ExactLogic BACnet Communicating Zone Damper – Multi zone EXL01715 Sequence Datasheet

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Operating Sequence

Standard Occupied

During normal occupied operation the display will show the current room temperature. The first press of either right pair of keys will show the current room setpoint. Additional presses will adjust the setpoint up or down by 0.5 degrees. The zone damper keypad will time out after 5 seconds without a key press, and the display will switch back to displaying the room temperature.

The left pair of keys allows for the adjustment of the fan speed. The current mode is shown with the first key press; additional key presses will show the adjustment to the mode. AV-62 is used to select the number of fan speeds, and AV-63 will show what speed the fan is currently set to. Refer to the table below for the values of AV-62 (Fan Mode Status) and AV-63 (Fan Speed Status)

AV-62	Mode
0	AUTO Only
1	AUTO-ON
2	OFF-AUTO-ON
3	OFF-1-2-AUTO
4	OFF-1-2-3-AUTO

AV-63	Fan Speed
0	OFF
1	Fan Speed 1
2	Fan Speed 2
3	Fan Speed 3
4	AUTO
5	ON

Control Sequence – Multi Zone Setpoints

This thermostat is used to control two zone dampers with a single heating/cooling source. The Zone 1 temperature is read from the internal thermistor at AI-0/AV-20. The Zone 2 temperature is read from an external thermistor at AI-2/AV-21. Each zone has its own room setpoint, setpoint limits, heating/cooling offsets, unoccupied setpoints, calibration offset, and space alarm offset. Zone 1 setpoints are found between AV-60 and AV-72. The Zone 2 setpoints are found between AV-49 and AV-57.

Control Sequence – Heat / Cool

The occupancy of the thermostat is controlled by BO-5. When active the thermostat will maintain its occupied setpoints for each zone. The deadband is controlled by the cooling/heating offset (default 1 degree). The damper control signal is controlled by the heating or cooling signals. Each zone will request heating and cooling when each zones respective heating or cooling signals are above the enable setpoints at AV-36 to AV-39 (default 25%).

A heating or cooling request from either zone will send a fan start request. The fan will start after a 60 second delay, allowing the dampers to open before the fan starts. The heating and cooling commands will engage 15 seconds after the fan command.

The fan, heat, and cooling outputs have a 180 second anti short cycle minimum on/off time. The damper command for each zone will close 180 seconds after the zone has been satisfied.

Standard Unoccupied

During unoccupied operation the thermostat will continue to display the room temperature. When in an unoccupied state pressing one of the right pair of keys will display a message indicating the zone damper is in night mode, preventing the setpoint from being adjusted. To adjust the room setpoint when unoccupied the thermostat must be set to night override.

Control Sequence

When in the unoccupied mode, the zone will be controlled by the unoccupied cooling/heating setpoints. The fan and cooling/heating will operate the same as the occupied control sequence.

Night Overrride

Set the night override by pressing one of the left pair of keys. The display will switch to allow the user to set the night override time. Additional presses of the keys will adjust the time up or down by 0.5 hour increments. The night override can be increased up to the override limit set at AV-73, the default is 5 hours. When the zone damper is in night override, the first press of one of the left pair of keys will display the override time remaining. Additional key presses will add/subtract 0.5 hours to the time that was remaining. When the timer reaches zero the zone damper will return to the unoccupied mode.

In the night override mode, the right pair of keys can be used to adjust the room setpoint. The zone damper keypad will time out after 5 seconds without a key press, and the display will switch back to displaying the room temperature.

The zone damper can be set to night override by writing a value to AV-74 though BACnet. The value can not exceed the night override limit set at AV-73. If the night override time is set higher than the limit, the night override timer will be set to the limit. The night override limit default is 5 hours.

If the zone is commanded to the occupied mode while in night override, the override timer will be cleared to zero and the zone will enter the occupied mode.

Control Sequence

When the thermostat is in the override mode, the room will be controlled by the occupied cooling/heating setpoints. The fan and cooling/heating stages will operate the same as the occupied control sequence.

