

# Engineering

## T8168 BACnet® Thermostat Protocol

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When installed, this thermostat will be part of an engineered system whose specification and performance characteristics are not designed or controlled by PECO®. The user is responsible to review the application for functionality and assure compliance with national and local codes.

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### Product Description:

The T8168 Thermostat controllers are BACnet application specific controllers. The thermostat is intended for use in residential and commercial environments. It is designed for and can support up to 2-HEAT/2-COOL conventional, Three Wire Floating, and 0-10VDC thermostat applications.

### BACnet Standardized Device Profiles Supported (Annex L):

BACnet Application Specific Controller (B-ASC)

### BACnet Interoperability Building Blocks Supported (Annex K):

BIBB Name	Designation
Data Sharing – ReadProperty - B	DS-RP-B
Data Sharing – ReadPropertyMultiple – B	DS-RPM-B
Data Sharing – WriteProperty – B	DS-WP-B
Data Sharing – WritePropertyMultiple – B	DS-WPM-B
Data Sharing – Change of Value – B	DS-COV-B
Data Sharing – Change of Value Property - B	DS-COVP-B
Device Management – Dynamic Device Binding - B	DM-DDB-B
Device Management – Dynamic Object Binding – B	DM-DOB-B
Device Management – Device Communication Control – B	DM-DCC-B
Device Management – Reinitialize Device – B	DM-RD-B

### Standard Object Types Supported:

Object-Type	Creatable	Deletable	Optional Properties Supported
Analog-value	0	0	None
Binary Value	0	0	None
Device	0	0	None

### BACnet Data Link Layer Options:

BACnet IP, (Annex J)

MS/TP Slave (Clause 9)

Non-isolated transceiver     Isolated transceiver

Local 47K ohms bias resistors     None     Other: \_\_\_\_\_

Transceiver unit loading:  1     ½     ¼     ⅛

Data rates:  9600     19200     38400     57600     76800     115200

**Device Address Binding:**

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.)  Yes  No

**Networking Options:**

- Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
- Annex H, BACnet Tunneling Router over IP

**Character Sets Supported:**

- ISO 10646 (UTF-8)  IBM™/Microsoft™ DBCS  ISO 8859-1
- ISO 10646 (UCS-2)  ISO 10646 (UCS-4)  JIS X 0208

## BACnet Standard Objects

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Yd State	analog-value, 0	R	0	100			
Wd State	analog-value, 1	R	0	100			
Gd state	analog-value, 2	R	0	100			
TWF Heating Position	analog-value, 3	R	0	100			
TWF Cooling Position	analog-value, 4	R	0	100			
Zone Temperature	analog-value, 5	R	30	99			
Active Cool Setpoint	analog-value, 6	R	50	90			
Active Heat Setpoint	analog-value, 7	R	50	90			
S1 Value	analog-value, 8	R	30	99			
S2 Value	analog-value, 9	R	30	99			
Fan Speed	analog-value, 10	RW	0	3			
Fan Auto/On	analog-value, 11	RW	1	2			
Override Temp	analog-value, 12	R	50	90			
Humidity	analog-value, 13	R	0	100			
Schedule format	analog-value, 14	RW	0	3	0 = Nonprogrammable (Default) 1 = Programmable 2 = 5-1-1 Schedule Mode 3 = 5-2 Schedule Mode	Selects the schedule format. In non-programmable mode all scheduling functions are removed from the display.	100
Daylight Savings	analog-value, 15	RW	0	1	0 = Disabled (Default) 1 = Enabled (2007 US Format)	When enabled daylight savings time follows the US 2007 format. (Begins second Sunday of March at 2AM and ends on the first Sunday of November at 2AM.	101
System Type	analog-value, 16	RW	1	17	1 - 1 Heat /1Cool /1Fan 2 - 2 Heat /1Cool / 1Fan	Configures operation of the thermostat for specific equipment.	110

