Opti-Logic Control LON / BACnet List

LON Variable Name	LON Rev. 1.63	SNVT	BACnet Object Name	Parameter Displayed	BACnet Rev. 1.63	BACnet OID[7]	BACnet Address/ Attribute
nvoSpaceTemp	R	SNVT_temp_p					
nviSpaceTemp	W	SNVT_temp_p					
nvoUnitStatus_in_Alarm	R	SNVT_hvac_status					
cpSndHrtBt	W	SNVT_time_sec					
cpHvacType	R	SNVT_hvac_type					
cpMinOutTm	R	SNVT_time_sec					
cpRcvHrtBt	R	SNVT_time_sec					
			Device / Local Date	yymmdomdow	R/W		
			Device / Local Time	hh: mm : sshh	R/W		
nvoUnitStatus_Mode; HVAC_COOL	R	SNVT_hvac_status	Unit Mode	0 = Occupied Cooling	R		AV1109
nvoUnitStatus_Mode; HVAC_HEAT	R	SNVT_hvac_status		1 = Occupied Heating			
nvoUnitStatus_Mode; HVAC_COOL	R	SNVT_hvac_status		2 = Unoccupied Standby			
nvoUnitStatus_Mode; HVAC_HEAT	R	SNVT_hvac_status		3 = Unoccupied Cooling			
nvoUnitStatus_Mode; HVAC_HEAT	R	SNVT_hvac_status		4 = Unoccupied Heating			
nvoUnitStatus_Mode; HVAC_NIGHT_PURGE		SNVT_hvac_status		5 = Manual Override			
nvoUnitStatus_Mode: HVAC_FAN_ONLY	R	SNVT_hvac_status		6 = Warm-up			
				7 = Sys. Start Delay			
				8 = Preoccupancy Purge			
				9 = Smoke Purge			
nvoUnitStatus_in_Alarm	R	SNVT_hvac_status		10 = Emergency Shut Down			
nvoUnitStatus_in_Alarm	R	SNVT_hvac_status		11 = Fault Shutdown			
				12 = Occupied Standby			
			Control Method	0 = Thermostat	R		AV1110
				1 = Space Sensor			
				2 = Stand Alone Control			
nvoSplyFanState	R	SNVT_switch	Supply Fan Binary	0, 1 (0=Off, 1=On)	R		BV1207
nvoFanSpeed	R	SNVT_lev_percent	Supply Fan VFD AV	XXX %	R		AV1107

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nvoExhFanState	R	SNVT_switch	Exhaust Fan Binary	0, 1 (0=Off, 1=On)	R		BV1208
nvoExhFanValue	R	SNVT_lev_percent	Exhaust Damper AV	XXX %	R		AV1108
nvoDrtyFltrState	R[1]	SNVT_switch	Dirty Filter Input	0, 1 (0=Normal, 1=Replace)	R		BV1209
nvoOutdoorTemp	R	SNVT_temp_p	OA Temperature AV	XXX °F	R		AV1111
nviOutdoorTemp	W	SNVT_temp_p					
nvoOutdoorRH	R	SNVT_lev_percent	OA Rel Humid AV				AV1112
nviOutdoorRH	W	SNVT_lev_percent			R		
nvoRATemp	R	SNVT_temp_p	RA Temperature AV	XXX °F	R		AV1113
nviRATemp	W	SNVT_temp_p					
nvoReturnAirRH	R	SNVT_lev_percent	RA Rel Humid AV	XXX %	R		AV1114
nvoDischAirTemp	R	SNVT_temp_p	SAT AV	XXX °F	R		AV1115
nvoSplyAirSP	R	SNVT_temp_p	Supply Air Temp Stpt	XXX °F	R		AV1121
nvoDuctPress	R	SNVT_press_p	Duct Static Pres AV	X.XX inwg	R		AV1116
nvoDuctPressSP	R	SNVT_press_p	Duct Static Setpt AV	X.XX inwg	R/W		AV1118
nviDuctPressSP	W	SNVT_press_p					
nvoBldgPress	R	SNVT_press_p	Building Static Pres AV	+/-X.XX inwg	R		AV1117
cpBldgPressSP[5]	R/W	SNVT_press_p	Building Static Setpt AV	+/-X.XX inwg	R/W		AV1119
nvoEffectSetpt	R	SNVT_temp_p	UnOccupied Heating Setpoint	XX °F	R/W		AV1100
cpSetpoints	W	SNVT_temp_setpt					
nvoEffectSetpt	R	SNVT_temp_p	UnOccupied Cooling Setpoint	XX °F	R/W		AV1101
cpSetpoints	W	SNVT_temp_ setpt					
nvoEffectSetpt	R	SNVT_temp_p	Occupied Heating Setpoint	XX °F	R/W		AV1102
cpSetpoints	W	SNVT_temp_ setpt					
nvoEffectSetpt	R	SNVT_temp_p	Occupied Cooling Setpoint	XX °F	R/W		AV1103
cpSetpoints	W	SNVT_temp_ setpt					
nvoVAVCoolHiSP	R	SNVT_temp_p	VAV Cool High Temp Setpoint	XX °F	R/W		AV1104
nviVAVCoolHiSP	W	SNVT_temp_p					
nvoVAVCoolLoSP	R	SNVT_temp_p	VAV Cool Low Temp Setpoint	XX °F	R/W		AV1105
nviVAVCoolLoSP	W	SNVT_temp_p					
cpVAVSATResetSP	R/W	SNVT_temp_p	VAV SP for SAT Reset Setpoint	XX °F	R/W		AV1106
nvoEffectOccup	R	SNVT_occupancy	Occupied	0, 1 (0=Unocc, 1=Occ)	R/W		BV1203
nviOccSensor	W	SNVT_occupancy					

