



LONMARK[®] **SNVT Master List**

Contents

Contents	2
Absolute count: SNVT_count	6
Absolute count: SNVT_count_32	6
Absolute count: SNVT_count_f	6
Absolute humidity: SNVT_abs_humid	6
Acidity: SNVT_ph	6
Acidity: SNVT_ph_f	7
Alarm status: SNVT_alarm	7
Alarm status 2: SNVT_alarm_2	8
Amperage in alternating current: SNVT_amp_ac	8
Angular distance: SNVT_angle	8
Angular distance: SNVT_angle_deg	9
Angular distance: SNVT_angle_f	9
Angular velocity: SNVT_angle_vel	9
Angular velocity: SNVT_angle_vel_f	9
Angular velocity: SNVT_rpm	9
Area: SNVT_area	10
ASCII character: SNVT_char_ascii	10
Camera PTZ: SNVT_ptz	10
Character string (30 characters max): SNVT_str_asc	10
Chiller status: SNVT_chlr_status	11
CIELAB color: SNVT_color	11
Clothes Washer Alarm: SNVT_clothes_w_a	12
Clothes Washer Command: SNVT_clothes_w_c	14
Clothes Washer Status: SNVT_clothes_w_s	15
Clothes Washer-Management Status: SNVT_clothes_w_m	17
Color: SNVT_color_2	17
Concentration: SNVT_ppm	18
Concentration: SNVT_ppm_f	18
Configuration source: SNVT_config_src	19
Continuous level: SNVT_lev_cont	19
Continuous level: SNVT_lev_cont_f	19
Control request: SNVT_ctrl_req	19
Control response: SNVT_ctrl_resp	20
Currency: SNVT_currency	20
Date: SNVT_date_cal	21
Date event: SNVT_date_event	21
Day of week: SNVT_date_day	21
Defrost mode: SNVT_defr_mode	22
Defrost state: SNVT_defr_state	22
Defrost termination: SNVT_defr_term	22
Density: SNVT_density	22
Density: SNVT_density_f	22
Device control mode: SNVT_dev_c_mode	23
Device fault states: SNVT_dev_fault	23
Device maintenance: SNVT_dev_maint	25
Device status: SNVT_dev_status	26
Discrete level: SNVT_lev_disc	28
Earth position: SNVT_earth_pos	28
Elapsed time: SNVT_elapsed_tm	28
Elapsed time: SNVT_time_f	29
Elapsed time: SNVT_time_hour	29
Elapsed time: SNVT_time_min	29
Elapsed time: SNVT_time_passed	29
Elapsed time: SNVT_time_sec	30
Electric current: SNVT_amp	30
Electric current: SNVT_amp_f	30
Electric current: SNVT_amp_mil	30
Electric energy: SNVT_elec_kwh	31
Electric energy: SNVT_elec_kwh_l	31
Electric energy: SNVT_elec_whr	31
Electric energy: SNVT_elec_whr_f	31
Electric resistance: SNVT_res	31
Electric resistance: SNVT_res_f	32
Electric resistance: SNVT_res_kilo	32

Electric voltage: SNVT_volt.....	32
Electric voltage: SNVT_volt_dbmv	32
Electric voltage: SNVT_volt_f	32
Electric voltage: SNVT_volt_kilo	33
Electric voltage: SNVT_volt_mil	33
Electrical current: SNVT_amp_ac_mil.....	33
Enthalpy: SNVT_enthalpy	33
Enthalpy difference: SNVT_enthalpy_d.....	33
Entry operation mode: SNVT_ent_opmode.....	34
Entry state: SNVT_ent_state.....	34
Entry status: SNVT_ent_status.....	34
Environment: SNVT_environment.....	36
Evaporator state: SNVT_evap_state	36
Exception schedule: SNVT_sched_exc	36
Exclusive control: SNVT_ex_control.....	37
File position: SNVT_file_pos.....	37
File request: SNVT_file_req.....	38
File status: SNVT_file_status	39
Fire indicator type: SNVT_fire_indcte	40
Fire initiator type: SNVT_fire_init.....	40
Fire test request: SNVT_fire_test	40
Flow direction: SNVT_flow_dir	40
Flow mass: SNVT_mass_flow	41
Flow mass: SNVT_mass_flow_f.....	41
Flow volume: SNVT_flow	41
Flow volume: SNVT_flow_f	41
Flow volume: SNVT_flow_mil.....	41
Flow volume: SNVT_flow_p	42
Frequency: SNVT_freq_f	42
Frequency: SNVT_freq_hz	42
Frequency: SNVT_freq_kilohz	42
Frequency: SNVT_freq_milhz.....	42
Geographic Location: SNVT_geo_loc	43
GFCI status type: SNVT_gfci_status.....	43
Grammage: SNVT_grammage.....	43
Grammage: SNVT_grammage_f	43
HVAC emergency mode: SNVT_hvac_emerg	44
HVAC mode: SNVT_hvac_mode.....	44
HVAC override: SNVT_hvac_overid.....	44
HVAC saturation status: SNVT_hvac_satsts.....	44
HVAC status: SNVT_hvac_status	45
HVAC unit type: SNVT_hvac_type.....	46
Illumination: SNVT_lux	46
Increment count: SNVT_count_inc	46
Increment count: SNVT_count_inc_f.....	46
ISO 7811: SNVT_ISO_7811	46
ISO 7811: SNVT_magcard.....	48
Lamp Status: SNVT_lamp_status.....	50
Length: SNVT_length	54
Length: SNVT_length_f.....	54
Length: SNVT_length_kilo.....	54
Length: SNVT_length_micr	54
Length: SNVT_length_mil	55
Linear velocity: SNVT_speed.....	55
Linear velocity: SNVT_speed_f	55
Linear velocity: SNVT_speed_mil	55
Load control offsets: SNVT_load_offsets.....	55
Log file transfer request.: SNVT_log_fx_request	56
Log file transfer status.: SNVT_log_fx_status.....	56
Log status: SNVT_log_status	57
Log status request.: SNVT_log_request.....	57
Mass: SNVT_mass	58
Mass: SNVT_mass_f	58
Mass: SNVT_mass_kilo	58
Mass: SNVT_mass_mega.....	58
Mass: SNVT_mass_mil.....	58
Motor state: SNVT_motor_state.....	59
Multiplier: SNVT_multiplier	59
Multiplier: SNVT_multiplier_s.....	59
Multiply/Divide: SNVT_muldiv	59
Network variable type: SNVT_nv_type	60
Neuron address: SNVT_address.....	60

Object request: SNVT_obj_request.....	60
Object status: SNVT_obj_status.....	61
Occupancy: SNVT_occupancy.....	62
Override code: SNVT_override.....	62
Percentage level: SNVT_lev_percent.....	62
Position control: SNVT_pos_ctrl.....	63
Power: SNVT_power.....	63
Power: SNVT_power_f.....	64
Power: SNVT_power_kilo.....	64
Power factor: SNVT_pwr_fact.....	64
Power factor: SNVT_pwr_fact_f.....	64
Precision timestamp: SNVT_time_stamp_p.....	64
Preset: SNVT_preset.....	65
Pressure (gauge): SNVT_press.....	65
Pressure (gauge): SNVT_press_f.....	65
Pressure (gauge): SNVT_press_p.....	66
Privacy zone: SNVT_privacyzone.....	66
Program status: SNVT_program_status.....	66
Pump sensor: SNVT_pump_sensor.....	67
Pumpset: SNVT_pumpset_mn.....	67
Pumpset sensor: SNVT_pumpset_sn.....	68
Rail-Audio Controller Control: SNVT_rac_ctrl.....	69
Rail-Audio Controller Request: SNVT_rac_req.....	70
Register value: SNVT_reg_val.....	71
Register value: SNVT_reg_val_ts.....	72
Safe protocol for 1 byte data length: SNVT_safe_1.....	72
Safe protocol for 2 bytes data length: SNVT_safe_2.....	73
Safe protocol for 4 bytes data length: SNVT_safe_4.....	75
Safe protocol for 8 bytes data length: SNVT_safe_8.....	76
Scene configuration: SNVT_scene_cfg.....	77
Scene control: SNVT_scene.....	77
Schedule time-value pair: SNVT_time_val_2.....	78
Scheduler status: SNVT_sched_status.....	79
Scheduler value: SNVT_sched_val.....	79
Security State: SNVT_sec_state.....	79
Security Status: SNVT_sec_status.....	80
Setting control: SNVT_setting.....	80
Smoke obscuration: SNVT_smo_obscur.....	80
Sound level: SNVT_sound_db.....	81
Sound level: SNVT_sound_db_f.....	81
State vector: SNVT_state.....	81
State vector: SNVT_state_64.....	82
Sunblind State: SNVT_sbldnd_state.....	85
Switch: SNVT_switch.....	85
Switch with scene and setting control: SNVT_switch_2.....	86
Telecomm states: SNVT_telcom.....	86
Temp difference: SNVT_temp_diff_p.....	87
Temperature: SNVT_temp.....	87
Temperature: SNVT_temp_f.....	87
Temperature: SNVT_temp_p.....	87
Temperature: SNVT_temp_setpt.....	87
Temperature rate of change/rise: SNVT_temp_ror.....	88
Thermal energy: SNVT_btu_f.....	88
Thermal energy: SNVT_btu_kilo.....	88
Thermal energy: SNVT_btu_mega.....	88
Thermostat mode: SNVT_therm_mode.....	89
Time hour: SNVT_time_hour_p.....	89
Time of Day: SNVT_date_time.....	89
Time of day event: SNVT_tod_event.....	89
Time offset: SNVT_time_offset.....	90
Time stamp: SNVT_time_stamp.....	90
Time zone descriptor: SNVT_time_zone.....	91
Translation table: SNVT_trans_table.....	92
Turbidity: SNVT_turbidity.....	92
Turbidity: SNVT_turbidity_f.....	93
Valve mode: SNVT_valve_mode.....	93
Voltage in alternating current: SNVT_volt_ac.....	93
Volume: SNVT_vol.....	93
Volume: SNVT_vol_f.....	93
Volume: SNVT_vol_kilo.....	94
Volume: SNVT_vol_mil.....	94
Watts per square meter: SNVT_Wm2_p.....	94

Wide character string with locale code (15 characters max): SNVT_str_int.....	94
Zero and span: SNVT_zerospanspan.....	95

Absolute count: SNVT_count

“Absolute count in units”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
8	2 bytes	unsigned long	0	65535	$1 \times 100 \times (\text{Raw} + 0)$	1 units

Absolute count: SNVT_count_32

“Absolute count”

A 32-bit counter

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
183	4 bytes	unsigned quad	0	4294967295	$1 \times 10^0 \times (\text{Raw} + 0)$	1

Absolute count: SNVT_count_f

“Absolute count in units”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
51	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Absolute humidity: SNVT_abs_humid

“Absolute humidity in gram/kilogram”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
160	2 bytes	unsigned long	0	65535	$1 \times 10^{-2} \times (\text{Raw} + 0)$	0.01 gram/kilogram

Acidity: SNVT_ph

“Acidity in pH”

Ratio of concentration of ions

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
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125	2 bytes	signed long	-32768	32767	$1 \times 10^{-3} \times (Raw+0)$	0.001 pH
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Acidity: SNVT_ph_f

“Acidity in pH”

Ratio of concentration of ions

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
126	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Alarm status: SNVT_alarm

“Alarm status”

Index	Size	Data Type				
88	29 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_alarm.location			unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 array of 6 bytes	
SNVT_alarm.object_id			unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 object index	
SNVT_alarm.alarm_type			alarm_type_t -1	32 -13	none (enumeration) 1	
SNVT_alarm.priority_level			priority_level_t -1	11 -1	none (enumeration) 1	
SNVT_alarm.index_to_SNVT			unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 index of NV causing alarm	
SNVT_alarm.value			unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 array of 4 bytes	
SNVT_alarm.year			unsigned long (no invalid value)	3000 0	$1 \times 10^0 \times (Raw+0)$ 1 years	
SNVT_alarm.month			unsigned short (no invalid value)	12 0	$1 \times 10^0 \times (Raw+0)$ 1 months	
SNVT_alarm.day			unsigned short (no invalid value)	31 0	$1 \times 10^0 \times (Raw+0)$ 1 days	
SNVT_alarm.hour			unsigned short (no invalid value)	23 0	$1 \times 10^0 \times (Raw+0)$ 1 hours	
SNVT_alarm.minute			unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 minutes	
SNVT_alarm.second			unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds	

SNVT_alarm.millisecond	unsigned long (no invalid value)	999 0	$1 \times 10^0 \times (Raw+0)$ 1 milliseconds
SNVT_alarm.alarm_limit	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 array of 4 bytes

Alarm status 2: SNVT_alarm_2

“Alarm status 2”

Used to report alarm status for a functional block or device. Replaces SNVT_alarm

Index	Size	Data Type				
164	31 bytes	structure				
Field		CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution	
SNVT_alarm_2.alarm_type		alarm_type_t -1		32 -13	none (enumeration) 1	
SNVT_alarm_2.priority_level		priority_level_t -1		11 -1	none (enumeration) 1	
SNVT_alarm_2.alarm_time		unsigned quad 4294967295		4294967295 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds	
SNVT_alarm_2.milliseconds		signed long -1		999 -1	$1 \times 10^0 \times (Raw+0)$ 1 milliseconds	
SNVT_alarm_2.sequence_number		unsigned short (no invalid value)		255 0	$1 \times 10^0 \times (Raw+0)$ 1 count	
SNVT_alarm_2.description		unsigned char (no invalid value)		126 32	$1 \times 10^0 \times (Raw+0)$ 1 array of 22 characters	

Amperage in alternating current: SNVT_amp_ac

“Amperage in alternating current in amperes AC”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
139	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 amperes AC

Angular distance: SNVT_angle

“Angular distance in radians”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
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3	2 bytes	unsigned long	0	65535	$1 \times 10^{-3} \times (Raw+0)$	0.001 radians
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Angular distance: SNVT_angle_deg

“Angular distance in degrees”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
104	2 bytes	signed long	-17999	18000	$2 \times 10^{-2} \times (Raw+0)$	0.02 degrees

Angular distance: SNVT_angle_f

“Angular distance in radians”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
49	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Angular velocity: SNVT_angle_vel

“Angular velocity in radians/second”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
4	2 bytes	signed long	-32768	32767	$1 \times 10^{-1} \times (Raw+0)$	0.1 radians/second

Angular velocity: SNVT_angle_vel_f

“Angular velocity in radians/second”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
50	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Angular velocity: SNVT_rpm

“Angular velocity in revolutions/minute (RPM)”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
102	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 revolutions/minute (RPM)

Area: SNVT_area

“Area in square meters”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
110	2 bytes	unsigned long	0	65535	$2 \times 10^{-4} \times (Raw+0)$	0.0002 square meters