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
					3 - 1 Heat /1Cool / 3Spd Fan 4 - 2Heat /1Cool / 3Spd Fan 5 - 2Heat / 2Cool / 2Spd Fan 6 - Heat Only /1Fan 7 - Cool Only /1Fan 8 - Heat Only / 2Spd Fan 9 - Cool Only /2Spd Fan 10 Heat Only /3 Spd Fan 11 - Cool Only /3 Spd Fan 12 - Heat TWF/ 2Cool/ 2SpdFan 13 - Heat TWF/ 1Cool/ 3SpdFan 14 - 2Heat/ Cool TWF/ 2 Spd Fan 15 - Heat TWF/ Cool TWF 2SpdFan (Default)	Please refer to the installation guide for more information.	
Damper Configuration	analog-value, 17	RW	0	1	0 – Continuous 1 – Cycled with Demand (Default)	Damper output is not available when being used as a fan speed.	111
System Fan Type	analog-value, 18	RW	0	2	0 = On/Off Fan (Default)  1 = 0–10VDC FAN Hi-MED-LO Fan  2 = Proportional 0-10VDC Fan	0: Uses available fan speeds per Service Menu 110 1: Uses GD output for 0-10 VDC fan*. User selection of speed. HI Speed is set at SM 125-126, LO speed is set at SM 127, MED is set between HI-LO. 2: Uses GD output for 0-10 VDC fan*.  Modulates between Min and Max selections in SM 125-127*. *Damper Output is Available at (G1) and runs per SM 111	112
Valve Stoke Time	analog-value, 19	RW	30	300	30 Sec To 5 Min (Default 120)	Set the amount of time for a TWF valve to go from fully closed to fully Open.	114
Fan Control (heating)	analog-value, 20	RW	0	1	0 – OFF for Heating (Gas/Oil Heat)  1= Electric Furnace (DEFAULT)	0: The thermostat will not activate the fan with a heating demand. 1: The thermostat will activate the fan with heat demand.	120
YD Output Configuration	analog-value, 21	RW	0	1	0 = 4 – 20mA 1 = 0 – 10 Volts (DEFAULT)	Configures digital cooling output for 0-10VDC or 4-20mA DC	122
WD Output Configuration	analog-value, 22	RW	0	1	0 = 4 – 20mA 1 = 0 – 10 Volts (DEFAULT)	Configures digital heating output for 0-10VDC or 4-20mA DC	123
GD Output Configuration	analog-value, 23	RW	0	1	0 = 4 – 20ma 1 = 0 – 10 Volts (DEFAULT)	Configures digital fan output for 0-10VDC or 4-20mA DC	124
GD Max Voltage, Heating Demand	analog-value, 24	RW	6	20	6 – 10 VDC (Default: 8) 12 – 20 mA (Default: 20)	Depending on SM 124 setting, sets Fan HI speed voltage or current (mA) at terminal GD with demand for Heat.	125
GD Max Voltage, Cooling Demand	analog-value, 25	RW	6	20	6 – 10 VDC (Default: 10) 12 – 20 mA (Default: 20)	Depending on SM 124 setting, sets Fan HI speed voltage or current (mA) at terminal GD with demand for Cool.	126
GD Min Voltage	analog-value, 26	RW	0	12	0 – 6 VDC (Default: 2) 4 – 12 mA (Default: 4)	Depending on SM 124 setting, sets Fan LO speed voltage or current (mA) at terminal GD with no demand.	127
W1 Output Configuration	analog-value, 27	RW	0	1	0 - NC: Normally Closed Operation (Default) 1 - NO: Normally Open Operation	Reverses the ON/OFF operation for W1. NC operation powers on with a demand. NO operation powers off with a demand and will be on with no demand unless main power is removed from the thermostat.	135
S1 Remote Sensor Input	analog-value, 28	RW	0	2	0= No Remote Sensors (Default) 1= Remote Indoor Sensor 2= Remote Sensor And Sensor Averaging	0: Remote temperature sensing is disabled. 1: The T8168 uses the remote sensor only for temperature sensing. 2: The T8168 averages the local and remote sensor for temperature sensing.	170

