

| # | Point Description Name | BACnet | | MODBUS | | N2 | | LON | | Read Only | Description | |
|----|-------------------------------------|--------------------|---------|--------------------------|----------|------------|----|--------|-----------------|-------------------|-------------|--|
| | | Name | Type ID | Object Type | Register | Type | ID | SNVT # | Name | | | SNVT |
| 1 | Compressor Stages | cmp_stgs_1 | AV:15 | Input Register (Float) | 30005 | data float | 7 | 6 | nvoCmpStgs | SNVT_count_inc(9) | ✓ | Reports Configuration Status of Compressor Stages 1 = 1 Compressor 1 Stage 2 = 2 Compressor 2 Stages 5 = 1 Compressor 2 Stages (Default) |
| 2 | Comp1 State | cmp1_state_1 | AV:13 | Input Register (Float) | 30001 | data float | 5 | 4 | nvoCmp1State | SNVT_count_inc(9) | ✓ | Reports the State of the Compressor 1 = Lead 2 = Lag 3 = Fault |
| 3 | Comp2 State | cmp2_state_1 | AV:14 | Input Register (Float) | 30065 | data float | 6 | 5 | nvoCmp2State | SNVT_count_inc(9) | ✓ | Reports the State of the Compressor 2 1 = Lead 2 = Lag 3 = Fault |
| 4 | Control Mode | ctrl_mode_1 | AV:17 | Holding Register (Float) | 40009 | data float | 8 | 7 | nviCtrlMode | SNVT_count_inc(9) | | Mode of Control 0 = Off 1 = Heat 2 = Cool 3 = Auto Changeover 4 = Digital Input (Off = Heat/On = Cool) (Default) |
| 5 | Control Source | ctrl_source_1 | AV:16 | Holding Register (Float) | 40011 | data float | 61 | 49 | nviCtrlSource | SNVT_count_inc(9) | | Control Source for Occupancy Setup 0 = Digital Input Enable (e.g. Room Occupancy Sensor) 1 = Keypad Schedule 2 = BAS Occupancy Command (Default) 3 = Factory Use Only 4 = Manual On-Continuous |
| 6 | Current Alarm | current_alarm_1 | AV:19 | Input Register (Float) | 30003 | data float | 9 | 60 | nvoCurrentAlarm | SNVT_count_inc(9) | ✓ | Alarm Status of unit: 0 = No Alarm, 1-9 = UPM Fault Code (See UPM alarms below) 20 = Output Overridden via Keypad 30 = Sensor Failure 40 = Leaving Water Temperature High/Low Alarm 70 = Pump Runtime/Compressors 1 & 2 Runtime 110 = Load Water Temperature High/Low Alarm |
| 7 | Effect Cooling Setpoint | eff_clg_stpt_1 | AV:11 | Input Register (Float) | 30011 | data float | 12 | 9 | nvoEffClgStpt | SNVT_count_inc(9) | ✓ | Effective Cooling Setpoint (after setpoint adjustment applied) |
| 8 | Effect Heating Setpoint | eff_htg_stpt_1 | AV:12 | Input Register (Float) | 30013 | data float | 13 | 10 | nvoEffHtgStpt | SNVT_count_inc(9) | ✓ | Effective Heating Setpoint (after setpoint adjustment applied) |
| 9 | Effect Load Temp | eff_load_tmp_f_1 | AV:10 | Input Register (Float) | 30017 | data float | 15 | 12 | nvoEffLoadTmp | SNVT_temp_p(105) | ✓ | Effective Load Temperature |
| 10 | Effect Leaving Wtr Temp | eff_lv_g_wtr_tmp_1 | AV:9 | Input Register (Float) | 30015 | data float | 14 | 11 | nvoEffLvGWtrTmp | SNVT_count_inc(9) | ✓ | Effective Leaving Water Temperature Status |
| 11 | Effect Changeover Temp | eff_xovr_tmp_1 | AV:8 | Input Register (Float) | 30009 | data float | 11 | 8 | nvoEffXovrTmp | SNVT_count_inc(9) | ✓ | Effective Changeover Temperature |