ASCII character: SNVT_char_ascii

“ASCII character in 8-bit ASCII character”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
7	1 bytes	unsigned char	0	255	$1 \times 10^0 \times (Raw+0)$	1 8-bit ASCII character

Camera PTZ: SNVT_ptz

“Camera PTZ”

Index	Size	Data Type				
150	6 bytes	structure				
Field			CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution
SNVT_ptz.pan_dir			pan_dir_t -1		2 -1	none (enumeration) 1
SNVT_ptz.pan_speed			unsigned short (no invalid value)		250 0	$4 \times 10^{-1} \times (Raw+0)$ 0.4 % of full level
SNVT_ptz.tilt_dir			tilt_dir_t -1		2 -1	none (enumeration) 1
SNVT_ptz.tilt_speed			unsigned short (no invalid value)		250 0	$4 \times 10^{-1} \times (Raw+0)$ 0.4 % of full level
SNVT_ptz.zoom			zoom_t -1		2 -1	none (enumeration) 1
SNVT_ptz.zoom_speed			unsigned short (no invalid value)		250 0	$4 \times 10^{-1} \times (Raw+0)$ 0.4 % of full level

Character string (30 characters max): SNVT_str_asc

“Character string (30 characters max)”

Index	Size	Data Type	
36	31 bytes	structure	

Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_str_asc.ascii	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 array of 31 characters

Chiller status: SNVT_chlr_status

“Chiller status”

Index	Size	Data Type	
127	3 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_chlr_status.chlr_run_mode	chiller_t -1	4 -1	none (enumeration) 1
SNVT_chlr_status.chlr_op_mode	hvac_t -1	17 -1	none (enumeration) 1
SNVT_chlr_status.chlr_state	structure		
SNVT_chlr_status.chlr_state.in_alarm	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_chlr_status.chlr_state.run_enabled	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_chlr_status.chlr_state.local	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_chlr_status.chlr_state.limited	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_chlr_status.chlr_state.chw_flow	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_chlr_status.chlr_state.condw_flow	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5

CIELAB color: SNVT_color

“CIELAB color”

Index	Size	Data Type	
70	6 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_color.L_star	unsigned long (no invalid value)	1000 0	$1 \times 10^{-1} \times (Raw+0)$ 0.1
SNVT_color.a_star	signed long	2000	$1 \times 10^{-1} \times (Raw+0)$

	(no invalid value)	-2000	0.1
SNVT_color.b_star	signed long (no invalid value)	2000 -2000	$1 \times 10^{-1} \times (Raw+0)$ 0.1

Clothes Washer Alarm: SNVT_clothes_w_a

“Clothes Washer Alarm”

Used to provide alarm status for a clothes washer

Index	Size	Data Type	
187	6 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_clothes_w_a.alarm	structure		
SNVT_clothes_w_a.alarm.alarm_reset	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_a.alarm.war_water_supply	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_a.alarm.war_drain_slow	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_clothes_w_a.alarm.war_door_open	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_clothes_w_a.alarm.war_load_unbalanced	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_clothes_w_a.alarm.war_filter_cleaning	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_clothes_w_a.alarm.war_hoses_reversed	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_clothes_w_a.alarm.war_voltage_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_clothes_w_a.alarm.war_power_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_a.alarm.war_drain_open	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_a.alarm.war_execute_fail	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_clothes_w_a.alarm.war_door_locked	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_clothes_w_a.alarm.war_service	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_clothes_w_a.alarm.rsrvd5	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_clothes_w_a.alarm.rsrvd6	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6

SNVT_clothes_w_a.alarm.rsrvd7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_clothes_w_a.alarm.err_motor_stall	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_a.alarm.err_water_temp	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_a.alarm.err_pressure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_clothes_w_a.alarm.err_overflow	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_clothes_w_a.alarm.err_water_heat	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_clothes_w_a.alarm.err_water_leak	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_clothes_w_a.alarm.err_motor_speed	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_clothes_w_a.alarm.err_wash_thermistor	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_clothes_w_a.alarm.err_dry_thermistor	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_a.alarm.err_dry_overheat	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_a.alarm.err_dry_heating	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_clothes_w_a.alarm.err_dry_fan	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_clothes_w_a.alarm.err_rsrvd4	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_clothes_w_a.alarm.err_rsrvd5	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_clothes_w_a.alarm.err_rsrvd6	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_clothes_w_a.alarm.err_rsrvd7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_clothes_w_a.alarm.err_rsrvd0_7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 8 at offset: 0
SNVT_clothes_w_a.alarm.manuf_code	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1

Clothes Washer Command: SNVT_clothes_w_c

“Clothes Washer Command”

Used to program and start a clothes washer

Index	Size	Data Type	
184	21 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_clothes_w_c.cycle	appl_cwc_t -1	3 -1	none (enumeration) 1
SNVT_clothes_w_c.subcycle	appl_cws_t -1	12 -1	none (enumeration) 1
SNVT_clothes_w_c.rervd	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_clothes_w_c.action	structure		
SNVT_clothes_w_c.action.power_on	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_c.action.run_mode	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_c.action.rsrvd2_7	bitfield	63 0	$1 \times 10^0 \times (Raw+0)$ bits: 6 at offset: 2
SNVT_clothes_w_c.function	structure		
SNVT_clothes_w_c.function.program	appl_cwp_t -1	11 -1	none (enumeration) 1
SNVT_clothes_w_c.function.wash	structure		
SNVT_clothes_w_c.function.wash.load_level	discrete_levels_t -1	4 -1	none (enumeration) 1
SNVT_clothes_w_c.function.wash.temp	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_clothes_w_c.function.wash.time	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_clothes_w_c.function.wash.prewash	boolean_t -1	1 -1	none (enumeration) 1
SNVT_clothes_w_c.function.rinse	structure		
SNVT_clothes_w_c.function.rinse.temp	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_clothes_w_c.function.rinse.repeat	unsigned short (no invalid value)	9 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_clothes_w_c.function.rinse.option	appl_rin_t -1	3 -1	none (enumeration) 1
SNVT_clothes_w_c.function.spin	structure		
SNVT_clothes_w_c.function.spin.speed	SNVT_rpm		
SNVT_clothes_w_c.function.spin.time	unsigned short	255	$1 \times 10^0 \times (Raw+0)$

	(no invalid value)	0	1
SNVT_clothes_w_c.function.spin.hold	boolean_t	1	none (enumeration)
	-1	-1	1
SNVT_clothes_w_c.function.dry	structure		
SNVT_clothes_w_c.function.dry.temp	unsigned short	1	$1 \times 10^0 \times (Raw+0)$
	(no invalid value)	0	1
SNVT_clothes_w_c.function.dry.duration	structure		
SNVT_clothes_w_c.function.dry.duration.time	unsigned short	255	$1 \times 10^0 \times (Raw+0)$
	(no invalid value)	0	1
SNVT_clothes_w_c.function.dry.duration.dryness	discrete_levels_t	4	none (enumeration)
	-1	-1	1
SNVT_clothes_w_c.time_remaining	SNVT_time_min		

Clothes Washer Status: SNVT_clothes_w_s

“Clothes Washer Status”

Used to provide present status from a clothes washer, including command and alarm information

Index	Size	Data Type	
186	31 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_clothes_w_s.cycle	appl_cwc_t	3	none (enumeration)
	-1	-1	1
SNVT_clothes_w_s.subcycle	appl_cws_t	12	none (enumeration)
	-1	-1	1
SNVT_clothes_w_s.washer_command_data	SNVT_clothes_w_c		
SNVT_clothes_w_s.time_remaining	SNVT_time_min		
SNVT_clothes_w_s.alarm	structure		
SNVT_clothes_w_s.alarm.alarm_reset	bitfield	1	$1 \times 10^0 \times (Raw+0)$
		0	bits: 1 at offset: 0
SNVT_clothes_w_s.alarm.war_water_supply	bitfield	1	$1 \times 10^0 \times (Raw+0)$
		0	bits: 1 at offset: 1
SNVT_clothes_w_s.alarm.war_drain_slow	bitfield	1	$1 \times 10^0 \times (Raw+0)$
		0	bits: 1 at offset: 2
SNVT_clothes_w_s.alarm.war_door_open	bitfield	1	$1 \times 10^0 \times (Raw+0)$
		0	bits: 1 at offset: 3
SNVT_clothes_w_s.alarm.war_load_unbalanced	bitfield	1	$1 \times 10^0 \times (Raw+0)$
		0	bits: 1 at offset: 4
SNVT_clothes_w_s.alarm.war_filter_cleaning	bitfield	1	$1 \times 10^0 \times (Raw+0)$
		0	bits: 1 at offset: 5

SNVT_clothes_w_s.alarm.war_hoses_reversed	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_clothes_w_s.alarm.war_voltage_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_clothes_w_s.alarm.war_power_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_s.alarm.war_drain_open	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_s.alarm.war_execute_fail	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_clothes_w_s.alarm.war_door_locked	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_clothes_w_s.alarm.war_service	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_clothes_w_s.alarm.war_rsrvd5	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_clothes_w_s.alarm.war_rsrvd6	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_clothes_w_s.alarm.war_rsrvd7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_clothes_w_s.alarm.err_motor_stall	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_s.alarm.err_water_temp	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_s.alarm.err_pressure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_clothes_w_s.alarm.err_overflow	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_clothes_w_s.alarm.err_water_heat	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_clothes_w_s.alarm.err_water_leak	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_clothes_w_s.alarm.err_motor_speed	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_clothes_w_s.alarm.err_wash_thermistor	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_clothes_w_s.alarm.err_dry_thermistor	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_s.alarm.err_dry_overheat	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_s.alarm.err_dry_heating	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_clothes_w_s.alarm.err_dry_fan	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_clothes_w_s.alarm.err_rsrvd4	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_clothes_w_s.alarm.err_rsrvd5	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5

SNVT_clothes_w_s.alarm.err_rsrvd6	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_clothes_w_s.alarm.err_rsrvd7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_clothes_w_s.alarm.err_rsrvd0_7	bitfield	255 0	$1 \times 10^0 \times (Raw+0)$ bits: 8 at offset: 0
SNVT_clothes_w_s.alarm.manuf_code	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1

Clothes Washer-Management Status: SNVT_clothes_w_m

“Clothes Washer-Management Status”

Provides status of door/lid and drain

Index	Size	Data Type	
185	1 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_clothes_w_m.door_ajar	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_clothes_w_m.drain_on	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_clothes_w_m.reserved	bitfield	63 0	$1 \times 10^0 \times (Raw+0)$ bits: 6 at offset: 2

Color: SNVT_color_2

“Color”

Index	Size	Data Type	
190	5 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_color_2.encoding	color_encoding_t	3 -1	none (enumeration) 1
SNVT_color_2.color_value	union		Color value encoded as specified by the encoding field
SNVT_color_2.color_value.CIE1931_lumen	structure		CIE 1931 color space with Y output in lumen
SNVT_color_2.color_value.CIE1931_lumen.x	unsigned short	148 255	$5 \times 10^{-3} \times (Raw+0)$ 0.005 CIE 1931 color space

			coordinate
SNVT_color_2.color_value.CIE1931_lumen.y	unsigned short 255	168 0	$5 \times 10^{-3} \times (Raw+0)$ 0.005 CIE 1931 color space coordinate
SNVT_color_2.color_value.CIE1931_lumen.absolute_Y	unsigned long 65535	65534 0	$1 \times 10^1 \times (Raw+0)$ lumen
SNVT_color_2.color_value.CIE1931_percent	structure CIE 1931 color space with Y output in percent of maximum lumen output of the lamp		
SNVT_color_2.color_value.CIE1931_percent.x	unsigned short 255	148 0	$5 \times 10^{-3} \times (Raw+0)$ 0.005 CIE 1931 color space coordinate
SNVT_color_2.color_value.CIE1931_percent.y	unsigned short 255	168 0	$5 \times 10^{-3} \times (Raw+0)$ 0.005 CIE 1931 color space coordinate
SNVT_color_2.color_value.CIE1931_percent.percent_Y	unsigned long 65535	10000 0	$1 \times 10^{-2} \times (Raw+0)$ 0.01 % of full level
SNVT_color_2.color_value.RGB	structure		
SNVT_color_2.color_value.RGB.red	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_color_2.color_value.RGB.green	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_color_2.color_value.RGB.blue	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_color_2.color_value.color_temperature	unsigned short 255	150 56	$50 \times 10^0 \times (Raw+0)$ 50 degrees Kelvin

Concentration: SNVT_ppm

“Concentration in ppm”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
29	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 ppm

Concentration: SNVT_ppm_f

“Concentration in ppm”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
58	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Configuration source: SNVT_config_src

“Configuration source”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
69	1 bytes	config_source_t	-1	1	none (enumeration)	-1

Continuous level: SNVT_lev_cont

“Continuous level in % of full level”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
21	1 bytes	unsigned short	0	200	$5 \times 10^{-1} \times (Raw+0)$	0.5 % of full level

Continuous level: SNVT_lev_cont_f

“Continuous level in % of full scale”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
55	4 bytes	floating-point	0	100	floating	NAN and Out of Range

Control request: SNVT_ctrl_req

“Control request”

Index	Size	Data Type				
148	5 bytes	structure				
Field			CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution
SNVT_ctrl_req.receiver_id			unsigned long 0		65535 1	$1 \times 10^0 \times (Raw+0)$ 1 ID number
SNVT_ctrl_req.sender_id			unsigned long 65535		65535 1	$1 \times 10^0 \times (Raw+0)$ 1 ID number
SNVT_ctrl_req.sender_prio			unsigned short (no invalid value)		200 0	$1 \times 10^0 \times (Raw+0)$ 1 priority value

Control response: SNVT_ctrl_resp

“Control response”

Index	Size	Data Type			
149	7 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_ctrl_resp.status		control_resp_t -1	5 -1	none (enumeration) 1	
SNVT_ctrl_resp.sender		union			
SNVT_ctrl_resp.sender.id		unsigned long 65535	65535 1	1×10 ⁰ ×(Raw+0) 1 ID number	
SNVT_ctrl_resp.sender.range		structure			
SNVT_ctrl_resp.sender.range.lower		unsigned long 65535	65535 1	1×10 ⁰ ×(Raw+0) 1 ID number	
SNVT_ctrl_resp.sender.range.upper		unsigned long 65535	65535 1	1×10 ⁰ ×(Raw+0) 1 ID number	
SNVT_ctrl_resp.controller_id		unsigned long 65535	65535 1	1×10 ⁰ ×(Raw+0) 1 ID number	

Currency: SNVT_currency

“Currency”

Index	Size	Data Type			
89	6 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_currency.currency		currency_t -1	56 -1	none (enumeration) 1	
SNVT_currency.power_of_10		signed short (no invalid value)	127 -128	$1 \times 10^0 \times (Raw+0)$ 1 power of 10	
SNVT_currency.value		s32_type (signed 32-bit type) (no invalid value)	2147483647 -2147483648	$1 \times 10^0 \times (Raw+0)$ 1 currency value	

Date: SNVT_date_cal

“Date”

This SNVT is obsolete. Use SNVT_time_stamp instead.