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
S2 Pipe Sensor	analog-value, 29	RW	0	2	0 – Disabled (Default) 1 – Two Pipe Operation 2 – Four Pipe Operation (use for 2-pipe with electric heat relay)	Enables fan coil pipe sensor operation. Connect a PECO pipe sensor or dry switch closure for change over from Summer (cold water) to Winter (hot water). 2-pipe operation uses the Cool 1 output for heating and cooling. Heat 1 is disabled. 4-pipe operation allows heat 1 in summer mode of operation. Available when SM 110 = 1 through 5 or 14 through 16	171
Pipe Sensor Threshold for Cooling	analog-value, 30	RW	50	72	50F to 72F (Default 60F)	Changes to Cool when pipe temp is below threshold. Available when SM 171 = 1 or 2	172
Pipe Sensor Threshold for Heating	analog-value, 31	RW	75	90	75F to 90F (Default 80F)	Changes to Heat when pipe temp is above threshold. Available when SM 171 = 1 or 2	173
Pipe Sensor Purge	analog-value, 32	RW	0	1	0 = Time 1 = Temp (Default)	TEMP (0): Purge continues until a non-ambiguous condition is sensed. TIME (1): A 3-minute purge is started. Once complete and still ambiguous mode all thermostat outputs are disabled for 1 hour. Available when SM 171 = 1 or 2	174
Fault Detection/Setback	analog-value, 33	RW	0	4	0 = Disabled (Default) 1 = Active On Open 2 = Active On Open 3 = Active On Close 4 = Occupancy Sensor	0 = When enabled connect dry switch between S1 and SC. 1 = Displays "Door" in clock location, turn outputs OFF, blink red LED 2 = Displays "Fdd" in clock location, outputs function normally 3 = Displays "Err" on clock location, turn outputs OFF blink red LED 4 = Sets thermostat to setback with a closure at SC and S1 .	175
Number of Program Periods	analog-value, 34	RW	2	4	2 or 4 Events (DEFAULT = 2)	When the T8168 is set up as programmable this sets the number of events per day. Events are OCC1, UNOCC1, OCC2, UNOCC2	240
Clock Format	analog-value, 35	RW	12	24	12 or 24 Hrs (Default = 12)	This service menu sets the clock format.	250
F or C	analog-value, 36	RW	0	1	0- Celsius 1- Fahrenheit (Default)	Determines temperature displays in Fahrenheit or Celsius	260
Fan Off Delay Heat	analog-value, 37	RW	0	99	0-99 Seconds (0-Default)	The amount of time (in seconds) the lowest available fan speed will run after the thermostat heating outputs are disabled	270
Fan Off Delay Cool	analog-value, 38	RW	0	99	0-99 Seconds (0-Default)	The amount of time (in seconds) the lowest thermostat cooling outputs are disabled	280
Range Low	analog-value, 39	RW	50	90	50-90 F (50F- Default)	The lowest selectable temperature setpoint value	290
Range High	analog-value, 40	RW	50	90	50-90 F (90F Default)	The highest selectable temperature setpoint value	300
Setback Low	analog-value, 41	RW	50	90	Off, 50-90 F (67F Default)	Accessed from Wi-Fi or by occupancy sensor detection. "Off" turns heating setpoint off.	310
Setback High	analog-value, 42	RW	50	90	Off, 50-90 F (78F Default)	Accessed from Wi-Fi or by occupancy sensor detection. Off" turns cooling setpoint off.	320
Zone Temp Offset	analog-value, 43	RW	0	9	+/-9F (0F Default)	Zone Temperature offset adjusts the sensed Zone Temperature displayed, allowing calibration in the field	330

