HVAC_ComCnvRx_T | 2022-10-17

HVAC_ComCnvRx_T

[COMP]

I [HVAC_ComCnvRx_T]

1 Function Definition

1.1 Purpose

HVAC Communication Conversion of Receive Signal

1.2 Introduction

HVAC Communication Conversion of Receive Signal

2 Function Description

2.1 Behavior in normal mode

Figure 1 HVAC_ComCnvRx [HVAC_ComCnvRx]

Figure 2 HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_10ms_sys [HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_10ms_sys]

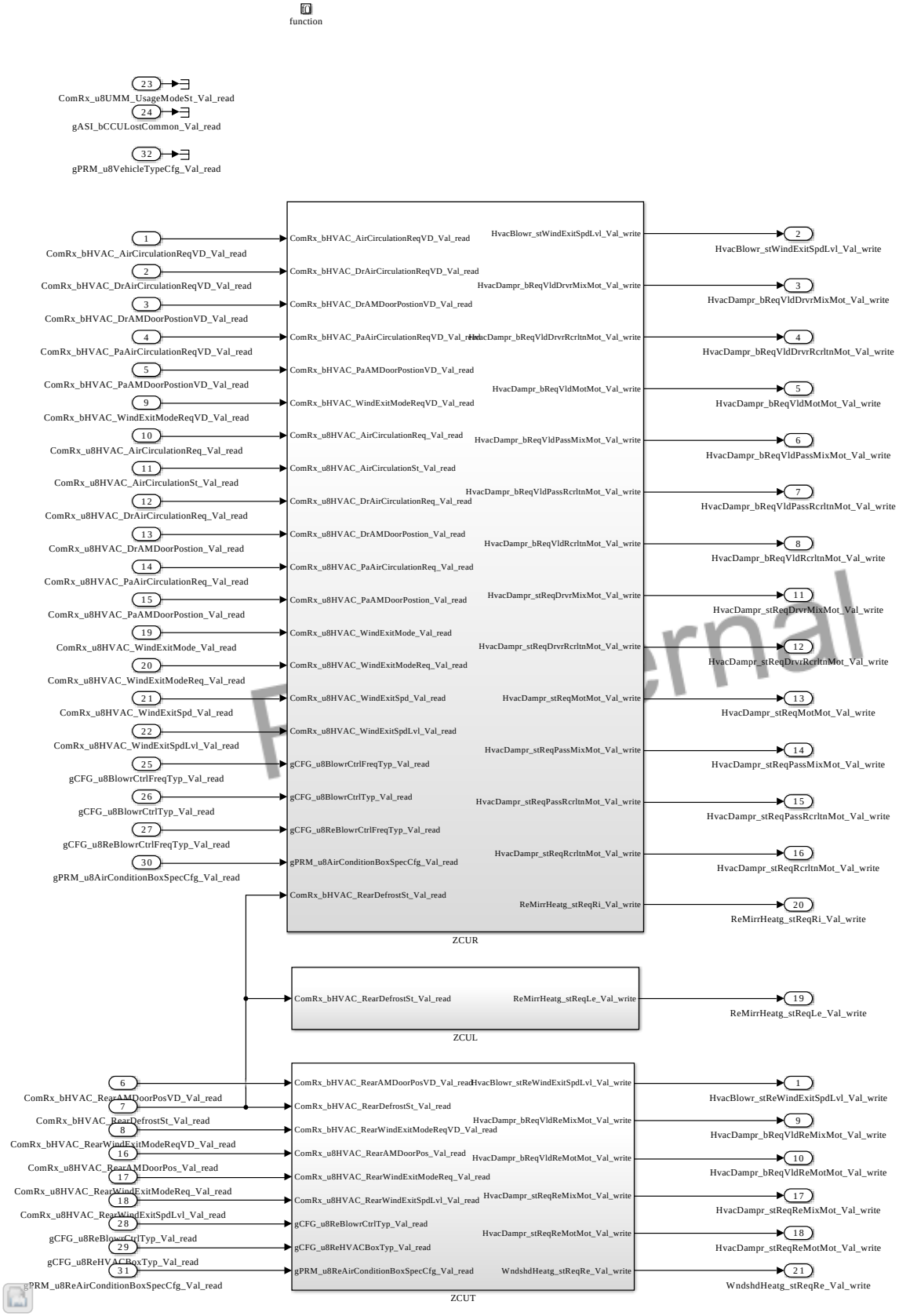

Figure 3 HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_10ms_sys_ZCUL [HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_10ms_sys_ZCUL]

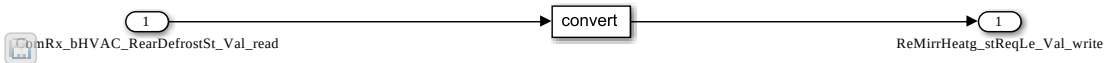

Figure 4 HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_10ms_sys_ZCUR [HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_10ms_sys_ZCUR]

