

DIN EN 14908-6:2025-02 (E)

Open Data Communication in Building Automation, Controls and Building Management - Control Network Protocol - Part 6: Application elements; English version EN 14908-6:2022

Contents		Page
European foreword		20
Introduction		22
1	Scope.....	23
2	Normative references.....	23
3	Terms and definitions	24
4	Standard network-variable type — SNVT	32
4.1	Introduction.....	32
4.2	SNVT_amp	33
4.3	SNVT_amp_mil.....	33
4.4	SNVT_angle	33
4.5	SNVT_angle_vel	33
4.6	SNVT_btu_kilo.....	33
4.7	SNVT_btu_mega.....	33
4.8	SNVT_char_ascii	33
4.9	SNVT_count.....	34
4.10	SNVT_count_inc.....	34
4.11	SNVT_date_day	34
4.12	SNVT_elec_kwh.....	34
4.13	SNVT_elec_whr	34
4.14	SNVT_flow	34
4.15	SNVT_flow_mil.....	34
4.16	SNVT_length	35
4.17	SNVT_length_kilo.....	35
4.18	SNVT_length_micr	35
4.19	SNVT_length_mil.....	35
4.20	SNVT_lev_cont.....	35
4.21	SNVT_mass.....	35
4.22	SNVT_mass_kilo	35
4.23	SNVT_mass_mega	36
4.24	SNVT_mass_mil.....	36
4.25	SNVT_power	36
4.26	SNVT_power_kilo.....	36
4.27	SNVT_ppm.....	36
4.28	SNVT_press	36
4.29	SNVT_res.....	36
4.30	SNVT_res_kilo	37
4.31	SNVT_sound_db.....	37
4.32	SNVT_speed	37
4.33	SNVT_speed_mil.....	37
4.34	SNVT_str_asc	37
4.35	SNVT_str_int	37
4.36	SNVT_telcom	38
4.37	SNVT_temp.....	38
4.38	SNVT_vol.....	38
4.39	SNVT_vol_kilo	38

4.40	SNVT_vol_mil	38
4.41	SNVT_volt.....	38
4.42	SNVT_volt_dbmv.....	38
4.43	SNVT_volt_kilo.....	39
4.44	SNVT_volt_mil.....	39
4.45	SNVT_amp_f.....	39
4.46	SNVT_angle_f.....	39
4.47	SNVT_angle_vel_f.....	39
4.48	SNVT_count_f.....	39
4.49	SNVT_count_inc_f.....	40
4.50	SNVT_flow_f.....	40
4.51	SNVT_length_f.....	40
4.52	SNVT_lev_cont_f.....	40
4.53	SNVT_mass_f.....	40
4.54	SNVT_power_f.....	40
4.55	SNVT_ppm_f.....	41
4.56	SNVT_press_f.....	41
4.57	SNVT_res_f.....	41
4.58	SNVT_sound_db_f.....	41
4.59	SNVT_speed_f.....	41
4.60	SNVT_temp_f.....	41
4.61	SNVT_time_f.....	42
4.62	SNVT_vol_f.....	42
4.63	SNVT_volt_f.....	42
4.64	SNVT_btu_f.....	42
4.65	SNVT_elec_whr_f.....	42
4.66	SNVT_config_src.....	42
4.67	SNVT_color	43
4.68	SNVT_grammage	43
4.69	SNVT_grammage_f.....	43
4.70	SNVT_file_req.....	43
4.71	SNVT_file_status	45
4.72	SNVT_freq_f.....	46
4.73	SNVT_freq_hz.....	46
4.74	SNVT_freq_kilohz	46
4.75	SNVT_freq_milhz	46
4.76	SNVT_lux	47
4.77	SNVT_lev_percent.....	47
4.78	SNVT_multiplier	47
4.79	SNVT_state.....	47
4.80	SNVT_time_stamp	48
4.81	SNVT_zerospans	49
4.82	SNVT_magcard	49
4.83	SNVT_elapsed_tm.....	52
4.84	SNVT_alarm.....	52
4.85	SNVT_currency.....	53
4.86	SNVT_file_pos.....	54
4.87	SNVT_muldiv.....	54
4.88	SNVT_obj_request	54
4.89	SNVT_obj_status.....	55
4.90	SNVT_preset.....	56
4.91	SNVT_switch.....	57
4.92	SNVT_trans_table	58