| 12 | Occ Clg Setpoint in Fahrenheit | occ_clg_stpt_1 | AV:4 | Holding Register (Float) | 40013 | data float | 17 | 14 | nviOccClgStpt | SNVT_temp_p(105) | | Occupied Cooling Setpoint Setup in °F Default: 54 °F |
| 13 | Occ Clg Setpoint in Celsius | occ_clg_stpt_c_1 | AV:504 | Holding Register (Float) | 40015 | data float | 18 | 15 | nviOccClgStptC | SNVT_temp_p(105) | | Occupied Cooling Setpoint Setup in °C Default: 12°C |
| 14 | Occ Htg Setpoint in Fahrenheit | occ_htg_stpt_1 | AV:2 | Holding Register (Float) | 40017 | data float | 19 | 16 | nviOccHtgStpt | SNVT_temp_p(105) | | Occupied Heating Setpoint Setup in °F Default: 105 °F |
| 15 | Occ Htg Setpoint in Celsius | occ_htg_stpt_c_1 | AV:502 | Holding Register (Float) | 40019 | data float | 20 | 17 | nviOccHtgStptC | SNVT_temp_p(105) | | Occupied Heating Setpoint Setup in °C Default: 40°C |
| 16 | Setpoint Differential in Fahrenheit | stpt_diff_1 | AV:5 | Holding Register (Float) | 40023 | data float | 22 | 19 | nviStptDiff | SNVT_temp_p(105) | | Setpoint Differential in Fahrenheit Default: 1° |
| 17 | Setpoint Differential in Celsius | stpt_diff_c_1 | AV:505 | Holding Register (Float) | 40021 | data float | 21 | 18 | nviStptDiffC | SNVT_temp_p(105) | | Setpoint Differential in Celsius Default: 2° |
| 18 | System Mode | sys_mode_1 | AV:18 | Input Register (Float) | 30021 | data float | 23 | 51 | nvoSysMode | SNVT_count_inc(9) | ✓ | Reports the System Mode 1 = Neutral 2 = Heating 3 = Cooling |
| 19 | Temp Unit Selection | temp_unit_mode_1 | AV:550 | Holding Register (Float) | 40025 | data float | 24 | 20 | nviTempUnitMode | SNVT_count_inc(9) | | Temperature Unit Selection 0 = Fahrenheit (Default) 1 = Celsius |

| # | Point Description Name | BACnet | | MODBUS | | N2 | | LON | | Read Only | Description |
|----|--|--------------------|---------|--------------------------|----------|------------|----|--------|------------------|------------------|--|
| | | Name | Type ID | Object Type | Register | Type | ID | SNVT # | Name | | |
| 20 | Unocc Clg Setpoint in Fahrenheit | unocc_clg_stpt_1 | AV:3 | Holding Register (Float) | 40027 | data float | 25 | 21 | nviUnoccClgStpt | SNVT_temp_p(105) | Unoccupied Cooling Setpoint Setup in °F Default: 74 °F |
| 21 | Unocc Clg Setpoint in Celsius | unocc_clg_stpt_c_1 | AV:503 | Holding Register (Float) | 40029 | data float | 26 | 22 | nviUnoccClgStptC | SNVT_temp_p(105) | Unoccupied Cooling Setpoint Setup in °C Default: 24 °C |
| 22 | Unocc Htg Setpoint in Fahrenheit | unocc_htg_stpt_1 | AV:1 | Holding Register (Float) | 40031 | data float | 27 | 23 | nviUnoccHtgStpt | SNVT_temp_p(105) | Unoccupied Heating Setpoint Setup in °F Default: 85 °F |
| 23 | Unocc Htg Setpoint in Celsius | unocc_htg_stpt_c_1 | AV:501 | Holding Register (Float) | 40033 | data float | 28 | 24 | nviUnoccHtgStptC | SNVT_temp_p(105) | Unoccupied Heating Setpoint Setup in °C Default: 30 °C |