Index	Size	Data Type			
10	4 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_date_cal.year		unsigned long 65535	3000 0	$1 \times 10^0 \times (Raw+0)$ 1 years	
SNVT_date_cal.month		unsigned short (no invalid value)	12 0	$1 \times 10^0 \times (Raw+0)$ 1 months	
SNVT_date_cal.day		unsigned short (no invalid value)	31 0	$1 \times 10^0 \times (Raw+0)$ 1 days	

Date event: SNVT_date_event

“Date event”

Reports the status of a schedule

Index	Size	Data Type			
176	26 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_date_event.days_to_active		signed long 32767	32767 -32768	$1 \times 10^0 \times (Raw+0)$ 1 days	
SNVT_date_event.days_to_inactive		signed long -32768	32767 -32768	$1 \times 10^0 \times (Raw+0)$ 1 days	
SNVT_date_event.name		unsigned char (no invalid value)	126 32	$1 \times 10^0 \times (Raw+0)$ 1 array of 22 characters	

Day of week: SNVT_date_day

“Day of week”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
11	1 bytes	days_of_week_t	-1	6	none (enumeration)	-1

Defrost mode: SNVT_defr_mode

“Defrost mode”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
120	1 bytes	defrost_mode_t	-1	2	none (enumeration)	-1

Defrost state: SNVT_defr_state

“Defrost state”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
122	1 bytes	defrost_state_t	-1	4	none (enumeration)	-1

Defrost termination: SNVT_defr_term

“Defrost termination”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
121	1 bytes	defrost_term_t	-1	100	none (enumeration)	-1

Density: SNVT_density

“Density in kilograms/cubic meter”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
100	2 bytes	unsigned long	0	65535	$5 \times 10^{-1} \times (Raw + 0)$	0.5 kilograms/cubic meter

Density: SNVT_density_f

“Density in kilograms/cubic meter”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
101	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Device control mode: SNVT_dev_c_mode

“Device control mode”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
162	1 bytes	device_c_mode_t	-1	32	none (enumeration)	-1

Device fault states: SNVT_dev_fault

“Device fault states”

Fault information for the device

Index	Size	Data Type			
174	4 bytes	structure			
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_dev_fault.device_select			device_select_t -1	1 -1	none (enumeration) 1
SNVT_dev_fault.dev_type			union		
SNVT_dev_fault.dev_type.pump_ctrl			structure		
SNVT_dev_fault.dev_type.pump_ctrl.sf_voltage_low			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 0
SNVT_dev_fault.dev_type.pump_ctrl.sf_voltage_high			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 1
SNVT_dev_fault.dev_type.pump_ctrl.sf_phase			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 2
SNVT_dev_fault.dev_type.pump_ctrl.sf_no_fluid			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 3
SNVT_dev_fault.dev_type.pump_ctrl.sf_press_low			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 4
SNVT_dev_fault.dev_type.pump_ctrl.sf_press_high			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 5
SNVT_dev_fault.dev_type.pump_ctrl.sf_general_fault			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 6
SNVT_dev_fault.dev_type.pump_ctrl.sf_reserved1_7			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 7
SNVT_dev_fault.dev_type.pump_ctrl.df_motor_temp			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 0
SNVT_dev_fault.dev_type.pump_ctrl.df_motor_failure			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 1
SNVT_dev_fault.dev_type.pump_ctrl.df_pump_blocked			bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 2
SNVT_dev_fault.dev_type.pump_ctrl.df_elect_temp			bitfield	1	1×10 ⁰ ×(Raw+0)

		0	bits: 1 at offset: 3
SNVT_dev_fault.dev_type.pump_ctrl.df_elect_failure_nf	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 4
SNVT_dev_fault.dev_type.pump_ctrl.df_elect_failure	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 5
SNVT_dev_fault.dev_type.pump_ctrl.df_sensor_failure	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 6
SNVT_dev_fault.dev_type.pump_ctrl.df_general_fault	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 7
SNVT_dev_fault.dev_type.pump_ctrl.reserved3_0_7	bitfield	255 0	1×10 ⁰ ×(Raw+0) bits: 8 at offset: 0
SNVT_dev_fault.dev_type.valve_pos	structure		
SNVT_dev_fault.dev_type.valve_pos.df_valve_blocked	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 0
SNVT_dev_fault.dev_type.valve_pos.df_blocked_direction_open	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 1
SNVT_dev_fault.dev_type.valve_pos.df_blocked_direction_close	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 2
SNVT_dev_fault.dev_type.valve_pos.df_position_error	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 3
SNVT_dev_fault.dev_type.valve_pos.df_stroke_out_of_range	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 4
SNVT_dev_fault.dev_type.valve_pos.df_initialization	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 5
SNVT_dev_fault.dev_type.valve_pos.df_vibration_cavitation	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 6
SNVT_dev_fault.dev_type.valve_pos.df_ed_too_high	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 7
SNVT_dev_fault.dev_type.valve_pos.reserved1_0_2	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 3 at offset: 0
SNVT_dev_fault.dev_type.valve_pos.ee_oscillating	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 3
SNVT_dev_fault.dev_type.valve_pos.ee_valve_too_large	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 4
SNVT_dev_fault.dev_type.valve_pos.ee_valve_too_small	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 5
SNVT_dev_fault.dev_type.valve_pos.reserved2_6_7	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 2 at offset: 6
SNVT_dev_fault.dev_type.valve_pos.reserved3_0_7	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 0
SNVT_dev_fault.dev_type.valve_pos.sf_voltage_out_of_range	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 1
SNVT_dev_fault.dev_type.valve_pos.sf_electronic_high_temp	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 2
SNVT_dev_fault.dev_type.valve_pos.sf_frictional_resistance	bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 3
SNVT_dev_fault.dev_type.valve_pos.reserved4_4_6	bitfield	1	1×10 ⁰ ×(Raw+0)

		0	bits: 3 at offset: 4
SNVT_dev_fault.dev_type.valve_pos.general_fault	bitfield	1	$1 \times 10^0 \times (Raw+0)$
		0	bits: 1 at offset: 7

Device maintenance: SNVT_dev_maint

“Device maintenance”

Device-maintenance states

Index	Size	Data Type	
175	4 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_dev_maint.device_select	device_select_t -1	1 -1	none (enumeration) 1
SNVT_dev_maint.dev_type	union		
SNVT_dev_maint.dev_type.pump_ctrl	structure		
SNVT_dev_maint.dev_type.pump_ctrl.service_required	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_dev_maint.dev_type.pump_ctrl.bearings_change	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_dev_maint.dev_type.pump_ctrl.bearings_lubricate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_dev_maint.dev_type.pump_ctrl.shaftseal_change	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_dev_maint.dev_type.pump_ctrl.reserved1_4_7	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_dev_maint.dev_type.pump_ctrl.reserved2_0_7	bitfield	255 0	$1 \times 10^0 \times (Raw+0)$ bits: 8 at offset: 0
SNVT_dev_maint.dev_type.pump_ctrl.reserved3_0_7	bitfield	255 0	$1 \times 10^0 \times (Raw+0)$ bits: 8 at offset: 0
SNVT_dev_maint.dev_type.valve_pos	structure		
SNVT_dev_maint.dev_type.valve_pos.motor_maint	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_dev_maint.dev_type.valve_pos.packing_change	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_dev_maint.dev_type.valve_pos.electronics_check	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_dev_maint.dev_type.valve_pos.positioning_check	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_dev_maint.dev_type.valve_pos.lubrication_check	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_dev_maint.dev_type.valve_pos.return_check	bitfield	1	$1 \times 10^0 \times (Raw+0)$

		0	bits: 1 at offset: 5
SNVT_dev_maint.dev_type.valve_pos.battery_check	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_dev_maint.dev_type.valve_pos.reserved1_7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_dev_maint.dev_type.valve_pos.reserved2_0_7	bitfield	255 0	$1 \times 10^0 \times (Raw+0)$ bits: 8 at offset: 0
SNVT_dev_maint.dev_type.valve_pos.reserved3_0_6	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 0
SNVT_dev_maint.dev_type.valve_pos.general_maint	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7

Device status: SNVT_dev_status

“Device status”

Status of the device

Index	Size	Data Type			
173	4 bytes	structure			
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_dev_status.device_select			device_select_t	1	none (enumeration)
			-1	-1	1
SNVT_dev_status.dev_type			union		
SNVT_dev_status.dev_type.pump_ctrl			structure		
SNVT_dev_status.dev_type.pump_ctrl.device_fault			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 0
SNVT_dev_status.dev_type.pump_ctrl.supply_fault			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 1
SNVT_dev_status.dev_type.pump_ctrl.reserved1_2			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 2
SNVT_dev_status.dev_type.pump_ctrl.speed_low			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 3
SNVT_dev_status.dev_type.pump_ctrl.speed_high			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 4
SNVT_dev_status.dev_type.pump_ctrl.reserved1_5			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 5
SNVT_dev_status.dev_type.pump_ctrl.setpt_out_of_range			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 6
SNVT_dev_status.dev_type.pump_ctrl.reserved1_7			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 7
SNVT_dev_status.dev_type.pump_ctrl.local_control			bitfield	1	1×10 ⁰ ×(Raw+0)
				0	bits: 1 at offset: 0

SNVT_dev_status.dev_type.pump_ctrl.reserved2_1	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_dev_status.dev_type.pump_ctrl.running	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_dev_status.dev_type.pump_ctrl.reserved2_3	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_dev_status.dev_type.pump_ctrl.remote_press	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_dev_status.dev_type.pump_ctrl.remote_flow	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_dev_status.dev_type.pump_ctrl.remote_temp	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_dev_status.dev_type.pump_ctrl.reserved2_7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_dev_status.dev_type.pump_ctrl.reserved3_0_7	bitfield	255 0	$1 \times 10^0 \times (Raw+0)$ bits: 8 at offset: 0
SNVT_dev_status.dev_type.valve_pos	structure		
SNVT_dev_status.dev_type.valve_pos.running	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_dev_status.dev_type.valve_pos.adapting	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_dev_status.dev_type.valve_pos.initializing	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_dev_status.dev_type.valve_pos.local_control	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_dev_status.dev_type.valve_pos.setpt_out_of_range	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_dev_status.dev_type.valve_pos.remote_ctrl_signal	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_dev_status.dev_type.valve_pos.reserved1_6_7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 6
SNVT_dev_status.dev_type.valve_pos.hw_emergency	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_dev_status.dev_type.valve_pos.sw_emergency	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_dev_status.dev_type.valve_pos.reserved2_2_7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 6 at offset: 2
SNVT_dev_status.dev_type.valve_pos.reserved3_0_7	bitfield	255 0	$1 \times 10^0 \times (Raw+0)$ bits: 8 at offset: 0

Discrete level: SNVT_lev_disc

“Discrete level”

This SNVT is obsolete. Use SNVT_switch instead.

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
22	1 bytes	discrete_levels_t	-1	4	none (enumeration)	-1

Earth position: SNVT_earth_pos

“Earth position”

Index	Size	Data Type				
135	11 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_earth_pos.latitude_direction			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0	
SNVT_earth_pos.longitude_direction			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1	
SNVT_earth_pos.latitude_deg			unsigned short 255	90 0	$1 \times 10^0 \times (Raw+0)$ 1 degrees	
SNVT_earth_pos.latitude_min			unsigned long 65535	59999 0	$1 \times 10^{-3} \times (Raw+0)$ 0.001 minutes	
SNVT_earth_pos.longitude_deg			unsigned short 255	180 0	$1 \times 10^0 \times (Raw+0)$ 1 degrees	
SNVT_earth_pos.longitude_min			unsigned long 65535	59999 0	$1 \times 10^{-3} \times (Raw+0)$ 0.001 minutes	
SNVT_earth_pos.height_above_sea			floating-point NAN and Out of Range	3.4028234663853E+038 -3.4028234663853E+038	floating Height above sea level	

Elapsed time: SNVT_elapsed_tm

“Elapsed time”

Index	Size	Data Type				
87	7 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_elapsed_tm.day			unsigned long 65535	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 days	
SNVT_elapsed_tm.hour			unsigned short	23	$1 \times 10^0 \times (Raw+0)$	

	(no invalid value)	0	1 hours
SNVT_elapsed_tm.minute	unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 minutes
SNVT_elapsed_tm.second	unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds
SNVT_elapsed_tm.millisecond	unsigned long (no invalid value)	999 0	$1 \times 10^0 \times (Raw+0)$ 1 milliseconds

Elapsed time: SNVT_time_f

“Elapsed time in seconds”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
64	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Elapsed time: SNVT_time_hour

“Elapsed time in hours”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
124	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 hours

Elapsed time: SNVT_time_min

“Elapsed time in minutes”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
123	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 minutes

Elapsed time: SNVT_time_passed

“Elapsed time”

This SNVT is obsolete. Use SNVT_elapsed_tm instead.