Note: There is no fan control in the override mode. The fan will run in the AUTO mode.

Motion/Humidity Option Card

The Motion/Humidity Option Card can be used for Motion Only, Humidity Only, or Motion/Humidity together. In order to use the Motion Sensor (either stand alone or with Humidity), BV-64 must be set to ACTIVE. The Humidity Sensor can be enabled by setting AV-31 to 4. These settings will automatically provide the required voltage to power the sensors. The motion sensor status will show on BI-1.

When the motion sensor, senses motion, it puts the unit in occupied “Active” Mode by writing to the Scheduled Occupied Command BO-5 at priority array entry 11, this will remain active until it does not see any motion for the entire duration of the time delay (AV-81 Units=seconds), it will then return to an inactive state.

When the internal occupancy sensor is enabled by setting BV-64 to ACTIVE, the occupied mode is controlled only by the occupancy sensor. The optimum start warmup point, BV-41, and optimum start cooldown point, BV-42, will set the unit to the occupied mode and then return to the unoccupied mode until motion is sensed.

The Humidity value is shown on AI-1. The Humidity Sensor will automatically be scaled by setting AV-31 to 4.

Disabling of the Splash, Setup Menu, or Field Service Mode

When the thermostat is installed in a public location there may be times when the setup of the thermostat will need to be disabled to prevent tenants from changing the configuration while still giving them access to change the setpoints and control after hours modes. The following points have been added to allow this:

BV-57 = Setting ACTIVE will disable the “EXACTLOGIC” splash display after key presses
BV-58 = Setting ACTIVE will disable access to the Setup Menu where the Network/MAC/Baud Rate/etc are set

BV-59 = Setting ACTIVE will disable access to the Field Service Mode where Time/Schedule/Setpoints/etc are set

Installation

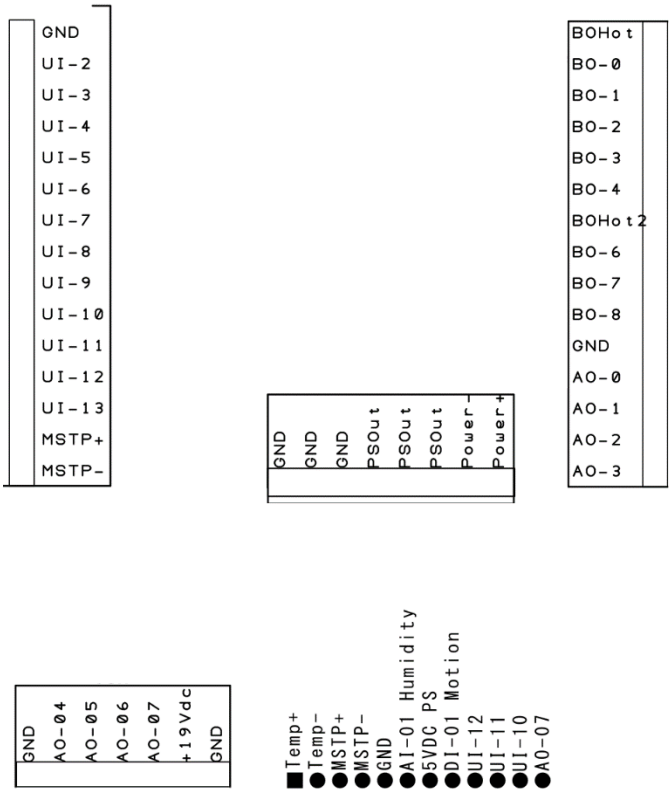

Fig. 4

*Note: Thermostat Common Relay point (BO Hot) usually 24VAC/DC or R

*Note: AI-2 through AI-5 and BI-2 through BI-5 are wired to UI-2 through UI-5. Each universal Input can only be used as an AI or a BI