| 24 | Changeover Deadband in Fahrenheit | xovr_dbnd_1 | AV:7 | Holding Register (Float) | 40001 | data float | 1 | #N/A | #N/A | #N/A | Changeover Deadband in °F Default: 3 |
| 25 | Changeover Deadband in Celsius | xovr_dbnd_c_1 | AV:507 | Holding Register (Float) | 40003 | data float | 2 | 1 | nviXovrDbndC | SNVT_temp_p(105) | Changeover Deadband in °C Default: 2 |
| 26 | Changeover Setpoint in Fahrenheit | xovr_stpt_1 | AV:6 | Holding Register (Float) | 40005 | data float | 3 | 2 | nviXovrStpt | SNVT_temp_p(105) | Changeover Setpoint in °F Default: 65 °F |
| 27 | Changeover Setpoint in Celsius | xovr_stpt_c_1 | AV:506 | Holding Register (Float) | 40007 | data float | 4 | 3 | nviXovrStptC | SNVT_temp_p(105) | Changeover Setpoint in °C Default: 18 °C |
| 28 | Alarm Status (Alarm or Normal) | alarm_status_1 | BV:20 | Discrete Input | 10001 | binary in | 1 | 25 | nvoAlarmStatus | SNVT_switch(95) | ✓ Network Status indicating alarm condition in unit (see "Current Alarm" for more information) 0 = System Normal 1 = System in Alarm |
| 29 | UPM Safety - High Pressure Alarm | hp1_2st_1 | BV:5 | Discrete Input | 10035 | binary in | 36 | 54 | nvoHp12st | SNVT_switch(95) | ✓ UPM High Pressure Alarm Status 0 = Normal 1 = High Pressure Alarm (UPM-I code = 1; UPM-II codes = 1,3) |
| 30 | UPM Safety - Low Pressure Alarm | lp1_2st_1 | BV:4 | Discrete Input | 10039 | binary in | 41 | 55 | nvoLp12st | SNVT_switch(95) | ✓ UPM Low Pressure Alarm Status 0 = Normal 1 = Low Pressure Alarm (UPM-I code = 2; UPM-II codes = 2,4) |
| 31 | UPM Safety - Condenser Coil Freeze Alarm | frz_2st_1 | BV:8 | Discrete Input | 10030 | binary in | 31 | 53 | nvoFrz2st | SNVT_switch(95) | ✓ UPM Condenser Coil Freeze Alarm Status 0 = Normal 1 = Condenser Freeze Alarm (UPM-I code = 3; UPM-II codes = 5,9) |
| 32 | UPM Safety - High Condensate Alarm | con_2st_1 | BV:3 | Discrete Input | 10008 | binary in | 12 | 58 | nvoCon2st | SNVT_switch(95) | ✓ UPM Condensate Drain Alarm Status 0 = Normal 1 = Condensate Overflow Alarm (UPM-I code = 4; UPM-II code = 6) |
| 33 | UPM Safety - Brownout Alarm | brn_2st_1 | BV:2 | Discrete Input | 10002 | binary in | 2 | 57 | nvoBrn2st | SNVT_switch(95) | ✓ UPM Brownout Alarm Status 0 = Normal 1 = Brownout Alarm (UPM-I code = 5; UPM-II code = 7) |
| 34 | Comp1 Output Cmd | cmp1_cmd_1 | BV:9 | Discrete Input | 10005 | binary in | 6 | 28 | nvoCmp1Cmd | SNVT_switch(95) | ✓ Compressor Stage 1 Output Status 0 = Compressor 1 Off 1 = Compressor 1 On |
| 35 | Compressor 1 Runtime Reset | cmp1_rntm_rst_1 | BV:11 | Coil | 00002 | binary in | 7 | 29 | nviCmp1RntmRst | SNVT_switch(95) | Compressor 1 Runtime Reset. Momentary On/Off required. 0 = Reset Off (Default) 1 = Reset On |
| 36 | Comp2 Output Cmd | cmp2_cmd_1 | BV:10 | Discrete Input | 10006 | binary in | 8 | 30 | nvoCmp2Cmd | SNVT_switch(95) | ✓ Compressor Stage 2 Output Status 0 = Compressor 2 Off 1 = Compressor 2 On |
| 37 | Compressor 2 Runtime Reset | cmp2_rntm_rst_1 | BV:12 | Coil | 00003 | binary in | 9 | 31 | nviCmp2RntmRst | SNVT_switch(95) | Compressor 2 Runtime Reset. Momentary On/Off required. 0 = Reset Off (Default) 1 = Reset On |