Index	Size	Data Type				
40	4 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	

SNVT_time_passed.hours	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 hours
SNVT_time_passed.minutes	unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 minutes
SNVT_time_passed.seconds	unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds
SNVT_time_passed.milliseconds	unsigned short (no invalid value)	99 0	$1 \times 10^1 \times (Raw+0)$ milliseconds

Elapsed time: SNVT_time_sec

“Elapsed time in seconds”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
107	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 seconds

Electric current: SNVT_amp

“Electric current in Amperes”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
1	2 bytes	signed long	-32768	32767	$1 \times 10^{-1} \times (Raw+0)$	0.1 Amperes

Electric current: SNVT_amp_f

“Electric current in Amperes”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
48	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Electric current: SNVT_amp_mil

“Electric current in milliAmperes”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
2	2 bytes	signed long	-32768	32767	$1 \times 10^{-1} \times (Raw+0)$	0.1 milliAmperes

Electric energy: SNVT_elec_kwh

“Electric energy in kiloWatt-hours”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
13	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 kiloWatt-hours

Electric energy: SNVT_elec_kwh_l

“Electric energy in kiloWatt-hours”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
146	4 bytes	s32_type (signed 32-bit type)	-2147483648	2147483647	$1 \times 10^{-1} \times (Raw+0)$	0.1 kiloWatt-hours

Electric energy: SNVT_elec_whr

“Electric energy in Watt-hours”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
14	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 Watt-hours

Electric energy: SNVT_elec_whr_f

“Electric energy in Watt-hours”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
68	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Electric resistance: SNVT_res

“Electric resistance in Ohms”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
31	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 Ohms

Electric resistance: SNVT_res_f

“Electric resistance in Ohms”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
60	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Electric resistance: SNVT_res_kilo

“Electric resistance in kiloOhms”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
32	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw + 0)$	0.1 kiloOhms

Electric voltage: SNVT_volt

“Electric voltage in Volts”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
44	2 bytes	signed long	-32768	32767	$1 \times 10^{-1} \times (Raw + 0)$	0.1 Volts

Electric voltage: SNVT_volt_dbmv

“Electric voltage in dB microVolts”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
45	2 bytes	signed long	-32768	32767	$1 \times 10^{-2} \times (Raw + 0)$	0.01 dB microVolts

Electric voltage: SNVT_volt_f

“Electric voltage in Volts”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
66	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Electric voltage: SNVT_volt_kilo

“Electric voltage in kiloVolts”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
46	2 bytes	signed long	-32768	32767	$1 \times 10^{-1} \times (Raw+0)$	0.1 kiloVolts

Electric voltage: SNVT_volt_mil

“Electric voltage in milliVolts”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
47	2 bytes	signed long	-32768	32767	$1 \times 10^{-1} \times (Raw+0)$	0.1 milliVolts

Electrical current: SNVT_amp_ac_mil

“Electrical current in milliAmperes”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
197	2 bytes	unsigned long	0	65534	$1 \times 10^0 \times (Raw+0)$	1 milliAmperes

Enthalpy: SNVT_enthalpy

“Enthalpy in kiloJoules/kg”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
153	2 bytes	signed long	-32768	32767	$1 \times 10^{-2} \times (Raw+0)$	0.01 kiloJoules/kg

Enthalpy difference: SNVT_enthalpy_d

“Enthalpy difference in kJ/kg”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
196	2 bytes	signed long	-32768	32766	$1 \times 10^{-2} \times (Raw+0)$	0.01 kJ/kg

Entry operation mode: SNVT_ent_opmode

“Entry operation mode”

used to send operation-mode information to an entry object, e.g., a door, lock, sluice, or something which allows/prohibits entry to an area

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
168	1 bytes	ent_opmode_cmd_t	-1	16	none (enumeration)	-1

Entry state: SNVT_ent_state

“Entry state”

Desired state for an entry object, e.g., a door, lock, sluice, or something that controls entry of an area

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
169	1 bytes	ent_cmd_t	-1	13	none (enumeration)	-1

Entry status: SNVT_ent_status

“Entry status”

Status information from an entry object, e.g., a door, lock, sluice, or something that allows/prohibits entry into an area

Index	Size	Data Type				
170	5 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_ent_status.unlocked			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0	
SNVT_ent_status.locked			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1	
SNVT_ent_status.security_locked			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2	
SNVT_ent_status.closed			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3	
SNVT_ent_status.open			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4	
SNVT_ent_status.in_alarm			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5	

SNVT_ent_status.in_error_cond	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_ent_status.open_pre_alarm	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_ent_status.open_alarm	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_ent_status.service_alarm	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_ent_status.tamper	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_ent_status.entry_req	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_ent_status.exit_req	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_ent_status.key_req	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_ent_status.safety_ext_req	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_ent_status.emergency_req	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_ent_status.unable_lock	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_ent_status.unable_unlock	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_ent_status.stuck	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_ent_status.forced_open	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_ent_status.forced_close	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_ent_status.opening	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_ent_status.closing	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_ent_status.moving	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_ent_status.stopped	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_ent_status.safety_alarm	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_ent_status.unknown_state	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_ent_status.cmd_fb	ent_opmode_cmd_t -1	16 -1	none (enumeration) 1

Environment: SNVT_environment

“Environment”

Index	Size	Data Type			
200	22 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_environment.lampCurrent		SNVT_amp_ac_mil			
SNVT_environment.lampVoltage		SNVT_volt_ac			
SNVT_environment.supplyVoltage		SNVT_volt_ac			
SNVT_environment.supplyCurrent		SNVT_amp_ac_mil			
SNVT_environment.ballastTemp		SNVT_temp_p			
SNVT_environment.power		SNVT_power			
SNVT_environment.powerFactor		SNVT_pwr_fact			
SNVT_environment.runHours		SNVT_time_hour_p			
SNVT_environment.energy		SNVT_elec_kwh_l			

Evaporator state: SNVT_evap_state

“Evaporator state”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
118	1 bytes	evap_t	-1	2	none (enumeration)	-1

Exception schedule: SNVT_sched_exc

“Exception schedule”

Specifies a scheduled event to override a daily schedule

Index	Size	Data Type			
211	8 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_sched_exc.months		months_t -1	24 -1	none (enumeration) 1	
SNVT_sched_exc.days		days_of_month_t -1	117 -1	none (enumeration) 1	
SNVT_sched_exc.start_time_value		SNVT_time_val_2			

SNVT_sched_exc.end_time	structure		
SNVT_sched_exc.end_time.sunrise_relative_flag	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_sched_exc.end_time.sunset_relative_flag	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_sched_exc.end_time.negative_time_offset_flag	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_sched_exc.end_time.hour	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 5 at offset: 3
SNVT_sched_exc.end_time.start_offset_enable_flag	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_sched_exc.end_time.stop_offset_enable_flag	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_sched_exc.end_time.minutes	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 6 at offset: 2

Exclusive control: SNVT_ex_control

“Exclusive control”

Index	Size	Data Type			
157	10 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_ex_control.control_status		ex_control_t -1	2 -1	none (enumeration) 1	
SNVT_ex_control.control_device_addr		structure			
SNVT_ex_control.control_device_addr.domain_id		unsigned short (no invalid value)	255 0	1×10 ⁰ ×(Raw+0) 1 array of 6 bytes	
SNVT_ex_control.control_device_addr.domain_length		unsigned short (no invalid value)	6 0	1×10 ⁰ ×(Raw+0) 1 ANSI/CEA-709.1 domain length	
SNVT_ex_control.control_device_addr.subnet		unsigned short 0	255 0	1×10 ⁰ ×(Raw+0) 1 subnet number	
SNVT_ex_control.control_device_addr.node		unsigned short 0	127 0	1×10 ⁰ ×(Raw+0) 1 node number	

File position: SNVT_file_pos

“File position”

Index	Size	Data Type	
90	6 bytes	structure	

Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_file_pos.rw_ptr	s32_type (signed 32-bit type) (no invalid value)	2147483647 0	$1 \times 10^0 \times (Raw+0)$ 1 file byte address
SNVT_file_pos.rw_length	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 number of bytes

File request: SNVT_file_req

“File request”

Index	Size	Data Type	
73	12 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_file_req.request	file_request_t -1	6 -1	none (enumeration) 1
SNVT_file_req.index	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 file index
SNVT_file_req.receive_timeout	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 milliseconds
SNVT_file_req.dest_address	union		
SNVT_file_req.dest_address.addrt	structure ANSI/CEA-709.1 address in device's internal address table entry		
SNVT_file_req.dest_address.addrt.type	unsigned short (no invalid value)	33 33	$1 \times 10^0 \times (Raw+0)$ 1 8-bit unsigned value
SNVT_file_req.dest_address.addrt.index	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 16-bit unsigned value
SNVT_file_req.dest_address.sn	structure		
SNVT_file_req.dest_address.sn.type	unsigned short (no invalid value)	1 1	$1 \times 10^0 \times (Raw+0)$ 1 8-bit unsigned value
SNVT_file_req.dest_address.sn.domain	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_file_req.dest_address.sn.node	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1
SNVT_file_req.dest_address.sn.retry	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_file_req.dest_address.sn.tx_timer	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_file_req.dest_address.sn.subnet	unsigned short 0	255 0	$1 \times 10^0 \times (Raw+0)$ 1 subnet number
SNVT_file_req.dest_address.gp	structure		
SNVT_file_req.dest_address.gp.type	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0

SNVT_file_req.dest_address.gp.size	bitfield	65 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1
SNVT_file_req.dest_address.gp.domain	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_file_req.dest_address.gp.unused	bitfield	0 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1
SNVT_file_req.dest_address.gp.retry	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_file_req.dest_address.gp.tx_timer	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_file_req.dest_address.gp.group	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_file_req.auth_on	unsigned short (no invalid value)	1 0	$1 \times 10^0 \times (Raw+0)$ 1 boolean
SNVT_file_req.prio_on	unsigned short (no invalid value)	1 0	$1 \times 10^0 \times (Raw+0)$ 1 boolean

File status: SNVT_file_status

“File status”

Index	Size	Data Type			
74	27 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_file_status.status		file_status_t -1	11 -1	none (enumeration) 1	
SNVT_file_status.number_of_files		unsigned long (no invalid value)	65535 0	1×10 ⁰ ×(Raw+0) 1 count	
SNVT_file_status.selected_file		unsigned long (no invalid value)	65535 0	1×10 ⁰ ×(Raw+0) 1 file index	
SNVT_file_status.adr		union			
SNVT_file_status.adr.descriptor		structure			
SNVT_file_status.adr.descriptor.file_info		signed char (no invalid value)	127 -128	1×10 ⁰ ×(Raw+0) 1 array of 16 characters	
SNVT_file_status.adr.descriptor.size		s32_type (signed 32-bit type) (no invalid value)	2147483647 0	1×10 ⁰ ×(Raw+0) 1 bytes	
SNVT_file_status.adr.descriptor.type		unsigned long (no invalid value)	65535 0	1×10 ⁰ ×(Raw+0) 1	
SNVT_file_status.adr.address		structure			
SNVT_file_status.adr.address.domain_id		unsigned short (no invalid value)	255 0	1×10 ⁰ ×(Raw+0) 1 array of 6 bytes	
SNVT_file_status.adr.address.domain_length		unsigned short (no invalid value)	6 0	1×10 ⁰ ×(Raw+0) 1 ANSI/CEA-709.1 domain length	

SNVT_file_status.adr.address.subnet	unsigned short	255	$1 \times 10^0 \times (Raw+0)$
	0	0	1 subnet number
SNVT_file_status.adr.address.node	unsigned short	127	$1 \times 10^0 \times (Raw+0)$
	0	0	1 node number

Fire indicator type: SNVT_fire_indcte

“Fire indicator type”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
133	1 bytes	fire_indicator_t	-1	8	none (enumeration)	-1

Fire initiator type: SNVT_fire_init

“Fire initiator type”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
132	1 bytes	fire_initiator_t	-1	16	none (enumeration)	-1

Fire test request: SNVT_fire_test

“Fire test request”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
130	1 bytes	fire_test_t	-1	3	none (enumeration)	-1

Flow direction: SNVT_flow_dir

“Flow direction”

Direction of allowable flow, or direction of present flow.

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
171	1 bytes	flow_direction_t	-1	3	none (enumeration)	-1

Flow mass: SNVT_mass_flow

“Flow mass in kg/h”

Rate of mass flow per unit of time

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
213	2 bytes	signed long	-32768	32767	$1 \times 10^{-1} \times (Raw+0)$	0.1 kg/h

Flow mass: SNVT_mass_flow_f

“Flow mass in kg/h”

Rate of mass flow per unit of time

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
214	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Flow volume: SNVT_flow

“Flow volume in liters/second”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
15	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 liters/second

Flow volume: SNVT_flow_f

“Flow volume in liters/second”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
53	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Flow volume: SNVT_flow_mil

“Flow volume in milliliters/second”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
16	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 milliliters/second

Flow volume: SNVT_flow_p

“Flow volume in cubic meters/hour”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
161	2 bytes	unsigned long	0	65535	$1 \times 10^{-2} \times (Raw+0)$	0.01 cubic meters/hour

Frequency: SNVT_freq_f

“Frequency in Hertz”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
75	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Frequency: SNVT_freq_hz

“Frequency in Hertz”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
76	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 Hertz

Frequency: SNVT_freq_kilohz

“Frequency in kiloHertz”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
77	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 kiloHertz

Frequency: SNVT_freq_milhz

“Frequency in Hertz”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
78	2 bytes	unsigned long	0	65535	$1 \times 10^{-4} \times (Raw+0)$	0.0001 Hertz

Geographic Location: SNVT_geo_loc

“Geographic Location”

Index	Size	Data Type			
201	31 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_geo_loc.longitude		s32_type (signed 32-bit type) 2147483647	1800000000 -1800000000	$1 \times 10^{-7} \times (Raw+0)$ 0.0000001	
SNVT_geo_loc.latitude		s32_type (signed 32-bit type) 2147483647	900000000 -900000000	$1 \times 10^{-7} \times (Raw+0)$ 0.0000001	
SNVT_geo_loc.elevation		floating-point NAN and Out of Range	3.4028234663853E+038 -3.4028234663853E+038	floating Elevation	
SNVT_geo_loc.name		unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1	

GFCI status type: SNVT_gfci_status

“GFCI status type”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
154	1 bytes	gfci_status_t	-1	5	none (enumeration)	-1

Grammage: SNVT_grammage

“Grammage in grams/sq meter”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
71	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 grams/sq meter

Grammage: SNVT_grammage_f

“Grammage in grams/sq meter”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
72	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

HVAC emergency mode: SNVT_hvac_emerg

“HVAC emergency mode”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
103	1 bytes	emerg_t	-1	5	none (enumeration)	-1

HVAC mode: SNVT_hvac_mode

“HVAC mode”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
108	1 bytes	hvac_t	-1	20	none (enumeration)	-1

HVAC override: SNVT_hvac_overid

“HVAC override”

Index	Size	Data Type				
111	5 bytes	structure				
Field			CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution
SNVT_hvac_overid.state			hvac_overid_t -1		48 -1	none (enumeration) 1
SNVT_hvac_overid.percent			signed long 32767		32767 -32768	$5 \times 10^{-3} \times (Raw+0)$ 0.005 % of full scale
SNVT_hvac_overid.flow			unsigned long 65535		65535 0	$1 \times 10^0 \times (Raw+0)$ 1 liters/second

HVAC saturation status: SNVT_hvac_satsts

“HVAC saturation status”

A value of 0 in a field indicates that the resource associated with that field has not saturated or reached an end stop before attaining the required setpoint. A value of 1 indicates that the resource associated with that field has saturated or reached an end stop without attaining the required setpoint.