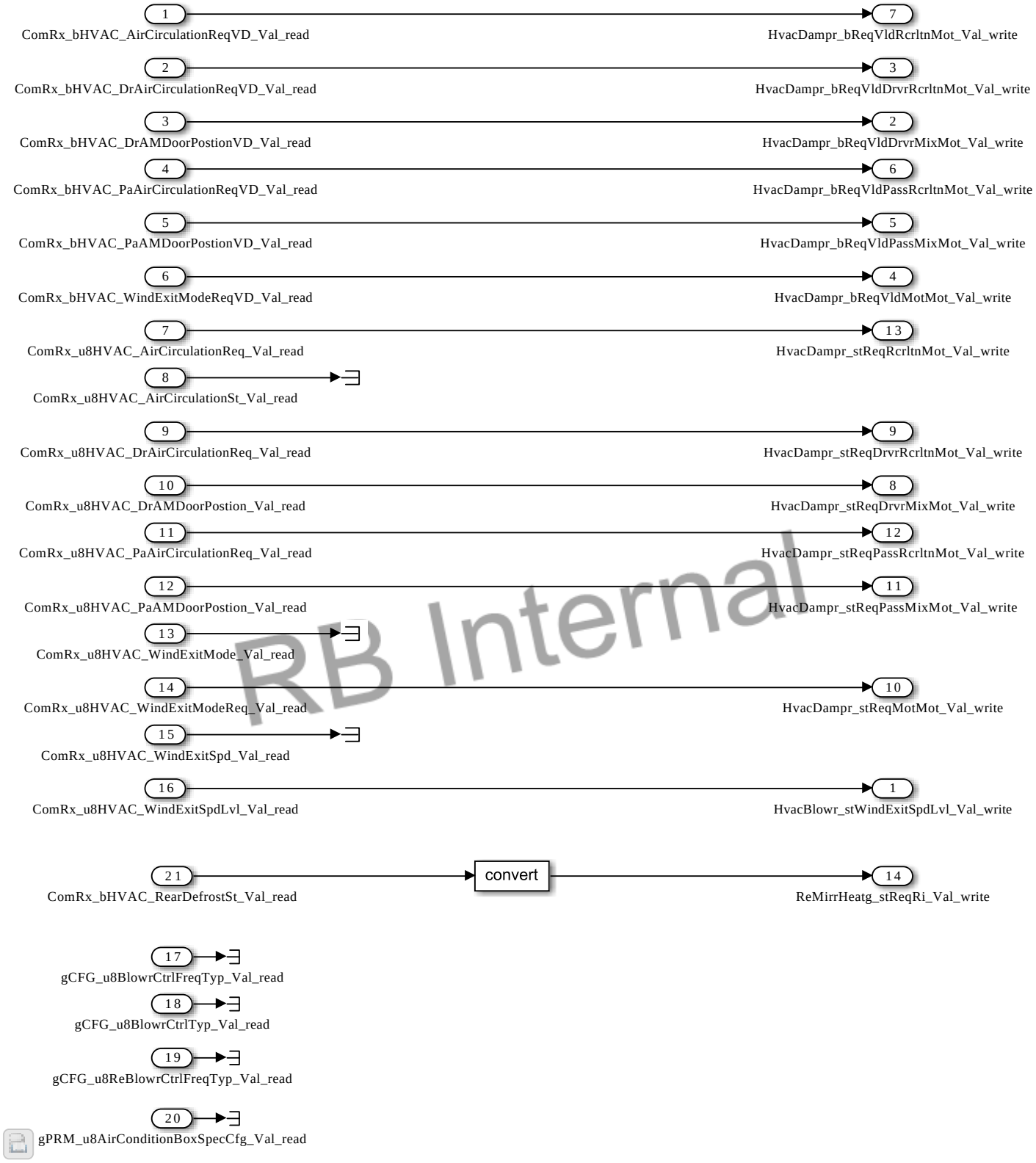

Figure 5 HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_10ms_sys_ZCUT [HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_10ms_sys_ZCUT]