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Keypad Lockout	analog-value, 44	RW	0	3	0- No Keypad Lockout (Default) 1- Disables Schedule and System Keys 2 - Disables Schedule, System, And Fan Keys 3 - Disables All Keys	This function blocks access to certain features of the device. The Service Menu is still available if the keypad lockout is enabled. If PIN is entered keypad lockout is overridden for 5 minutes.	340
Enable Pin Access	analog-value, 45	RW	0	1	0=Disable 1= Enable (Default = 0)	Applies a 3-digit access code to enter service menu 342	341
Set Pin	analog-value, 46	RW	0	999	000-999 (Default 000)	Selects pin access three-digit code.	342
Fan Mode	analog-value, 47	RW	1	5	1- On 2- Auto 3- ON Or Auto (Default) 4 – Staged Only 5- On Or Staged - Hotel Mode	ON: Fan is always on, regardless of demand. User selections are: ON HI, ON MED, ON LO based on the number of fan speeds. Auto- Fan is only on with heating or cooling demand User selections are: AUTO HI, AUTO MED, AUTO LO based on the number of fan speeds. ON or Auto user can choose either selection. User selections are: AUTO HI, AUTO MED, AUTO LO, ON HI, ON MED, ON LO based on the number of fan speeds. Fan speed selected from available speeds by thermostat per Fan Access section. User selections are: AUTO or ON. ON- Fan is always on at user selected speed, regardless of demand Auto Staged- Fan cycles off with demand. Fan speed is selected by thermostat from available fan speeds.	350
System Mode	analog-value, 48	RW	0	3	0- Off, Auto 1- OFF, Heat, Cool, Auto (Default) 2- OFF, Heat, Cool 3- Heat, Cool, Auto	Sets the system modes the occupant is able to select Hotel operation - For ease of use change available System modes to ON-AUTO SM360=02	360
System Flush Enable	analog-value, 49	RW	0	3	0 = No Flush (Default) 1 = W1 Flush 2 = Y1 Flush 3 = W1 & Y1 Flush	WARNING: Service Menu 375 may disable fan operation during valve flush. Enables the flush function for fan coil systems. This feature should be set to 0 (zero) unless outputs are connected to hydronic heating or cooling valves. Failure to follow this instruction can result in damage to equipment and/or property.	375
Flush Duration	analog-value, 50	RW	1	3	1 To 3 Minutes (Default 1)	Defines how long to open the valve to perform the flush function	376
Flush Frequency	analog-value, 51	RW	0	2	0 = Every 24 Hours (Default 0) 1 = Every 12 Hours 2 = Every 6 Hours	Defines how often the flush is performed when output has remained inactive	377
Minimum Deadband Adjustment	analog-value, 52	RW	1	10	3F (Default) 1-10F, 1.5-5C	A changeover dead band value prevents short cycling between heating and cooling modes. The value is adjustable to meet various HVAC system requirements.	380
Pre-Occupancy Purge	analog-value, 53	RW	0	3	0 Hours (Default) 0-3 Hours	Energizes the lowest fan available for selected number of hours (0-3) prior to events Occ 1 and Occ 2. This feature applies to	390

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
						Programmable thermostat operation.	
Temporary Occupied Duration Limit	analog-value, 54	RW	0	4	0-4 Hours (Default = 3)	This set the duration of a user override for programmable operation. 0: Will override the schedule until the next programmed event. 1,2,3,4: Sets the number of allowed hours of override after user adjustment. User can adjust override duration up to this limit of hours. This feature is disabled for 0-10 VDC fan applications.	395
Minimum Off Time	analog-value, 55	RW	0	10	0-10 Minutes (Default 1 Minutes)	Sets the minimum off time for both the heat and cool output.	480
Programmable/Intermittent Fan	analog-value, 56	RW	0	3	0- Disable (Default) 1 – Programmable Fan 2 - Intermittent Fan 3 - Intermittent Fan During Occupied Periods Only	In programmable mode the fan will operate continuously during occupied periods or with demand during unoccupied/setback periods. In intermittent fan will operate based on the on and off times set in menus 501 and 502 whenever there is demand for fan. This feature is disabled for 0-10 VDC fan applications.	500
Intermittent Fan On Time	analog-value, 57	RW	1	60	5 Minutes (Default) 1-60 Minutes	Defines the duration in which fan low will be on. Fan On will be activated after Fan Off time has passed.	501
Intermittent Fan Off Time	analog-value, 58	RW	0	60	25 Minutes (Default) 0-60 Minutes	Defines the duration in which fan low will be off. Fan Off will be activated after Fan On time has passed. A selection of 0 will result in continuous Fan	502
Default Display Icons	analog-value, 59	RW	0	5	0- Time, Temp, SP (Default) 1- Time, Temp 2- Time 3- Temp 4- None 5 - Set Point Only	Icons that will be displayed in the default state. NOTE: Setpoint will not be displayed if T8168 System Mode is OFF.	520
Revision	analog-value, 60	R	0	0	Displays Current Revision Information		530
Factory Default Reset	analog-value, 61	RW	0	1	0- Disable (Default) 1- Enable	When enable is selected the device will return to factory default settings.	540
Next Interface	analog-value, 62	RW	1	2			
Reset Device	analog-value, 63	RW	0	1			
Time Hour	analog-value, 64	RW	0	23			
Time Minute	analog-value, 65	RW	0	59			
Time Seconds	analog-value, 66	RW	0	59			
Day	analog-value, 67	RW	1	31			
Month	analog-value, 68	RW	1	12			
Year	analog-value, 69	RW	2020	2200			
Monday Occ1 Time Hour	analog-value, 70	RW	0	23			
Monday Occ1 Time Minute	analog-value, 71	RW	0	59			
Monday Occ1 Heat	analog-value, 72	RW	50	90			
Monday Occ1 Cool	analog-value, 73	RW	50	90			
Monday Unocc1 Time Hour	analog-value, 74	RW	0	23			