GND ..... Neutral/Ground
UI-2 ..... Universal Input 2
UI-3 ..... Universal Input 3
UI-4 ..... Universal Input 4
UI-5 ..... Universal Input 5
UI-6 ..... Universal Input 6
UI-7 ..... Universal Input 7
UI-8 ..... Universal Input 8
UI-9 ..... Universal Input 9
UI-10 ..... Universal Input 10
UI-11 ..... Universal Input 11
UI-12 ..... Universal Input 12
UI-13 ..... Universal Input 13
MSTP + ... Network Line Positive
MSTP - ..... Network Line Negative

BO Hot ..... 24VAC/DC Input for Relays 1-5*
BO-0..... Relay 1 Output, 24VAC/DC
BO-1..... Relay 2 Output, 24VAC/DC
BO-2..... Relay 3 Output, 24VAC/DC
BO-3..... Relay 4 Output, 24VAC/DC
BO-4..... Relay 5 Output, 24VAC/DC
BO Hot 2 ..... 24VAC/DC Input for Relays 7-9*
BO-6..... Relay 7 Output, 24VAC/DC
BO-7..... Relay 8 Output, 24VAC/DC
BO-8..... Relay 9 Output, 24VAC/DC
GND ..... Neutral/Ground
AO-0..... Analog Output 0, 0-10V
AO-1..... Analog Output 1, 0-10V
AO-2..... Analog Output 2, 0-10V
AO-3..... Analog Output 3, 0-10V

GND ..... Neutral/Ground
GND ..... Neutral/Ground
GND ..... Neutral/Ground
PSOut ..... 24VAC/DC Hot
PSOut ..... 24VAC/DC Hot
PSOut ..... 24VAC/DC Hot
Power -..... Neutral/Ground
Power +..... 24VAC/DC Hot

GND ..... Neutral/Ground
AO-04..... Analog Output 4, 0-10V
AO-05..... Analog Output 5, 0-10V
AO-06..... Analog Output 6, 0-10V
AO-07..... Analog Output 7, 0-10V
+19Vdc..... 19V DC
GND ..... Neutral/Ground

Output Wiring

Output/Label	Function
BO0	Fan Command
BO1	Heating Command
BO2	Cooling Command
BO3	Zone 1 Damper Command
BO4	Zone 2 Damper Command
AO0	
AO1	

Input Wiring

Output/Label	Function
UI0	AI-0 Internal Thermistor
UI1	AI-1/BI-1 Humidity/Motion
UI2	AI-2 Zone 2 External Thermistor
UI3	AI-3 Discharge Air Temperature
UI4	
UI5	BI-5 Occupancy Relay

Reserved BACnet Points

The following are points reserved by the zone damper for operation.

Analog Inputs

Instance	Object Name	Description	Read/Write	Default
AI-0	Zone 1 Room Temp	Reading of the internal thermistor in counts. 0-1024	R	variable
AI-1	Humidity	Reading from the Humidity sensor add-on card	R	variable
AI-2	Zone 2 Room Temp	Zone 2 external room temperature input	R	variable
AI-3	Discharge Air Temperature	Reading of the Discharge Air Sensor in counts. 0-1024	R	variable
AI-4	Analog Input 04	Reading of the external input 4 in counts. 0-1024	R	variable
AI-5	Analog Input 05	Reading of the external input 5 in counts. 0-1024	R	variable

Analog Outputs

Instance	Object Name	Description	Read/Write	Default
AO-0	Analog Output 00	0-10V output	R/W	0.0
AO-1	Analog Output 01	0-10V output	R/W	0.0
AO-2	Analog Output 02	Variable 0-14VDC, 150mA output	R/W	0.0

