Application Descriptions

7

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9

Terminal Unit Functional Blocks

Property Identifiers

Summary:

This document is a part of the HVAC Application Interworking Standard. It specifies the standardised Property Identifiers for each Functional Block / Interface Object

Version 02.02.02 is a KNX Approved Standard.

This document is part of the KNX Specifications v2.1.

Document Updates

Version	Date	Modifications
001.18	2001.xx.xx	New document
001.19-21		stepwise completed
001.22	2002.07.17	adapted to main documents
2.00	2002.11.29	Property Identifiers of parameters of the controller FB's corrected
2.01	2003.08.15	Adapted to the Functional Block documents
2.2	2009.06.18	Update in view of publication in the KNX Specifications v2.0.
2.2.01	2010.11.29	Added Parameters TempSupplyAirSetpMin and TempSupplyAirSetpMax to VDTTU according WGI discussion [WGI00061].
02.02.02	2013.10.29	Editorial updates for the publication of KNX Specifications 2.1.

References

None.

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Contents

1 Introduction

1.1 Scope

This document specifies the Property Identifiers for LTE-HEE Process Data (runtime interworking) and Parameters / Diagnostic data used in the data-interfaces of HVAC Terminal Unit Functional Blocks. This document is part of the KNX HVAC Application Interworking Standard.

1.2 Structure of the document

The chapters of the document is chosen in order to give a relation to:
Volume 7 Application Descriptions
Part 13 Terminal Unit Functional Blocks

So:
Chapter 2.1 of this document corresponds to Chapter 1 of Part 13
Chapter 2.2 of this document corresponds to Chapter 2 of Part 13

Within these chapters the subchapters again correspond:
Chapter 2.1.3 of this document corresponds to chapter 3.3 of Chapter 1 of Part 13
Chapter 2.2.4 of this document corresponds to chapter 3.4 of Chapter 2 of Part 13

2 HVAC Property Identifiers

2.1 TU Controller

2.1.1 Empty

Due to compatibility with other documents

2.1.2 Fancoil Control

Object Name: **FCC**

Object Type: **258**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
73	EnergyDemAH	DPT_EnergyDemWater	211.100
74	EnergyDemAC	DPT_EnergyDemWater	211.100
Parameters and Diagnostic Data (individual addressing only)			
101	Apartment_x (eff space zone)	DPT_UcountValue8_Z	202.002
102	Room_y (eff space zone)	DPT_UcountValue8_Z	202.002
103	SubZone_z (eff space zone)	DPT_UcountValue8_Z	202.002
104	Apartment_u (scheduler zone)	DPT_UcountValue8_Z	202.002
105	Room_v (scheduler zone)	DPT_UcountValue8_Z	202.002
106	SubZone_w (scheduler zone)	DPT_UcountValue8_Z	202.002
107	Apartment_m (management zone)	DPT_UcountValue8_Z	202.002
108	Room_n (management zone)	DPT_UcountValue8_Z	202.002
109	SubZone_o (management zone)	DPT_UcountValue8_Z	202.002
110	OutsideSensorZone_f	DPT_UcountValue8_Z	202.002
111	OutsideSensorZone_g	DPT_UcountValue8_Z	202.002
113	DistrSegmC_d	DPT_UcountValue8_Z	202.002
115	DistrSegmH_b	DPT_UcountValue8_Z	202.002
121	BUSActuatorCSA_ON/OFF	DPT_Switch	1.001
122	BUSActuatorCSB_ON/OFF	DPT_Switch	1.001
123	BUSActuatorFA_ON/OFF	DPT_Switch	1.001
124	BUSActuatorFS_ON/OFF	DPT_Switch	1.001
125	BUSActuatorHSA_ON/OFF	DPT_Switch	1.001
126	BUSActuatorHSB_ON/OFF	DPT_Switch	1.001
127	ControlSequence	DPT_ChangeoverMode	20.107
133	FanDwellTimeDeadZone	DPT_TimePeriodMin	7.006
134	FanInDeadZone	DPT_FanMode	20.111
135	FanRunTimeDeadZone	DPT_TimePeriodMin	7.006
136	FanSpeed#1OFF	DPT_Percent_U8	5.004
137	FanSpeed#1ON	DPT_Percent_U8	5.004
138	FanSpeed#2OFF	DPT_Percent_U8	5.004
139	FanSpeed#2ON	DPT_Percent_U8	5.004
140	FanSpeed#3OFF	DPT_Percent_U8	5.004
141	FanSpeed#3ON	DPT_Percent_U8	5.004
142	FanSpeed#4OFF	DPT_Percent_U8	5.004
143	FanSpeed#4ON	DPT_Percent_U8	5.004
144	FanSpeed#5OFF	DPT_Percent_U8	5.004
145	FanSpeed#5ON	DPT_Percent_U8	5.004
146	FanSpeedDeadZone	DPT_Percent_U8	5.004
128	FreshAirMinValue	DPT_Percent_U8	5.004
129	SplitCoolDefValue	DPT_Percent_U8	5.004
130	SplitHeatDefValue	DPT_Percent_U8	5.004
132	TempDischargeAirMin	DPT_TempHVACAbs_Z	205.100
131	TempFrostAlarm	DPT_TempHVACAbs_Z	205.100