4.93	SNVT_override.....	58
4.94	SNVT_pwr_fact.....	58
4.95	SNVT_pwr_fact_f.....	59
4.96	SNVT_density.....	59
4.97	SNVT_density_f.....	59
4.98	SNVT_rpm.....	59
4.99	SNVT_hvac_emerg.....	59
4.100	SNVT_angle_deg.....	59
4.101	SNVT_temp_p.....	59
4.102	SNVT_temp_setpt.....	60
4.103	SNVT_time_sec.....	60
4.104	SNVT_hvac_mode.....	60
4.105	SNVT_occupancy.....	60
4.106	SNVT_area.....	61
4.107	SNVT_hvac_overid.....	61
4.108	SNVT_hvac_status.....	61
4.109	SNVT_press_p.....	62
4.110	SNVT_address.....	62
4.111	SNVT_scene.....	62
4.112	SNVT_scene_cfg.....	63
4.113	SNVT_setting.....	63
4.114	SNVT_evap_state.....	64
4.115	SNVT_therm_mode.....	64
4.116	SNVT_defr_mode.....	64
4.117	SNVT_defr_term.....	64
4.118	SNVT_defr_state.....	64
4.119	SNVT_time_min.....	64
4.120	SNVT_time_hour.....	64
4.121	SNVT_ph.....	65
4.122	SNVT_ph_f.....	65
4.123	SNVT_chlr_status.....	65
4.124	SNVT_tod_event.....	66
4.125	SNVT_smo_obscur.....	66
4.126	SNVT_fire_test.....	66
4.127	SNVT_temp_ror.....	66
4.128	SNVT_fire_init.....	66
4.129	SNVT_fire_indcte.....	66
4.130	SNVT_time_zone.....	67
4.131	SNVT_earth_pos.....	68
4.132	SNVT_reg_val.....	69
4.133	SNVT_reg_val_ts.....	69
4.134	SNVT_volt_ac.....	70
4.135	SNVT_amp_ac.....	70
4.136	SNVT_turbidity.....	70
4.137	SNVT_turbidity_f.....	71
4.138	SNVT_hvac_type.....	71
4.139	SNVT_elec_kwh_l.....	71
4.140	SNVT_temp_diff_p.....	71
4.141	SNVT_ctrl_req.....	71
4.142	SNVT_ctrl_resp.....	72
4.143	SNVT_ptz.....	72
4.144	SNVT_privacyzone.....	73
4.145	SNVT_pos_ctrl.....	73

4.146	SNVT_enthalpy.....	74
4.147	SNVT_gfci_status.....	74
4.148	SNVT_motor_state.....	74
4.149	SNVT_pumpset_mn.....	75
4.150	SNVT_ex_control.....	75
4.151	SNVT_pumpset_sn.....	76
4.152	SNVT_pump_sensor.....	77
4.153	SNVT_abs_humid.....	78
4.154	SNVT_flow_p.....	78
4.155	SNVT_dev_c_mode.....	78
4.156	SNVT_valve_mode.....	78
4.157	SNVT_alarm_2.....	79
4.158	SNVT_state_64.....	79
4.159	SNVT_nv_type.....	84
4.160	SNVT_ent_opmode.....	84
4.161	SNVT_ent_state.....	84
4.162	SNVT_ent_status.....	85
4.163	SNVT_flow_dir.....	86
4.164	SNVT_hvac_satsts.....	87
4.165	SNVT_dev_status.....	87
4.166	SNVT_dev_fault.....	90
4.167	SNVT_dev_maint.....	92
4.168	SNVT_date_event.....	94
4.169	SNVT_sched_val.....	94
4.170	SNVT_sec_state.....	95
4.171	SNVT_sec_status.....	95
4.172	SNVT_sblnd_state.....	95
4.173	SNVT_rac_ctrl.....	96
4.174	SNVT_rac_req.....	98
4.175	SNVT_count_32.....	99
4.176	SNVT_clothes_w_c.....	99
4.177	SNVT_clothes_w_m.....	101
4.178	SNVT_clothes_w_s.....	102
4.179	SNVT_clothes_w_a.....	104
4.180	SNVT_multiplier_s.....	106
4.181	SNVT_switch_2.....	107
4.182	SNVT_color_2.....	108
4.183	SNVT_log_status.....	109
4.184	SNVT_time_stamp_p.....	109
4.185	SNVT_log_fx_request.....	110
4.186	SNVT_log_fx_status.....	110
4.187	SNVT_log_request.....	110
4.188	SNVT_enthalpy_d.....	111
4.189	SNVT_amp_ac_mil.....	111
4.190	SNVT_time_hour_p.....	111
4.191	SNVT_lamp_status.....	111
4.192	SNVT_environment.....	117
4.193	SNVT_geo_loc.....	117
4.194	SNVT_program_status.....	118
4.195	SNVT_load_offsets.....	118
4.196	SNVT_Wm2_p.....	119
4.197	SNVT_safe_1.....	119
4.198	SNVT_safe_2.....	121

4.199	SNVT_safe_4.....	122
4.200	SNVT_safe_8.....	124
4.201	SNVT_time_val_2.....	125
4.202	SNVT_time_offset.....	126
4.203	SNVT_sched_exc.....	126
4.204	SNVT_sched_status.....	127
4.205	SNVT_mass_flow.....	127
4.206	SNVT_mass_flow_f.....	127
4.207	SNVT_time_min_p.....	128
4.208	SNVT_stat_control.....	128
4.209	SNVT_faults.....	128
4.210	SNVT_control_data.....	130
4.211	SNVT_power_profile.....	131
4.212	SNVT_version.....	131
4.213	SNVT_control_cfg.....	131
4.214	SNVT_fault_limits.....	132
4.215	SNVT_scene_def.....	133
4.216	SNVT_lux_2.....	133
4.217	SNVT_temp_setpt_2.....	134
5	Standard configuration-property type — SCPT.....	135
5.1	Introduction.....	135
5.2	SCPTactFbDly.....	135
5.3	SCPTalmClrT1.....	135
5.4	SCPTalmClrT2.....	135
5.5	SCPTalmIhbT.....	136
5.6	SCPTalmSetT1.....	136
5.7	SCPTalmSetT2.....	136
5.8	SCPTdefOutput.....	136
5.9	SCPTdriveT.....	136
5.10	SCPThighLimit1.....	136
5.11	SCPThighLimit2.....	136
5.12	SCPThystHigh1.....	137
5.13	SCPThystHigh2.....	137
5.14	SCPThystLow1.....	137
5.15	SCPThystLow2.....	137
5.16	SCPTinFbDly.....	137
5.17	SCPTinvrtOut.....	137
5.18	SCPTlocation.....	137
5.19	SCPTlowLimit1.....	138
5.20	SCPTlowLimit2.....	138
5.21	SCPTmaxRnge.....	138
5.22	SCPTmaxRcvT.....	138
5.23	SCPTmaxSndT.....	138
5.24	SCPTminRnge.....	138
5.25	SCPTminSndT.....	138
5.26	SCPTnwrkCnfg.....	139
5.27	SCPToffset.....	139
5.28	SCPTsndDelta.....	139
5.29	SCPTtrnsTbIX.....	139
5.30	SCPTtrnsTbIY.....	139
5.31	SCPToffDely.....	139
5.32	SCPTgain.....	139