Analog Values

Instance	Object Name	Description	Read/Write	Default
AV-0	Mode of Operation	The mode that the zone damper is currently in. 0 = Heat Mode 1 = Cool Mode 2 = Idle 3 = Afterhours 4 = Unoccupied Idle 5 = Unoccupied Heat Mode 6 = Unoccupied Cool Mode	R	4
AV-1	Analog Value 001			
AV-2	Analog Value 002			
AV-3	Analog Value 003			
AV-4	Zone 1 Current Htg SP	The setpoint that controls heating. If the room temperature goes below this setpoint the zone damper will enter heating mode.	R	60.0˚F/16˚C
AV-5	Zone 1 Current Clg SP	The setpoint that controls cooling. If the room temperature goes above this setpoint the zone damper will enter cooling mode.	R	80.0˚F/27˚C
AV-6	Zone 1 Heating SP	The setpoint used for heating during occupied mode. This setpoint is calculated by AV-90 (Current SP) – AV-94 (Heating Offset)	R	72.0˚F/22.5˚C
AV-7	Zone 1 Cooling SP	The setpoint used for cooling during occupied mode. This setpoint is calculated by AV-90 (Current SP) + AV-93 (Cooling Offset)	R	74.0˚F/23.5˚C
AV-8	Zone 1 Heating Signal	PI controlled heating signal status	R	0%
AV-9	Zone 1 Cooling Signal	PI controlled cooling signal status	R	0%
AV-10	Analog Value 010			
AV-11	Analog Value 011			
AV-12	Analog Value 012			
AV-13	Analog Value 013			
AV-14	Zone 2 Current Htg SP	The setpoint that controls heating. If the room temperature goes below this setpoint the zone damper will enter heating mode.	R	60.0˚F/16˚C
AV-15	Zone 2 Current Clg SP	The setpoint that controls cooling. If the room temperature goes above this setpoint the zone damper will enter cooling mode.	R	80.0˚F/27˚C
AV-16	Zone 2 Heating SP	The setpoint used for heating during occupied mode. This setpoint is calculated by AV-49 (Current SP) – AV-55 (Heating Offset)	R	72.0˚F/22.5˚C
AV-17	Zone 2 Cooling SP	The setpoint used for cooling during occupied mode. This setpoint is calculated by AV-49 (Current SP) + AV-54 (Cooling Offset)	R	74.0˚F/23.5˚C
AV-18	Zone 2 Heating Signal	Heating signal status before being scaled	R	0%
AV-19	Zone 2 Cooling Signal	Cooling signal status before being scaled	R	0%
AV-20	Zone 1 Room Temp	This is the value displayed on the LCD of the thermostat and should be used to display the temperature on any workstation display.	R	variable

