



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.

Symbio™ 800 Integration Points List
LonTalk®
 Ascend™ Model ACR Series C

Date: 11/15/2024
 Reference Document: BAS-SVP084*-EN



nv Index	Configuration Variable Name	Variable Type	Variable Description	Point Name
2	nciChillerType	UCPT_chiller_type	Chiller Information	
		Model Information	Enum list - See table in UNVT-UCPT.doc	Model Information
		Unit Capacity	Capacity of Unit (in watts)	Chiller Design Capacity
		Cooling Type	0 = Water Cooled 1 = Air Cooled 2 to 254 = Unused	Cooling Type
		Number of Circuits	Number of Circuits on Unit	Number Of Circuits
		Number of Compressors – Crt 1	Number of Compressors on Circuit 1	Number Of Compressors, Circuit 1
		Number of Compressors – Crt 2	Number of Compressors on Circuit 2	Number Of Compressors, Circuit 2
5	nciMfgLocation	UCPT_manufacturing_location	Chiller Manufacturing Location	Manufacture Location
6	nciNoiseRdcnReq	SNVT_switch	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	Default Value for nviChillerEnable	Chiller Enable
10	nciCoolsetpt	SCPTCoolSetpoint	Default Value for nviCoolSetpt	Chiller water Setpoint
11	nciDefaults	SCPTDefaultBehavior	power up and communications failure, stated default	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
15	nciLocation	SCPTLocation	Location Label	Location Label
16	nciMinOutTm	SCPTminSendTime	Minimum Send Time	Minimum Send Time
17	nciMode	SCPTHVACmode	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	▼	BAS Chiller Auto Stop Command
25	nviCoolSetpt	SNVT_temp_p	Desired Temp of Lvg Chilled Wtr	▼	BAS Chilled Water Setpoint
26	nviCapacityLim	SNVT_lev_percent	Capacity Limit of Chiller	▼	BAS Demand Limit Setpoint
28	nviMode	SNVT_Hvac_mode	Chiller Modes	▼	BAS Chiller Mode Command
32	nviNoiseRdcnReq	SNVT_switch (2-state)	Noise Reduction Auto/On Request	▼	Noise Reduction Request BAS
35	nviRequest	SNVT_obj_request	Status Request		Status Request Input
36	nviTraneVar2	UNVT_c5c	Comm5 Status		Manufacturer-defined



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send (Notes)	Send HrtBt	Point Name
37	nvoOnOff	SNVT_switch	Chiller On / Off run state	any	▼	Chiller Running State
38	nvoActiveSetpt	SNVT_temp_p	Active Cool or Heat Setpt	0.10 °C	▼	Active Chilled Water Setpoint
39	nvoActualCap	SNVT_lev_percent	Actual Running Capacity of Unit	0.03	▼	Chiller Power
40	nvoCapacityLim	SNVT_lev_percent	Current Capacity Limit Setting of Chiller	0.01	▼	Active Demand Limit Setpoint
41	nvoLvgCHWTemp	SNVT_temp_p	Leaving Chilled Water Temp	0.10 °C	▼	Evaporator Leaving Water Temperature
42	nvoEntCHWTemp	SNVT_temp_p	Entering Chilled Water Temp	0.10 °C	▼	Evaporator Entering Water Temperature
44	nvoAlarmDescr	SNVT_str_asc	Alarm annunciation text	N/A		Diagnostic Last Message
45	nvoChillerstat	SNVT_chlr_stat	Chiller States , modes	any	▼	
		chiller_t (enum)				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)				Operating Mode
		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			Diagnostic Present
		run_enabled	bit 1 = run enabled			Run Enable
		local	bit 2 = local			Local Setpoint Control
		limited	bit 3 = limited			Capacity Limited
		chw_flow	bit 4 = evaporator water flow			Evaporator Water Flow Status
		Not Defined	bit 6 Not Defined			Not Defined
		Not Defined	bit 7 Not Defined			Not Defined
46	nvoStatusOutputs	SNVT_state	Status Outputs	defined at element	▼	
		bits 0 – 7	Validity of bits 8 – 15	any		Reserved
		bit 8	Max Capacity	any		Maximum Capacity Relay
		bit 9	Head Relief Request	any		Head Relief Request
		bit 12	Noise Reduction Active	any		Noise Reduction active
		bit 15 (LSB)	Not Defined	Undefined		Not Defined



