



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 Type	Variable Description	Point Name
2	nciChillerType2	UCPT_chiller_type	Chiller information	
		Model Information	Enum list	Model Information
		Unit Capacity	Capacity of Unit (in watts)	Chiller Design Capacity
		Cooling Type	0 = Water Cooled1 = Air Cooled2 to 254 = Unused	Cooling Type
		Number of Circuits	Number of Circuits on Unit	Number of Circuits
		Number of Compressors – Cr1	Number of Compressors on Circuit 1	Number of Compressors – Circuit 1
		Number of Compressors – Cr2	Number of Compressors on Circuit 2	Number of Compressors – Circuit 2
3	nciHtRcvyReq	SNVT_switch	Relinquished Default for Heat Recovery Auto/On Request	
4	nciHtRcvySetpt	SNVT_temp_p	Relinquished Default for Heat Recovery Setpoint Input	
5	nciMfgLocation	UCPT_manufacturing_location	Chiller Manufacturing Location	Manufacturing Location
6	nciNoiseRdcnReq	SNVT_switch	Relinquished Default for Noise Reduction Auto/On Request	Noise Reduction Request
7	nciRefrigerant	UCPT_refrig_type	Chiller Refrigerant Type	Refrigerant Type
8	nciCapacityLim	SCPTCapacityLimit	Capacity Limit	Demand Limit Setpoint
9	nciChillerEnable	SCPTChillerEnable	Relinquished Default Value for nviChillerEnable	Chiller Enable
10	nciCoolsetpt	SCPTCoolSetpoint	Relinquished Default Value for nviCoolSetpt	Chilled Water Setpoint
11	nciDefaults	SCPTDefaultBehavior	Default Values / Used to decide if configuration defaults should be used	Default Values
12	nciDevMajVer	SCPTdevMajVer	The major version number for the device	Software Major Version
13	nciDevMinVer	SCPTdevMinVer	The minor version number for the device	Software Minor Version
14	nciHeatSetpt	SCPTheatSetpoint	Relinquished Default Value for nviHeatSetpt	Hot Water Setpoint
15	nciLocation	SCPTlocation	Location Label	Location Label
16	nciMinOutTm	SCPTminSendTime	Minimum Send Time	Minimum Send Time
17	nciMode	SCPTHVACmode	Relinquished Default Value for nviMode	Chiller Mode
18	nciPwrup	SCPTpwrUpDelay	Power Up Delay	Power Up Delay
19	nciRcvHrtBt	SCPTmaxRcvTime	Receive Heartbeat Time	Receive Heartbeat
20	nciSndHrtBt	SCPTmaxSendTime	Send Heartbeat Time (nciMAXSendTime)	Send Heartbeat
21	nciBuildNum	U16	Device Build Number	Manufacturer Defined
22	nciCRC	UCPT_crc	CRC calculation result	Manufacturer Defined
23	nciDeviceConfig	U16	Device Configuration Choices	Manufacturer Defined



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 Demand Limit Setpoint
28	nviMode	SNVT_Hvac_mode	Chiller Modes	x	BAS Chiller Mode Command
29	nviHeatSetpt	SNVT_temp_p	Heating Setpoint	x	BAS hot Water Setpoint
32	nviNoiseRdcnReq	SNVT_switch (2-state)	Noise Reduction Auto/On Request	x	BAS Noise Reduction Auto/On Request
33	nviHtRcvySetpt	SNVT_temp_p	Heat Recovery Setpoint Input	x	BAS Heat Recovery Setpoint
34	nviHtRcvyReq	SNVT_switch (2-state)	Heat Recovery Auto/On Request	x	BAS Heat Recovery Auto/On Request
35	nviRequest	SNVT_obj_request	Status Request		Status Heat Recovery Setpoint Input Request Input
36	nviTraneVar2	UNVT_c5c	Comm5 Status (obsolete)		Manufacturer-defined



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send	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 Chilled Water Setpoint
39	nvoActualCapacity	SNVT_lev_percent	Actual Running Capacity of Unit	0.03	X	Chiller Power
40	nvoCapacityLim	SNVT_lev_percent	Current Capacity Limit Setting of Chiller	0.01	X	Active Demand Limit Setpoint
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
45	nvoAlarmDescr	SNVT_str_asc	Alarm annunciation text	N/A		Diagnostic Last Message
46	nvoChillerstat	SNVT_chlr_stat	Chiller States , modes	Any	X	
		chiller_t (enum)	(element property 1)			Chiller Running Status
		CHLR_OFF	00 = Chiller off			
		CHLR_START	01 = Chiller in start mode			
		CHLR_RUN	02 = Chiller in run mode			
		CHLR_PRESHUTDN	03 = Chiller in pre-shutdown mode			
		CHLR_SERVICE	04 = Chiller in service mode			
		hvac_t (enum)	(element property 2)			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)				
		in_alarm	bit 0 (MSB) = in alarm mode (element property 10)			Diagnostic Present