AV-21	Zone 2 Room Temp	This is the value displayed on the LCD of the thermostat and should be used to display the temperature on any workstation display.	R	variable
AV-22	Analog Value 022			
AV-23	Analog Value 023			
AV-24	Analog Value 024			
AV-25	Analog Value 025			
AV-26	Cooling Deviation	The difference in the zone temperature from cooling setpoint	R	variable
AV-27	Heating Deviation	The difference in the zone temperature from heating setpoint	R	variable
AV-28	Deviation from SP	The difference in the zone temperature from setpoint, determined by whether the zone is heating or cooling	R	variable
AV-29	Zone Scan	Numerical representation to tell the mode the zone is in. Used for workstation graphics (100 = Full Heat, -100 = Full Cool	R	0%
AV-30	AI-0 Setup	Parameter used to set the input type. 0 = counts 1 = temperature 2 = 4-20mA 3 = 0-5V 4 = 0-10V 5 = pulse	R	1
AV-31	AI-1 Setup	See AV-30	R	0
AV-32	AI-2 Setup	See AV-30	R	0
AV-33	AI-3 Setup	See AV-30	R	0
AV-34	AI-4 Setup	See AV-30	R	0
AV-35	AI-5 Setup	See AV-30	R	0
AV-36	Zone 1 Heating Enable SP	Heating signal required for a Zone 1 heating request	R/W	25%
AV-37	Zone 1 cooling Enable SP	Cooling signal required for a Zone 1 cooling request	R/W	25%
AV-38	Zone 2 Heating Enable SP	Heating signal required for a Zone 2 heating request	R/W	25%
AV-39	Zone 2 Cooling Enable SP	Cooling signal required for a Zone 2 cooling request	R/W	25%
AV-40	Zone 1 Heating Kp	Proportional constant for Zone 1 Heating PI Loop	R/W	12
AV-41	Zone 1 Heating Ki	Integral Constant for Zone 1 Heating PI Loop	R/W	1
AV-42	Zone 1 Cooling Kp	Proportional constant for Zone 1 Cooling PI Loop	R/W	12
AV-43	Zone 1 Cooling Ki	Integral Constant for Zone 1 Cooling PI Loop	R/W	1
AV-44	Zone 2 Heating Kp	Proportional constant for Zone 2 Heating PI Loop	R/W	12
AV-45	Zone 2 Heating Ki	Integral Constant for Zone 2 Heating PI Loop	R/W	1
AV-46	Zone 2 Cooling Kp	Proportional constant for Zone 2 Cooling PI Loop	R/W	12
AV-47	Zone 2 Cooling Ki	Integral Constant for Zone 2 Cooling PI Loop	R/W	1
AV-48	Analog Value 048			
AV-49	Zone 2 Room Setpoint	The occupied room setpoint for Zone 2	R/W	73.0˚F
AV-50	Zone 2 Calibration Offset	The calibration offset for the Zone 2 thermistor.	R	variable
AV-51	Zone 2 Space Alarm Offset	This offset +/- the Current Cooling/Heating SP is used to determine if the space is too warm/cold, and set an alarm if necessary.	R/W	5.0˚F
AV-52	Zone 2 SP Hi Limit	The maximum room setpoint allowed for Zone 2	R/W	85.0˚F

AV-53	Zone 2 SP Lo Limit	The minimum room setpoint allowed for Zone 2	R/W	55.0˚F
AV-54	Zone 2 Clg Offset	The offset from Room Setpoint used to calculate the Occupied Cooling SP	R/W	1.0˚F
AV-55	Zone 2 Htg Offset	The offset from Room Setpoint used to calculate the Occupied Heating SP	R/W	1.0˚F
AV-56	Zone 2 Unoccupied Clg SP	The cooling setpoint used when the thermostat is unoccupied.	R/W	80.0˚F
AV -57	Zone 2 Unoccupied Htg SP	The heating setpoint used when the thermostat is unoccupied.	R/W	60.0˚F
AV-58	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	1.6
AV-59	Pseudo Ave Time Base	Factor used to average the room temperature. A small number will allow the room temperature to change faster over time. A large number will cause the room temperature to change slower over time.	R	100
AV-60	Zone 1 Calibration Offset	The calibration offset for the Zone 1 internal thermistor.	R	variable
AV-61	Space Alarm Offset	This offset +/- the Current Cooling/Heating SP is used to determine if the space is too warm/cold, and set an alarm if necessary.	R/W	5.0˚F
AV-62	# of Fan Speeds	Select the number of fan speeds for a multispeed fan. 0 = Auto Only 1 = AUTO - ON 2 = Off - AUTO - ON 3 = Off-1-2-AUTO 4 = Off-1-2-3-AUTO	R/W	0
AV-63	Current Fan Speed	The fan speed the thermostat is currently running. 0 = OFF 1 = Fan Speed 1 2 = Fan Speed 2 3 = Fan Speed 3 4 = AUTO 5 = ON	R	4
AV-64	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-65	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-66	Zone 1 Room Setpoint	The occupied room setpoint for Zone 1	R/W	73.0˚F
AV-67	Zone 1 Occupied SP Hi Limit	The maximum occupied room setpoint allowed.	R/W	85.0˚F
AV-68	Zone 1 Occupied SP Lo Limit	The minimum occupied room setpoint allowed	R/W	55.0˚F
AV-69	Zone 1 Clg Offset	The offset from Room Setpoint used to calculate the Occupied Cooling SP	R/W	1.0˚F
AV-70	Zone 1 Htg Offset	The offset from Room Setpoint used to calculate the Occupied Heating SP	R/W	1.0˚F
AV-71	Zone 1 Unoccupied Clg SP	The cooling setpoint used when the thermostat is unoccupied.	R/W	80.0˚F
AV-72	Zone 1 Unoccupied Htg SP	The heating setpoint used when the thermostat is unoccupied.	R/W	60.0˚F