5.33	SCPTovrBehave	140
5.34	SCPTovrValue.....	140
5.35	SCPTbypassTime.....	140
5.36	SCPTmanOvrTime	140
5.37	SCPTHumSetpt	140
5.38	SCPTmaxFlowHeat	140
5.39	SCPTfireInitType.....	141
5.40	SCPTsmokeNomSens	141
5.41	SCPTsmokeDayAlrmLim	141
5.42	SCPTactuatorType.....	141
5.43	SCPTlimitCO2	141
5.44	SCPTminDeltaAngl	141
5.45	SCPTdirection	142
5.46	SCPTdriveTime	142
5.47	SCPTductArea.....	142
5.48	SCPTminDeltaFlow.....	142
5.49	SCPTmaxRcvTime.....	142
5.50	SCPTmaxSendTime	142
5.51	SCPTmaxSetpoint.....	143
5.52	SCPTmaxFlow.....	143
5.53	SCPTminSendTime	143
5.54	SCPTminSetpoint	143
5.55	SCPTminFlow	143
5.56	SCPTminFlowHeat.....	143
5.57	SCPTminFlowStby.....	143
5.58	SCPTnomAirFlow	144
5.59	SCPTnomAngle	144
5.60	SCPTnumValves.....	144
5.61	SCPTsetPnts	144
5.62	SCPToemType	144
5.63	SCPTminDeltaRH	144
5.64	SCPTminDeltaCO2	144
5.65	SCPTminDeltaTemp.....	145
5.66	SCPTsensConstTmp	145
5.67	SCPTgainVAV.....	145
5.68	SCPTsensConstVAV	145
5.69	SCPToffsetCO2.....	145
5.70	SCPToffsetRH.....	145
5.71	SCPToffsetTemp	145
5.72	SCPTdefltBehave.....	146
5.73	SCPTpwrUpDelay.....	146
5.74	SCPTpwrUpState	146
5.75	SCPT HVAC Mode	146
5.76	SCPTcoolSetpt	146
5.77	SCPTcoolLowerSP	146
5.78	SCPTcoolUpperSP	147
5.79	SCPTheatSetpt.....	147
5.80	SCPTheatLowerSP	147
5.81	SCPTheatUpperSP.....	147
5.82	SCPTlimitChlrCap	147
5.83	SCPTluxSetpoint.....	147
5.84	SCPTstep	148
5.85	SCPTonOffHysteresis.....	148

5.86	SCPTclOffDelay	148
5.87	SCPTclOnDelay.....	148
5.88	SCPTpowerupState.....	148
5.89	SCPTminDeltaLevel.....	148
5.90	SCPTreflection.....	148
5.91	SCPTfieldCalib.....	149
5.92	SCPTholdTime.....	149
5.93	SCPTstepValue	149
5.94	SCPTmaxOut	149
5.95	SCPTsceneNmbr	149
5.96	SCPTfadeTime	149
5.97	SCPTdelayTime.....	149
5.98	SCPTmainReplica.....	150
5.99	SCPTupdateRate.....	150
5.100	SCPTsummerTime	150
5.101	SCPTwinterTime	150
5.102	SCPTmanualAllowed.....	150
5.103	SCPTdefWeekMask.....	150
5.104	SCPTdayDateIndex.....	151
5.105	SCPTtimeEvent.....	151
5.106	SCPTmodeHrtBt.....	151
5.107	SCPTdefrostMode.....	152
5.108	SCPTmaxDefrstTime.....	152
5.109	SCPTdrainDelay.....	152
5.110	SCPTinjDelay	152
5.111	SCPTmaxDefrstTemp.....	152
5.112	SCPTstrtupDelay	152
5.113	SCPTtermTimeTemp	152
5.114	SCPTpumpDownDelay	153
5.115	SCPTsuperHtReflnit.....	153
5.116	SCPTstrtupOpen	153
5.117	SCPTsuperHtRefMin	153
5.118	SCPTrefrigGlide	153
5.119	SCPTsuperHtRefMax.....	153
5.120	SCPTrefrigType.....	154
5.121	SCPTthermMode.....	154
5.122	SCPTdayNightCntrl.....	154
5.123	SCPTdiffNight	154
5.124	SCPThighLimTemp.....	154
5.125	SCPThighLimDly.....	155
5.126	SCPTcutOutValue	155
5.127	SCPTairTemp1Day	155
5.128	SCPTsmokeNightAlrmLim	155
5.129	SCPTlowLimTemp.....	155
5.130	SCPTlowLimDly	155
5.131	SCPTdiffValue.....	155
5.132	SCPTairTemp1Night	156
5.133	SCPTairTemp1Alrm	156
5.134	SCPThighLimDefrdly.....	156
5.135	SCPTdeltaNight.....	156
5.136	SCPTrunHrInit.....	156
5.137	SCPTrunHrAlarm	156
5.138	SCPTenergyCntlnit	156