Index	Size	Data Type				
172	2 bytes	structure				
Field			CNP Data Type /	Maximum /	Scaled Value /	

	Invalid Value	Minimum	Resolution
SNVT_hvac_satsts.pri_heat	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_hvac_satsts.sec_heat	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_hvac_satsts.pri_cool	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_hvac_satsts.sec_cool	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_hvac_satsts.pri_duct_starved	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_hvac_satsts.sec_duct_starved	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_hvac_satsts.reserved	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 6
SNVT_hvac_satsts.reserved1	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_hvac_satsts.manufacturer_defined	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4

HVAC status: SNVT_hvac_status

“HVAC status”

Index	Size	Data Type	
112	12 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_hvac_status.mode	hvac_t -1	17 -1	none (enumeration) 1
SNVT_hvac_status.heat_output_primary	signed long 32767	32767 -32768	$5 \times 10^{-3} \times (Raw+0)$ 0.005 % of full scale
SNVT_hvac_status.heat_output_secondary	signed long 32767	32767 -32768	$5 \times 10^{-3} \times (Raw+0)$ 0.005 % of full scale
SNVT_hvac_status.cool_output	signed long 32767	32767 -32768	$5 \times 10^{-3} \times (Raw+0)$ 0.005 % of full scale
SNVT_hvac_status.econ_output	signed long 32767	32767 -32768	$5 \times 10^{-3} \times (Raw+0)$ 0.005 % of full scale
SNVT_hvac_status.fan_output	signed long 32767	32767 -32768	$5 \times 10^{-3} \times (Raw+0)$ 0.005 % of full scale
SNVT_hvac_status.in_alarm	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 alarm value

HVAC unit type: SNVT_hvac_type

“HVAC unit type”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
145	1 bytes	hvac_hvt_t	-1	9	none (enumeration)	-1

Illumination: SNVT_lux

“Illumination in lux”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
79	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 lux

Increment count: SNVT_count_inc

“Increment count in units (delta)”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
9	2 bytes	signed long	-32768	32767	$1 \times 10^0 \times (Raw+0)$	1 units (delta)

Increment count: SNVT_count_inc_f

“Increment count in units (delta)”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
52	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

ISO 7811: SNVT_ISO_7811

“ISO 7811”

This SNVT is obsolete. Use SNVT_magcard instead.

Index	Size	Data Type				
80	19 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_ISO_7811.digit1			bitfield	15	$1 \times 10^0 \times (Raw+0)$	

		0	bits: 4 at offset: 0
SNVT_ISO_7811.digit2	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit3	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit4	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit5	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit6	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit7	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit8	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit9	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit10	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit11	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit12	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit13	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit14	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit15	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit16	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit17	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit18	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit19	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit20	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit21	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit22	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit23	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit24	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit25	bitfield	15	$1 \times 10^0 \times (Raw+0)$

		0	bits: 4 at offset: 0
SNVT_ISO_7811.digit26	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit27	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit28	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit29	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit30	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit31	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit32	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit33	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit34	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit35	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit36	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_ISO_7811.digit37	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_ISO_7811.digit38	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4

ISO 7811: SNVT_magcard

“ISO 7811”

This data item contains data according to the ISO 7811 standard for card stripes.

Index	Size	Data Type	
86	20 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_magcard.digit1	bitfield	11 11	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit2	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit3	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0

SNVT_magcard.digit4	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit5	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit6	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit7	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit8	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit9	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit10	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit11	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit12	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit13	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit14	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit15	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit16	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit17	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit18	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit19	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit20	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit21	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit22	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit23	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit24	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit25	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit26	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit27	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0

SNVT_magcard.digit28	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit29	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit30	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit31	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit32	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit33	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit34	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit35	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit36	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit37	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit38	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_magcard.digit39	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_magcard.digit40	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4

Lamp Status: SNVT_lamp_status

“Lamp Status”

Index	Size	Data Type			
199	20 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_lamp_status.time_actual		SNVT_time_stamp_p			
SNVT_lamp_status.alarm_actual		structure			
SNVT_lamp_status.alarm_actual.lamp_current_high		bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 0	
SNVT_lamp_status.alarm_actual.lamp_current_low		bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 1	
SNVT_lamp_status.alarm_actual.main_current_high		bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 2	
SNVT_lamp_status.alarm_actual.main_current_low		bitfield	1 0	1×10 ⁰ ×(Raw+0) bits: 1 at offset: 3	

SNVT_lamp_status.alarm_actual.lamp_voltage_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_actual.lamp_voltage_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_actual.main_voltage_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_actual.main_voltage_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.alarm_actual.powerfactor_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_actual.OLC_temp_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_actual.power_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_lamp_status.alarm_actual.power_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_lamp_status.alarm_actual.relay_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_actual.cap_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_actual.lamp_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_actual.ballast_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.alarm_actual.inter_com_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_actual.exter_com_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_actual.main_volt_below_spec	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_lamp_status.alarm_actual.lamp_restart_count	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_lamp_status.alarm_actual.fading_ready	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_actual.ballast_temp_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_actual.digi_in_A	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_actual.digi_in_B	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.alarm_actual.bit_25_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_actual.bit_26_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_actual.bit_27_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_lamp_status.alarm_actual.bit_28_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3

SNVT_lamp_status.alarm_actual.bit_29_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_actual.bit_30_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_actual.bit_31_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_actual.bit_32_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.alarm_actual.bit_33_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_actual.bit_34_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_actual.bit_35_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_lamp_status.alarm_actual.bit_36_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_lamp_status.alarm_actual.bit_37_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_actual.bit_38_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_actual.bit_39_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_actual.bit_40_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.time_previous	SNVT_time_stamp_p		
SNVT_lamp_status.alarm_previous	structure		
SNVT_lamp_status.alarm_previous.lamp_current_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_previous.lamp_current_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_previous.main_current_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_lamp_status.alarm_previous.main_current_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_lamp_status.alarm_previous.lamp_voltage_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_previous.lamp_voltage_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_previous.main_voltage_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_previous.main_voltage_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.alarm_previous.powerfactor_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_previous.OLC_temp_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_previous.power_high	bitfield	1	$1 \times 10^0 \times (Raw+0)$

		0	bits: 1 at offset: 2
SNVT_lamp_status.alarm_previous.power_low	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_lamp_status.alarm_previous.relay_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_previous.cap_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_previous.lamp_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_previous.ballast_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.alarm_previous.inter_com_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_previous.exter_com_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_previous.main_volt_below_spec	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_lamp_status.alarm_previous.lamp_restart_count	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_lamp_status.alarm_previous.fading_ready	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_previous.ballast_temp_high	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_previous.digi_in_A	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_previous.digi_in_B	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.alarm_previous.bit_25_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_previous.bit_26_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_previous.bit_27_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_lamp_status.alarm_previous.bit_28_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_lamp_status.alarm_previous.bit_29_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_previous.bit_30_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_previous.bit_31_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_previous.bit_32_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_lamp_status.alarm_previous.bit_33_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_lamp_status.alarm_previous.bit_34_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_lamp_status.alarm_previous.bit_35_res	bitfield	1	$1 \times 10^0 \times (Raw+0)$

		0	bits: 1 at offset: 2
SNVT_lamp_status.alarm_previous.bit_36_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_lamp_status.alarm_previous.bit_37_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_lamp_status.alarm_previous.bit_38_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_lamp_status.alarm_previous.bit_39_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_lamp_status.alarm_previous.bit_40_res	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7

Length: SNVT_length

“Length in meters”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
17	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 meters

Length: SNVT_length_f

“Length in meters”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
54	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Length: SNVT_length_kilo

“Length in kilometers”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
18	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 kilometers

Length: SNVT_length_micr

“Length in micrometers (microns)”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
19	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 micrometers (microns)

Length: SNVT_length_mil

“Length in millimeters”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
20	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw + 0)$	0.1 millimeters

Linear velocity: SNVT_speed

“Linear velocity in meters/second”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
34	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw + 0)$	0.1 meters/second

Linear velocity: SNVT_speed_f

“Linear velocity in meters/second”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
62	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Linear velocity: SNVT_speed_mil

“Linear velocity in meters/second”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
35	2 bytes	unsigned long	0	65535	$1 \times 10^{-3} \times (Raw + 0)$	0.001 meters/second

Load control offsets: SNVT_load_offsets

“Load control offsets”

Index	Size	Data Type				
203	6 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_load_offsets.standby_offset			SNVT_lev_percent			
SNVT_load_offsets.standby_rotation			signed short -128	90 -90	$2 \times 10^0 \times (Raw + 0)$ 2	

SNVT_load_offsets.demand_response_offset	SNVT_lev_percent		
SNVT_load_offsets.demand_response_rotation	signed short	90	$2 \times 10^0 \times (Raw+0)$
	-128	-90	2

Log file transfer request.: SNVT_log_fx_request

“Log file transfer request.”

Requests a data log to be transferred via FTP. Must be followed by a standard FTP request to get the data log file. Required on devices implementing the Data Logger functional profile that support data log transfer via FTP.

Index	Size	Data Type	
193	16 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_log_fx_request.requested_log	unsigned long 0	65535 1	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_log_fx_request.record_count	unsigned quad (no invalid value)	4294967295 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_log_fx_request.start_time	SNVT_time_stamp_p		
SNVT_log_fx_request.end_time	SNVT_time_stamp_p		

Log file transfer status.: SNVT_log_fx_status

“Log file transfer status.”

Reports the status of a data log file transfer using FTP. Required on devices implementing the Data Logger functional profile that support data log transfer via FTP.

Index	Size	Data Type	
194	5 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_log_fx_status.requestor_subnet	unsigned short 0	255 1	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_log_fx_status.requestor_node	unsigned short 0	255 1	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_log_fx_status.log_number	unsigned long 0	65535 1	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_log_fx_status.complete	unsigned short	200	$5 \times 10^{-1} \times (Raw+0)$

	255	0	0.5
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Log status: SNVT_log_status

“Log status”

Reports the current status of a data log. Updated based on the cpLogNotificationThreshold value. Reports status only; alarms reported via Node Object nvoAlarm2 output. Required if the Node Object does not include an nvoLogStat output.

Index	Size	Data Type	
191	30 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_log_status.status	log_status_t -1	5 -1	none (enumeration) 1
SNVT_log_status.log_number	unsigned long 0	65535 1	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_log_status.level	unsigned short 255	200 0	$5 \times 10^{-1} \times (Raw+0)$ 0.5 Percent
SNVT_log_status.record_count	s32_type (signed 32-bit type) (no invalid value)	2147483647 -2147483648	$1 \times 10^0 \times (Raw+0)$ 1 records
SNVT_log_status.byte_count	s32_type (signed 32-bit type) (no invalid value)	2147483647 -2147483648	$1 \times 10^0 \times (Raw+0)$ 1 bytes
SNVT_log_status.total_record_count	s32_type (signed 32-bit type) (no invalid value)	2147483647 -2147483648	$1 \times 10^0 \times (Raw+0)$ 1 records
SNVT_log_status.records_since_notification	s32_type (signed 32-bit type) (no invalid value)	2147483647 -2147483648	$1 \times 10^0 \times (Raw+0)$ 1 records
SNVT_log_status.current_notify_time	SNVT_time_stamp_p		
SNVT_log_status.previous_notify_time	SNVT_time_stamp_p		

Log status request.: SNVT_log_request

“Log status request.”

Requests the current status of a data log. Status is reported by a SNVT_log_status output.

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
195	2 bytes	unsigned long	1	65535	$1 \times 10^0 \times (Raw+0)$	1

Mass: SNVT_mass

“Mass in grams”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
23	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw + 0)$	0.1 grams

Mass: SNVT_mass_f

“Mass in grams”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
56	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Mass: SNVT_mass_kilo

“Mass in kilograms”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
24	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw + 0)$	0.1 kilograms

Mass: SNVT_mass_mega

“Mass in metric tons”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
25	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw + 0)$	0.1 metric tons

Mass: SNVT_mass_mil

“Mass in milligrams”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
26	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw + 0)$	0.1 milligrams

Motor state: SNVT_motor_state

“Motor state”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
155	1 bytes	motor_state_t	-1	7	none (enumeration)	-1

Multiplier: SNVT_multiplier

“Multiplier in 16-bit unsigned value”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
82	2 bytes	unsigned long	0	65535	$5 \times 10^{-4} \times (Raw+0)$	0.0005 16-bit unsigned value

Multiplier: SNVT_multiplier_s

“Multiplier”

Value multiplier

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
188	1 bytes	unsigned short	0	254	$1 \times 10^{-2} \times (Raw+0)$	0.01

Multiply/Divide: SNVT_muldiv

“Multiply/Divide”

Gain factor

Index	Size	Data Type				
91	4 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_muldiv.multiplier			unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 16-bit unsigned value	
SNVT_muldiv.divisor			unsigned long 0	65535 1	$1 \times 10^0 \times (Raw+0)$ 1 16-bit unsigned value	

Network variable type: SNVT_nv_type

“Network variable type”

Network variable type description for network variables that support changeable types

Index	Size	Data Type			
166	19 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_nv_type.type_program_ID		unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1	
SNVT_nv_type.type_scope		unsigned short (no invalid value)	6 0	$1 \times 10^0 \times (Raw+0)$ 1 file scope	
SNVT_nv_type.type_index		unsigned long 0	65535 1	$1 \times 10^0 \times (Raw+0)$ 1 type index	
SNVT_nv_type.type_category		nv_type_category_t -1	14 -1	none (enumeration) 1	
SNVT_nv_type.type_length		unsigned short 0	31 1	$1 \times 10^0 \times (Raw+0)$ 1 bytes	
SNVT_nv_type.scaling_factor_a		signed long 32767	32767 -32768	$1 \times 10^0 \times (Raw+0)$ 1	
SNVT_nv_type.scaling_factor_b		signed long 32767	32767 -32768	$1 \times 10^0 \times (Raw+0)$ 1	
SNVT_nv_type.scaling_factor_c		signed long 32767	32767 -32768	$1 \times 10^0 \times (Raw+0)$ 1	

Neuron address: SNVT_address

“Neuron address in 16-bit address value”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
114	2 bytes	unsigned long	16384	64767	$1 \times 10^0 \times (Raw+0)$	1 16-bit address value

Object request: SNVT_obj_request

“Object request”

Index	Size	Data Type			
92	3 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	

SNVT_obj_request.object_id	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 object index
SNVT_obj_request.object_request	object_request_t -1	24 -1	none (enumeration) 1

Object status: SNVT_obj_status

“Object status”

Index	Size	Data Type	
93	6 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_obj_status.object_id	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 object index
SNVT_obj_status.invalid_id	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_obj_status.invalid_request	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_obj_status.disabled	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_obj_status.out_of_limits	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_obj_status.open_circuit	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_obj_status.out_of_service	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_obj_status.mechanical_fault	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_obj_status.feedback_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_obj_status.over_range	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_obj_status.under_range	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_obj_status.electrical_fault	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_obj_status.unable_to_measure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_obj_status.comm_failure	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_obj_status.fail_self_test	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_obj_status.self_test_in_progress	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6

SNVT_obj_status.locked_out	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_obj_status.manual_control	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_obj_status.in_alarm	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_obj_status.in_override	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_obj_status.report_mask	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_obj_status.programming_mode	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_obj_status.programming_fail	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_obj_status.alarm_notify_disabled	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_obj_status.reset_complete	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_obj_status.reserved2	bitfield	0 0	$1 \times 10^0 \times (Raw+0)$ bits: 8 at offset: 0

Occupancy: SNVT_occupancy

“Occupancy”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
109	1 bytes	occup_t	-1	3	none (enumeration)	-1

Override code: SNVT_override

“Override code”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
97	1 bytes	override_t	-1	2	none (enumeration)	-1

Percentage level: SNVT_lev_percent

“Percentage level in % of full level”

Level percent. SNVT_switch should be used instead of SNVT_lev_percent, with the exception of network variables that are used to communicate a percentage value and that require the additional resolution provided by SNVT_lev_percent;

or for network variable members of functional profiles that are designed primarily for interfacing with SNVT_lev_percent members of other profiles.