AV-73	After Hours Limit	The maximum hours the thermostat is allowed to run during afterhours time. Setting this will set the thermostat to occupied operation. (0-99.9 hrs)	R/W	5.0 hrs
AV-74	After Hours Timer	The current amount of afterhours time left.	R	0.0 hrs
AV-75	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-76	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-77	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-78	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-79	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-80	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-81	Motion OFF Delay	The amount of time to delay the ON->OFF transition of the motion sensor occupied command after no motion is detected	R/W	900 sec
AV-82	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-83	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-84	Analog Value 084			
AV-100	Analog Value 100	Internal thermistor display descriptor. The present value is automatically transferred. The AV description holds the descriptor to display.	R	variable
AV-101	Analog Value 101	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display.	R/W	
AV-102	Analog Value 102	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-103	Analog Value 103	Discharge Air Temperature descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-104	Analog Value 104	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-105	Analog Value 105	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-106	Analog Value 106	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-107	Analog Value 107	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-108	Analog Value 108	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-109	Analog Value 109	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	

AV-110	Analog Value 110	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-111	Analog Value 111	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-112	Analog Value 112	Outside Air Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	

Binary Inputs

Instance	Object Name	Description	Read/Write	Default
BI-0	Binary Input 00		R	
BI-1	Motion	Motion sensor status from the add-on card	R	
BI-2	Binary Input 02		R	
BI-3	Binary Input 03		R	
BI-4	Binary Input 04		R	
BI-5	Opt. Occupied Relay	Optional occupancy relay input	R	

Binary Outputs

Instance	Object Name	Description	Read/Write	Default
BO-0	Fan	Digital output for fan control	R/W	OFF
BO-1	Heating Command	Digital output for heating control	R/W	OFF
BO-2	Cooling Command	Digital output for cooling control	R/W	OFF
BO-3	Zone 1 Damper	Digital output to open the Zone 1 damper	R/W	OFF
BO-4	Zone 2 Damper	Digital output to close the Zone 2 damper	R/W	OFF
BO-5	Scheduled Occupied	Logical point only. Used for scheduling purposes. INACTIVE is unoccupied.	R/W	OFF

Binary Values

Instance	Object Name	Description	Read/Write	Default
BV-0	Bad Zone 1 Room Sensor	Alarm for a bad Zone 1 internal thermistor	R	OFF
BV-1	Zone 1 H/C Mode	Sequence point to show analog heating or cooling. OFF = Cool ON = Heat	R	OFF
BV-2	Force Zone 1 Damper Open	Manually command the Zone 1 damper open. The damper will remain open until released.	R/W	OFF
BV-3	Force Zone 1 Damper Close	Manually command the Zone 1 damper closed. The damper will remain closed until released.	R/W	OFF
BV-4	Binary Value 004			
BV-5	Bad Zone 2 Room Sensor	Alarm for a bad Zone 2 internal thermistor	R	OFF
BV-6	Zone 2 H/C Mode	Sequence point to show analog heating or cooling. OFF = Cool ON = Heat	R	OFF
BV-7	Cool Air in Duct	Use to determine if there is a cooling failure	R	OFF
BV-8	Warm Air in Duct	Use to determine if a there is a heating failure	R	OFF