5.139	SCPTsmokeDayPreAlrmLim	157
5.140	SCPTdebounce	157
5.141	SCPTsmokeNightPreAlrmLim	157
5.142	SCPTzoneNum	157
5.143	SCPTthermAlrmROR	157
5.144	SCPTvisOutput	157
5.145	SCPTaudOutput	157
5.146	SCPTflashFreq	158
5.147	SCPTinstallDate	158
5.148	SCPTmaintDate	158
5.149	SCPTmanfDate	158
5.150	SCPTfireTxt1	158
5.151	SCPTfireTxt2	158
5.152	SCPTfireTxt3	158
5.153	SCPTthermThreshold	159
5.154	SCPTfireIndicate	159
5.155	SCPTtimeZone	159
5.156	SCPTprimeVal	159
5.157	SCPTsecondVal	159
5.158	SCPTsceneOffset	159
5.159	SCPTnomRPM	159
5.160	SCPTnomFreq	160
5.161	SCPTrampUpTm	160
5.162	SCPTrampDownTm	160
5.163	SCPTdefScale	160
5.164	SCPTregName	160
5.165	SCPTbaseValue	160
5.166	SCPTdevMajVer	160
5.167	SCPTdevMinVer	161
5.168	SCPTobjMajVer	161
5.169	SCPTobjMinVer	161
5.170	SCPT HVAC Type	161
5.171	SCPTtimeout	161
5.172	SCPTcontrolPriority	161
5.173	SCPTdeviceGroupID	161
5.174	SCPTmaxPrivacyZones	162
5.175	SCPTmaxCameraPrepositions	162
5.176	SCPTdefaultPanTiltZoomSpeeds	162
5.177	SCPTdefaultAutoPanSpeed	162
5.178	SCPTautoAnswer	162
5.179	SCPTdialString	162
5.180	SCPTserialNumber	162
5.181	SCPTnormalRotationalSpeed	163
5.182	SCPTstandbyRotationalSpeed	163
5.183	SCPTpartNumber	163
5.184	SCPTdischargeAirCoolingSetpoint	163
5.185	SCPTdischargeAirHeatingSetpoint	163
5.186	SCPTmaxSupplyFanCapacity	163
5.187	SCPTminSupplyFanCapacity	163
5.188	SCPTmaxReturnExhaustFanCapacity	164
5.189	SCPTminReturnExhaustFanCapacity	164
5.190	SCPTductStaticPressureSetpoint	164
5.191	SCPTmaxDuctStaticPressureSetpoint	164

5.192	SCPTminDuctStaticPressureSetpoint.....	164
5.193	SCPTductStaticPressureLimit.....	164
5.194	SCPTbuildingStaticPressureSetpoint	164
5.195	SCPTreturnFanStaticPressureSetpoint.....	165
5.196	SCPTfanDifferentialSetpoint.....	165
5.197	SCPTmixedAirLowLimitSetpoint.....	165
5.198	SCPTmixedAirTempSetpoint.....	165
5.199	SCPTminOutdoorAirFlowSetpoint.....	165
5.200	SCPToutdoorAirTempSetpoint	165
5.201	SCPToutdoorAirEnthalpySetpoint.....	165
5.202	SCPTdiffTempSetpoint.....	166
5.203	SCPTexhaustEnablePosition.....	166
5.204	SCPTspaceHumSetpoint	166
5.205	SCPTdischargeAirDewpointSetpoint.....	166
5.206	SCPTmaxDischargeAirCoolingSetpoint	166
5.207	SCPTminDischargeAirCoolingSetpoint.....	166
5.208	SCPTmaxDischargeAirHeatingSetpoint.....	166
5.209	SCPTminDischargeAirHeatingSetpoint	167
5.210	SCPTcoolingLockout	167
5.211	SCPTheatingLockout.....	167
5.212	SCPTcoolingResetEnable.....	167
5.213	SCPTheatingResetEnable	167
5.214	SCPTsetpoint.....	167
5.215	SCPTtemperatureHysteresis	167
5.216	SCPTcontrolTemperatureWeighting.....	168
5.217	SCPTpwmPeriod.....	168
5.218	SCPTdefrostInternalSchedule	168
5.219	SCPTdefrostStart.....	168
5.220	SCPTdefrostCycles	168
5.221	SCPTminDefrostTime	168
5.222	SCPTmaxDefrostTime	168
5.223	SCPTdefrostFanDelay.....	169
5.224	SCPTdefrostRecoveryTime.....	169
5.225	SCPTdefrostHold	169
5.226	SCPTdefrostDetect.....	169
5.227	SCPTscheduleInternal.....	169
5.228	SCPTtempOffset.....	169
5.229	SCPTaudibleLevel	169
5.230	SCPTscrollSpeed.....	170
5.231	SCPTbrightness.....	170
5.232	SCPTorientation	170
5.233	SCPTinstalledLevel.....	170
5.234	SCPTpumpCharacteristic	170
5.235	SCPTminPressureSetpoint	170
5.236	SCPTmaxPressureSetpoint.....	171
5.237	SCPTminFlowSetpoint.....	171
5.238	SCPTmaxFlowSetpoint	171
5.239	SCPTdeviceControlMode	171
5.240	SCPTminRemotePressureSetpoint.....	171
5.241	SCPTmaxRemotePressureSetpoint	171
5.242	SCPTminRemoteFlowSetpoint	171
5.243	SCPTmaxRemoteFlowSetpoint.....	172
5.244	SCPTminRemoteTempSetpoint	172

