



Profile Definition and Network Variables

The following tables are sorted as follows:

- Tables are listed by unit/profile type and sorted by network variable number.
- Tables are sorted by name and provide a complete list of names, types, values/ranges, and descriptions.

Note: Not all points are available to the user. The available data points are defined during self-configuration and are dependent on the type of equipment.



nv Index	Configuration Variable Name	Variable Description	Point Name
0	nciBaseLdgReq	Default for Base Loading Auto/On Request	BaseLoadingRequest
1	nciBaseLdgSetpt	Default for Base Loading Setpoint Input	BaseLoadingStpt
2	nciChillerType2		Internal
		Enum list - See table in UNVT-UCPT.doc	ModelInfoGEN2
		Capacity of Unit (in watts)	ChillerDesignCapacity
		0 = Water Cooled 1 = Air Cooled 2 to 254 = Unused	CoolingType
		Number of Circuits on Unit	NumberOfCircuits
		Number of Compressors on Circuit 1	NumberOfComprCkt1
		Number of Compressors on Circuit 2	NumberOfComprCkt2
3	nciHtRcvyReq	Default for Heat Recovery Auto/On Request	HeatRecoveryEnableBAS
4	nciHtRcvySetpt	Default for Heat Recovery Setpoint Input	HeatRecoveryLeavingWaterTempStptBAS
5	nciMfgLocation	Chiller Manufacturing Location	ManufLocation
6	nciNoiseRdcnReq	Default for Noise Reduction Auto/On Request	NoiseReductionRequest
7	nciRefrigerant	Chiller Refrigerant Type	RefrigType
8	nciCapacityLim	Capacity Limit	CurrentLimitStpt_CGAM
9	nciChillerEnable	Default Value for nviChillerEnable	ChillerAutoStopCmd
10	nciCoolsetpt	Relinquished Default Value for nviCoolSetpt	Chilled water Setpoint
11	nciDefaults	Default Values / Used to decide if configuration defaults should be used	Internal
12	nciDevMajVer	The major version number for the device	SoftwareMajorVersion
13	nciDevMinVer	The minor version number for the device	SoftwareMinorVersion
14	nciHeatSetpt	Default Value for nviHeatSetpt	HotWaterStpt
15	nciLocation	Location Label	Internal
16	nciMinOutTm	Minimum Send Time	Internal
17	nciMode	Default Value for nviMode	ChillerModeCmd
18	nciPwrup		N/A
19	nciRcvHrtBt	Receive Heartbeat Time	Internal
20	nciSndHrtBt	Send Heartbeat Time (nciMAXSendTime)	Internal
21	nciBuildNum		Internal
22	nciCRC	CRC calculation result	Internal
23	nciDeviceConfig		Internal



Profile Index	Network Variable Name	Variable Type	Variable Description	Recv HrtBt	Point Name
24	nviChillerEnable	SNVT_switch	Request Start/Stop Chiller	X	BAS Chiller Auto Stop Command
25	nviCoolSetpt	SNVT_temp_p	Desired Temp of Lvg Chilled Wtr	X	BAS Chilled Water Setpoint
26	nviCapacityLim	SNVT_lev_percent	Capacity Limit of Chiller	X	BAS Current Limit Setpoint CGAM
28	nviMode	SNVT_Hvac_mode	Chiller Modes	X	BAS Chiller Mode Command
29	nviHeatSetpt	SNVT_temp_p	Heating Setpoint	X	BAS Hot Water Setpoint
30	nviBaseLdgSetpt	SNVT_lev_percent	Base Loading Setpoint Input	X	BaseLoadingStpt
31	nviBaseLdgReq	SNVT_switch (2-state)	Base Loading Auto/On Request	X	BaseLoadingRequest
33	nviHtRcvySetpt	SNVT_temp_p	Heat Recovery Setpoint Input	X	HeatRecoveryLeavingWaterTempStptBAS
34	nviHtRcvyReq	SNVT_switch	Heat Recovery Auto/On Request	X	HeatRecoveryEnableBAS
35	nviRequest	SNVT_obj_request	Status Request		ResetDiagnosticRequest

Symbio™ 800 Integration Points List

LonTalk®

Series R® Model RTHD

Date:11/15/2024

Reference Document: BAS-SVP084*-EN



nv Index	Network Variable Name	Variable Type	Variable Description	Delta to Send (Notes)	Send HrtBt	Point Name
37	nvoOnOff	SNVT_switch	Chiller On / Off run state	any	X	Chiller Running State
38	nvoActiveSetpt	SNVT_temp_p	Active Cool or Heat Setpt	0.10 °C	X	Active Heat/Chilled Water Setpoint Temperature
39	nvoActualCapacity	SNVT_lev_percent	Actual Running Capacity of Unit	0.03	X	Actual Running Capacity
40	nvoCapacityLim	SNVT_lev_percent	Current Capacity Limit Setting of Chiller	0.01	X	Active Demand Limit Stpt
41	nvoLvgCHWTemp	SNVT_temp_p	Leaving Chilled Water Temp	0.10 °C	X	Evaporator Leaving Water Temperature
42	nvoEntCHWTemp	SNVT_temp_p	Entering Chilled Water Temp	0.10 °C	X	Evaporator Entering Water Temperature
43	nvoEntCndWTemp	SNVT_temp_p	Entering Condenser Water Temp	0.50 °C	X	Condenser Entering Water Temperature
44	nvoLvgCndWTemp	SNVT_temp_p	Leaving Condenser Water Temp	0.10 °C	X	Condenser Leaving Water Temperature
45	nvoAlarmMessage	SNVT_str_asc	Diagnostic Last Message			UCMDiagnosticMessage
46	nvoChillerstat	SNVT_chlr_stat	Chiller States , modes	any	X	
		chiller_t (enum)				RunningMode
		CHLR_OFF	00 = Chiller off			
		CHLR_START	01 = Chiller in start mode			
		CHLR_RUN	02 = Chiller in run mode			
		CHLR_PRESHUTDOWN	03 = Chiller in pre-shutdown mode			
		CHLR_SERVICE	04 = Chiller in service mode			
		hvac_t (enum)				Operating Mode
		HVAC_HEAT	01 = Heating only			
		HVAC_COOL	03 = Cooling only			
		HVAC_FREE_COOL	0A = Cooling with compressor not running			
		HVAC_ICE	0B = Ice-making mode			
		u8 (01234567)				Structure
		in_alarm	bit 0 (MSB) = in alarm mode (element property 10)			UCMShutdownDiagnosticPresent
		run_enabled	bit 1 = run enabled (element property 9)			Run Enable
		local	bit 2 = local (element property 8)			Local Setpoint Control
		condw_flow	bit 5 = condenser water flow (element property 5)			Condenser Water Flow Status
		Not Defined	bit 6 Not Defined (element property 4)			Not Defined
		Not Defined	bit 7 Not Defined (element property 3)			Not Defined
47	nvoStatusOutputs	SNVT_state	Status Outputs	defined at element	X	
		bits 0 – 7	Validity of bits 8 – 15	any		No supported
		bit 9 (element index 7)	Head Relief Request	any		HeadReliefRequest