BV-9	Space Alarm Delay	Delay used to prevent a space alarm after receiving an occupied command. The delay is 7200 sec	R	OFF
BV-10	Program Status	Used to determine if the sequence was loaded correctly on a BACnet Restore or power up.	R	OFF
BV-11	Binary Value 011			
BV-12	Force Zone 2 Damper Open	Manually command the Zone 2 damper open. The damper will remain open until released.	R/W	OFF
BV-13	Force Zone 2 Damper Close	Manually command the Zone 2 damper closed. The damper will remain closed until released.	R/W	OFF
BV-14	Zone 1 Night Heat Request Status	The zone has been unoccupied for a minimum of 10 minutes, and the below the Zone 1Night Heat Setpoint.	R	OFF
BV-15	Zone 1 Night Cool Request Status	The zone has been unoccupied for a minimum of 10 minutes, and the below the Zone 1 Night Cool Setpoint.	R	OFF
BV-16	Zone 1 Night Fan Request	BV-14 or BV-15 is ACTIVE, triggering the fan to start for unoccupied heat/cooling.	R	OFF
BV-17	Zone 2 Night Heat Request Status	The zone has been unoccupied for a minimum of 10 minutes, and the below the Zone 2 Night Heat Setpoint.	R	OFF
BV-18	Zone 1 Night Cool Request Status	The zone has been unoccupied for a minimum of 10 minutes, and the below the Zone 2 Night Cool Setpoint.	R	OFF
BV-19	Zone 1 Night Fan Request	BV-14 or BV-15 is ACTIVE, triggering the fan to start for unoccupied heat/cooling.	R	OFF
BV-20	Fan Request Status	A occupied or unoccupied heating/cooling request has been triggered, requesting the fan to engage.	R	OFF
BV-21	Binary Value 021			
BV-22	Zone 1 Too Warm Status	Status of the Too Warm Alarm before checking the Space Alarm Delay	R	OFF
BV-23	Zone 1 Too Cool Status	Status of the Too Warm Alarm before checking the Space Alarm Delay	R	OFF
BV-24	Zone 1 Space To Warm Alarm	The space temperature is above the Current Cooling Setpoint (AV-5) + Space Alarm Offset (AV-82) and tstat has been occupied for 2 hrs	R	OFF
BV-25	Zone 1 Space To Cool Alarm	The space temperature is below the Current Heating Setpoint (AV-4) - Space Alarm Offset (AV-82) the tstat has been occupied for 2 hrs	R	OFF
BV-26	Zone 2 Too Warm Status	Status of the Too Warm Alarm before checking the Space Alarm Delay	R	OFF
BV-27	Zone 2 Too Cool Status	Status of the Too Warm Alarm before checking the Space Alarm Delay	R	OFF
BV-28	Zone 2 Space To Warm Alarm	The space temperature is above the Current Cooling Setpoint (AV-15) + Space Alarm Offset (AV-51) and tstat has been occupied for 2 hrs	R	OFF
BV-29	Zone 2 Space To Cool Alarm	The space temperature is below the Current Heating Setpoint (AV-14) - Space Alarm Offset (AV-51) the tstat has been occupied for 2 hrs	R	OFF
BV-30	Binary Value 030			
BV-31	Zone 1 Heating Request	The Zone 1 Heating Signal (AV-8) is above the Heating Enable SP (AV-36)	R	OFF
BV-32	Zone 1 Cooling Request	The Zone 1 Cooling Signal (AV-9) is above the Heating Enable SP (AV-37)	R	OFF