5.245	SCPTmaxRemoteTempSetpoint	172
5.246	SCPTcontrolSignal	172
5.247	SCPTnightPurgePosition	172
5.248	SCPTfreeCoolPosition	173
5.249	SCPTvalveFlowCharacteristic	173
5.250	SCPTvalveOperatingMode	173
5.251	SCPTemergencyPosition	173
5.252	SCPTblockProtectionTime	173
5.253	SCPTminStroke	173
5.254	SCPTmaxStroke	173
5.255	SCPTnvType	174
5.256	SCPTmaxNVLength	174
5.257	SCPTnvDynamicAssignment	174
5.258	SCPTsafExtCnfg	174
5.259	SCPTemergCnfg	174
5.260	SCPTsluiceCnfg	175
5.261	SCPTfanOperation	175
5.262	SCPTminFlowUnit	175
5.263	SCPTmaxFlowUnit	175
5.264	SCPTminFlowHeatStby	175
5.265	SCPTminFlowUnitStby	175
5.266	SCPToffsetFlow	176
5.267	SCPTareaDuctHeat	176
5.268	SCPTnomAirFlowHeat	176
5.269	SCPTgainVAVHeat	176
5.270	SCPTnumDampers	176
5.271	SCPTminFlowUnitHeat	176
5.272	SCPTsaturationDelay	176
5.273	SCPTeffectivePeriod	177
5.274	SCPTscheduleDates	177
5.275	SCPTschedule	178
5.276	SCPTscheduleTimeValue	179
5.277	SCPTvalueDefinition	179
5.278	SCPTvalueName	179
5.279	SCPTweeklySchedule	180
5.280	SCPTscheduleName	180
5.281	SCPTvalveStroke	180
5.282	SCPTvalveNominalSize	180
5.283	SCPTvalveKvs	180
5.284	SCPTvalveType	181
5.285	SCPTactuatorCharacteristic	181
5.286	SCPTtrnsTblX2	181
5.287	SCPTtrnsTblY2	181
5.288	SCPTcombFlowCharacteristic	181
5.289	SCPTtrnsTblX3	181
5.290	SCPTtrnsTblY3	182
5.291	SCPTrunTimeAlarm	182
5.292	SCPTtimePeriod	182
5.293	SCPTpulseValue	183
5.294	SCPTnumDigits	183
5.295	SCPTnvPriority	183
5.296	SCPTdefaultSetting	183
5.297	SCPTlowLimit1Enable	183

5.298	SCPTlowLimit2Enable.....	183
5.299	SCPTclockCalibration.....	184
5.300	SCPTneuronId.....	184
5.301	SCPThighLimit1Enable.....	184
5.302	SCPThighLimit2Enable.....	184
5.303	SCPTahamApplianceModel.....	184
5.304	SCPTdefInput.....	184
5.305	SCPTname1.....	185
5.306	SCPTscene.....	185
5.307	SCPTsceneTiming.....	186
5.308	SCPTname2.....	186
5.309	SCPTname3.....	186
5.310	SCPTbuttonPressAction.....	187
5.311	SCPTbuttonColor.....	187
5.312	SCPTbuttonRepeatInterval.....	188
5.313	SCPTbuttonHoldAction.....	188
5.314	SCPTpwrSendOnDelta.....	189
5.315	SCPTsceneName.....	189
5.316	SCPTmaxPower.....	189
5.317	SCPTifaceDesc.....	189
5.318	SCPTmonInterval.....	189
5.319	SCPTlinkPowerDetectEnable.....	190
5.320	SCPTscanTime.....	190
5.321	SCPTdevListDesc.....	190
5.322	SCPTdevListEntry.....	190
5.323	SCPTlogCapacity.....	191
5.324	SCPTlogNotificationThreshold.....	191
5.325	SCPTlogSize.....	191
5.326	SCPTlogType.....	191
5.327	SCPTfanInEnable.....	191
5.328	SCPTlogTimestampEnable.....	192
5.329	SCPTlogHighLimit.....	192
5.330	SCPTlogLowLimit.....	192
5.331	SCPTmaxFanIn.....	192
5.332	SCPTlogMinDeltaTime.....	192
5.333	SCPTlogMinDeltaValue.....	193
5.334	SCPTpollRate.....	193
5.335	SCPTsourceAddress.....	193
5.336	SCPTlogRecord.....	194
5.337	SCPTlogFileHeader.....	195
5.338	SCPTlogAlarmThreshold.....	195
5.339	SCPTlogRequest.....	196
5.340	SCPTlogResponse.....	196
5.341	SCPTlightingGroupEnable.....	197
5.342	SCPTsceneColor.....	197
5.343	SCPTbkupSchedule.....	197
5.344	SCPTOLCLimits.....	198
5.345	SCPTlampPower.....	198
5.346	SCPTdeviceOutSelection.....	199
5.347	SCPTenableStatusMsg.....	199
5.348	SCPTmaxLevelVolt.....	201
5.349	SCPTgeoLocation.....	201
5.350	SCPTprogName.....	202