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
81	2 bytes	signed long	-32768	32767	$5 \times 10^{-3} \times (Raw+0)$	0.005 % of full level

Position control: SNVT_pos_ctrl

“Position control”

Index	Size	Data Type				
152	13 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_pos_ctrl.receiver_id			unsigned long 0	65535 0	1×10 ⁰ ×(Raw+0) 1 ID number	
SNVT_pos_ctrl.controller_id			unsigned long 0	65535 0	1×10 ⁰ ×(Raw+0) 1 ID number	
SNVT_pos_ctrl.controller_prio			unsigned short (no invalid value)	100 0	1×10 ⁰ ×(Raw+0) 1 priority value	
SNVT_pos_ctrl.function			cam_func_t -1	2 -1	none (enumeration) 1	
SNVT_pos_ctrl.action			cam_act_t -1	2 -1	none (enumeration) 1	
SNVT_pos_ctrl.value			union			
SNVT_pos_ctrl.value.number			unsigned short 0	255 0	1×10 ⁰ ×(Raw+0) 1 action number	
SNVT_pos_ctrl.value.abspos			structure			
SNVT_pos_ctrl.value.abspos.pan			SNVT_angle_deg			
SNVT_pos_ctrl.value.abspos.tilt			SNVT_angle_deg			
SNVT_pos_ctrl.value.abspos.zoom			SNVT_lev_percent			

Power: SNVT_power

“Power in Watts”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
27	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 Watts

Power: SNVT_power_f

“Power in Watts”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
57	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

Power: SNVT_power_kilo

“Power in kiloWatts”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
28	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 kiloWatts

Power factor: SNVT_pwr_fact

“Power factor in multiplier”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
98	2 bytes	signed long	-20000	20000	$5 \times 10^{-5} \times (Raw+0)$	0.00001 multiplier

Power factor: SNVT_pwr_fact_f

“Power factor in multiplier”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
99	4 bytes	floating-point	-1	1	floating	NAN and Out of Range

Precision timestamp.: SNVT_time_stamp_p

“Precision timestamp.”

Timestamp with hundredths of a second resolution.

Index	Size	Data Type				
192	5 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_time_stamp_p.second			unsigned quad	4294967295	$1 \times 10^0 \times (Raw+0)$	

	(no invalid value)	0	1 seconds
SNVT_time_stamp_p.hundredths	unsigned short	99	$1 \times 10^{-2} \times (Raw+0)$
	255	0	0.01 seconds

Preset: SNVT_preset

“Preset”

Index	Size	Data Type	
94	14 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_preset.learn	learn_mode_t -1	3 -1	none (enumeration) 1
SNVT_preset.selector	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 16-bit unsigned value
SNVT_preset.value	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 array of 4 bytes
SNVT_preset.day	unsigned long 65535	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 days
SNVT_preset.hour	unsigned short (no invalid value)	23 0	$1 \times 10^0 \times (Raw+0)$ 1 hours
SNVT_preset.minute	unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 minutes
SNVT_preset.second	unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds
SNVT_preset.millisecond	unsigned long (no invalid value)	999 0	$1 \times 10^0 \times (Raw+0)$ 1 milliseconds

Pressure (gauge): SNVT_press

“Pressure (gauge) in kiloPascals”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
30	2 bytes	signed long	-32768	32767	$1 \times 10^{-1} \times (Raw+0)$	0.1 kiloPascals

Pressure (gauge): SNVT_press_f

“Pressure (gauge) in Pascals”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
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59	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range
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Pressure (gauge): SNVT_press_p

“Pressure (gauge) in Pascals”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
113	2 bytes	signed long	-32768	32767	$1 \times 10^0 \times (Raw+0)$	1 Pascals

Privacy zone: SNVT_privacyzone

“Privacy zone”

Index	Size	Data Type				
151	4 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_privacyzone.action			privacyzone_t -1	5 -1	none (enumeration) 1	
SNVT_privacyzone.number			unsigned short 0	255 0	$1 \times 10^0 \times (Raw+0)$ 1 zone number	
SNVT_privacyzone.camera_id			unsigned long 0	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 ID number	

Program status: SNVT_program_status

“Program status”

Indicates the current status info for the Program object, including state, runtime total, and error code with time stamp.

Index	Size	Data Type				
202	16 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_program_status.state			program_state_t -1	5 -1	none (enumeration) 1	
SNVT_program_status.runtime			SNVT_elapsed_tm			
SNVT_program_status.last_error			program_status_error_t -1	63 -1	none (enumeration) 1	
SNVT_program_status.time_of_last_error			SNVT_time_stamp			

Pump sensor: SNVT_pump_sensor

“Pump sensor”

Index	Size	Data Type			
159	19 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_pump_sensor.rotational_speed		SNVT_freq_hz			
SNVT_pump_sensor.body_temperature		SNVT_temp			
SNVT_pump_sensor.motor_external_temperature		SNVT_temp			
SNVT_pump_sensor.motor_internal_temperature		SNVT_temp			
SNVT_pump_sensor.motor_overloaded		boolean_t -1	1 -1	none (enumeration) 1	
SNVT_pump_sensor.oil_level_low		boolean_t -1	1 -1	none (enumeration) 1	
SNVT_pump_sensor.phase_imbalance_detected		boolean_t -1	1 -1	none (enumeration) 1	
SNVT_pump_sensor.current_usage		SNVT_amp			
SNVT_pump_sensor.power_usage		SNVT_power_kilo			
SNVT_pump_sensor.temperature_control		unit_temp_t -1	3 -1	none (enumeration) 1	
SNVT_pump_sensor.electromagnetic_brake_active		boolean_t -1	1 -1	none (enumeration) 1	
SNVT_pump_sensor.friction_brake_active		boolean_t -1	1 -1	none (enumeration) 1	
SNVT_pump_sensor.gas_brake_active		boolean_t -1	1 -1	none (enumeration) 1	

Pumpset: SNVT_pumpset_mn

“Pumpset”

Index	Size	Data Type			
156	8 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_pumpset_mn.main_pump		motor_state_t -1	7 -1	none (enumeration) 1	
SNVT_pumpset_mn.booster_pump		motor_state_t	7	none (enumeration)	

	-1	-1	1
SNVT_pumpset_mn.priority_level	priority_level_t -1	11 -1	none (enumeration) 1
SNVT_pumpset_mn.process_ready	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_mn.emergency_stop_activated	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_mn.main_pump_drive_enabled	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_mn.booster_pump_drive_enabled	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_mn.maintenance_required	boolean_t -1	1 -1	none (enumeration) 1

Pumpset sensor: SNVT_pumpset_sn

“Pumpset sensor”

Index	Size	Data Type	
158	23 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_pumpset_sn.total_dilution_flow	SNVT_flow_mil		
SNVT_pumpset_sn.exhaust_temperature	SNVT_temp		
SNVT_pumpset_sn.exhaust_pressure	SNVT_press		
SNVT_pumpset_sn.shaft_seal_purge_pressure	SNVT_press		
SNVT_pumpset_sn.inlet_vacuum	SNVT_press_f		
SNVT_pumpset_sn.supply_voltage	SNVT_volt		
SNVT_pumpset_sn.coolant_flow	SNVT_flow_mil		
SNVT_pumpset_sn.coolant_flow_low	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_sn.dilution_active	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_sn.ballast_dilution_active	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_sn.inlet_purge_dilution_active	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_sn.exhaust_dilution_active	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_sn.dilution_flow_out_of_range	boolean_t -1	1 -1	none (enumeration) 1
SNVT_pumpset_sn.power_supply_on	boolean_t -1	1 -1	none (enumeration) 1

Rail-Audio Controller Control: SNVT_rac_ctrl

“Rail-Audio Controller Control”

Invokes audio control for a given source

Index	Size	Data Type	
181	18 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_rac_ctrl.audio_line	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 0
SNVT_rac_ctrl.duplex_full	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_rac_ctrl.dest_p2p	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_rac_ctrl.reserved	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_rac_ctrl.audio_type	rail_audio_type_t -1	17 -1	none (enumeration) 1
SNVT_rac_ctrl.addr_init	structure		
SNVT_rac_ctrl.addr_init.unit_id	bitfield	8 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_rac_ctrl.addr_init.location	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_rac_ctrl.addr_init.car_id	bitfield	31 0	$1 \times 10^0 \times (Raw+0)$ bits: 5 at offset: 0
SNVT_rac_ctrl.addr_init.reserved	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_rac_ctrl.addr_init.audio_sensor_type	rail_audio_sensor_type_t -1	23 -1	none (enumeration) 1
SNVT_rac_ctrl.addr_talk	structure		
SNVT_rac_ctrl.addr_talk.unit_id	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_rac_ctrl.addr_talk.location	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_rac_ctrl.addr_talk.car_id	bitfield	31 0	$1 \times 10^0 \times (Raw+0)$ bits: 5 at offset: 0
SNVT_rac_ctrl.addr_talk.reserved	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_rac_ctrl.addr_talk.audio_sensor_type	rail_audio_sensor_type_t -1	23 -1	none (enumeration) 1
SNVT_rac_ctrl.addr_dest	union		
SNVT_rac_ctrl.addr_dest.p2p	structure		
SNVT_rac_ctrl.addr_dest.p2p.unit_id	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0

SNVT_rac_ctrl.addr_dest.p2p.location	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_rac_ctrl.addr_dest.p2p.car_id	bitfield	31 0	$1 \times 10^0 \times (Raw+0)$ bits: 5 at offset: 0
SNVT_rac_ctrl.addr_dest.p2p.reserved	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_rac_ctrl.addr_dest.p2p.audio_sensor_type	rail_audio_sensor_type_t -1	23 -1	none (enumeration) 1
SNVT_rac_ctrl.addr_dest.p2m	structure		
SNVT_rac_ctrl.addr_dest.p2m.mask_unit	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_rac_ctrl.addr_dest.p2m.mask_car	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_rac_ctrl.addr_dest.p2m.mask_location	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_rac_ctrl.addr_dest.p2m.mask_audio	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1

Rail-Audio Controller Request: SNVT_rac_req

“Rail-Audio Controller Request”

Requests audio control for a given source

Index	Size	Data Type			
182	15 bytes	structure			
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_rac_req.dest_def			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_rac_req.dest_p2p			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_rac_req.reserved			bitfield	63 0	$1 \times 10^0 \times (Raw+0)$ bits: 6 at offset: 2
SNVT_rac_req.audio_type			rail_audio_type_t -1	17 -1	none (enumeration) 1
SNVT_rac_req.addr_init			structure		
SNVT_rac_req.addr_init.unit_id			bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_rac_req.addr_init.location			bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_rac_req.addr_init.car_id			bitfield	31 0	$1 \times 10^0 \times (Raw+0)$ bits: 5 at offset: 0
SNVT_rac_req.addr_init.reserved			bitfield	7	$1 \times 10^0 \times (Raw+0)$

		0	bits: 3 at offset: 5
SNVT_rac_req.addr_init.audio_sensor_type	rail_audio_sensor_type_t -1	23 -1	none (enumeration) 1
SNVT_rac_req.addr_dest	union		
SNVT_rac_req.addr_dest.p2p	structure		
SNVT_rac_req.addr_dest.p2p.unit_id	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 0
SNVT_rac_req.addr_dest.p2p.location	bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 4
SNVT_rac_req.addr_dest.p2p.car_id	bitfield	31 0	$1 \times 10^0 \times (Raw+0)$ bits: 5 at offset: 0
SNVT_rac_req.addr_dest.p2p.reserved	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_rac_req.addr_dest.p2p.audio_sensor_type	rail_audio_sensor_type_t -1	23 -1	none (enumeration) 1
SNVT_rac_req.addr_dest.p2m	structure		
SNVT_rac_req.addr_dest.p2m.mask_unit	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_rac_req.addr_dest.p2m.mask_car	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_rac_req.addr_dest.p2m.mask_location	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_rac_req.addr_dest.p2m.mask_audio	unsigned char (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1

Register value: SNVT_reg_val

“Register value”

Index	Size	Data Type	
136	6 bytes	structure	
Field	CNP Data Type / Invalid Value		Scaled Value / Resolution
SNVT_reg_val.raw	s32_type (signed 32-bit type) (no invalid value)		$1 \times 10^0 \times (Raw+0)$ 1
SNVT_reg_val.unit	reg_val_unit_t -1		none (enumeration) 1
SNVT_reg_val.nr_decimals	bitfield		$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 0

Register value: SNVT_reg_val_ts

“Register value”

Index	Size	Data Type			
137	13 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_reg_val_ts.raw		s32_type (signed 32-bit type) (no invalid value)	2147483647 -2147483648	$1 \times 10^0 \times (Raw+0)$ 1	
SNVT_reg_val_ts.unit		reg_val_unit_t -1	43 -1	none (enumeration) 1	
SNVT_reg_val_ts.nr_decimals		bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 0	
SNVT_reg_val_ts.status		bitfield	15 0	$1 \times 10^0 \times (Raw+0)$ bits: 4 at offset: 3	
SNVT_reg_val_ts.reg_state		bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7	
SNVT_reg_val_ts.year		signed long -1	3000 -1	$1 \times 10^0 \times (Raw+0)$ 1 years	
SNVT_reg_val_ts.month		unsigned short (no invalid value)	12 0	$1 \times 10^0 \times (Raw+0)$ 1 months	
SNVT_reg_val_ts.day		unsigned short (no invalid value)	31 0	$1 \times 10^0 \times (Raw+0)$ 1 days	
SNVT_reg_val_ts.hour		unsigned short (no invalid value)	23 0	$1 \times 10^0 \times (Raw+0)$ 1 hours	
SNVT_reg_val_ts.minute		unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 minutes	
SNVT_reg_val_ts.second		unsigned short (no invalid value)	59 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds	

Safe protocol for 1 byte data length: SNVT_safe_1

“Safe protocol for 1 byte data length”

Index	Size	Data Type			
205	16 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_safe_1.id_a_header		bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0	
SNVT_safe_1.id_a_format		bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 1	
SNVT_safe_1.id_a_version		bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 3	