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nviEmergOverride, 0,4	W	SNVT_hvac_emerg	Shutdown	0, 1 (0=Normal, 1=Shutdown)	R/W		BV1205
nviEmergOverride, 0,3	W	SNVT_hvac_emerg	Smoke Purge	0, 1 (0=Normal, 1=Purge)	R/W		BV1204
nvoVAVHeatRly	R	SNVT_switch	VAV Heat Relay BV	0, 1 (0=No Heat, 1=Heat)	R/W		BV1206
			Smoke Purge Mode	0=No Action	R/W		AV1120
				1=Shutdown			
				2= Pressurization			
				3=Exhaust			
				4=Purge			
				5=Purge w/Duct Pres.			
cpPreOccPurge	W	SNVT_switch	Pre-occupancy Purge	0, 1 (0=Disabled, 1=Enabled)	R/W		BV1212
cpSchdPreocPurge	W	SNVT_switch	Sched Preocc Purge	0, 1 (0=Disabled, 1=Enabled)	R/W		BV1202
cpWarmupReq	W	SNVT_switch	Warmup Request	0, 1 (0=Disabled, 1=Enabled)	R/W		BV1210
nvoLastActFault[3]	R	SNVT_count	Alarm Notification Object	Ydcu_XXXXXXXXX Programing Alarm Notification			
nvoUnitStatus_heat_output_primary	R	SNVT_hvac_status	Property 1 (Heating Valve)[2]	0-100%	R		AO304
			Property 2 (Cooling/Heating Stage #1)	On, Off	R		BO400
			Property 3 (Cooling/Heating Stage #2)	On, Off	R		BO401
			Property 4 (Cooling/Heating Stage #3)	On, Off	R		BO402
			Property 5 (Cooling/Heating Stage #4)	On, Off	R		BO403
			Property 6 (Cooling/Heating Stage #5)	On, Off	R		BO404
			Property 7 (Cooling/Heating Stage #6)	On, Off	R		BO405
			Property 8 (Cool/Heat Changeover)	On, Off	R		BO406
			Property 9 (Supply Fan)	On, Off	R		BO408
			Property 10 (Exhaust Fan)	On, Off	R		BO407

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			Property 11 (VAV Heat Relay)	On, Off	R		BO409
			Property 12 (System 1, Suction Pressure)	XXX psig	R		AI113
			Property 13 (System 1, Discharge Pressure)	XXX psig	R		AI114
			Property 14 (System 2, Suction Pressure)	XXX psig	R		AI115
			Property 15 (System 2, Discharge Pressure)	XXX psig	R		AI116
			Property 16 (System 3, Suction Pressure)	XXX psig	R		AI117
			Property 17 (System 3, Discharge Pressure)	XXX psig	R		AI118
			Property 18 (Cond. Fan, System 1)	0-100%	R/W		AO308
			Property 19 (Cond. Fan, System 2)	0-100%	R/W		AO309
			Property 20 (Cond. Fan, System 3)	0-100%	R/W		AO310
cpRfigSys1Status	R	SNVT_switch	Refrig System 1; Status =	0, 1 (0=Normal, 1=Safety Trip)	R	16	63210
nvoRfigSys1State	R	SNVT_count	Refrig System 1; Comps ON =	0=A, 1=B, 2=Both, 3=None	R	13	63362
cpRfigSys2Status	R	SNVT_switch	Refrig System 2; Status =	0, 1 (0=Normal, 1=Safety Trip)	R	17	63210
nvoRfigSys2State	R	SNVT_count	Refrig System 2; Comps ON =	0=A, 1=B, 2=Both, 3=None	R	13	63363
cpRfigSys3Status	R	SNVT_switch	Refrig System 3; Status =	0, 1 (0=Normal, 1=Safety Trip)	R	18	63210
nvoRfigSys3State	R	SNVT_count	Refrig System 3; Comps ON =	0=A, 1=B, 2=Both, 3=None	R	13	63364
(see Property #1)			Hydronic Heat System; Cntrl Output =	XXX %	R	304	85
nvoHydroFrzState	R	SNVT_switch	Hydronic Heat System; Freezestat =	0, 1 (0=inactive, 1=active)	R	211	85
nvoHeatStepsOn	R	SNVT_count	Staged Heat System; Stages ON =	X, N/A	R	28	63277

