

AboveAir Technologies HPOA BACnet Points List

Analog variables

BMS Address	Variable name	Description	Min	Max	Read/Write
1	CoolValve_AnalogOut	Analog Output to Cooling Valve	-999.9	999.9	R
2	Comp1_AnalogOut	Analog Output to Compressor 1	-999.9	999.9	R
3	Comp2_AnalogOut	Analog Output to Compressor 2	-999.9	999.9	R
4	Condenser_AnalogOut	Analog Output to Condenser Fan	-999.9	999.9	R
5	CondValve_AnalogOut	Analog Output to Condenser Valve	-999.9	999.9	R
6	Economizer_AnalogOut	Analog output to Economizer Damper	-999.9	999.9	R
7	Fan_AnalogOut	Analog Output to Supply Air Fan	-999.9	999.9	R
8	Freecool_AnalogOut	Analog Output to Freecooling Valve	-999.9	999.9	R
9	Heater1_AnalogOut	Analog Output to Heater 1	-999.9	999.9	R
10	HgRht_AnalogOut	Analog Output to Hot Gas Reheat Valve	-999.9	999.9	R
11	Humidifier_AnalogOut	Analog Output to Humidifier	-999.9	999.9	R
12	Preheat_AnalogOut	Analog Output to Preheater	-999.9	999.9	R
13	PostHeat1_AnalogOut	Analog output for Post Heat 1	-999.9	999.9	R
14	Cooling_P	Proportional term for cooling SAT PID control	0	3276.7	R/W
15	CO2_P	Proportional term for CO2 damper PID control	0	3276.7	R/W
16	Economizer_P	Proportional term for economizer PID control	0	3276.7	R/W
18	Fan_P	Proportional term for supply fan PID control	0	3276.7	R/W
19	PostHeat_P	Proportional term for post heat SAT PID control	0	3276.7	R/W
20	Freecool_P	Proportional term for freecool valve PID control	0	3276.7	R/W
21	Reheat_P	Proportional term for reheat SAT PID control	0	3276.7	R/W
22	HeadP_P	Proportional term for refrigerant head pressure PID control	0	3276.7	R/W
24	HeatPump_P	Proportional term for heat pump SAT PID control	0	3276.7	R/W
26	Heating_P	Proportional term for heating SAT PID control	0	3276.7	R/W
28	Humidifier_P	Proportional term for humidifier SAT PID control	0	3276.7	R/W
30	Preheat_P	Proportional term for preheat PID control	0	3276.7	R/W
31	CO2_SetPoint	Damper CO2 point	0	2000.0	R/W
32	VAV_Reset_T	VAV High Supply Air Temperature Reset	50.0	95.0	R/W
33	SuctionP_P	Proportional term for refrigerant suction pressure PID control	0	3276.7	R/W
34	SAT_SetPoint	Current supply air temperature requirement (calculated set point - not adjustable)	-3276.8	3276.7	R
35	Cooling_SAT_SetPoint_Design	Design cooling supply air temperature	50.0	70.0	R/W
36	Cool_SetPoint	Set point for cooling operation (SAT for Neutral/VAV, Space for Primary or Standard)	50.0	95.0	R/W
37	High_Reset_T	High Reset Value - Low LAT	0	150.0	R/W
38	Cooling_SAT_SetPoint_Neutral	Neutral supply air temperature reset temperature	50.0	95.0	R/W
39	SpaceCool_ControlBand	Space control band between neutral and design cooling SAT	0.5	20.0	R/W
40	CoolSwitch_SetPoint	Set point for units using OA or MA sensor to determine cooling/dehumidify or heat mode	20.0	90.0	R/W
41	Setpoint_Deadband	Deadband between heating and cooling set points	5.0	10.0	R/W
42	DewPoint_SetPoint	Mixed air dew point set point for initiation of dehumidification mode	45.0	70.0	R/W
43	Fan_SetPoint	Set point for fan operation (% of 0-10V signal, ppm CO2, or "wg static pressure)	0	2500.0	R/W
44	Freecool_SetPoint	Condenser water temp where freecooling is available	30.0	65.0	R/W
45	HeadPressure_SetPoint	Set point (psig) for head pressure control	250.0	400.0	R/W
46	Heating_LAT_SetPoint_Design	Design heating supply air temperature	50.0	150.0	R/W
47	Heat_SetPoint	Heating Set Point (Manual or OA/MA Heat/Cool Switchover)	45.0	125.0	R/W
48	Auto_HeatSetPoint	Primary/Auto switchover Heating Set Point	-999.9	999.9	R
49	Low_Reset_T	Low Temp - High LAT	32.0	95.0	R/W
50	Heating_LAT_SetPoint_Neutral	Neutral supply air temperature reset temperature	50.0	150.0	R/W
51	SpaceHeat_ControlBand	Space control band between neutral and design heating SAT	0.5	20.0	R/W
52	HeatSwitch_SetPoint	Set point for units using OA or MA sensor to determine heat mode	0	99.9	R/W
53	HumidityAlarm_HighSetPt	Humidity High Alarm Set Point	0	100.0	R/W
54	TempAlarm_HighSetPt	Temperature High Alarm Set Point	0	150.0	R/W
55	Humidify_SetPoint	Humidify Set Point (for humidifier operation)	35.0	75.0	R/W
56	HumidityAlarm_LowSetPt	Humidity Low Alarm Set Point	0	100.0	R/W
57	TempAlarm_LowSetPt	Temperature Low Alarm Set Point	0	100.0	R/W
58	Preheat_SetPoint	Preheat Set Point	32.0	99.9	R/W
59	SuctionPressure_SetPoint	Set point (psig) for suction pressure control	90.0	160.0	R/W
60	Unocc_Cool_SetPoint	Unoccupied Cooling Set Point	0	99.9	R/W
61	Unocc_Heat_SetPoint	Unoccupied Heating Set Point	0	99.9	R/W
62	CO2_Value	Measured CO2 reading (ppm)	-3276.8	3276.7	R
63	HeadP1_Value	Measured circuit 1 liquid line pressure (psig)	-3276.8	3276.7	R
64	HeadP2_Value	Measured circuit 2 liquid line pressure (psig)	-3276.8	3276.7	R