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send	Send HrtBt	Point Name
		run_enabled	bit 1 = run enabled (element property 9)			Run Enable
		local	bit 2 = local (element property 8)			Local Setpoint Control
		limited	bit 3 = limited (element property 7)			Capacity Limited
		chw_flow	bit 4 = evaporator water flow (element property 6)			Evaporator Water Flow Status
		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		Reserved
		bit 8 (element index 8)	Max Capacity	Any		Maximum Capacity Relay
		bit 9 (element index 7)	Head Relief Request	Any		Head Relief Request
		bit 10 (element index 6)	Base Loading Active	Any		Base Loading Active
		bit 11 (element index 5)	Hot Gas Bypass Active	Any		Hot Gas Bypass Active
		bit 14 (element index 2)	Heat Recovery Control Active	Any		Heat Recovery Control Active
48	nvoCprsrsRunning	SNVT_state	Compressor Running Outputs	Defined at element	X	
		bits 0 – 7	Validity of bits 8 – 15	Any		Reserved
		bit 8 (element index 8)	Compressor A Running	Any		Running Status Compressor 1A
49	nvoEvapWtrPump	SNVT_switch	Evaporator Water Pump Request	Any	X	Evaporator Water Pump Command
50	nvoEvapWtrFlow	SNVT_switch	Evaporator Water Flow Status5	Any	X	Evaporator Water Flow Status
53	nvoOutdoorTemp	SNVT_temp_p	Outdoor Air Temperature	1.00°C	X	Outdoor Air Temperature
58	nvoEvapAprchTmp	SNVT_temp_diff_p	Evaporator Approach Temperature	0.5°C	X	Evap Approach Temp Ckt1
59	nvoCondAprchTmp	SNVT_temp_diff_p	Condenser Approach Temperature	0.5°C	X	Cond Approach Temp Ckt1
60	nvoSecCndEntWTmp	SNVT_temp_p	Second Condenser Entering Water Temperature (used for Heat Recovery water loop leaving water temperature)	0.50°C	X	Second Condenser Entering Water Temperature



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send	Send HrtBt	Point Name
61	nvoSecCndLvgWTm p	SNVT_temp_p	Second Condenser Leaving Water Temperature (used for Heat Recovery water loop leaving water temperature)	0.50°C	X	Second Condenser Leaving Water Temperature
62	nvoUnitVoltage	UNVT_3phase_volt	Unit Voltage Per Phase	Defined at element	X	Unit Voltage
		SNVT_volt_ac	AB Voltage	20		Voltage A-B
		SNVT_volt_ac	BC Voltage	20		Voltage B-C
		SNVT_volt_ac	CA Voltage	20		Voltage C-A
63	nvoUnitCurrent	UNVT_3phase_current	Unit Current Per Line	Defined at element	X	Unit Current
		SNVT_amp_ac	L1 amps	10		L1 amps
		SNVT_amp_ac	L2 amps	10		L2 amps
		SNVT_amp_ac	L3 amps	10		L3 amps
64	nvoEvapRfgtPrsC1	SNVT_press_f	Evaporator Refrigerant Pressure - Circuit 1	5.0 kPa	X	Evaporator Refrigerant Pressure - Circuit 1
65	nvoEvapRfgtPrsC2	SNVT_press_f	Evaporator Refrigerant Pressure - Circuit 2	5.0 kPa	X	Evaporator Refrigerant Pressure - Circuit 2
66	nvoEvapRfgtTmpC1	SNVT_temp_p	Evaporator Refrigerant Temperature - Circuit 1	0.50°C	X	Evaporator Refrigerant Temperature - Circuit 1
67	nvoEvapRfgtTmpC2	SNVT_temp_p	Evaporator Refrigerant Temperature - Circuit 2	0.50°C	X	Evaporator Refrigerant Temperature - Circuit 2
68	nvoCondRfgtPrsC1	SNVT_press_f	Condenser Refrigerant Pressure - Circuit 1	5.0 kPa	X	Condenser Refrigerant Pressure - Circuit 1
69	nvoCondRfgtPrsC2	SNVT_press_f	Condenser Refrigerant Pressure - Circuit 2	5.0 kPa	X	Condenser Refrigerant Pressure - Circuit 2
70	nvoCondRfgtTmpC1	SNVT_temp_p	Condenser Refrigerant Temperature - Circuit 1	0.50°C	X	Condenser Refrigerant Temperature - Circuit 1
71	nvoCondRfgtTmpC2	SNVT_temp_p	Condenser Refrigerant Temperature - Circuit 2	0.50°C	X	Condenser Refrigerant Temperature - Circuit 2
72	nvoAirFlowPctC1	SNVT_lev_percent	Air Flow Percent – Circuit 1	0.05	X	Air Flow Percent – Circuit 1
73	nvoAirFlowPctC2	SNVT_lev_percent	Air Flow Percent – Circuit 2	0.05	X	Air Flow Percent – Circuit 2