| 38 | Continuous Pump(s) | cont_pump_1 | BV:16 | Coil | 00004 | binary in | 10 | 32 | nviContPump | SNVT_switch(95) | Continuous Pump Selection 0 = Cycle With Compressors (Default) 1 = Run Continuously when in OCC or NSB |
| 39 | Digital Override Lock Alarm | do_lock_1 | BV:32 | Discrete Input | 10007 | binary in | 11 | 33 | nvoDoLock | SNVT_switch(95) | ✓ Digital Override Lock Alarm 0 = Normal 1 = Digital Override Enabled Alarm |
| 40 | Compressor 1 Stage Runtime Expired Alarm | dx1_rntm_1 | BV:33 | Discrete Input | 10003 | binary in | 4 | 26 | nvoDx1Rntm | SNVT_switch(95) | ✓ Compressor 1 Runtime Alarm 0 = Normal 1 = Timer Has Expired (Default: >8760 Hours) |
| 41 | Compressor 2 Stage Runtime Expired Alarm | dx2_rntm_1 | BV:34 | Discrete Input | 10004 | binary in | 5 | 27 | nvoDx2Rntm | SNVT_switch(95) | ✓ Compressor 2 Runtime Alarm Status 0 = Normal 1 = Timer Has Expired (Default: >8760 Hours) |
| 42 | Inputs Override Status | input_lock_1 | BV:22 | Discrete Input | 10011 | binary in | 15 | 34 | nvoInputLock | SNVT_switch(95) | ✓ Software Input Lock 0 = Normal 1 = Software Lock Enabled |
| 43 | High Load Temp Alarm | load_hi_1 | BV:23 | Discrete Input | 10012 | binary in | 16 | 35 | nvoLoadHi | SNVT_switch(95) | ✓ High Load Water Temperature 0 = Normal 1 = High Load Temperature (Default: 10 °F / 6 °C Above Setpoint) |

| # | Point Description Name | BACnet | | MODBUS | | N2 | | LON | | Read Only | Description | |
|---|--|------------------|----------|----------------|----------|------------|----|--------|-----------------|-----------------|-------------|---|
| | | Name | Type ID | Object Type | Register | Type | ID | SNVT # | Name | | | SNVT |
| 44 | Low Load Temp Alarm | load_lo_1 | BV:24 | Discrete Input | 10013 | binary in | 17 | 36 | nvoLoadLo | SNVT_switch(95) | ✓ | Low Load Water Temperature 0 = Normal 1 = Low Load Temperature (Default: 10 °F / 6 °C Below Setpoint) |
| 45 | Load Sensor Failure Alarm | load_sen_1 | BV:25 | Discrete Input | 10014 | binary in | 18 | 37 | nvoLoadSen | SNVT_switch(95) | ✓ | Load Sensor Failure 0 = Normal 1 = Sensor Failure (Check Load Sensor Hardware) |
| 46 | High Leaving Water Temperature | lv_g_hi_1 | BV:26 | Discrete Input | 10017 | binary in | 21 | 38 | nvoLvgHi | SNVT_switch(95) | ✓ | High Leaving Water Temperature Alarm (LWT) 0 = Normal 1 = Alarm (Default: >135 °F / 65 °C) |
| 47 | Low Leaving Water Temperature | lv_g_lo_1 | BV:27 | Discrete Input | 10018 | binary in | 22 | 39 | nvoLvgLo | SNVT_switch(95) | ✓ | Low Leaving Water Temperature (LWT) 0 = Normal 1 = Alarm (Default: <35 °F / 1 °C) |
| 48 | Leaving Water Temperature Sensor Failure | lv_g_sen_1 | BV:28 | Discrete Input | 10019 | binary in | 23 | 40 | nvoLvgSen | SNVT_switch(95) | ✓ | Leaving Water Temperature Alarm (Sensor) 0 = Normal 1 = Sensor Failure (Check Source Sensor Hardware) |
| 49 | NSB Status | nsb_status_1 | BV:19 | Discrete Input | 10020 | binary in | 24 | 50 | nvoNsbStatus | SNVT_switch(95) | ✓ | Night Setback Status 0 = Night Setback disabled 1 = Night Setback enabled |