BMS Address	Variable name	Description	Min	Max	Read/Write
65	MixedH_Value	Measured mixed air relative humidity (%RH)	-3276.8	3276.7	R
66	MixedT_Value	Measured mixed air temperature (deg F or deg C)	-3276.8	3276.7	R
67	PreheatT_Value	Measured preheat temperature	-3276.8	3276.7	R
68	OAH_Value		-3276.8	3276.7	R
69	OAT_Value	Measured outside air temperature (deg F or deg C)	-3276.8	3276.7	R
70	SpaceT_Value	Measured space temperature (deg F or deg C)	-3276.8	3276.7	R
71	SuctionP1_Value	Measured circuit 1 suction line pressure (psig)	-3276.8	3276.7	R
72	SuctionP2_Value	Measured circuit 2 suction line pressure (psig)	-3276.8	3276.7	R
73	SupplyH_Value	Measured supply air relative humidity (%RH)	-3276.8	3276.7	R
74	SupplyT_Value	Measure supply air temperature (deg F or deg C)	-3276.8	3276.7	R
75	StaticP_Value	Measured static pressure (in wg)	-3276.8	3276.7	R
76	CondWaterT_Value	Condenser Water Temperature	-3276.8	3276.7	R
77	SpaceH_Value	Measured space relative humidity (%RH)	-3276.8	3276.7	R
78	PostHeatT_Value	Measure duct-mounted post heat temperature	-3276.8	3276.7	R