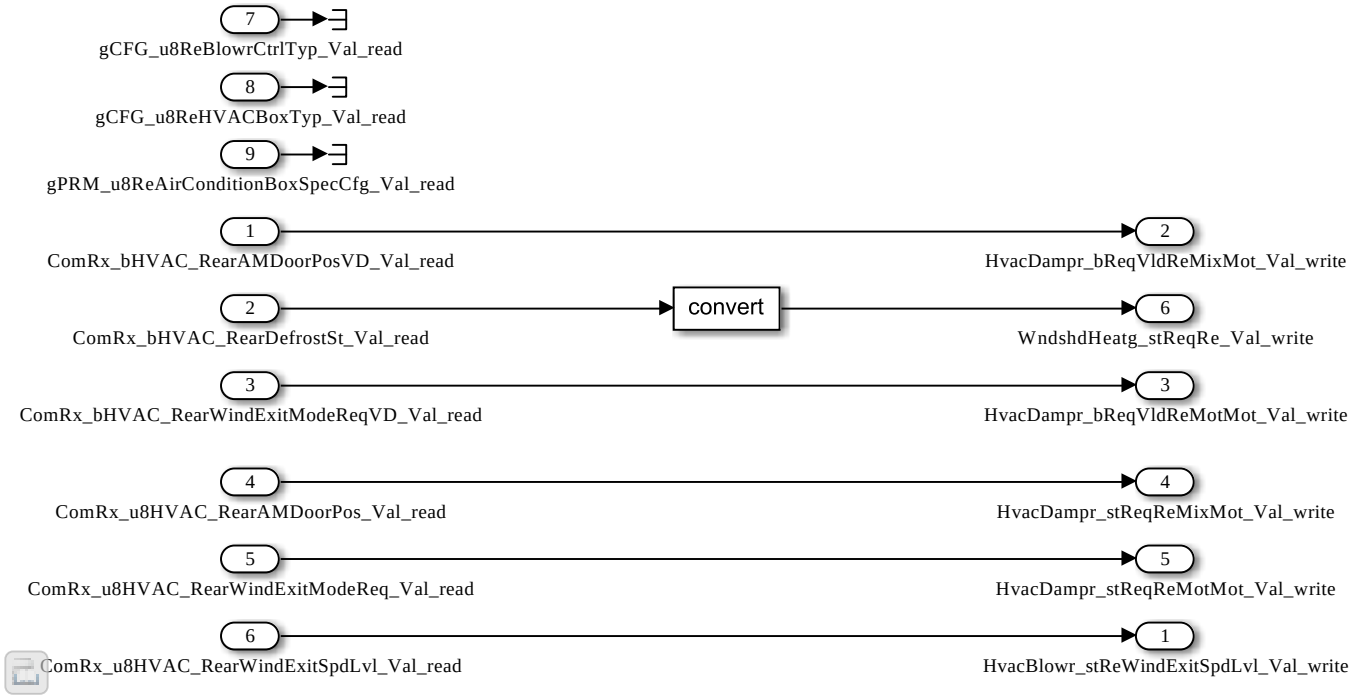

Figure 6 HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_Init [HVAC_ComCnvRx_HVAC_ComCnvRx_Runnable_Init]