LON Variable Name	LON Rev. 1.63	SNVT	BACnet Object Name	Parameter Displayed	BACnet Rev. 1.63	BAC net OID[7]	BACnet Address/ Attribute
			Staged Heat System; Stages Avail =	X, N/A	R	28	63250
			Economizer System; Type =	0=OA Dry Bulb, 1=Single Enthalpy, 2=Dual Enthalpy, 3=N/A	R	28	63406
nvoEconSysStatus	R	SNVT_switch	Economizer System; Status =	0=Inactive, 1=Active, 2=N/A, 3=Fault	R	28	63409
CpEconEnStatus[4]	W	SNVT_switch	Economizer Enable; Setting = [4]	0=Yes, 1=No,			
			Ventilation System; Type =	0=None, 1=Min Dampr Pos, 2=Min Airflow, 3=25/75 Airflow, 4=Full Airflow	R	28	63388
cpVentSysState	R	SNVT_switch	Ventilation System; Status =	0, 1 (0=Off, 1=On)	R	28	63387
nvoOADp#1Pos	R	SNVT_lev_percent	Outside Air Damper #1; MIN Position =	XXX %	R/W	28	63270
cpOADp#1MinPos	R/W	SNVT_lev_percent					
cpOADp#2MinPos	R/W	SNVT_lev_percent	Outside Air Damper #2; Min Pos =	XXX %	R/W	28	63271
nvoMinOAFlowSP	R	SNVT_flow	Minimum Outside Airflow; Setpoint=	XXXXX cfm	R/W	28	63661
nviMinOAFlowSP	W	SNVT_flow					
nvoOAFlow	R	SNVT_flow	Outside Air Damper; Total Flow =	XXXXX cfm	R	14	63278
nvoSpaceCO2	R*	SNVT_ppm					
nviSpaceCO2	W	SNVT_ppm					
cpSpaceCO2SP	R/W	SNVT_ppm	Demand Ventilation; Setpoint =	XXXX ppm	R/W	28	63045
cpEcon1stStgSP	R/W	SNVT_temp_p	Economizer 1st Stage; Setpoint =	XX °F	R/W	28	63048
cpEcon2ndStgSP	R/W	SNVT_temp_p	Economizer 2nd Stage; Setpoint =	XX °F	R/W	28	63049
cpEconLoadHeatSP	R/W	SNVT_temp_p	SAT Econo Load Heat; Setpoint =	XXX °F	R/W	28	63043
			Outside Air Enthalpy; Setpoint =	XX btu/lb	R/W	28	63758
cpCmfrtVtHiSATSP	R/W	SNVT_temp_p	Cmfrt Vent High SAT; Setpoint =	XX °F	R/W	28	63027

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cpCmfrtVtLoSATSP	R/W	SNVT_temp_p	Cmfrt Vent Low SAT; Setpoint =	XX °F	R/W	28	63028
nvoRATWarmupSP	R	SNVT_temp_p	Warm-Up RAT; Setpoint =	XX °F	R/W	28	63273
nviRATWarmupSP	W	SNVT_temp_p					
cpHydroHeat1StgSP	R/W	SNVT_temp_p	Hydro Heat 1st Stage; Setpoint =	XXX °F	R/W	28	63255
cpHydroHeat2StgSP	R/W	SNVT_temp_p	Hydro Heat 2nd Stage; Setpoint =	XXX °F	R/W	28	63256
nvoFlexMxAirTemp	R	SNVT_temp_p	Mixed Supply Air Tmp	XX.X °F	R		AI119
nviFlexMxAirTemp	W	SNVT_temp_p					
nvoFlexMxAirSP	R	SNVT_temp_p					
nviFlexMxAirSP	W	SNVT_temp_p					
nvoFlexSlabTemp	R	SNVT_temp_p	Under Floor Slab Tmp	XX.X °F	R		AI120
nviFlexSlabTemp	W	SNVT_temp_p					
nvoFlexFlrRH	R	SNVT_lev_percent	Under Floor Rel Humd	0 - 100 %	R		AI121
nviFlexFlrRH	W	SNVT_lev_percent					
nvoFlexBypsPct	R	SNVT_lev_percent	Bypass Damper	0 – 100 %	R		AO311
nvoFlexBypsDpPos	R	SNVT_lev_percent					
nviFlexDewptReset	W	SNVT_switch					
nviDemandLimit	W	SNVT_count	Demand Limit	0=No Demand Limit, 1=50% Demand Limit, 2=100% Demand Limit			

1 – The occurrence of a fault is available from UnitStatus_in_Alarm (LON Cnt (nvi + nvo) = 3)

2 – BACnet Standard Objects "Property #1 to Property #20" are Standard Objects which are exposed as readable and writable but, they must be Read Only as writing to these points will cause improper operation of the unit.

3 – The nvoLastActFault uses the SNVT_flow to provide the number of the last active alarm fault and the last active trouble fault. These are given numerically as XX0YY where XX is the number of the last active alarm and YY is the last active trouble. This number will have flow units.

4 – The Economizer Enable; Setting= is not included in the BACnet Standard Objects. In Rev. 1.53, the Economizer Enable was an nvo.

5 – CP's may not be accessible on some LON front ends

6 – CO2 Space DISPLAY rounds to whole numbers and is therefore unusable.

7 – BACnet Proprietary Object Identifier