5.351	SCPTprogRevision	202
5.352	SCPTprogSelect.....	202
5.353	SCPTprogSourceLocation	202
5.354	SCPTprogFileIndexes	203
5.355	SCPTprogCmdHistory.....	203
5.356	SCPTprogStateHistory	203
5.357	SCPTnsdsFbIndex	204
5.358	SCPTcurrentSenseEnable	204
5.359	SCPTmeasurementInterval.....	204
5.360	SCPTlightingGroupMembership	204
5.361	SCPTloadControlOffset	204
5.362	SCPTprogErrorHistory.....	205
5.363	SCPTnvUsage	205
5.364	SCPTscheduleSunday	205
5.365	SCPTscheduleMonday.....	206
5.366	SCPTscheduleTuesday	206
5.367	SCPTscheduleWednesday.....	206
5.368	SCPTscheduleThursday.....	206
5.369	SCPTscheduleFriday	207
5.370	SCPTscheduleSaturday	207
5.371	SCPToccupancyBehavior	207
5.372	SCPTtimeSource	208
5.373	SCPTscheduleException	208
5.374	SCPTscheduleHoliday	208
5.375	SCPTrandomizationInterval.....	208
5.376	SCPTsunriseTime.....	208
5.377	SCPTsunsetTime	209
5.378	SCPTschedulerOptions	209
5.379	SCPToccupancyThresholds.....	209
5.380	SCPTpowerProfile	210
5.381	SCPTcontrolCfg.....	210
5.382	SCPTlimits	210
5.383	SCPTsceneDef.....	210
5.384	SCPTactuatorFeedbackDisplayMode.....	210
5.385	SCPTcontactType	210
5.386	SCPTcompensation	211
5.387	SCPTpiCoefficients	211
5.388	SCPTsensorCal	211
5.389	SCPTstartOptimize	212
5.390	SCPTslatType.....	212
5.391	SCPTpositionSetting	212
5.392	SCPTwindSpeedLimit.....	212
5.393	SCPTminSupplyAirTemp	212
5.394	SCPTmaxSupplyAirTemp.....	213
5.395	SCPTfanEnable.....	213
5.396	SCPTfanControl	213
5.397	SCPTstartEndDrivePos	213
5.398	SCPTminMaxDrivePos	214
5.399	SCPTsetPnts2	214
5.400	SCPTlearnEnable.....	214
5.401	SCPTminOut.....	214
5.402	SCPTstepTime	214
5.403	SCPThumanEyeAdapt.....	214

5.404	SCPTpositionSettingDeAct.....	215
5.405	SCPTthermoSetting.....	215
5.406	SCPTairQualControlMode.....	215
5.407	SCPToutRoomTempDiff.....	215
5.408	SCPTsignalPresenceMode.....	215
6	Standard Enumeration Type.....	216
6.1	Introduction.....	216
6.2	days_of_week_t.....	216
6.3	discrete_levels_t.....	216
6.4	telcom_states_t.....	216
6.5	config_source_t.....	217
6.6	file_request_t.....	217
6.7	file_status_t.....	217
6.8	alarm_type_t.....	218
6.9	priority_level_t.....	219
6.10	currency_t.....	219
6.11	object_request_t.....	221
6.12	learn_mode_t.....	222
6.13	override_t.....	222
6.14	emerg_t.....	222
6.15	hvac_t.....	222
6.16	occup_t.....	223
6.17	hvac_overid_t.....	223
6.18	scene_t.....	225
6.19	scene_config_t.....	226
6.20	setting_t.....	226
6.21	evap_t.....	226
6.22	therm_mode_t.....	226
6.23	defrost_mode_t.....	226
6.24	defrost_term_t.....	227
6.25	defrost_state_t.....	227
6.26	chiller_t.....	227
6.27	fire_test_t.....	227
6.28	fire_initiator_t.....	228
6.29	fire_indicator_t.....	228
6.30	calendar_type_t.....	228
6.31	reg_val_unit_t.....	229
6.32	hvac_hvt_t.....	230
6.33	control_resp_t.....	230
6.34	pan_dir_t.....	230
6.35	tilt_dir_t.....	231
6.36	zoom_t.....	231
6.37	privacyzone_t.....	231
6.38	cam_func_t.....	231
6.39	cam_act_t.....	231
6.40	gfc_i_status_t.....	232
6.41	motor_state_t.....	232
6.42	boolean_t.....	232
6.43	ex_control_t.....	232
6.44	unit_temp_t.....	233
6.45	device_c_mode_t.....	233
6.46	valve_mode_t.....	233

6.47	nv_type_category_t	234
6.48	ent_opmode_cmd_t	234
6.49	ent_cmd_t	235
6.50	flow_direction_t	235
6.51	device_select_t	236
6.52	event_mode_type_t	236
6.53	manager_subordinate_t	236
6.54	fan_operation_t	236
6.55	days_of_month_t	236
6.56	months_t	240
6.57	sec_status_t	240
6.58	sec_state_t	241
6.59	interval_of_month_t	242
6.60	sblnd_cmd_source_t	242
6.61	sblnd_error_t	243
6.62	rail_audio_sensor_type_t	243
6.63	rail_audio_type_t	244
6.64	appl_cwc_t	245
6.65	appl_cws_t	245
6.66	appl_cwp_t	245
6.67	appl_rin_t	246
6.68	aham_appl_t	246
6.69	button_action_t	246
6.70	char_encoding_t	248
6.71	switch_state_t	248
6.72	color_encoding_t	249
6.73	log_status_t	250
6.74	log_type_t	250
6.75	timestamp_t	250
6.76	log_record_t	250
6.77	point_status_t	250
6.78	message_code_t	251
6.79	log_access_req_t	251
6.80	log_response_code_t	251
6.81	address_type_t	251
6.82	olc_select_t	251
6.83	program_state_t	252
6.84	file_type_t	252
6.85	program_status_error_t	252
6.86	time_source_t	253
6.87	scheduler_status_t	253
6.88	stat_manage_t	253
6.89	olc_state_t	254
6.90	contact_type_t	254
6.91	fb_display_mode_t	254
6.92	presence_mode_t	254
7	Standard functional profiles	255
7.1	General	255
7.2	Functional Profile List	255
7.3	SFPTnodeObject (0)	255
7.4	SFPTopenLoopSensor (1)	257
7.5	SFPTclosedLoopSensor (2)	259