Table 1 Data Types for port interfaces [PortInterfaceDataTypes]

Port	AccessMode	Interface	DE	Datatype
ComRx_bHVAC_AirCirculationReqVD	ExplicitReceive	ComRx_bHVAC_AirCirculationReqVD	Val	boolean
ComRx_bHVAC_DrAirCirculationReqVD	ExplicitReceive	ComRx_bHVAC_DrAirCirculationReqVD	Val	boolean
ComRx_bHVAC_DrAMDoorPostionVD	ExplicitReceive	ComRx_bHVAC_DrAMDoorPostionVD	Val	boolean
ComRx_bHVAC_PaAirCirculationReqVD	ExplicitReceive	ComRx_bHVAC_PaAirCirculationReqVD	Val	boolean
ComRx_bHVAC_PaAMDoorPostionVD	ExplicitReceive	ComRx_bHVAC_PaAMDoorPostionVD	Val	boolean
ComRx_bHVAC_RearAMDoorPosVD	ExplicitReceive	ComRx_bHVAC_RearAMDoorPosVD	Val	boolean
ComRx_bHVAC_RearDefrostSt	ExplicitReceive	ComRx_bHVAC_RearDefrostSt	Val	boolean
ComRx_bHVAC_RearWindExitModeReqVD	ExplicitReceive	ComRx_bHVAC_RearWindExitModeReqVD	Val	boolean
ComRx_bHVAC_WindExitModeReqVD	ExplicitReceive	ComRx_bHVAC_WindExitModeReqVD	Val	boolean
ComRx_u8HVAC_AirCirculationReq	ExplicitReceive	ComRx_u8HVAC_AirCirculationReq	Val	uint8
ComRx_u8HVAC_AirCirculationSt	ExplicitReceive	ComRx_u8HVAC_AirCirculationSt	Val	uint8
ComRx_u8HVAC_DrAirCirculationReq	ExplicitReceive	ComRx_u8HVAC_DrAirCirculationReq	Val	uint8
ComRx_u8HVAC_DrAMDoorPostion	ExplicitReceive	ComRx_u8HVAC_DrAMDoorPostion	Val	uint8