| 50 | Occupancy Status | occ_status_1 | BV:18 | Discrete Input | 10021 | binary in | 25 | 48 | nvoOccStatus | SNVT_switch(95) | ✓ | Occupancy Status 0 = Unoccupied 1 = Occupied |
| 51 | Occupancy Command (BAS) | occupancy_cmd_1 | BV:1 | Coil | 00001 | binary out | 1 | 47 | nviOccupancyCmd | SNVT_switch(95) | | BAS Occupancy Command 0 = Unoccupied (Default) 1 = Occupied (Enables Unit Operation when BAS is selected for Control Source) |
| 52 | Circulation Pump Output Command | pump_cmd_1 | BV:15 | Discrete Input | 10023 | binary in | 27 | 42 | nvoPumpCmd | SNVT_switch(95) | ✓ | Loop Water Pump Status 0 = Pump Running 1 = Pump Off |
| 53 | Pump Runtime | pump_rntm_1 | BV:29 | Discrete Input | 10022 | binary in | 26 | 41 | nvoPumpRntm | SNVT_switch(95) | ✓ | Pump Runtime Alarm 0 = Normal 1 = Timer Has Expired (Default: >8760 Hours) |
| 54 | Reset Pump Rntm | pump_rntm_rst_1 | BV:17 | Coil | 00005 | binary in | 28 | 43 | nviPumpRntmRst | SNVT_switch(95) | | Reset Pump Runtime 0 = Inactive (Default) 1 = Active Reset |
| 55 | Rev Valve Action | rev_vlv_action_1 | BV:14 | Coil | 00006 | binary in | 29 | 44 | nviRevVlvAction | SNVT_switch(95) | | Reversing Valve Action 0 = Energize valve when Heating 1 = Energize valve when Cooling (Default) |
| 56 | Reversing Valve Output Status | rev_vlv_cmd_1 | BV:13 | Discrete Input | 10024 | binary in | 30 | 45 | nvoRevVlvCmd | SNVT_switch(95) | ✓ | Reversing Valve Output Status 0 = Reversing Valve De-energized 1 = Reversing Valve Energized |
| 57 | UPM Input Alarm | upm_input_1 | BV:39 | Discrete Input | 10064 | binary in | 60 | 56 | nvoUpmInput | SNVT_switch(95) | ✓ | UPM Input Failure Alarm 0 = UPM Connected 1 = UPM Connection Failure |
| 58 | UPM Reset | upm_rst_1 | BV:7 | Coil | 00007 | binary in | 3 | 52 | nviUpmRst | SNVT_switch(95) | | UPM Reset. Momentary On/Off required 0 = Reset Off (Default) 1 = Reset On |
| 59 | Changeover Temperature Sensor Failure | xovr_sen_1 | BV:31 | Discrete Input | 10026 | binary in | 33 | 46 | nvoXovrSen | SNVT_switch(95) | ✓ | Changeover Temperature Sensor Failure 0 = Normal 1 = Sensor Failure (Check Changeover Sensor Hardware) |
| The below points are ONLY for Factory Use. | | | | | | | | | | | | |
| 60 | Test DO-1 | do_one_1 | BV:91001 | | | | | | | | | |
| 61 | Test DO-2 | do_two_1 | BV:91002 | | | | | | | | | |

| # | Point Description Name | BACnet | | MODBUS | | N2 | | | LON | | Read Only | Description |
|----|------------------------|-------------------|----------|-------------|----------|------|----|--------|------|------|-----------|-------------|
| | | Name | Type ID | Object Type | Register | Type | ID | SNVT # | Name | SNVT | | |
| 62 | Test DO-3 | do_three_1 | BV:91003 | | | | | | | | | |
| 63 | Test DO-4 | do_four_1 | BV:91004 | | | | | | | | | |
| 64 | Test DO-5 | do_five_1 | BV:91005 | | | | | | | | | |
| 65 | EOL Factory Test | fac_test_enable_1 | BV:91000 | | | | | | | | | |