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
150	ContrModeAct	DPT_HVACContrMode	20.105
151	HeatCoolMode	DPT_Heat/Cool	1.100
152	HVACModeAct	DPT_HVACMode	20.102
153	TempRoomSetpAct	DPT_TempHVACAbs_Z	205.100
154	ValueEnergyDem	DPT_Percent_V8	6.001
155-169	leave open, for future standardized datapoints (see Volume 10 Part 1)		

2.1.3 Water Heat Pump Control for Ringwater

Object Name: WHPC

Object Type: 259

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
73	EnergyDemAH	DPT_EnergyDemWater	211.100
Parameters and Diagnostic Data (individual addressing only)			
101	Apartment_x (eff space zone)	DPT_UcountValue8_Z	202.002
102	Room_y (eff space zone)	DPT_UcountValue8_Z	202.002
103	SubZone_z (eff space zone)	DPT_UcountValue8_Z	202.002
104	Apartment_u (scheduler zone)	DPT_UcountValue8_Z	202.002
105	Room_v (scheduler zone)	DPT_UcountValue8_Z	202.002
106	SubZone_w (scheduler zone)	DPT_UcountValue8_Z	202.002
107	Apartment_m (management zone)	DPT_UcountValue8_Z	202.002
108	Room_n (management zone)	DPT_UcountValue8_Z	202.002
109	SubZone_o (management zone)	DPT_UcountValue8_Z	202.002
110	OutsideSensorZone_f	DPT_UcountValue8_Z	202.002
111	OutsideSensorZone_g	DPT_UcountValue8_Z	202.002
122	BUSActuatorCP_ON/OFF	DPT_Switch	1.001
123	BUSActuatorFA_ON/OFF	DPT_Switch	1.001
124	BUSActuatorFS_ON/OFF	DPT_Switch	1.001
126	BUSActuatorHSB_ON/OFF	DPT_Switch	1.001
133	FanDwellTimeDeadZone	DPT_TimePeriodMin	7.006
134	FanInDeadZone	DPT_FanMode	20.111
135	FanRunTimeDeadZone	DPT_TimePeriodMin	7.006
136	FanSpeed#1OFF	DPT_Percent_U8	5.004
137	FanSpeed#1ON	DPT_Percent_U8	5.004
138	FanSpeed#2OFF	DPT_Percent_U8	5.004
139	FanSpeed#2ON	DPT_Percent_U8	5.004
140	FanSpeed#3OFF	DPT_Percent_U8	5.004
141	FanSpeed#3ON	DPT_Percent_U8	5.004
142	FanSpeed#4OFF	DPT_Percent_U8	5.004
143	FanSpeed#4ON	DPT_Percent_U8	5.004
144	FanSpeed#5OFF	DPT_Percent_U8	5.004
145	FanSpeed#5ON	DPT_Percent_U8	5.004
146	FanSpeedDeadZone	DPT_Percent_U8	5.004
128	FreshAirMinValue	DPT_Percent_U8	5.004
130	SplitHeatDefValue	DPT_Percent_U8	5.004
131	TempFrostAlarm	DPT_TempHVACAbs_Z	205.100
150	ContrModeAct	DPT_HVACContrMode	20.105
151	HeatCoolMode	DPT_Heat/Cool	1.100
152	HVACModeAct	DPT_HVACMode	20.102
153	TempRoomSetpAct	DPT_TempHVACAbs_Z	205.100
154	ValueEnergyDem	DPT_Percent_V8	6.001
155-169	leave open, for future standardized datapoints (see Volume 10 Part 1)		