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Port	AccessMode	Interface	DE	Datatype
ComRx_u8HVAC_PaAirCirculationReq	ExplicitReceive	ComRx_u8HVAC_PaAirCirculationReq	Val	uint8
ComRx_u8HVAC_PaAMDoorPostion	ExplicitReceive	ComRx_u8HVAC_PaAMDoorPostion	Val	uint8
ComRx_u8HVAC_RearAMDoorPos	ExplicitReceive	ComRx_u8HVAC_RearAMDoorPos	Val	uint8
ComRx_u8HVAC_RearWindExitModeReq	ExplicitReceive	ComRx_u8HVAC_RearWindExitModeReq	Val	uint8
ComRx_u8HVAC_RearWindExitSpdLvl	ExplicitReceive	ComRx_u8HVAC_RearWindExitSpdLvl	Val	uint8
ComRx_u8HVAC_WindExitMode	ExplicitReceive	ComRx_u8HVAC_WindExitMode	Val	uint8
ComRx_u8HVAC_WindExitModeReq	ExplicitReceive	ComRx_u8HVAC_WindExitModeReq	Val	uint8
ComRx_u8HVAC_WindExitSpd	ExplicitReceive	ComRx_u8HVAC_WindExitSpd	Val	uint8
ComRx_u8HVAC_WindExitSpdLvl	ExplicitReceive	ComRx_u8HVAC_WindExitSpdLvl	Val	uint8
ComRx_u8UMM_UsageModeSt	ExplicitReceive	ComRx_u8UMM_UsageModeSt	Val	uint8
gASI_bCCULostCommon	ExplicitReceive	gASI_bCCULostCommon	Val	boolean
gCFG_u8BlowrCtrlFreqTyp	ExplicitReceive	gCFG_u8BlowrCtrlFreqTyp	Val	uint8
gCFG_u8BlowrCtrlTyp	ExplicitReceive	gCFG_u8BlowrCtrlTyp	Val	uint8
gCFG_u8ReBlowrCtrlFreqTyp	ExplicitReceive	gCFG_u8ReBlowrCtrlFreqTyp	Val	uint8
gCFG_u8ReBlowrCtrlTyp	ExplicitReceive	gCFG_u8ReBlowrCtrlTyp	Val	uint8
gCFG_u8ReHVACBoxTyp	ExplicitReceive	gCFG_u8ReHVACBoxTyp	Val	uint8
gPRM_u8AirConditionBoxSpecCfg	ExplicitReceive	gPRM_u8AirConditionBoxSpecCfg	Val	uint8
gPRM_u8ReAirConditionBoxSpecCfg	ExplicitReceive	gPRM_u8ReAirConditionBoxSpecCfg	Val	uint8
gPRM_u8VehicleTypeCfg	ExplicitReceive	gPRM_u8VehicleTypeCfg	Val	uint8
HvacBlowr_stReWindExitSpdLvl	ExplicitSend	HvacBlowr_stReWindExitSpdLvl	Val	uint8
HvacBlowr_stWindExitSpdLvl	ExplicitSend	HvacBlowr_stWindExitSpdLvl	Val	uint8
HvacDampr_bReqVldDrvrMixMot	ExplicitSend	HvacDampr_bReqVldDrvrMixMot	Val	boolean
HvacDampr_bReqVldDrvrRcrltnMot	ExplicitSend	HvacDampr_bReqVldDrvrRcrltnMot	Val	boolean
HvacDampr_bReqVldMotMot	ExplicitSend	HvacDampr_bReqVldMotMot	Val	boolean
HvacDampr_bReqVldPassMixMot	ExplicitSend	HvacDampr_bReqVldPassMixMot	Val	boolean
HvacDampr_bReqVldPassRcrltnMot	ExplicitSend	HvacDampr_bReqVldPassRcrltnMot	Val	boolean
HvacDampr_bReqVldRcrltnMot	ExplicitSend	HvacDampr_bReqVldRcrltnMot	Val	boolean
HvacDampr_bReqVldReMixMot	ExplicitSend	HvacDampr_bReqVldReMixMot	Val	boolean
HvacDampr_bReqVldReMotMot	ExplicitSend	HvacDampr_bReqVldReMotMot	Val	boolean
HvacDampr_stReqDrvrMixMot	ExplicitSend	HvacDampr_stReqDrvrMixMot	Val	uint8
HvacDampr_stReqDrvrRcrltnMot	ExplicitSend	HvacDampr_stReqDrvrRcrltnMot	Val	uint8

Port	AccessMode	Interface	DE	Datatype
HvacDampr_stReqMotMot	ExplicitSend	HvacDampr_stReqMotMot	Val	uint8
HvacDampr_stReqPassMix-Mot	ExplicitSend	HvacDampr_stReqPassMix-Mot	Val	uint8
HvacDampr_stReqPassR-crltnMot	ExplicitSend	HvacDampr_stReqPassR-crltnMot	Val	uint8
HvacDampr_stReqRcrltnMot	ExplicitSend	HvacDampr_stReqRcrltnMot	Val	uint8
HvacDampr_stReqReMixMot	ExplicitSend	HvacDampr_stReqReMixMot	Val	uint8
HvacDampr_stReqReMot-Mot	ExplicitSend	HvacDampr_stReqReMot-Mot	Val	uint8
ReMirrHeatg_stReqLe	ExplicitSend	ReMirrHeatg_stReqLe	Val	uint8
ReMirrHeatg_stReqRi	ExplicitSend	ReMirrHeatg_stReqRi	Val	uint8
WndshdHeatg_stReqRe	ExplicitSend	WndshdHeatg_stReqRe	Val	uint8