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Monday Unocc1 Time Minute	analog-value, 75	RW	0	59			
Monday Unocc1 Heat	analog-value, 76	RW	50	90			
Monday Unocc1 Cool	analog-value, 77	RW	50	90			
Monday Occ2 Time Hour	analog-value, 78	RW	0	23			
Monday Occ2 Time Minute	analog-value, 79	RW	0	59			
Monday Occ2 Heat	analog-value, 80	RW	50	90			
Monday Occ2 Cool	analog-value, 81	RW	50	90			
Monday Unocc2 Time Hour	analog-value, 82	RW	0	23			
Monday Unocc2 Time Minute	analog-value, 83	RW	0	59			
Monday Unocc2 Heat	analog-value, 84	RW	50	90			
Monday Unocc2 Cool	analog-value, 85	RW	50	90			
Tuesday Occ1 Time Hour	analog-value, 86	RW	0	23			
Tuesday Occ1 Time Minute	analog-value, 87	RW	0	59			
Tuesday Occ1 Heat	analog-value, 88	RW	50	90			
Tuesday Occ1 Cool	analog-value, 89	RW	50	90			
Tuesday Unocc1 Time Hour	analog-value, 90	RW	0	23			
Tuesday Unocc1 Time Minute	analog-value, 91	RW	0	59			
Tuesday Unocc1 Heat	analog-value, 92	RW	50	90			
Tuesday Unocc1 Cool	analog-value, 93	RW	50	90			
Tuesday Occ2 Time Hour	analog-value, 94	RW	0	23			
Tuesday Occ2 Time Minute	analog-value, 95	RW	0	59			
Tuesday Occ2 Heat	analog-value, 96	RW	50	90			
Tuesday Occ2 Cool	analog-value, 97	RW	50	90			
Tuesday Unocc2 Time Hour	analog-value, 98	RW	0	23			
Tuesday Unocc2 Time Minute	analog-value, 99	RW	0	59			
Tuesday Unocc2 Heat	analog-value, 100	RW	50	90			
Tuesday Unocc2 Cool	analog-value, 101	RW	50	90			
Wednesday Occ1 Time Hour	analog-value, 102	RW	0	23			
Wednesday Occ1 Time Minute	analog-value, 103	RW	0	59			
Wednesday Occ1 Heat	analog-value, 104	RW	50	90			
Wednesday Occ1 Cool	analog-value, 105	RW	50	90			
Wednesday Unocc1 Time Hour	analog-value, 106	RW	0	23			
Wednesday Unocc1 Time Minute	analog-value, 107	RW	0	59			
Wednesday Unocc1 Heat	analog-value, 108	RW	50	90			
Wednesday Unocc1 Cool	analog-value, 109	RW	50	90			
Wednesday Occ2 Time Hour	analog-value, 110	RW	0	23			
Wednesday Occ2 Time Minute	analog-value, 111	RW	0	59			