Integer variables

BMS Address	Variable name	Description	Min	Max	Direction
1	Cooling_D	Derivative term for cooling SAT PID control	0	999	R/W
2	Cooling_I	Integral term for cooling SAT PID control	0	999	R/W
4	Economizer_D	Derivative term for economizer PID control	0	999	R/W
5	Economizer_I	Integral term for economizer PID control	0	999	R/W
7	Fan_D	Derivative term for supply fan PID control	0	999	R/W
8	Fan_I	Integral term for supply fan PID control	0	999	R/W
10	Freecool_D	Derivative term for freecool valve PID control	0	999	R/W
11	Freecool_I	Integral term for freecool PID control	0	999	R/W
13	HeadP_D	Derivative term for refrigerant head pressure PID control	0	999	R/W
14	HeadP_I	Integral term for refrigerant head pressure PID control	0	999	R/W
16	HeatPump_D	Derivative term for heat pump SAT PID control	0	999	R/W
17	HeatPump_I	Integral term for heat pump SAT PID control	0	999	R/W
19	Heating_D	Derivative term for heating SAT PID control	0	999	R/W
20	Heating_I	Integral term for heating SAT PID control	0	999	R/W
22	Humidifier_D	Derivative term for humidifier PID control	0	999	R/W
23	Humidifier_I	Integral term for humidifier PID control	0	999	R/W
25	Preheat_D	Derivative term for preheat PID control	0	999	R/W
26	Preheat_I	Integral term for preheat PID control	0	999	R/W
28	SuctionP_D	Derivative term for refrigerant suction pressure PID control	0	999	R/W
29	SuctionP_I	Integral term for refrigerant suction pressure PID control	0	999	R/W
31	AirflowAlarm_Delay	Delay before airflow alarm is active	10	360	R/W
32	Min_Off_Bw_T	Minimum off time between starts of multiple compressor stages	60	360	R/W
33	Min_Off_T	Minimum compressor off time	60	600	R/W
34	Min_On_T	Minimum compressor on time	60	600	R/W
35	CondValveMod_Delay	Delay before condenser water valve begins modulating	0	360	R/W
36	CondValveComp_Delay	Delay between condenser water valve call and compressor activation	0	360	R/W
37	Condenser_Delay	Delay between condenser initiation and compressor activation	0	360	R/W
38	Pump_Delay	Delay between pump initiation and compressor activation	0	360	R/W
39	EvapDamper_Delay	Delay for damper opening	10	360	R/W
40	Freezestat_Delay	Delay before freezestat shuts system down	0	600	R/W
41	Heat_Purge_t	Heat Purge Time	10	180	R/W
42	HeatStage_Delay	Delay between heat stages	5	999	R/W
43	LowPressAlarmDelay_t	Delay after compressor start before low refrigerant pressure alarm	30	600	R/W
44	Economizer_CompDelay	Delay for mechanical cooling assist	0	600	R/W
45	CO2_I	Integral term for CO2 damper PID control	0	999	R/W
46	CO2_D	Derivative term for CO2 damper PID control	0	999	R/W
48	Reheat_I	Integral term for reheat SAT PID control	0	999	R/W
49	Reheat_D	Derivative term for heating PID loop	0	999	R/W
50	PostHeat_I	Integral term for Post Heat SAT PID control	0	999	R/W
51	PostHeat_D	Derivative term for heating PID loop	0	999	R/W