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send (Notes)	Send HrtBt	Point Name
48	nvoCprsrRunning	SNVT_state	Compressor Running Outputs	defined at element	▼	
		bits 0 – 7	Validity of bits 8 – 15	any		Reserved
		bit 8	Compressor A Running	any		Running Status Compressor 1A
		bit 9	Compressor B Running	any		Running Status Compressor 1B
		bit 11	Compressor D Running	any		Running Status Compressor 2A
49	nvoEvapWtrPump	SNVT_switch	Evaporator Water Pump Request	any	▼	Evaporator Water Pump Command
50	nvoEvapWtrFlow	SNVT_switch	Evaporator Water Flow Status5	any	▼	Evaporator Water Flow Status
53	nvoOutdoorTemp	SNVT_temp_p	Outdoor Air Temperature	1.00°C	▼	Outdoor Air Temperature
58	nvoEvapAprchTmp	SNVT_temp_diff_p	Evaporator Approach Temperature	0.50°C	▼	Evaporator Approach Temperature
62	nvoUnitVoltage	UNVT_3phase_volt	Unit Voltage Per Phase	defined at element	▼	
		SNVT_volt_ac	BC voltage	Note 1		Starter Voltage Phase BC
		SNVT_volt_ac	CA voltage	Note 1		Starter Voltage Phase CA
		SNVT_volt_ac	AB voltage	Note 1		Starter Voltage Phase AB
64	nvoEvapRfgtPrsC1	SNVT_press_f	Evaporator Refrigerant Pressure - Circuit 1	5.0 kPa	▼	Evaporator Refrigerant Pressure Ckt1
65	nvoEvapRfgtPrsC2	SNVT_press_f	Evaporator Refrigerant Pressure - Circuit 2	5.0 kPa	▼	Evaporator Refrigerant Pressure Ckt2
66	nvoEvapRfgtTmpC1	SNVT_temp_p	Evaporator Refrigerant Temperature - Circuit 1	0.50°C	▼	Evaporator Saturated Rfgt Temp Ckt1
67	nvoEvapRfgtTmpC2	SNVT_temp_p	Evaporator Refrigerant Temperature - Circuit 2	0.50°C	▼	Evaporator Saturated Rfgt Temp Ckt2
68	nvoCondRfgtPrsC1	SNVT_press_f	Condenser Refrigerant Pressure - Circuit 1	30 KPA	▼	Condenser Refrigerant Pressure Ckt1
69	nvoCondRfgtPrsC2	SNVT_press_f	Condenser Refrigerant Pressure - Circuit 2	30 KPA	▼	Condenser Refrigerant Pressure Ckt2
70	nvoCondRfgtTmpC1	SNVT_temp_p	Condenser Refrigerant Temperature - Circuit 1	1.00°C or 3.00°C 6	▼	Condenser Saturated Rfgt Temp Ckt1
71	nvoCondRfgtTmpC2	SNVT_temp_p	Condenser Refrigerant Temperature - Circuit 2	1.00°C or 3.00°C 6	▼	Condenser Saturated Rfgt Temp Ckt2
72	nvoAirFlowPctC1	SNVT_lev_percent	Air Flow Percent – Circuit 1	5.00%	▼	Air Flow Ckt1
73	nvoAirFlowPctC2	SNVT_lev_percent	Air Flow Percent – Circuit 2	5.00%	▼	Air Flow Ckt2
76	nvoHiSideOilPrsA	SNVT_press_f	High Side Oil Pressure - Compressor A	20.0 kPa	▼	Oil Pressure - Compressor 1A
77	nvoHiSideOilPrsB	SNVT_press_f	High Side Oil Pressure - Compressor B	20.0 kPa	▼	Oil Pressure - Compressor 1B
79	nvoHiSideOilPrsD	SNVT_press_f	High Side Oil Pressure - Compressor D	20.0 kPa	▼	Oil Pressure - Compressor 2A
94	nvoRfgtDischTmpA	SNVT_temp_p	Refrigerant Discharge Temperature - Compressor A	0.50°C	▼	Discharge Temperature Compressor 1A
95	nvoRfgtDischTmpB	SNVT_temp_p	Refrigerant Discharge Temperature - Compressor B	0.50°C	▼	Discharge Temperature Compressor 1B
97	nvoRfgtDischTmpD	SNVT_temp_p	Refrigerant Discharge Temperature - Compressor D	0.50°C	▼	Discharge Temperature Compressor 2A
100	nvoVoltageB	UNVT_3phase_volt	Voltage Per Phase – Compressor B	defined at element	▼	
		SNVT_volt_ac	BC phase voltage	Note 1		Phase BC Voltage - Compressor 1B
		SNVT_volt_ac	CA phase voltage	Note 1		Phase CA Voltage - Compressor 1B
		SNVT_volt_ac	AB phase voltage	Note 1		Phase AB Voltage - Compressor 1B



nv Index	Configuration Variable Name	Variable Type	Variable Description	Delta to Send (Notes)	Send HrtBt	Point Name
107	nvoCurrentB	UNVT_3phase_current	Current Per Line – Compressor B	defined at element	▼	
		SNVT_amp_ac	L1 current in Amps	Note 2		Line 1 Current - Compressor 1B
		SNVT_amp_ac	L2 current in Amps	Note 2		Line 2 Current - Compressor 1B
		SNVT_amp_ac	L3 current in Amps	Note 2		Line 2 Current - Compressor 1B
		SNVT_lev_percent	L1 current in %RLA	100%		Line 1 Current RLA - Compressor 1B
		SNVT_lev_percent	L2 current in %RLA	100%		Line 2 Current RLA - Compressor 1B
		SNVT_lev_percent	L3 current in %RLA	100%		Line 3 Current RLA - Compressor 1B
112	nvoStartsRunTmA	UNVT_starts_runtime	Starts and Run Time – Compressor A	defined at element	▼	
		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	▼	
		SNVT_count_f	Starts	1		Starts Compressor 1B
		SNVT_time_f	Run Time	360 sec		Running Time Compressor 1B
115	nvoStartsRunTmD	UNVT_starts_runtime	Starts and Run Time – Compressor D	defined at element	▼	
		SNVT_count_f	Starts	1		Starts Compressor 2A
		SNVT_time_f	Run Time	360 sec		Running Time Compressor 2A
118	nvoUnitPower	SNVT_power_f	Unit Power Consumption	Note 3	▼	Unit Power Consumption
133	nvoStatus	SNVT_obj_status	Status Response	NA	▼	Status Response
134	nvoTraneVar9	UNVT_c5s	Trane Comm 5 Status Output			Manufacturer-defined
	nvoFileDirectory	SNVT_address	File Directory	NA		File Directory