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Wednesday Occ2 Heat	analog-value, 112	RW	50	90			
Wednesday Occ2 Cool	analog-value, 113	RW	50	90			
Wednesday Unocc2 Time Hour	analog-value, 114	RW	0	23			
Wednesday Unocc2 Time Minute	analog-value, 115	RW	0	59			
Wednesday Unocc2 Heat	analog-value, 116	RW	50	90			
Wednesday Unocc2 Cool	analog-value, 117	RW	50	90			
Thursday Occ1 Time Hour	analog-value, 118	RW	0	23			
Thursday Occ1 Time Minute	analog-value, 119	RW	0	59			
Thursday Occ1 Heat	analog-value, 120	RW	50	90			
Thursday Occ1 Cool	analog-value, 121	RW	50	90			
Thursday Unocc1 Time Hour	analog-value, 122	RW	0	23			
Thursday Unocc1 Time Minute	analog-value, 123	RW	0	59			
Thursday Unocc1 Heat	analog-value, 124	RW	50	90			
Thursday Unocc1 Cool	analog-value, 125	RW	50	90			
Thursday Occ2 Time Hour	analog-value, 126	RW	0	23			
Thursday Occ2 Time Minute	analog-value, 127	RW	0	59			
Thursday Occ2 Heat	analog-value, 128	RW	50	90			
Thursday Occ2 Cool	analog-value, 129	RW	50	90			
Thursday Unocc2 Time Hour	analog-value, 130	RW	0	23			
Thursday Unocc2 Time Minute	analog-value, 131	RW	0	59			
Thursday Unocc2 Heat	analog-value, 132	RW	50	90			
Thursday Unocc2 Cool	analog-value, 133	RW	50	90			
Friday Occ1 Time Hour	analog-value, 134	RW	0	23			
Friday Occ1 Time Minute	analog-value, 135	RW	0	59			
Friday Occ1 Heat	analog-value, 136	RW	50	90			
Friday Occ1 Cool	analog-value, 137	RW	50	90			
Friday Unocc1 Time Hour	analog-value, 138	RW	0	23			
Friday Unocc1 Time Minute	analog-value, 139	RW	0	59			
Friday Unocc1 Heat	analog-value, 140	RW	50	90			
Friday Unocc1 Cool	analog-value, 141	RW	50	90			
Friday Occ2 Time Hour	analog-value, 142	RW	0	23			
Friday Occ2 Time Minute	analog-value, 143	RW	0	59			
Friday Occ2 Heat	analog-value, 144	RW	50	90			
Friday Occ2 Cool	analog-value, 145	RW	50	90			



Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Friday Unocc2 Time Hour	analog-value, 146	RW	0	23			
Friday Unocc2 Time Minute	analog-value, 147	RW	0	59			
Friday Unocc2 Heat	analog-value, 148	RW	50	90			
Friday Unocc2 Cool	analog-value, 149	RW	50	90			
Saturday Occ1 Time Hour	analog-value, 150	RW	0	23			
Saturday Occ1 Time Minute	analog-value, 151	RW	0	59			
Saturday Occ1 Heat	analog-value, 152	RW	50	90			
Saturday Occ1 Cool	analog-value, 153	RW	50	90			
Saturday Unocc1 Time Hour	analog-value, 154	RW	0	23			
Saturday Unocc1 Time Minute	analog-value, 155	RW	0	59			
Saturday Unocc1 Heat	analog-value, 156	RW	50	90			
Saturday Unocc1 Cool	analog-value, 157	RW	50	90			
Saturday Occ2 Time Hour	analog-value, 158	RW	0	23			
Saturday Occ2 Time Minute	analog-value, 159	RW	0	59			
Saturday Occ2 Heat	analog-value, 160	RW	50	90			
Saturday Occ2 Cool	analog-value, 161	RW	50	90			
Saturday Unocc2 Time Hour	analog-value, 162	RW	0	23			
Saturday Unocc2 Time Minute	analog-value, 163	RW	0	59			
Saturday Unocc2 Heat	analog-value, 164	RW	50	90			
Saturday Unocc2 Cool	analog-value, 165	RW	50	90			
Sunday Occ1 Time Hour	analog-value, 166	RW	0	23			
Sunday Occ1 Time Minute	analog-value, 167	RW	0	59			
Sunday Occ1 Heat	analog-value, 168	RW	50	90			
Sunday Occ1 Cool	analog-value, 169	RW	50	90			
Sunday Unocc1 Time Hour	analog-value, 170	RW	0	23			
Sunday Unocc1 Time Minute	analog-value, 171	RW	0	59			
Sunday Unocc1 Heat	analog-value, 172	RW	50	90			
Sunday Unocc1 Cool	analog-value, 173	RW	50	90			
Sunday Occ2 Time Hour	analog-value, 174	RW	0	23			
Sunday Occ2 Time Minute	analog-value, 175	RW	0	59			
Sunday Occ2 Heat	analog-value, 176	RW	50	90			
Sunday Occ2 Cool	analog-value, 177	RW	50	90			
Sunday Unocc2 Time Hour	analog-value, 178	RW	0	23			
Sunday Unocc2 Time Minute	analog-value, 179	RW	0	59			

