

SC-ST-B Smart Temperature Controller: BACnet Object table

Object Name	Type & Instance	Object Property (R/W)	Range
ST-SC-B	Example - Device 662001	Model_Name (R)	
		Application_Software_Version (R)	
		Object_Identifier (R)	
		Object_Name (R,W)	32 characters (max.)
		Max_Master (R,W)	1- 127

Object Name	Type & Instance	Object Property (R/W)	Description	Range & Definition
Binary Values				
ESI contact definition	BV-0	R/W	ESI contact definition	0: N.O. 1: N.C.
Temp/SP Displaying	BV-1	R/W	Display present value of temperature or setpoint for default display	0: display temperature 1: display SP
Device On-Off Control	BV-2	R/W	Thermostat On/Off	0: Off, 1: On
Temperature Scale	BV-3	R/W	°C/ °F	0: °C, 1: °F
Cooling Relay Control	BV-4	R/W	Cooling Relay Control	0: Off, 1: On Note: This is writable only when the value of AV-15 equals 512 (or larger than 512 but the bit 9 of AV-15 should be 1.)
Heating Relay Control	BV-5	R/W	Heating Relay Control	0: Off, 1: On Note: This is writable only when the value of AV-15 equals 512 (or larger than 512 but the bit 9 of AV-15 should be 1.)
Fan Speed Hi Relay Control	BV-6	R/W	Fan Speed Hi Relay Control	0: Off, 1: On Note: This is writable only when the value of AV-15 equals 512 (or larger than 512 but the bit 9 of AV-15 should be 1.)
Fan Speed Med Relay Control	BV-7	R/W	Fan Speed Med Relay Control	0: Off, 1: On Note: This is writable only when the value of AV-15 equals 512 (or larger than 512 but the bit 9 of AV-15 should be 1.)
Fan Speed Low Relay Control	BV-8	R/W	Fan Speed Low Relay Control	0: Off, 1: On Note: This is writable only when the value of AV-15 equals 512 (or larger than 512 but the bit 9 of AV-15 should be 1.)

Binary Inputs				
Occupancy Status	BI-0	R	Occupied/unoccupied status	0: Occupied 1: Unoccupied
Cooling-heating Status	BI-1	R	Status of cooling/heating control output	0: Close & off 1: Open & on
Cooling Relay Status	BI-2	R	Cooling Relay Status	0: Off 1: On
Heating Relay Status	BI-3	R	Heating Relay Status	0: Off 1: On
Fan Speed Hi Relay Status	BI-4	R	Fan Speed Hi Relay Status	0: Off 1: On
Fan Speed Med Relay Status	BI-5	R	Fan Speed Med Relay Status	0: Off 1: On