2.1.4 Split Unit Control

Object Name: **SPUC**

Object Type: **260**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
73	EnergyDemAH	DPT_EnergyDemWater	211.100
Parameters and Diagnostic Data (individual addressing only)			
101	Apartment_x (eff space zone)	DPT_UcountValue8_Z	202.002
102	Room_y (eff space zone)	DPT_UcountValue8_Z	202.002
103	SubZone_z (eff space zone)	DPT_UcountValue8_Z	202.002
104	Apartment_u (scheduler zone)	DPT_UcountValue8_Z	202.002
105	Room_v (scheduler zone)	DPT_UcountValue8_Z	202.002
106	SubZone_w (scheduler zone)	DPT_UcountValue8_Z	202.002
107	Apartment_m (management zone)	DPT_UcountValue8_Z	202.002
108	Room_n (management zone)	DPT_UcountValue8_Z	202.002
109	SubZone_o (management zone)	DPT_UcountValue8_Z	202.002
110	OutsideSensorZone_f	DPT_UcountValue8_Z	202.002
111	OutsideSensorZone_g	DPT_UcountValue8_Z	202.002
122	BUSActuatorCP_ON/OFF	DPT_Switch	1.001
123	BUSActuatorFA_ON/OFF	DPT_Switch	1.001
124	BUSActuatorFS_ON/OFF	DPT_Switch	1.001
126	BUSActuatorHSB_ON/OFF	DPT_Switch	1.001
133	FanDwellTimeDeadZone	DPT_TimePeriodMin	7.006
134	FanInDeadZone	DPT_FanMode	20.111
135	FanRunTimeDeadZone	DPT_TimePeriodMin	7.006
136	FanSpeed#1OFF	DPT_Percent_U8	5.004
137	FanSpeed#1ON	DPT_Percent_U8	5.004
138	FanSpeed#2OFF	DPT_Percent_U8	5.004
139	FanSpeed#2ON	DPT_Percent_U8	5.004
140	FanSpeed#3OFF	DPT_Percent_U8	5.004
141	FanSpeed#3ON	DPT_Percent_U8	5.004
142	FanSpeed#4OFF	DPT_Percent_U8	5.004
143	FanSpeed#4ON	DPT_Percent_U8	5.004
144	FanSpeed#5OFF	DPT_Percent_U8	5.004
145	FanSpeed#5ON	DPT_Percent_U8	5.004
146	FanSpeedDeadZone	DPT_Percent_U8	5.004
128	FreshAirMinValue	DPT_Percent_U8	5.004
130	SplitHeatDefValue	DPT_Percent_U8	5.004
131	TempFrostAlarm	DPT_TempHVACAbs_Z	205.100
150	ContrModeAct	DPT_HVACContrMode	20.105
151	HeatCoolMode	DPT_Heat/Cool	1.100
152	HVACModeAct	DPT_HVACMode	20.102
153	TempRoomSetpAct	DPT_TempHVACAbs_Z	205.100
154	ValueEnergyDem	DPT_Percent_V8	6.001
155-169	leave open, for future standardized datapoints (see Volume 10 Part 1)		

2.1.5 Radiator and Chilled Ceiling Room Control

Object Name: **RCCRC**

Object Type: **257**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
71	EnergyDemRD	DPT_EnergyDemWater	211.100
72	EnergyDemCC	DPT_EnergyDemWater	211.100
Parameters and Diagnostic Data (individual addressing only)			
101	Apartment_x (eff space zone)	DPT_UcountValue8_Z	202.002
102	Room_y (eff space zone)	DPT_UcountValue8_Z	202.002
103	SubZone_z (eff space zone)	DPT_UcountValue8_Z	202.002
104	Apartment_u (scheduler zone)	DPT_UcountValue8_Z	202.002
105	Room_v (scheduler zone)	DPT_UcountValue8_Z	202.002
106	SubZone_w (scheduler zone)	DPT_UcountValue8_Z	202.002
107	Apartment_m (management zone)	DPT_UcountValue8_Z	202.002
108	Room_n (management zone)	DPT_UcountValue8_Z	202.002
109	SubZone_o (management zone)	DPT_UcountValue8_Z	202.002
110	OutsideSensorZone_f	DPT_UcountValue8_Z	202.002
112	DistrSegmC_c	DPT_UcountValue8_Z	202.002
114	DistrSegmH_a	DPT_UcountValue8_Z	202.002
121	BUSActuatorCSA_ON/OFF	DPT_Switch	1.001
122	BUSActuatorCSB_ON/OFF	DPT_Switch	1.001
125	BUSActuatorHSA_ON/OFF	DPT_Switch	1.001
126	BUSActuatorHSB_ON/OFF	DPT_Switch	1.001
127	ControlSequence	DPT_ChangeoverMode	20.107
129	SplitCoolDefValue	DPT_Percent_U8	5.004
130	SplitHeatDefValue	DPT_Percent_U8	5.004
131	TempFrostAlarm	DPT_TempHVACAbs_Z	205.100
150	ContrModeAct	DPT_HVACContrMode	20.105
151	HeatCoolMode	DPT_Heat/Cool	1.100
152	HVACModeAct	DPT_HVACMode	20.102
153	TempRoomSetpAct	DPT_TempHVACAbs_Z	205.100
154	ValueEnergyDem	DPT_Percent_V8	6.001
155-169	leave open, for future standardized datapoints (see Volume 10 Part 1)		