Symbio™ 800 Integration Points List

LonTalk®

CGAM

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Reference Document: BAS-SVP084*-EN



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send	Send HrtBt	Point Name
94	nvoRfgtDischTmpA	SNVT_temp_p	Refrigerant Discharge Temperature - Ckt 1	0.50°C	X	Refrigerant Discharge Temperature - Ckt 1
97	nvoRfgtDischTmpD	SNVT_temp_p	Refrigerant Discharge Temperature - Ckt 2	0.50°C	X	Refrigerant Discharge Temperature - Ckt 2
100	nvoVoltageA	UNVT_3phase_volt	Voltage Per Phase – Compressor A	Defined at element	X	Voltage Per Phase – Compressor 1A
		SNVT_volt_ac	AB Voltage	20		
		SNVT_volt_ac	BC Voltage	20		
		SNVT_volt_ac	CA Voltage	20		
106	nvoCurrentA	UNVT_3phase_current	Current Per Line – Compressor A	Defined at element	X	Current Per Line – Compressor 1A
		SNVT_amp_ac	L1 amps	15		
		SNVT_amp_ac	L2 amps	15		
		SNVT_amp_ac	L3 amps	15		
		SNVT_lev_percent	L1 %RLA	0.1		
		SNVT_lev_percent	L2 %RLA	0.1		
		SNVT_lev_percent	L3 %RLA	0.1		
112	nvoStartsRunTmA	UNVT_starts_runtime	Starts and Run Time – Compressor A	Defined at element	X	Starts and Run Time – Compressor 1A
		SNVT_count_f	Starts	1		Starts Compressor 1A
		SNVT_time_f	Run Time	360 sec		Running Time Compressor 1A
113	nvoStartsRunTmB	UNVT_starts_runtime	Starts and Run Time – Compressor B	Defined at element	X	Starts and Run Time – Compressor 1B
		SNVT_count_f	Starts	1		Starts Compressor 1B



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send	Send HrtBt	Point Name
		SNVT_time_f	Run Time	360 sec		Running Time Compressor 1B
114	nvoStartsRunTmC	UNVT_starts_runtime	Starts and Run Time – Compressor C	Defined at element	X	Starts and Run Time – Compressor 1C
		SNVT_count_f	Starts	1		Starts Compressor 1C
		SNVT_time_f	Run Time	360 sec		Running Time Compressor 1C
115	nvoStartsRunTmD	UNVT_starts_runtime	Starts and Run Time – Compressor D	Defined at element	X	Starts and Run Time – Compressor 2A
		SNVT_count_f	Starts	1		Starts Compressor 2A
		SNVT_time_f	Run Time	360 sec		Running Time Compressor 2A
116	nvoStartsRunTmE	UNVT_starts_runtime	Starts and Run Time – Compressor E	Defined at element	X	Starts and Run Time – Compressor 2B
		SNVT_count_f	Starts	1		Starts Compressor 2B
		SNVT_time_f	Run Time	360 sec		Running Time Compressor 2B
117	nvoStartsRunTmF	UNVT_starts_runtime	Starts and Run Time – Compressor F	Defined at element	X	Starts and Run Time – Compressor 2C
		SNVT_count_f	Starts	1		Starts Compressor 2C
		SNVT_time_f	Run Time	360 sec		Running Time Compressor 2C
118	nvoUnitPower	SNVT_power_f	Unit Power Consumption		X	Unit Power Consumption
131	nvoHtRcvyCmdPct	SNVT_lev_percent	Heat Recovery Command Percent	0.03	X	Heat Recover Command Percent
132	nvoSuppHtPct	SNVT_lev_percent	Supplemental Heat Percent	0.03	X	Energized Supplemental Heater Percent



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send	Send HrtBt	Point Name
133	nvoStatus	SNVT_obj_status	Status Response		X	Status Response
134	nvoFileDirectory	SNVT_address	Address			File Directory