Fan Speed Low Relay Status	BI-6	R	Fan Speed Low Relay Status	0: Off, 1: On
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Analogue Values				
User Setpoint Temperature	AV-0	R/W	User setpoint temperature (SP)	°C: 0.0 - 50.0°C °F: 32.0 - 122.0° Resolution: 0.5°C/°F High limit defined by AV-11 Low limit defined by AV-10.
Temperature Override	AV-1	R/W	Assigned current temperature	-99.9~99.9°C/°F
Timer Off	AV-2	R/W	Countdown timer	1 - 24 if timer available 0 if OFF Resolution: 1
Hr-Running Time	AV-3	R/W	Running time of Valve (Hr.)	0 - 65535 for reading 0 - 30000 for writing Resolution: 1
M-Running Time	AV-4	R/W	Running time of Valve (M.)	0 - 59 Resolution: 1
Sec-Running Time	AV-5	R/W	Running time of Valve (Sec.)	0 - 59 Resolution: 1
Deadband	AV-6	R/W	Deadband	°C: 0.0 - 10.0 °C °F: 0.0 - 18.0 °F Resolution: 0.5
Unoccupied Cooling setpoint Gap	AV-7	R/W	Unoccupied Cooling setpoint gap from Occupied Cooling setpoint	°C :0.0~10.0 °C °F : 0.0~18.0 °F Resolution: 0.5
Unoccupied Heating setpoint Gap	AV-8	R/W	Unoccupied Heating setpoint gap from Occupied Heating setpoint	°C :0.0~10.0 °C °F : 0.0~18.0 °F Resolution: 0.5
Integral Time	AV-9	R/W	Integral Time and Output Cycle Time. Not used on this model	10-500 (sec.) Resolution: 10
Low Setpoint Limit	AV-10	R/W	Low limit for setpoint temperature	°C: 0.0 °C~AV11 °F: 32.0°F ~ AV11 Resolution: 1
High Setpoint Limit	AV-11	R/W	High limit for setpoint temperature	°C: AV10 ~ 50.0°C °F: AV10 ~ 122.0°F Resolution: 1
Temperature Offset	AV-12	R/W	Offset for current temperature	°C: -10.0 - 10.0 °C °F: -18.0 - 18.0 °F Resolution: 0.1
Stage Width	AV-13	R/W	Stage Width. Not used on this model	°C: 0.0 - 10.0 °C °F: 0.0 - 18.0 °F Resolution: 0.1
Stage Differential	AV-14	R/W	Stage differential	°C: 0.1 - 1.0 °C °F: 0.1 - 1.8 °F Resolution: 0.1
Lock	AV-15	R/W	Lock	Bit Definition --- Bit 0: MODE button 1~5: Reserved 6: disable ESI detection 7: Reserved 8: Lock the modification for communication parameters, i.e. baud rate, MAC address and device instance 9: Override/DOs set by device (0) or BMS (1) 10: Disable local thermostat on/off setting 11: Disable local Fan speed setting *Bit Value 0: Unlock / enable 1: Lock / disable Examples: 0 - Unlock/enable all 1 - Lock MODE Button ... 64 - Disable ESI detection... 256 - Lock the modification for communication parameters 512: Override/DOs set by BMS

				... 4095 - Lock/disable all
MAC Address	AV-16	R/W	MAC address	0 - 127 (confined by Max-master) Resolution: 1 (Note: Changing this value requires bit 8 of AV-15 to be unlocked. See LOCK (AV-15) for details)
Device Instance	AV-17	R/W	Device instance	0 - 4194302 Resolution: 1 (Note: Changing this value requires bit 8 of AV-15 to be unlocked. See LOCK (AV-15) for details)

Multistate Values

Fan Mode	MSV-0	R/W	Fan Mode	1: Stop 2: Low 3: Med 4: High 5: Auto
System Mode	MSV-1	R	System Mode	1: Cooling mode 2: Heat mode
Sleep	MSV-2	R/W	Sleep	1: Disable, 2: 0 hr. sleep 3: 0.5 hr. sleep 4: 1 hr. sleep 5: 1.5 hrs. sleep 6: 2 hrs. sleep
Source of Current Temperature	MSV-3	R/W	Present Temperature is getting from built-in temperature Sensor, remote temperature sensor, or assigned through Network	1: built-in temp. sensor 2: remote temp. sensor 3: assigned through Network
Lowest Fan Speed	MSV-4	R/W	Lowest Fan speed in Auto Fan mode	1: Stop 2: Low 3: Med. 4: Hi.
Fan Speed Status	MSV-5	R	Fan Speed Status	1: Stop 2: Low 3: Med. 4: Hi.
Baud Rate	MSV-6	R/W	Baud Rate	1: 9600 bps 2: 19200 bps 3: 38400 bps 4: 57600 bps 5: 76800 bps 6: Auto (Note: Changing this value requires bit 8 of AV-15 to be unlocked. See LOCK (AV-15) for details)

Analogue Inputs

Current temperature	AI-0	R	Current Temperature	
Current Active setpoint	AI-1	R	Current setpoint used	
Built-in Sensor	AI-2	R	Built-in Sensor Temperature	
Remote Sensor	AI-3	R	Remote Sensor Temperature	
Occupied Cooling Setpoint	AI-4	R	Occupied Cooling Setpoint	
Occupied Heating Setpoint	AI-5	R	Occupied Heating Setpoint	
Unoccupied Cooling Setpoint	AI-6	R	Unoccupied Cooling Setpoint	
Unoccupied Heating Setpoint	AI-7	R	Unoccupied Heating Setpoint	

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