2.1.6 Radiator Room Control TU

Object Name: **RRCTU**

Object Type: **256**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
71	EnergyDemRD	DPT_EnergyDemWater	211.100
Parameters and Diagnostic Data (individual addressing only)			
101	Apartment_x (eff space zone)	DPT_UcountValue8_Z	202.002
102	Room_y (eff space zone)	DPT_UcountValue8_Z	202.002
103	SubZone_z (eff space zone)	DPT_UcountValue8_Z	202.002
104	Apartment_u (scheduler zone)	DPT_UcountValue8_Z	202.002
105	Room_v (scheduler zone)	DPT_UcountValue8_Z	202.002
106	SubZone_w (scheduler zone)	DPT_UcountValue8_Z	202.002
107	Apartment_m (management zone)	DPT_UcountValue8_Z	202.002
108	Room_n (management zone)	DPT_UcountValue8_Z	202.002
109	SubZone_o (management zone)	DPT_UcountValue8_Z	202.002
110	OutsideSensorZone_f	DPT_UcountValue8_Z	202.002
114	DistrSegmH_a	DPT_UcountValue8_Z	202.002
125	BUSActuatorHSA_ON/OFF	DPT_Switch	1.001
131	TempFrostAlarm	DPT_TempHVACAbs_Z	205.100
150	ContrModeAct	DPT_HVACContrMode	20.105
152	HVACModeAct	DPT_HVACMode	20.102
153	TempRoomSetpAct	DPT_TempHVACAbs_Z	205.100
154	ValueEnergyDem	DPT_Percent_V8	6.001
155-169	leave open, for future standardized datapoints (see Volume 10 Part 1)		

2.1.7 VAV Control Discharge Air

Object Name: VAVCDA

Object Type: 261

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
56	AirFlowMSExtr	DPT_HVACAirFlow_Z	203.104
71	EnergyDemRD	DPT_EnergyDemWater	211.100
72	EnergyDemCC	DPT_EnergyDemWater	211.100
73	EnergyDemAH	DPT_EnergyDemWater	211.100
74	EnergyDemAC	DPT_EnergyDemWater	211.100
75	EnergyDemAir	DPT_EnergyDemAir	223.100
Parameters and Diagnostic Data (individual addressing only)			
101	Apartment_x (eff space zone)	DPT_UcountValue8_Z	202.002
102	Room_y (eff space zone)	DPT_UcountValue8_Z	202.002
103	SubZone_z (eff space zone)	DPT_UcountValue8_Z	202.002
104	Apartment_u (scheduler zone)	DPT_UcountValue8_Z	202.002
105	Room_v (scheduler zone)	DPT_UcountValue8_Z	202.002
106	SubZone_w (scheduler zone)	DPT_UcountValue8_Z	202.002
107	Apartment_m (management zone)	DPT_UcountValue8_Z	202.002
108	Room_n (management zone)	DPT_UcountValue8_Z	202.002
109	SubZone_o (management zone)	DPT_UcountValue8_Z	202.002
112	DistrSegmC_c	DPT_UcountValue8_Z	202.002
113	DistrSegmC_d	DPT_UcountValue8_Z	202.002
114	DistrSegmH_a	DPT_UcountValue8_Z	202.002
115	DistrSegmH_b	DPT_UcountValue8_Z	202.002
116	DistrSegmV_e	DPT_UcountValue8_Z	202.002
121	BUSActuatorCSA_ON/OFF	DPT_Switch	1.001
122	BUSActuatorCSB_ON/OFF	DPT_Switch	1.001
123	BUSActuatorDA_ON/OFF	DPT_Switch	1.001
125	BUSActuatorHSA_ON/OFF	DPT_Switch	1.001
126	BUSActuatorHSB_ON/OFF	DPT_Switch	1.001
127	ControlSequence	DPT_ChangeoverMode	20.107
136	MaxAirFlowCool	DPT_HVACAirFlow_Z	203.104
137	MaxAirFlowHeat	DPT_HVACAirFlow_Z	203.104
138	MinAirFlowCool	DPT_HVACAirFlow_Z	203.104
139	MinAirFlowEconomy	DPT_HVACAirFlow_Z	203.104
140	MinAirFlowHeat	DPT_HVACAirFlow_Z	203.104
141	MinAirFlowStandby	DPT_HVACAirFlow_Z	203.104
142	NominalDischargeAirFlow	DPT_HVACAirFlow_Z	203.104
129	SplitCoolDefValue	DPT_Percent_U8	5.004
130	SplitHeatDefValue	DPT_Percent_U8	5.004
132	TempDischargeAirMin	DPT_TempHVACAbs_Z	205.100
131	TempFrostAlarm	DPT_TempHVACAbs_Z	205.100
148	AirFlowDischarge	DPT_HVACAirFlow_Z	203.104
150	ContrModeAct	DPT_HVACContrMode	20.105
151	HeatCoolMode	DPT_Heat/Cool	1.100
152	HVACModeAct	DPT_HVACMode	20.102