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Sunday Unocc2 Heat	analog-value, 180	RW	50	90			
Sunday Unocc2 Cool	analog-value, 181	RW	50	90			
Holiday 1 Month	analog-value, 182	RW	1	12			
Holiday 1 Day	analog-value, 183	RW	1	31			
Holiday 1 Length	analog-value, 184	RW	0	99			
Holiday 1 Heat Set Point	analog-value, 185	RW	50	90			
Holiday 1 Cool Set Point	analog-value, 186	RW	50	90			
Holiday 2 Month	analog-value, 187	RW	1	12			
Holiday 2 Day	analog-value, 188	RW	1	31			
Holiday 2 Length	analog-value, 189	RW	0	99			
Holiday 2 Heat Set Point	analog-value, 190	RW	50	90			
Holiday 2 Cool Set Point	analog-value, 191	RW	50	90			
Holiday 3 Month	analog-value, 192	RW	1	12			
Holiday 3 Day	analog-value, 193	RW	1	31			
Holiday 3 Length	analog-value, 194	RW	0	99			
Holiday 3 Heat Set Point	analog-value, 195	RW	50	90			
Holiday 3 Cool Set Point	analog-value, 196	RW	50	90			
Holiday 4 Month	analog-value, 197	RW	1	12			
Holiday 4 Day	analog-value, 198	RW	1	31			
Holiday 4 Length	analog-value, 199	RW	0	99			
Holiday 4 Heat Set Point	analog-value, 200	RW	50	90			
Holiday 4 Cool Set Point	analog-value, 201	RW	50	90			
Holiday 5 Month	analog-value, 202	RW	1	12			
Holiday 5 Day	analog-value, 203	RW	1	31			
Holiday 5 Length	analog-value, 204	RW	0	99			
Holiday 5 Heat Set Point	analog-value, 205	RW	50	90			
Holiday 5 Cool Set Point	analog-value, 206	RW	50	90			
Holiday 6 Month	analog-value, 207	RW	1	12			
Holiday 6 Day	analog-value, 208	RW	1	31			
Holiday 6 Length	analog-value, 209	RW	0	99			
Holiday 6 Heat Set Point	analog-value, 210	RW	50	90			
Holiday 6 Cool Set Point	analog-value, 211	RW	50	90			
Holiday 7 Month	analog-value, 212	RW	1	12			
Holiday 7 Day	analog-value, 213	RW	1	31			

