F & NO 5 = F & NC
Action	94	1	1	2	1 = DA 2 = RA
UO9 Configuration	96	2	1	4	1 = Analog 2 = Binary 3 = Relay RC 4 = Relay RH
UO10 Configuration	97	2	1	3	1 = Analog 2 = Binary 3 = Relay RC
UO11 Configuration	98	2	1	2	1 = Analog 2 = Binary
UO12 Configuration	99	2	1	2	1 = Analog 2 = Binary
English	100	1	1	1	1 = Enabled
French	101	2	1	2	1 = Disabled 2 = Enabled
Spanish	102	2	1	2	1 = Disabled 2 = Enabled
Chinese	103	2	1	2	1 = Disabled 2 = Enabled
Russian	104	2	1	2	1 = Disabled 2 = Enabled

## Multi-Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Occupancy Screen	110	1	1	2	1 = Motion 2 = Schedule
Mode Button	111	1	1	2	1 = Normal 2 = Off-Auto
Control Status	112	1	1	3	1 = Off 2 = Cool 3 = Heat
Custom Icon Buttons	114	1	1	17	<b>1</b> = Default, <b>2</b> = None, <b>3</b> = System mode Heat/Cool, <b>4</b> = System mode On/Off, <b>5</b> = Fan mode, <b>6</b> = Override, <b>7</b> = Units, <b>8</b> = Help, <b>9</b> = Language, <b>10</b> = Schedule, <b>11</b> = Lighting, <b>12</b> = Blind, <b>13</b> = Lamp, <b>14</b> = Energy, <b>15</b> = Make up room, <b>16</b> = Setting, <b>17</b> = Timer
Custom Behavior	115	1	1	12	<b>1</b> = Default, <b>2</b> = No function, <b>3</b> = System mode function, <b>4</b> = Fan function, <b>5</b> = Override, <b>6</b> = Schedule, <b>7</b> = Units, <b>8</b> = Help, <b>9</b> = Language, <b>10</b> = Configuration, <b>11</b> = Custom, <b>12</b> = Standby
Arabic	120	1	1	2	1 = Disabled 2 = Enabled
Bulgarian	121	1	1	1	1 = Disabled
Czech	122	1	1	2	1 = Disabled 2 = Enabled
Danish	123	1	1	2	1 = Disabled 2 = Enabled
Dutch	124	1	1	2	1 = Disabled 2 = Enabled
Finnish	125	1	1	2	1 = Disabled 2 = Enabled
German	126	1	1	2	1 = Disabled 2 = Enabled
Hungarian	127	1	1	2	1 = Disabled 2 = Enabled
Indonesian	128	1	1	2	1 = Disabled 2 = Enabled

## Multi-Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Italian	129	1	1	2	1 = Disabled 2 = Enabled
Norwegian	130	1	1	2	1 = Disabled 2 = Enabled
Polish	131	1	1	2	1 = Disabled 2 = Enabled
Portuguese	132	1	1	2	1 = Disabled 2 = Enabled
Slovak	133	1	1	2	1 = Disabled 2 = Enabled
Swedish	134	1	1	2	1 = Disabled 2 = Enabled
Turkish	135	1	1	2	1 = Disabled 2 = Enabled
Schedule Type	136	1	1	2	1 = 7 days 2 = 5 + 2 days 3 = 5 + 1 + 1 days
Schedule Events	137	3	1	3	1 = 2/day 2 = 4/day 3 = 6/day
UI19 Input Type	140	3	1	3	1 = Thermistor 2 = Binary 3 = Voltage
UI20 Input Type	141	1	1	2	1 = Thermistor 2 = Binary 3 = Voltage
UI22 Input Type	142	1	1	2	1 = Thermistor 2 = Binary 3 = Voltage
UI23 Input Type	143	1	1	2	1 = Thermistor 2 = Binary 3 = Voltage
UI24 Input Type	144	3	1	4	1 = Thermistor 2 = Binary 3 = Voltage 4 = Reserved
Temperature Sensor	145	3	1	14	<b>1</b> = Wired, <b>2</b> = Internal, <b>3</b> = WL IO, <b>4</b> = WL 1, <b>5</b> = WL 2, <b>6</b> = WL 3, <b>7</b> = WL 4, <b>8</b> = WL 5, <b>9</b> = WL 6, <b>10</b> = WL 7, <b>11</b> = WL 8, <b>12</b> = WL 9, <b>13</b> = WL 10, <b>14</b> = WL GP
CO <sub>2</sub> Sensor	146	2	1	2	1 = Disabled 2 = Enabled
CO <sub>2</sub> Auto Calibration	147	2	1	2	1 = Disabled 2 = Enabled



## Multi-Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Lock Screen	148	1	1	2	1 = No 2 = Yes
Relative Humidity Sensor	149	2	1	13	<b>1</b> = None, <b>2</b> = Internal, <b>3</b> = WL 1, <b>4</b> = WL 2, <b>5</b> = WL 3, <b>6</b> = WL 4, <b>7</b> = WL 5, <b>8</b> = WL 6, <b>9</b> = WL 7, <b>10</b> = WL 8, <b>11</b> = WL 9, <b>12</b> = WL 10, <b>13</b> = WL GP
Auto Mode Enable	151	1	1	2	1 = Off 2 = On
ADR Permission	152	1	1	2	1 = Off 2 = On
Wireless Device GP - Function	153	2	1	3	1 = Remove 2 = None 3 = T
Fan Type	154	1	1	2	1=3 speed, 2=ECM
Japanese	155	1	1	2	1= Disabled 2=Enabled
Hebrew	156	1	1	2	1= Disabled 2=Enabled
Wireless Device 1 - Function	210	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water
Wireless Device 2 - Function	220	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water
Wireless Device 3 - Function	230	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water

## Multi-Value Properties

Object name	Instance	Default Value	Minimum Range Value	Maximum Range Value	Description
Wireless Device 4 - Function	240	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water
Wireless Device 5 - Function	250	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water
Wireless Device 6 - Function	260	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water
Wireless Device 7 - Function	270	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water
Wireless Device 8 - Function	280	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water
Wireless Device 9 - Function	290	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water
Wireless Device 10 - Function	300	6	1	7	1 = None, 2 = Window, 3 =Door, 4 = Motion, 5 = Status, 6 = Remove, 7 = Water