3 Conversion forms

Table 2 Conversion forms

Name	Category	Unit	Contents int
CM_Fac_q0p001	LINEAR		f(phys) := 1000phys
CM_Frq_q0p1_Hz	LINEAR	Hz	f(phys) := 10phys
CM_I_q0p25_mA	LINEAR	mA	f(phys) := 4phys
CM_N_q1_rpm	LINEAR		f(phys) := 1phys
CM_P_q2_hPa	LINEAR	hPa	f(phys) := 1phys / 2
CM_Perc_q0p0122_Perc	LINEAR	%	f(phys) := 81.92phys
CM_T_q0p1_o273p14_DegC	LINEAR	DegC	f(phys) := (10phys--2731.3999999999996)
CM_Ti_q0p001_s	LINEAR		f(phys) := 1000phys
CM_Ti_q1_us	LINEAR	us	f(phys) := 1phys
CM_U_q1_mV	LINEAR	mV	f(phys) := 1phys
CM_boolean	TEXTTABLE		(FALSE, 0), (TRUE, 1)
Dem_DTCFormatType	TEXTTABLE		(DEM_DTC_FORMAT_OBD, 0), (DEM_DTC_FORMAT_UDS, 1), (DEM_DTC_FORMAT_J1939, 2)
Dem_DebounceResetStatusType	TEXTTABLE		(DEM_DEBOUNCE_STATUS_FREEZE, 0), (DEM_DEBOUNCE_STATUS_RESET, 1)
Dem_EventStatusType	TEXTTABLE		(DEM_EVENT_STATUS_PASSED, 0), (DEM_EVENT_STATUS_FAILED, 1), (DEM_EVENT_STATUS_PREPASSED, 2), (DEM_EVENT_STATUS_PREFAILED, 3), (DEM_EVENT_STATUS_FDC_THRESHOLD_REACHED, 4), (DEM_EVENT_STATUS_PASSED_CONDITIONS_NOT_FULFILLED, 5), (DEM_EVENT_STATUS_FAILED_CONDITIONS_NOT_FULFILLED, 6), (DEM_EVENT_STATUS_PREPASSED_CONDITIONS_NOT_FULFILLED, 7), (DEM_EVENT_STATUS_PREFAILED_CONDITIONS_NOT_FULFILLED, 8)
Dem_UdsStatusByteType	SCALE_LINEAR_AND_TEXTTABLE		
Identcl	IDENTICAL		
boolean_CompuMethod	TEXTTABLE		(FALSE, 0), (TRUE, 1)

II Production Note

Table 3 Configuration chosen for DocuNG

Parameter	Value
User	
Project Name	GAC_ZCUT_FRM_C0Sample
Generator Mode	Continue on non-fatal error
Ascet graphic generator engine	UnifiedGraphicGenerator
Matlab graphic generator engine	UnifiedGraphicGenerator
DocType	CDGBookAllDetailed
Condition Evaluation	true
Title Page Logo	
Print Algorithms To Review	true
Support Fallback Language	true
Print List Of Converted System Constants	true
Create Label Alias Mapping	true
HTML	false
PDF	true
PDF: Language	EN - English
PDF: Links in Graphics	true
PDF: Line Numbers	false
PDF: Confidential Level 2	true
PDF: Docu Security Option	false

Table 4 Version Information

Program Module	Version
Product	AEEE-Pro 2020.2.0