BV-33	Zone 2 Heating Request	The Zone 1 Heating Signal (AV-18) is above the Heating Enable SP (AV-38)	R	OFF
BV-34	Zone 2 Cooling Request	The Zone 1 Heating Signal (AV-19) is above the Heating Enable SP (AV-39)	R	OFF
BV-35	Heating Alarm	The Heating Command (BO-1) is ON, but the Warm Air In Duct (BV-8) is OFF	R	OFF
BV-36	Cooling Alarm	The Cooling Command (BO-2) is ON, but the cool Air In Duct (BV-7) is OFF	R	OFF
BV-37	Binary Value 037			
BV-38	Binary Value 038			
BV-39	Binary Value 039			
BV-40	Occupied Status	The status of this point switches the zone dampers occupancy settings. ON when the zone damper is in Occupied Setpoint Mode or After Hours Mode.	R	OFF
BV-41	Opt. Start Warmup	A Warmup command has been sent to the zone damper. When ON the zone damper will switch to occupied settings.	R/W	OFF
BV-42	Opt. Start Cooldown	A Cooldown command has been sent to the zone damper. When ON the zone damper will switch to occupied settings.	R/W	OFF
BV-43	Occ Set point Mode	The zone damper has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42.	R	OFF
BV-44	After Hours Status	The zone damper has been set to after hours mode. When ON the zone damper will switch to occupied settings.	R	OFF
BV-45	Reserved	This point is reserved for internal zone damper use and its value cannot be changed	R	OFF
BV-46	Binary Value 046			
BV-47	Binary Value 047			
BV-48	Binary Value 048			
BV-49	Update Descriptors	When ON descriptor changes are sent to the thermostats LCD, this point will auto reset to OFF.	R/W	OFF
BV-50	Binary Value 050			
BV-51	BI for Occupancy	ON = BI-5 will be used to indicate zone occupancy OFF = BI-5 is not used for occupancy	R/W	OFF
BV-52	Binary Value 052			
BV-53	Binary Value 053			
BV-54	Binary Value 054			
BV-55	Binary Value 055			
BV-56	Binary Value 056			
BV-57	Disable Splash	When ACTIVE, the “EXACTLOGIC” splash will not show after key presses	R/W	OFF
BV-58	Disable Setup Menu	When ACTIVE, there will be no access to the Setup Menu where the Network/MAC/Baud Rate is set	R/W	OFF
BV-59	Disable FSM Menu	When ACTIVE, there will be not access to the Field Service Mode where the Time/Schedule/Point Access is set	R/W	OFF
BV-60	Binary Value 060			
BV-61	Binary Value 061			
BV-62	Binary Value 062			

BV-63	Binary Value 063			
BV-64	Enable Motion	When ACTIVE, the power to the Motion add-on card is set to the proper voltage	R/W	OFF
BV-65	Binary Value 065			
BV-66	Disable Unit	Used by user to override all output off	R/W	OFF
BV-67	Reserved	This point is reserved for internal zone damper use and its value cannot be changed	R	OFF
BV-68	Backlight Off/On	When ON the LCD backlight will remain on	R/W	OFF
BV-69	Fan Op Mode	Controls if the fan will cycle or run continuously. OFF = Cycle, ON = Continuous.	R/W	OFF
BV-70	Reserved	This point is reserved for internal zone damper use and its value cannot be changed	R	OFF
BV-71	C/F	Sets the zone damper to display temperatures in Celsius or Fahrenheit. This point is set through the setup menu. ON = F, OFF = C	R	ON
BV-72	Binary Value 072			
BV-73	Binary Value 073			
BV-74	Hotel Mode	This point is reserved for internal zone damper use and its value cannot be changed	R	OFF
BV-100	Binary Value 100	Enable internal thermistor descriptor	R/W	ON
BV-101	Binary Value 101	Enable descriptor	R/W	OFF
BV-102	Binary Value 102	Enable descriptor	R/W	OFF
BV-103	Binary Value 103	Enable Discharge Air Sensor descriptor	R/W	OFF
BV-104	Binary Value 104	Enable descriptor	R/W	OFF
BV-105	Binary Value 105	Enable descriptor	R/W	OFF
BV-106	Binary Value 106	Enable descriptor	R/W	OFF
BV-107	Binary Value 107	Enable descriptor	R/W	OFF
BV-108	Binary Value 108	Enable descriptor	R/W	OFF
BV-109	Binary Value 109	Enable descriptor	R/W	OFF
BV-110	Binary Value 110	Enable descriptor	R/W	OFF
BV-111	Binary Value 111	Enable descriptor	R/W	OFF
BV-112	Binary Value 112	Enable outside air descriptor	R/W	OFF