SNVT_safe_1.id_a_length	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_safe_1.address_a_1	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.address_a_timedate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_safe_1.address_a_2	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1
SNVT_safe_1.address_a_3	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.time_stamp_msword	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.data_a	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.crc_a	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.id_b_header	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_safe_1.id_b_format	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 1
SNVT_safe_1.id_b_version	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 3
SNVT_safe_1.id_b_length	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_safe_1.address_b_1	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.address_b_timedate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_safe_1.address_b_2	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1
SNVT_safe_1.address_b_3	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.time_stamp_lsword	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.data_b	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_1.crc_b	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1

Safe protocol for 2 bytes data length: SNVT_safe_2

“Safe protocol for 2 bytes data length”

Index	Size	Data Type	
206	18 bytes	structure	

Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_safe_2.id_a_header	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_safe_2.id_a_format	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 1
SNVT_safe_2.id_a_version	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 3
SNVT_safe_2.id_a_length	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_safe_2.address_a_1	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.address_a_timedate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_safe_2.address_a_2	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1
SNVT_safe_2.address_a_3	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.time_stamp_mword	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.data_a	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.crc_a	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.id_b_header	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_safe_2.id_b_format	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 1
SNVT_safe_2.id_b_version	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 3
SNVT_safe_2.id_b_length	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5
SNVT_safe_2.address_b_1	unsigned short (no invalid value)	1 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.address_b_timedate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_safe_2.address_b_2	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1
SNVT_safe_2.address_b_3	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.time_stamp_lword	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.data_b	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_2.crc_b	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1

Safe protocol for 4 bytes data length: SNVT_safe_4

“Safe protocol for 4 bytes data length”

Index	Size	Data Type			
207	22 bytes	structure			
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution		
SNVT_safe_4.id_a_header	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0		
SNVT_safe_4.id_a_format	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 1		
SNVT_safe_4.id_a_version	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 3		
SNVT_safe_4.id_a_length	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5		
SNVT_safe_4.address_a_1	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_4.address_a_timedate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0		
SNVT_safe_4.address_a_2	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1		
SNVT_safe_4.address_a_3	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_4.time_stamp_msword	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_4.data_a	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_4.crc_a	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_4.id_b_header	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0		
SNVT_safe_4.id_b_format	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 1		
SNVT_safe_4.id_b_version	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 3		
SNVT_safe_4.id_b_length	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5		
SNVT_safe_4.address_b_1	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_4.address_b_timedate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0		
SNVT_safe_4.address_b_2	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1		
SNVT_safe_4.address_b_3	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_4.time_stamp_lsword	unsigned long	65535	$1 \times 10^0 \times (Raw+0)$		

	(no invalid value)	0	1
SNVT_safe_4.data_b	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_4.crc_b	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1

Safe protocol for 8 bytes data length: SNVT_safe_8

“Safe protocol for 8 bytes data length”

Index	Size	Data Type			
208	30 bytes	structure			
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution		
SNVT_safe_8.id_a_header	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0		
SNVT_safe_8.id_a_format	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 1		
SNVT_safe_8.id_a_version	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 3		
SNVT_safe_8.id_a_length	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5		
SNVT_safe_8.address_a_1	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_8.address_a_timedate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0		
SNVT_safe_8.address_a_2	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1		
SNVT_safe_8.address_a_3	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_8.time_stamp_msword	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_8.data_a	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_8.crc_a	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1		
SNVT_safe_8.id_b_header	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0		
SNVT_safe_8.id_b_format	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 1		
SNVT_safe_8.id_b_version	bitfield	3 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 3		
SNVT_safe_8.id_b_length	bitfield	7 0	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 5		
SNVT_safe_8.address_b_1	unsigned short	255	$1 \times 10^0 \times (Raw+0)$		

	(no invalid value)	0	1
SNVT_safe_8.address_b_timedate	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_safe_8.address_b_2	bitfield	127 0	$1 \times 10^0 \times (Raw+0)$ bits: 7 at offset: 1
SNVT_safe_8.address_b_3	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_8.time_stamp_lsword	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_8.data_b	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_safe_8.crc_b	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1

Scene configuration: SNVT_scene_cfg

“Scene configuration”

Index	Size	Data Type	
116	10 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_scene_cfg.function	scene_config_t -1	4 -1	none (enumeration) 1
SNVT_scene_cfg.scene_number	unsigned short (no invalid value)	255 1	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_scene_cfg.setting	unsigned short 255	200 0	$5 \times 10^{-1} \times (Raw+0)$ 0.5 % of full level
SNVT_scene_cfg.rotation	signed long 32767	18000 -17999	$2 \times 10^{-2} \times (Raw+0)$ 0.02 degrees
SNVT_scene_cfg.fade_time	unsigned long 65535	65535 0	$1 \times 10^{-1} \times (Raw+0)$ 0.1 seconds
SNVT_scene_cfg.delay_time	unsigned long 65535	65535 0	$1 \times 10^{-1} \times (Raw+0)$ 0.1 seconds
SNVT_scene_cfg.scene_priority	unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 priority value

Scene control: SNVT_scene

“Scene control”

Index	Size	Data Type	
115	2 bytes	structure	

Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_scene.function	scene_t -1	23 -1	none (enumeration) 1
SNVT_scene.scene_number	unsigned short (no invalid value)	255 1	$1 \times 10^0 \times (Raw+0)$ 1

Schedule time-value pair: SNVT_time_val_2

“Schedule time-value pair”

Specifies the starting time and value for a scheduled event where the value of each event may consist of an occupancy value, a general purpose value, or both values

Index	Size	Data Type			
209	4 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_time_val_2.sunrise_relative_flag		bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0	
SNVT_time_val_2.sunset_relative_flag		bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1	
SNVT_time_val_2.negative_time_offset_flag		bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2	
SNVT_time_val_2.hour		bitfield	31 0	$1 \times 10^0 \times (Raw+0)$ bits: 5 at offset: 3	
SNVT_time_val_2.occ_value_ignored_flag		bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0	
SNVT_time_val_2.gp_value_ignored_flag		bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1	
SNVT_time_val_2.minutes		bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 6 at offset: 2	
SNVT_time_val_2.occupancy		occup_t -1	3 -1	none (enumeration) 1	
SNVT_time_val_2.gp_value		unsigned short (no invalid value)	1 0	$1 \times 10^0 \times (Raw+0)$ 1	

Scheduler status: SNVT_sched_status

“Scheduler status”

Type of schedule that is active

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
212	1 bytes	scheduler_status_t	-1	6	none (enumeration)	-1

Scheduler value: SNVT_sched_val

“Scheduler value”

Index from scheduler that selects entry in SCPTvalueDefinition array, or is a direct value output

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
177	1 bytes	unsigned short	0	255	$1 \times 10^0 \times (Raw + 0)$	1

Security State: SNVT_sec_state

“Security State”

It is used to communicate with security devices and is used for control of devices

Index	Size	Data Type				
178	3 bytes	structure				
Field		CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution	
SNVT_sec_state.state		sec_state_t		19 -1	none (enumeration) 1	
SNVT_sec_state.identity		unsigned long (no invalid value)		65535 0	$1 \times 10^0 \times (Raw + 0)$ 1	

Security Status: SNVT_sec_status

“Security Status”

Status information from a security device.

Index	Size	Data Type			
179	3 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_sec_status.status		sec_status_t -1	25 -1	none (enumeration) 1	
SNVT_sec_status.identity		unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1	

Setting control: SNVT_setting

“Setting control”

Index	Size	Data Type			
117	4 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_setting.function		setting_t -1	5 -1	none (enumeration) 1	
SNVT_setting.setting		unsigned short 255	200 0	$5 \times 10^{-1} \times (Raw+0)$ 0.5 % of full level	
SNVT_setting.rotation		signed long 32767	18000 -17999	$2 \times 10^{-2} \times (Raw+0)$ 0.02 degrees	

Smoke obscuration: SNVT_smo_obscur

“Smoke obscuration in percent obscuration”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
129	2 bytes	unsigned long	0	5000	$1 \times 10^{-3} \times (Raw+0)$	0.001 percent obscuration

Sound level: SNVT_sound_db

“Sound level in dB”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
33	2 bytes	signed long	-32768	32767	$1 \times 10^{-2} \times (Raw+0)$	0.01 dB

Sound level: SNVT_sound_db_f

“Sound level in dBspl”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
61	4 bytes	floating-point	-3.4028234663853E+038	3.4028234663853E+038	floating	NAN and Out of Range

State vector: SNVT_state

“State vector”

Each state is a boolean single bit value. SNVT_state_64 is preferred.

Index	Size	Data Type				
83	2 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_state.bit0			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0	
SNVT_state.bit1			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1	
SNVT_state.bit2			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2	
SNVT_state.bit3			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3	
SNVT_state.bit4			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4	
SNVT_state.bit5			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5	
SNVT_state.bit6			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6	
SNVT_state.bit7			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7	
SNVT_state.bit8			bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0	
SNVT_state.bit9			bitfield	1	$1 \times 10^0 \times (Raw+0)$	

		0	bits: 1 at offset: 1
SNVT_state.bit10	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_state.bit11	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state.bit12	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state.bit13	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state.bit14	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state.bit15	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7

State vector: SNVT_state_64

“State vector”

Each state is a boolean single-bit value.

Index	Size	Data Type	
165	8 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_state_64.bit0	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_state_64.bit1	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_state_64.bit2	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_state_64.bit3	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state_64.bit4	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state_64.bit5	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state_64.bit6	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state_64.bit7	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_state_64.bit8	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_state_64.bit9	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_state_64.bit10	bitfield	1	$1 \times 10^0 \times (Raw+0)$

		0	bits: 1 at offset: 2
SNVT_state_64.bit11	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state_64.bit12	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state_64.bit13	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state_64.bit14	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state_64.bit15	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_state_64.bit16	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_state_64.bit17	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_state_64.bit18	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_state_64.bit19	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state_64.bit20	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state_64.bit21	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state_64.bit22	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state_64.bit23	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_state_64.bit24	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_state_64.bit25	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_state_64.bit26	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_state_64.bit27	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state_64.bit28	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state_64.bit29	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state_64.bit30	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state_64.bit31	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_state_64.bit32	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_state_64.bit33	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_state_64.bit34	bitfield	1	$1 \times 10^0 \times (Raw+0)$

		0	bits: 1 at offset: 2
SNVT_state_64.bit35	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state_64.bit36	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state_64.bit37	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state_64.bit38	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state_64.bit39	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_state_64.bit40	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_state_64.bit41	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_state_64.bit42	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_state_64.bit43	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state_64.bit44	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state_64.bit45	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state_64.bit46	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state_64.bit47	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_state_64.bit48	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_state_64.bit49	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_state_64.bit50	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 2
SNVT_state_64.bit51	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state_64.bit52	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state_64.bit53	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state_64.bit54	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state_64.bit55	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7
SNVT_state_64.bit56	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 0
SNVT_state_64.bit57	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 1
SNVT_state_64.bit58	bitfield	1	$1 \times 10^0 \times (Raw+0)$

		0	bits: 1 at offset: 2
SNVT_state_64.bit59	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 3
SNVT_state_64.bit60	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 4
SNVT_state_64.bit61	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 5
SNVT_state_64.bit62	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 6
SNVT_state_64.bit63	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 1 at offset: 7

Sunblind State: SNVT_sblnd_state

“Sunblind State”

Provides the present state of a sunblind

Index	Size	Data Type			
180	6 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_sblnd_state.pos		SNVT_setting			
SNVT_sblnd_state.cmd_source		sblnd_cmd_source_t	127	none (enumeration)	
		-1	-1	1	
SNVT_sblnd_state.error_code		sblnd_error_t	14	none (enumeration)	
		-1	-1	1	

Switch: SNVT_switch

“Switch”

Index	Size	Data Type			
95	2 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_switch.value		unsigned short (no invalid value)	200 0	$5 \times 10^{-1} \times (Raw+0)$ 0.5 % of full level	
SNVT_switch.state		signed short	1	$1 \times 10^0 \times (Raw+0)$	
		-1	-1	1 state code	

Switch with scene and setting control: SNVT_switch_2

“Switch with scene and setting control”

An enhanced version of SNVT_switch with scene and setting controls similar to SNVT_scene and SNVT_setting.

Index	Size	Data Type			
189	3 bytes	structure			
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_switch_2.state			switch_state_t -1	58 -1	none (enumeration) 1
SNVT_switch_2.setting			union Sets or reports the level, change, or angle for a switch		
SNVT_switch_2.setting.value			unsigned short 255	200 0	$5 \times 10^{-1} \times (Raw+0)$ 0.5
SNVT_switch_2.setting.change			unsigned short 255	200 0	$5 \times 10^{-1} \times (Raw+0)$ 0.5
SNVT_switch_2.setting.delay			unsigned short 255	254 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds
SNVT_switch_2.setting.group_number			unsigned short 255	63 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_switch_2.setting.multiplier			SNVT_multiplier_s		
SNVT_switch_2.setting.angle			signed short -128	90 -90	$2 \times 10^0 \times (Raw+0)$ 2 degrees
SNVT_switch_2.setting.fan_level			signed short -128	100 -100	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_switch_2.setting.button_number			unsigned short 0	255 0	$1 \times 10^0 \times (Raw+0)$ 1
SNVT_switch_2.scene_number			unsigned short 0	255 1	$1 \times 10^0 \times (Raw+0)$ 1

Telecomm states: SNVT_telcom

“Telecomm states”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
38	1 bytes	telcom_states_t	-1	20	none (enumeration)	-1

Temp difference: SNVT_temp_diff_p

“Temp difference in degrees Celsius”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
147	2 bytes	signed long	-32768	32767	$1 \times 10^{-2} \times (Raw+0)$	0.01 degrees Celsius

Temperature: SNVT_temp

“Temperature in degrees Celsius”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
39	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw-2740)$	0.1 degrees Celsius

Temperature: SNVT_temp_f

“Temperature in degrees Celsius”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
63	4 bytes	floating-point	-273.17001342773	3.4028234663853E+038	floating	NAN and Out of Range

Temperature: SNVT_temp_p

“Temperature in degrees Celsius”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
105	2 bytes	signed long	-27317	32767	$1 \times 10^{-2} \times (Raw+0)$	0.01 degrees Celsius

Temperature: SNVT_temp_setpt

“Temperature”

Index	Size	Data Type				
106	12 bytes	structure				
Field			CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution
SNVT_temp_setpt.occupied_cool			signed long		32767	$1 \times 10^{-2} \times (Raw+0)$
			32767		-27317	0.01 degrees Celsius
SNVT_temp_setpt.standby_cool			signed long		32767	$1 \times 10^{-2} \times (Raw+0)$

	32767	-27317	0.01 degrees Celsius
SNVT_temp_setpt.unoccupied_cool	signed long	32767	$1 \times 10^{-2} \times (Raw+0)$
	32767	-27317	0.01 degrees Celsius
SNVT_temp_setpt.occupied_heat	signed long	32767	$1 \times 10^{-2} \times (Raw+0)$
	32767	-27317	0.01 degrees Celsius
SNVT_temp_setpt.standby_heat	signed long	32767	$1 \times 10^{-2} \times (Raw+0)$
	32767	-27317	0.01 degrees Celsius
SNVT_temp_setpt.unoccupied_heat	signed long	32767	$1 \times 10^{-2} \times (Raw+0)$
	32767	-27317	0.01 degrees Celsius

Temperature rate of change/rise: SNVT_temp_ror

“Temperature rate of change/rise in degrees Celsius/minute”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
131	2 bytes	signed long	-32768	32767	$5 \times 10^{-1} \times (Raw+0)$	0.5 degrees Celsius/minute

Thermal energy: SNVT_btu_f

“Thermal energy in Btus”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
67	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Thermal energy: SNVT_btu_kilo

“Thermal energy in kilo-Btus”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
5	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 kilo-Btus

Thermal energy: SNVT_btu_mega

“Thermal energy in mega-Btus”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
6	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw+0)$	1 mega-Btus

Thermostat mode: SNVT_therm_mode

“Thermostat mode”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
119	1 bytes	therm_mode_t	-1	2	none (enumeration)	-1

Time hour: SNVT_time_hour_p

“Time hour in hours”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
198	4 bytes	unsigned quad	0	4294967294	$1 \times 10^0 \times (Raw+0)$	1 hours

Time of Day: SNVT_date_time

“Time of Day”

This SNVT is obsolete. Use SNVT_time_stamp instead.