nv Index	Network Variable Name	Variable Type	Variable Description	Delta to Send (Notes)	Send HrtBt	Point Name
		bit 10 (element index 6)	Base Loading Active	any		BaseLoadingActive
48	nvoCprsrRunning	SNVT_state	Compressor Running Outputs	defined at element	X	Structure
		bits 0 – 7	Validity of bits 8 – 15	any		No supported
		bit 8 (element index 8)	Compressor A Running	any		Compressor1ARunning
49	nvoEvapWtrPump	SNVT_switch	Evaporator Water Pump Request	any	X	Evaporator Water Pump Request
50	nvoEvapWtrFlow	SNVT_switch	Evaporator Water Flow Status5	any	X	Evaporator Water Flow Status
51	nvoCondWtrPump	SNVT_switch	Condenser Water Pump Request	any	X	Condenser Water Pump Request
52	nvoCondWtrFlow		Condenser Water Flow Status	0	x	CondenserWaterFlowStatus
53	nvoOutdoorTemp	SNVT_temp_p	Outdoor Air Temperature	1	x	OutdoorAirTemp
54	nvoEvapWFlowRate		Evaporator Water Flow Rate	10	x	EvapWaterFlowRate
55	nvoCondWFlowRate		Condenser Water Flow Rate	10	x	CondWaterFlowRate
56	nvoActiveBLSetpt	SNVT_lev_percent	Active Base Loading Setpoint	any	X	BaseLoadingStptActive
58	nvoEvapAprchTmp	SNVT_temp_p	Evaporator Approach Temperature	0.5	x	EvapApproachTempCkt1
59	nvoCondAprchTmp	SNVT_temp_p	Condenser Approach Temperature	0.5	x	CondApproachTempCkt1
62	nvoUnitVoltage	UNVT_3phase_volt	Unit Voltage Per Phase	defined at element	x	Structure
		SNVT_volt_ac	AB voltage	20	x	VoltageL2L3
		SNVT_volt_ac	BC voltage	20	x	VoltageL1L3
		SNVT_volt_ac	CA voltage	20	x	VoltageL1L2
64	nvoEvapRfgtPrsC1	SNVT_press_f	Evaporator Refrigerant Pressure - Circuit 1	20	X	EvapRefrigPressCkt1
66	nvoEvapRfgtTmpC1	SNVT_temp_p	Evaporator Refrigerant Temperature - Circuit 1	0.50°C	X	EvapSatRefrigTempCkt1
68	nvoCondRfgtPrsC1	SNVT_press_f	Condenser Refrigerant Pressure - Circuit 1	20	X	CondRefrigPressCkt1
70	nvoCondRfgtTmpC1	SNVT_temp_p	Condenser Refrigerant Temperature - Circuit 1	2.00°C	X	CondSatRefrigTempCkt1
76	nvoHiSideOilPrsA	SNVT_press_f	High Side Oil Pressure - Compressor A	20	X	Compr1AHighSideOilPress
94	nvoRfgtDischTmpA	SNVT_temp_p	Refrigerant Discharge Temperature - Compressor A	0.50°C	X	Compr1ARefrigDischTemp
106	nvoCurrentA	UNVT_3phase_current	Current Per Line – Compressor A	defined at element		Structure
		SNVT_amp_ac	L1 amps	15	X	Compr1ALine1CurrentAmp
		SNVT_amp_ac	L2 amps	15	X	Compr1ALine2CurrentAmp
		SNVT_amp_ac	L3 amps	15	X	Compr1ALine3CurrentAmp
		SNVT_lev_percent	L1 %RLA	10.00%	X	Compr1ALine1CurrentRLA
		SNVT_lev_percent	L2 %RLA	10.00%	X	Compr1ALine2CurrentRLA
		SNVT_lev_percent	L3 %RLA	10.00%	X	Compr1ALine3CurrentRLA

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nv Index	Network Variable Name	Variable Type	Variable Description	Delta to Send (Notes)	Send HrtBt	Point Name
112	nvoStartsRunTmA	UNVT_starts_runtime	Starts and Run Time – Compressor A	defined at element		Structure
		SNVT_count_f	Starts	1		Compr1AStarts
		SNVT_time_f	Run Time	360 sec		Compr1ARunTime
118	nvoUnitPower	SNVT_power_f	Unit Power Consumption	2	X	UnitPowerConsump
133	nvoStatus		Status Response			