7.6	SFPTopenLoopActuator (3)	261
7.7	SFPTclosedLoopActuator (4)	263
7.8	SFPTcalendar (6)	265
7.9	SFPTscheduler (7)	266
7.10	SFPTisiMonitorPoint (8)	267
7.11	SFPTdataLogger (9)	268
7.12	SFPTschedulerSimple (17)	271
7.13	SFPTchannelMonitor (132)	271
7.14	SFPTdeviceMonitor (136)	275
7.15	SFPTchannelContinuityMonitor (137)	276
7.16	SFPTstaticProgrammable (410)	277
7.17	SFPTanalogInput (520)	278
7.18	SFPTanalogOutput (521)	278
7.19	SFPTlightSensor (1010)	278
7.20	SFPTglobalSolarRadiation (1015)	279
7.21	SFPTpressureSensor (1030)	279
7.22	SFPT HVAC Temp Sensor (1040)	281
7.23	SFPTfrostSensor (1042)	281
7.24	SFPT HVAC Relative Humidity Sensor (1050)	282
7.25	SFPTtrainSensor (1051)	282
7.26	SFPToccupancySensor (1060)	283
7.27	SFPTisiOccupancySensor (1061)	283
7.28	SFPTco2Sensor (1070)	285
7.29	SFPTairVelocitySensor (1083)	285
7.30	SFPTutilityDataLoggerRegister (2110)	287
7.31	SFPTutilityMeter (2201)	288
7.32	SFPTlampActuator (3040)	289
7.33	SFPTisiLampActuator (3041)	290
7.34	SFPTconstantLightController (3050)	293
7.35	SFPToccupancyController (3071)	294
7.36	SFPTswitch (3200)	295
7.37	SFPTscenePanel (3250)	296
7.38	SFPTsceneController (3251)	296
7.39	SFPTpartitionWallController (3252)	297
7.40	SFPTisiKeypad (3253)	298
7.41	SFPTrealTimeKeeper (3300)	300
7.42	SFPTrealTimeBasedScheduler (3301)	301
7.43	SFPTlightingPanelController (3401)	301
7.44	SFPToutdoorLuminairController (3512)	302
7.45	SFPTsmartLuminaireController (3514)	303
7.46	SFPThardwiredGasDetectionShutdown (4310)	304
7.47	SFPThardwiredFireAlarmShutdown (4311)	305
7.48	SFPThardwiredRecirculation (4312)	306
7.49	SFPThardwiredFullVentilation (4313)	306
7.50	SFPThardwiredSafetyInstrumentedSystemSIS (4314)	307
7.51	SFPTidentifierSensor (5035)	307
7.52	SFPTentryExit (5051)	308
7.53	SFPTmodemController (5091)	310
7.54	SFPTtelephoneDirectory (5092)	311
7.55	SFPTvariableSpeedMotorDrive (6010)	311
7.56	SFPTsunblindActuator (6110)	312
7.57	SFPTsunblindController (6111)	313
7.58	SFPTisiSunblindActuator (6112)	317

7.59	SFPTvariableAirVolume (8010)	319
7.60	SFPTfanCoilUnit (8020)	323
7.61	SFPTroofTopUnit (8030)	325
7.62	SFPTchiller (8040)	328
7.63	SFPTheatPump (8051)	330
7.64	SFPTthermostat (8060)	332
7.65	SFPTchilledCeilingController (8070)	335
7.66	SFPTunitVentilatorController (8080)	341
7.67	SFPTsccCommandModule (8090)	348
7.68	SFPTdamperActuator (8110)	352
7.69	SFPTpumpController (8120)	355
7.70	SFPTthvacValvePositioner (8131)	358
7.71	SFPTboilerController (8301)	364
7.72	SFPTspaceComfortController (8500)	366
7.73	SFPTsccFanCoil (8501)	374
7.74	SFPTsccVAV (8502)	381
7.75	SFPTsccHeatPump (8503)	389
7.76	SFPTsccRooftop (8504)	397
7.77	SFPTsccUnitVentilator (8505)	404
7.78	SFPTsccChilledCeiling (8506)	412
7.79	SFPTsccRadiator (8507)	420
7.80	SFPTsccAHU (8508)	428
7.81	SFPTsccSelfContained (8509)	435
7.82	SFPTwallUnit (8540)	443
7.83	SFPTunitHeater (8550)	448
7.84	SFPTdischargeAirController (8610)	451
7.85	SFPTrailcarAudioController (9111)	461
7.86	SFPTrailcarAudioSensor (9112)	462
7.87	SFPTrefrigDisplayCaseControllerDefrost (10010)	463
7.88	SFPTrefrigDisplayCaseControllerEvaporator (10011)	464
7.89	SFPTrefrigDisplayCaseControllerThermostat (10012)	467
7.90	SFPTfireSmokeDamperActuator (11001)	469
7.91	SFPTsmokeFireInitiatorIntelli (11002)	470
7.92	SFPTsmokeFireInitiatorConvent (11003)	472
7.93	SFPTthermalFireInitiator (11004)	473
7.94	SFPTpullStationFireInitiator (11005)	474
7.95	SFPTaudibleFireIndicator (11006)	475
7.96	SFPTvisibleFireIndicator (11007)	477
7.97	SFPTuniversalFireInitiator (11010)	478
7.98	SFPTuniversalFireIndicator (11011)	479
7.99	SFPTgeneratorSet (13110)	480
7.100	SFPTautomaticTransferSwitch (13120)	482
7.101	SFPTelevatorPositionIndicator (14011)	485
7.102	SFPTelevatorHallLantern (14012)	486
7.103	SFPTelevatorArrivalGong (14013)	487
7.104	SFPTelevatorDirectionLantern (14014)	488
7.105	SFPTelevatorFireSystemsPort (14041)	489
7.106	SFPTelevatorVoiceAnnouncer (14061)	490
7.107	SFPTclothesWasherDomestic (15011)	490
7.108	SFPTpresenceDetection (16101)	492
7.109	SFPTwindowMonitoring (16102)	492
7.110	SFPTdewpointMonitoring (16103)	492
7.111	SFPTairTemperatureSensor (16104)	493