Index	Size	Data Type				
12	3 bytes	structure				
Field		CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution	
SNVT_date_time.hour		unsigned short (no invalid value)		23 0	$1 \times 10^0 \times (Raw+0)$ 1 hours	
SNVT_date_time.minute		unsigned short (no invalid value)		59 0	$1 \times 10^0 \times (Raw+0)$ 1 minutes	
SNVT_date_time.second		unsigned short (no invalid value)		59 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds	

Time of day event: SNVT_tod_event

“Time of day event”

Occupancy scheduling event

Index	Size	Data Type				
128	4 bytes	structure				
Field		CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution	

SNVT_tod_event.current_state	occup_t -1	3 -1	none (enumeration) 1
SNVT_tod_event.next_state	occup_t -1	3 -1	none (enumeration) 1
SNVT_tod_event.time_to_next_state	unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 minutes

Time offset: SNVT_time_offset

“Time offset in seconds”

Time offset. Can be used to offset a scheduled start or stop time to implement an optimal start or optimal stop algorithm, or to stagger start times to minimize demand spikes.

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
210	2 bytes	signed long	-32768	32766	$1 \times 10^0 \times (Raw+0)$	1 seconds

Time stamp: SNVT_time_stamp

“Time stamp”

Index	Size	Data Type				
84	7 bytes	structure				
Field		CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution	
SNVT_time_stamp.year		signed long -1		3000 -1	$1 \times 10^0 \times (Raw+0)$ 1 years	
SNVT_time_stamp.month		unsigned short (no invalid value)		12 0	$1 \times 10^0 \times (Raw+0)$ 1 months	
SNVT_time_stamp.day		unsigned short (no invalid value)		31 0	$1 \times 10^0 \times (Raw+0)$ 1 days	
SNVT_time_stamp.hour		unsigned short (no invalid value)		23 0	$1 \times 10^0 \times (Raw+0)$ 1 hours	
SNVT_time_stamp.minute		unsigned short (no invalid value)		59 0	$1 \times 10^0 \times (Raw+0)$ 1 minutes	
SNVT_time_stamp.second		unsigned short (no invalid value)		59 0	$1 \times 10^0 \times (Raw+0)$ 1 seconds	

Time zone descriptor: SNVT_time_zone

“Time zone descriptor”

Index	Size	Data Type			
134	15 bytes	structure			
Field	CNP Data Type / Invalid Value		Maximum / Minimum	Scaled Value / Resolution	
SNVT_time_zone.second_time_offset	s32_type (signed 32-bit type) (no invalid value)		86400 -86400	1×10 ⁰ ×(Raw+0) 1 seconds	
SNVT_time_zone.type_of_description	calendar_type_t -1		2 -1	none (enumeration) 1	
SNVT_time_zone.hour_of_start_DST	unsigned short (no invalid value)		23 0	1×10 ⁰ ×(Raw+0) 1 hours	
SNVT_time_zone.minute_of_start_DST	unsigned short (no invalid value)		59 0	1×10 ⁰ ×(Raw+0) 1 minutes	
SNVT_time_zone.second_of_start_DST	unsigned short (no invalid value)		59 0	1×10 ⁰ ×(Raw+0) 1 seconds	
SNVT_time_zone.start_DST	union Daylight savings time start day				
SNVT_time_zone.start_DST.G_day_of_start_DST	unsigned long (no invalid value)		365 0	1×10 ⁰ ×(Raw+0) 1 days	
SNVT_time_zone.start_DST.J_day_of_start_DST	unsigned long (no invalid value)		365 1	1×10 ⁰ ×(Raw+0) 1 days	
SNVT_time_zone.start_DST.M_start_DST	structure				
SNVT_time_zone.start_DST.M_start_DST.month_of_start_DST	bitfield		12 1	1×10 ⁰ ×(Raw+0) bits: 4 at offset: 0	
SNVT_time_zone.start_DST.M_start_DST.week_of_start_DST	bitfield		5 1	1×10 ⁰ ×(Raw+0) bits: 3 at offset: 4	
SNVT_time_zone.start_DST.M_start_DST.dateday_of_start_DST	days_of_week_t -1		6 -1	none (enumeration) 1	
SNVT_time_zone.hour_of_end_DST	unsigned short (no invalid value)		23 0	1×10 ⁰ ×(Raw+0) 1 hours	
SNVT_time_zone.minute_of_end_DST	unsigned short (no invalid value)		59 0	1×10 ⁰ ×(Raw+0) 1 minutes	
SNVT_time_zone.second_of_end_DST	unsigned short (no invalid value)		59 0	1×10 ⁰ ×(Raw+0) 1 seconds	
SNVT_time_zone.end_DST	union Daylight savings time end day				
SNVT_time_zone.end_DST.G_day_of_end_DST	unsigned long (no invalid value)		365 0	1×10 ⁰ ×(Raw+0) 1 days	
SNVT_time_zone.end_DST.J_day_of_end_DST	unsigned long (no invalid value)		365 1	1×10 ⁰ ×(Raw+0) 1 days	
SNVT_time_zone.end_DST.M_end_DST	structure				
SNVT_time_zone.end_DST.M_end_DST.month_of_end_DST	bitfield		12	1×10 ⁰ ×(Raw+0)	

		1	bits: 4 at offset: 0
SNVT_time_zone.end_DST.M_end_DST.week_of_end_DST	bitfield	5 1	$1 \times 10^0 \times (Raw+0)$ bits: 3 at offset: 4
SNVT_time_zone.end_DST.M_end_DST.dateday_of_end_DST	days_of_week_t -1	6 -1	none (enumeration) 1

Translation table: SNVT_trans_table

“Translation table”

Index	Size	Data Type	
96	30 bytes	structure	
Field	CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution
SNVT_trans_table.point	floating-point NAN and Out of Range	3.4028234663853E+038 -3.4028234663853E+038	floating Points
SNVT_trans_table.interp_pts_0_to_1	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 0
SNVT_trans_table.interp_pts_1_to_2	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 2
SNVT_trans_table.interp_pts_2_to_3	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 4
SNVT_trans_table.interp_pts_3_to_4	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 6
SNVT_trans_table.interp_pts_4_to_5	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 0
SNVT_trans_table.interp_pts_5_to_6	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 2
SNVT_trans_table.interp_pts_6_to_0	bitfield	1 0	$1 \times 10^0 \times (Raw+0)$ bits: 2 at offset: 4

Turbidity: SNVT_turbidity

“Turbidity in nephelometric turbidity units”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
143	2 bytes	unsigned long	0	65535	$1 \times 10^{-3} \times (Raw+0)$	0.001 nephelometric turbidity units

Turbidity: SNVT_turbidity_f

“Turbidity in nephelometric turbidity units”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
144	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Valve mode: SNVT_valve_mode

“Valve mode”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
163	1 bytes	valve_mode_t	-1	7	none (enumeration)	-1

Voltage in alternating current: SNVT_volt_ac

“Voltage in alternating current in volts AC”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
138	2 bytes	unsigned long	0	65535	$1 \times 10^0 \times (Raw + 0)$	1 volts AC

Volume: SNVT_vol

“Volume in liters”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
41	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw + 0)$	0.1 liters

Volume: SNVT_vol_f

“Volume in liters”

Index	Size	Data Type	Minimum	Maximum	Scaled Value	Invalid
65	4 bytes	floating-point	0	3.4028234663853E+038	floating	NAN and Out of Range

Volume: SNVT_vol_kilo

“Volume in kiloliters”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
42	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 kiloliters

Volume: SNVT_vol_mil

“Volume in milliliters”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
43	2 bytes	unsigned long	0	65535	$1 \times 10^{-1} \times (Raw+0)$	0.1 milliliters

Watts per square meter: SNVT_Wm2_p

“Watts per square meter in W/m2”

Index	Size	Data Type	Minimum	Maximum	Scaling	Resolution
204	2 bytes	unsigned long	0	65534	$5 \times 10^{-2} \times (Raw+0)$	0.05 W/m2

Wide character string with locale code (15 characters max): SNVT_str_int

“Wide character string with locale code (15 characters max)”

Index	Size	Data Type				
37	31 bytes	structure				
Field			CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_str_int.char_set			unsigned short (no invalid value)	255 0	$1 \times 10^0 \times (Raw+0)$ 1 code value	
SNVT_str_int.wide_char			unsigned long (no invalid value)	65535 0	$1 \times 10^0 \times (Raw+0)$ 1 array of 15 wide characters	

Zero and span: SNVT_zerospans

“Zero and span”

Linear transformation parameters: multiply by the span-factor, then add the zero-term.

Index	Size	Data Type			
85	4 bytes	structure			
Field		CNP Data Type / Invalid Value	Maximum / Minimum	Scaled Value / Resolution	
SNVT_zerospans.zero		signed long (no invalid value)	32767 -32768	$5 \times 10^{-3} \times (Raw+0)$ 0.005 16-bit signed value	
SNVT_zerospans.span		unsigned long (no invalid value)	65535 0	$5 \times 10^{-4} \times (Raw+0)$ 0.0005 16-bit unsigned value	

7811, 45, 46, 47
 Acidity, 5, 6
 address, 36, 37, 38, 59, 72, 73, 74, 75, 76
 alarm, 6, 7, 10, 11, 12, 14, 15, 33, 34, 44, 49, 50, 51, 52, 61
 Alarm, 6, 7, 11
 alternating current, 7, 93
 Amperage, 7
 Amperes, 28, 29
 angle, 7, 8, 62, 86
 Area, 9
 audio, 68, 69, 70, 71
 btu, 88
 Camera, 9
 character, 9, 94
 Character string, 9
 color, 10, 16, 17
 control, 18, 21, 25, 36, 54, 61, 62, 67, 68, 70, 77, 79, 80, 85
 count, 5, 7, 38, 45, 50, 52, 55, 56
 current, 28, 29, 31, 49, 51, 56, 57, 66, 89
 day, 6, 19, 20, 27, 64, 72, 89, 90, 91
 dB, 31, 80
 degrees Celsius, 86, 87, 88
 difference, 32, 86
 direction, 22, 26, 39
 Divide, 58
 elapsed, 27, 28, 66
 elevation, 42
 emergency, 26, 33, 42, 67
 energy, 29, 30, 34, 88
 event, 19, 20, 35, 78, 89, 90
 fault, 21, 22, 23, 25, 60
 file, 36, 37, 38, 55, 59
 fire, 38, 39
 flow, 10, 25, 39, 40, 43, 68
 freq, 41, 66
 Frequency, 41
 FTP, 55
 Gain, 58
 gauge, 65
 grams, 42, 57
 Hertz, 41
 humidity, 5
 hvac, 10, 42, 43, 44
 kiloJoules, 32
 kiloWatt, 29
 kwh, 29, 34
 latitude, 26, 41
 length, 36, 38, 53, 59, 72, 73, 74, 75, 76
 level, 6, 7, 9, 13, 16, 17, 26, 27, 56, 62, 66, 67, 77, 80, 85, 86
 Location, 41
 longitude, 26, 41
 lux, 45
 magcard, 45, 47, 48, 49

maintenance, 23, 67
 mass, 39, 40, 57, 58
 mode, 10, 13, 20, 21, 32, 42, 43, 44, 61, 64, 88, 89, 93
 multiplier, 58, 59, 63, 86
 multiply, 94
 nephelometric, 92
 obsolete, 19, 26, 28, 45, 89
 occupancy, 61, 78
 offsets, 54
 Ohms, 30
 override, 35, 43, 61
 passed, 28
 percent, 16, 43, 54, 62, 80
 pH. *See* Acidity, *See* Acidity
 position, 22, 26, 36
 Position, 62
 power, 11, 13, 14, 19, 34, 50, 51, 63, 67, 68
 ppm, 17
 preset, 64
 Pressure, 65
 request, 18, 36, 37, 39, 55, 57, 60
 resistance, 23, 30
 response, 18, 54
 RPM, 8
 saturation, 43
 scene, 77, 85, 86
 schedule, 19, 35, 78
 scheduler, 78, 79
 sensor, 22, 66, 67, 69, 70, 71
 speed, 9, 12, 13, 15, 25, 54, 66
 state, 10, 20, 32, 34, 35, 43, 58, 66, 67, 72, 79, 81, 82, 83, 84, 85, 89, 90
 states, 21, 23, 86
 status, 6, 7, 10, 11, 14, 15, 18, 19, 24, 25, 26, 33, 34, 36, 38, 42, 43, 44, 49, 50, 51, 52, 55, 56, 57, 60, 61, 66, 72, 78, 79
 Status, 14, 15, 24, 33, 49, 57, 79
 string, 94
 switch, 26, 62, 85, 86
 time, 7, 13, 14, 19, 27, 28, 34, 35, 39, 40, 49, 51, 55, 56, 64, 66, 73, 74, 75, 76, 77, 78, 89, 90, 91
 timestamp, 64
 valve, 22, 23, 24, 25, 26, 93
 vector, 81, 82
 velocity, 8, 54
 vol, 93, 94
 volt, 30, 31, 34, 50, 52, 68, 93
 voltage, 11, 14, 21, 22, 23, 30, 31, 49, 51, 68
 Volts, 30, 31
 volume, 40
 Washer, 11, 12, 14, 15
 Watt, 29, 30
 Watts, 63, 94
 zone, 65, 90, 91
 zoom. *See* Camera