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Holiday 7 Length	analog-value, 214	RW	0	99			
Holiday 7 Heat Set Point	analog-value, 215	RW	50	90			
Holiday 7 Cool Set Point	analog-value, 216	RW	50	90			
Holiday 8 Month	analog-value, 217	RW	1	12			
Holiday 8 Day	analog-value, 218	RW	1	31			
Holiday 8 Length	analog-value, 219	RW	0	99			
Holiday 8 Heat Set Point	analog-value, 220	RW	50	90			
Holiday 8 Cool Set Point	analog-value, 221	RW	50	90			
Holiday 9 Month	analog-value, 222	RW	1	12			
Holiday 9 Day	analog-value, 223	RW	1	31			
Holiday 9 Length	analog-value, 224	RW	0	99			
Holiday 9 Heat Set Point	analog-value, 225	RW	50	90			
Holiday 9 Cool Set Point	analog-value, 226	RW	50	90			
Holiday 10 Month	analog-value, 227	RW	1	12			
Holiday 10 Day	analog-value, 228	RW	1	31			
Holiday 10 Length	analog-value, 229	RW	0	99			
Holiday 10 Heat Set Point	analog-value, 230	RW	50	90			
Holiday 10 Cool Set Point	analog-value, 231	RW	50	90			
Holiday 11 Month	analog-value, 232	RW	1	12			
Holiday 11 Day	analog-value, 233	RW	1	31			
Holiday 11 Length	analog-value, 234	RW	0	99			
Holiday 11 Heat Set Point	analog-value, 235	RW	50	90			
Holiday 11 Cool Set Point	analog-value, 236	RW	50	90			
Holiday 12 Month	analog-value, 237	RW	1	12			
Holiday 12 Day	analog-value, 238	RW	1	31			
Holiday 12 Length	analog-value, 239	RW	0	99			
Holiday 12 Heat Set Point	analog-value, 240	RW	50	90			
Holiday 12 Cool Set Point	analog-value, 241	RW	50	90			
Holiday 13 Month	analog-value, 242	RW	1	12			
Holiday 13 Day	analog-value, 243	RW	1	31			
Holiday 13 Length	analog-value, 244	RW	0	99			
Holiday 13 Heat Set Point	analog-value, 245	RW	50	90			
Holiday 13 Cool Set Point	analog-value, 246	RW	50	90			
Holiday 14 Month	analog-value, 247	RW	1	12			

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Holiday 14 Day	analog-value, 248	RW	1	31			
Holiday 14 Length	analog-value, 249	RW	0	99			
Holiday 14 Heat Set Point	analog-value, 250	RW	50	90			
Holiday 14 Cool Set Point	analog-value, 251	RW	50	90			
Holiday 15 Month	analog-value, 252	RW	1	12			
Holiday 15 Day	analog-value, 253	RW	1	31			
Holiday 15 Length	analog-value, 254	RW	0	99			
Holiday 15 Heat Set Point	analog-value, 255	RW	50	90			
Holiday 15 Cool Set Point	analog-value, 256	RW	50	90			
Holiday 16 Month	analog-value, 257	RW	1	12			
Holiday 16 Day	analog-value, 258	RW	1	31			
Holiday 16 Length	analog-value, 259	RW	0	99			
Holiday 16 Heat Set Point	analog-value, 260	RW	50	90			
Holiday 16 Cool Set Point	analog-value, 261	RW	50	90			
Holiday 17 Month	analog-value, 262	RW	1	12			
Holiday 17 Day	analog-value, 263	RW	1	31			
Holiday 17 Length	analog-value, 264	RW	0	99			
Holiday 17 Heat Set Point	analog-value, 265	RW	50	90			
Holiday 17 Cool Set Point	analog-value, 266	RW	50	90			
Holiday 18 Month	analog-value, 267	RW	1	12			
Holiday 18 Day	analog-value, 268	RW	1	31			
Holiday 18 Length	analog-value, 269	RW	0	99			
Holiday 18 Heat Set Point	analog-value, 270	RW	50	90			
Holiday 18 Cool Set Point	analog-value, 271	RW	50	90			
Holiday 19 Month	analog-value, 272	RW	1	12			
Holiday 19 Day	analog-value, 273	RW	1	31			
Holiday 19 Length	analog-value, 274	RW	0	99			
Holiday 19 Heat Set Point	analog-value, 275	RW	50	90			
Holiday 19 Cool Set Point	analog-value, 276	RW	50	90			
Holiday 20 Month	analog-value, 277	RW	1	12			
Holiday 20 Day	analog-value, 278	RW	1	31			
Holiday 20 Length	analog-value, 279	RW	0	99			
Holiday 20 Heat Set Point	analog-value, 280	RW	50	90			
Holiday 20 Cool Set Point	analog-value, 281	RW	50	90			

Name	Instance	Access	Low limit	High limit	Value	Description	Service menu
Y1 State	binary-value, 0	RW	0	1			
Y2 State	binary-value, 1	RW	0	1			
W1 State	binary-value, 2	RW	0	1			
W2 State	binary-value, 3	RW	0	1			
G State	binary-value, 4	RW	0	1			
G1 State	binary-value, 5	RW	0	1			
Override Cancel	binary-value, 6	R	0	1			