7.112	SFPToutdoorBrightnessMeasurement (16105)	493
7.113	SFPTroomBrightnessMeasurement (16106)	494
7.114	SFPTairQualityMeasurement (16107)	494
7.115	SFPTwindVelocityMeasurement (16108)	495
7.116	SFPTprecipitationDetection (16109)	495
7.117	SFPTlightActuator (16201)	495
7.118	SFPTsunshadeActuator (16202)	496
7.119	SFPTcontrolDriveActuator (16203)	497
7.120	SFPTcontrolDriveActuatorFan (16204)	497
7.121	SFPTactuateLight (16401)	498
7.122	SFPTactuateSunshade (16402)	499
7.123	SFPTactuateDrive (16403)	499
7.124	SFPTactuateDriveFan (16404)	500
7.125	SFPTactuateTemperatureSetpoint (16405)	500
7.126	SFPTselectRoomUtilisationType (16406)	501
7.127	SFPTsignalPresence (16407)	501
7.128	SFPToccupancyEvaluator (16501)	502
7.129	SFPTcontrolRoomUtilisationTypes (16502)	502
7.130	SFPTtimeProgram (16503)	503
7.131	SFPTpartitionWallControl (16504)	503
7.132	SFPTlightControl (16505)	504
7.133	SFPTstairwellLightControl (16506)	505
7.134	SFPTautomaticLightController (16507)	505
7.135	SFPTdaylightDependentLighting (16508)	505
7.136	SFPTconstantLightControl (16509)	506
7.137	SFPTtwilightControl (16510)	507
7.138	SFPTpriorityControl (16511)	508
7.139	SFPTautomaticTwilightControl (16512)	509
7.140	SFPTautomaticSolarControl (16513)	510
7.141	SFPTslatTracking (16514)	511
7.142	SFPTshadowCorrection (16515)	512
7.143	SFPTautomaticThermalControl (16516)	512
7.144	SFPTweatherProtection (16517)	513
7.145	SFPTenergyModeSelection (16518)	514
7.146	SFPTenergyModeSelectionWithStartOpt (16519)	515
7.147	SFPTsetpointCalculation (16520)	516
7.148	SFPTfunctionSelection (16521)	517
7.149	SFPTtemperatureControl (16522)	518
7.150	SFPTroomSupplyAirTemperatureMC (16523)	519
7.151	SFPTroomSupplyAirTemperatureSC (16524)	520
7.152	SFPTfanControl (16525)	521
7.153	SFPTsequenceControl (16526)	522
7.154	SFPTmanipulatedValueLimiting (16527)	522
7.155	SFPTairQualityControl (16528)	523
7.156	SFPTnightTimeCooling (16529)	524
7.157	SFPTvolumeFlowControl (16530)	525
8	Device-interface files	526
8.1	Introduction	526
8.2	Text Device-Interface File Format	526
8.2.1	General	526
8.2.2	Header Section	527
9	Standard method of file transfer between devices	541

9.1	Introduction	541
9.2	Windowed Transfer Protocol.....	541
9.3	Setting-Up a File Transfer.....	542
9.4	Random Access	543
9.5	Delayed Responses.....	543
9.6	Completing a Data Exchange	543
9.7	Completing a File Transfer.....	544
9.8	Multicast File Transfers.....	544
9.9	Concurrency	544
9.10	SNVT_file_req Data Structure	544
9.11	SNVT_file_status Data Structure	546
9.12	SNVT_file_pos Data Structure	546
9.13	Application Protocol Data Unit Structure.....	547
	Annex A (informative) Protocol Processor Types.....	548
	Annex B (normative) Standard Program Identifier (SPID) List.....	549
B.1	General	549
B.2	Manufacturer Field	549
B.3	Device Class Field	549
B.4	Usage Field	561
B.4.1	General	561
B.4.2	Usage ID.....	561
B.5	Channel Type Field.....	562
	Annex C (informative) Standard Transceiver-Type Identifiers.....	563
	Bibliography	564