Digital variables

BMS Address	Variable name	Description	Min	Max	Direction
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BMS Address	Variable name	Description	Min	Max	Direction
1	mAirflowAlarm_On	Airflow alarm is active	0	1	R
2	mC1HighPress_On	Compressor 1 high pressure alarm is active	0	1	R
3	mC1LowPress_On	Compressor 1 low pressure alarm is active	0	1	R
4	mC2HighPress_On	Compressor 2 high pressure alarm is active	0	1	R
5	mC2LowPress_On	Compressor 2 low pressure alarm is active	0	1	R
6	mCondensateAlarm_On	High condensate alarm	0	1	R
7	mDirtyFilterAlarm_On	Dirty filter alarm on	0	1	R
8	mFreezestat_On	Freezestat alarm active	0	1	R
9	GLOBAL_ALARM	Global (general) alarm	0	1	R
10	mHighCO2Alarm	High CO2 alarm	0	1	R
11	BMS_Occ	BMS Occupancy Control	0	1	R/W
13	mHighHumAlarm	High humidity alarm	0	1	R
14	mHighTempAlarm	High temperature alarm	0	1	R
17	mLifeSafetyAlarm_On	Fire and/or smoke alarm active	0	1	R
20	mLowHumAlarm	Low humidity alarm	0	1	R
21	mLowTempAlarm	Low temperature alarm	0	1	R
22	mCO2_Alarm	CO2 sensor failure alarm	0	1	R
23	mCondWaterT_Alarm	Condenser water temperature sensor failure	0	1	R
24	mLiquidP1_Alarm	Circuit 1 liquid pressure sensor failure	0	1	R
25	mLiquidP2_Alarm	Circuit 2 liquid pressure sensor failure	0	1	R
27	mMixedH_Alarm	Mixed air humidity sensor failure	0	1	R
28	mMixedT_Alarm	Mixed air temperature sensor failure	0	1	R
29	mOAH_Alarm	Outdoor air humidity sensor failure	0	1	R
30	mOAT_Alarm	Outdoor air temperature sensor failure	0	1	R
32	mSpaceH_Alarm	Space humidity sensor failure	0	1	R
33	mSpaceT_Alarm	Space temperature sensor failure	0	1	R
34	mSuctionP1_Alarm	Circuit 1 suction pressure sensor failure	0	1	R
35	mSuctionP2_Alarm	Circuit 2 suction pressure sensor failure	0	1	R
36	mSupplyH_Alarm	Supply air humidity sensor failure	0	1	R
37	mSupplyT_Alarm	Supply air temperature sensor failure	0	1	R
38	CoolValve_En	Chilled Water Valve Enable 0=Off, 1=Auto	0	1	R/W
39	Comp1_En	Circuit 1 DX/HP Enable 0=Off, 1=Auto	0	1	R/W
40	Comp2_En	Circuit 2 DX/HP Enable 0=Off, 1=Auto	0	1	R/W
41	Condenser_En	Condenser Enable 0=Off, 1=Auto	0	1	R/W
42	CondValve_En	Condenser Valve Enable 0=Off, 1=Auto	0	1	R/W
43	Economizer_En	Airside Economizer Enable 0=Off, 1=Auto	0	1	R/W
44	FanOut_En	Aux Fan Output Enable 0=Off, 1=Auto	0	1	R/W
45	Freecool_En	Waterside Economizer Enable 0=Off, 1=Auto	0	1	R/W
46	Heater1_En	Heater Stage 1 Enable 0=Off, 1=Auto	0	1	R/W
47	Heater2_En	Heater Stage 2 Enable 0=Off, 1=Auto	0	1	R/W
48	PostHeat1_En	Post Heat Stage 1 Enable 0=Off, 1=Auto	0	1	R/W
49	PostHeat2_En	Post Heat Stage 2 Enable 0=Off, 1=Auto	0	1	R/W
50	HgRht_En	Hot Gas Reheat Enable 0=Off, 1=Auto	0	1	R/W
51	Defrost_On	HP in defrost mode	0	1	R
52	Humidifier_En	Humidifier Enable 0=Off, 1=Auto	0	1	R/W
53	EvapDamper_En	Damper Relay Enable 0=Off, 1=Auto	0	1	R/W
54	Preheat_En	Preheat Enable 0=Off, 1=Auto	0	1	R/W
55	Pump_En	Pump Enable 0=Off, 1=Auto	0	1	R/W
56	System_En	System Enable 0=Off, 1=Auto	0	1	R/W
57	AlarmRelay1_On	1 = On, 0 = Off	0	1	R
58	FanOut_On	1 = On, 0 = Off	0	1	R
59	CoolValve_On	1 = On, 0 = Off	0	1	R
60	Comp1_On	1 = On, 0 = Off	0	1	R
61	Comp2_On	1 = On, 0 = Off	0	1	R
62	Condenser_On	1 = On, 0 = Off	0	1	R
63	CondValve_On	1 = On, 0 = Off	0	1	R
64	Economizer_On	1 = On, 0 = Off	0	1	R
65	Fan_On	1 = On, 0 = Off	0	1	R
66	Freecool_On	1 = On, 0 = Off	0	1	R
67	Heater1_On	1 = On, 0 = Off	0	1	R
68	Heater2_On	1 = On, 0 = Off	0	1	R
71	HgRht_On	1 = On, 0 = Off	0	1	R
72	HPRevValve_On	1 = On, 0 = Off	0	1	R
73	Humidifier_On	1 = On, 0 = Off	0	1	R
74	EvapDamper_On	1 = On, 0 = Off	0	1	R
75	Preheat_On	1 = On, 0 = Off	0	1	R
76	Pump_On	1 = On, 0 = Off	0	1	R
77	CompressorLockout_On	1 = On, 0 = Off	0	1	R
78	CondenserDelay_On	Comp delay for condenser fan/damper start	0	1	R
79	CondValveDelay_On	Comp Delay for Valve Opening	0	1	R
80	CoolMode	Unit is in Cool Mode	0	1	R
81	CondenserES_Okay	Optional cond fan end switch closed.	0	1	R
82	CondValveES_Okay	Optional condenser valve end switch closed	0	1	R
83	EvapDamperES_Okay	Optional damper end switch closed	0	1	R
84	DehumidifyMode	Unit is in dehumidify mode	0	1	R
85	Fan_Delay_On	Fan start delay	0	1	R
86	HeatMode	Unit is in heat mode	0	1	R
87	HumidifyMode	Unit is in humidify mode	0	1	R
88	PumpDelay_On	Comp Start Delay	0	1	R

BMS Address	Variable name	Description	Min	Max	Direction
89	PumpStatus_Okay	Pump Status/Water Flow Switch Closed	0	1	R
90	ReheatMode	Unit is in reheat mode	0	1	R
91	RemoteStopStart_On	Digital Input On	0	1	R
92	System_On	System 0 = Off, 1 = On	0	1	R
93	Unoccupied_Setback_On	1 = On, 0 = Off	0	1	R
95	CO2Damper_On		0	1	R
97	PostHeat1_On	1 = On, 0 = Off	0	1	R
98	PostHeat2_On	1 = On, 0 = Off	0	1	R
101	CoolHeatSelect_Selection	BMS Heat/Cool Selection	0	1	R/W
102	RESET_ALARMS	Request to reset/clear alarm memories	0	1	R/W
103	RESET_BUZZER	Request to switch off the buzzer	0	1	R/W
104	Off_by_Superv	1 = shut down unit via BMS	0	1	R/W