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
153	TempRoomSetpAct	DPT_TempHVACAbs_Z	205.100
154	ValueEnergyDem	DPT_Percent_V8	6.001
155-169	leave open, for future standardized datapoints (see Volume 10 Part 1)		

2.1.8 VAV Control Extract Air

Object Name: **VAVCEA**

Object Type: **262**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
Parameters and Diagnostic Data (individual addressing only)			
101	Apartment_x (eff space zone)	DPT_UcountValue8_Z	202.002
102	Room_y (eff space zone)	DPT_UcountValue8_Z	202.002
103	SubZone_z (eff space zone)	DPT_UcountValue8_Z	202.002
145	AirFlowDelta	DPT_Percent_U8	5.004
124	BUSActuatorEA_ON/OFF	DPT_Switch	1.001
143	NominalExtractAirFlow	DPT_HVACAirFlow_Z	203.104
144	RatioExtractDischarge	DPT_DecimalFactor	5.005
149	AirFlowExtract	DPT_HVACAirFlow_Z	203.104
155-169	leave open, for future standardized datapoints (see Volume 10 Part 1)		

2.2 TU Energy Demand Transformer

2.2.1 Empty

Due to compatibility with other documents

2.2.2 Radiator Heating Energy Demand Transformer TU

Object Name: **RHDTTU**

Object Type: **153**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
51	TempFlowWaterDemRHDTTU	DPT_TempFlowWaterDemAbs	210.100
Parameters and Diagnostic Data (individual addressing only)			
101	DistrSegmH	DPT_UcountValue8_Z	202.002
102	OutsideSensorZone	DPT_UcountValue8_Z	202.002
111	ValueEnergyDemAct	DPT_Percent_U8	5.004

2.2.3 Chilled Ceiling Energy Demand Transformer TU

Object Name: **CCDTTU**

Object Type: **216**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
51	TempFlowWaterDemCCDTTU	DPT_TempFlowWaterDemAbs	210.100
Parameters and Diagnostic Data (individual addressing only)			
101	DistrSegmC	DPT_UcountValue8_Z	202.002
102	OutsideSensorZone	DPT_UcountValue8_Z	202.002
111	ValueEnergyDemAct	DPT_Percent_U8	5.004

2.2.4 Air Heater Energy Demand Transformer TU

Object Name: **AHDTTU**

Object Type: **154**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
51	TempFlowWaterDemAHDTTU	DPT_TempFlowWaterDemAbs	210.100
Parameters and Diagnostic Data (individual addressing only)			
101	DistrSegmH	DPT_UcountValue8_Z	202.002
102	OutsideSensorZone	DPT_UcountValue8_Z	202.002
111	ValueEnergyDemAct	DPT_Percent_U8	5.004

2.2.5 Air Cooler Energy Demand Transformer TU

Object Name: **ACDTTU**

Object Type: **217**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
51	TempFlowWaterDemACDTTU	DPT_TempFlowWaterDemAbs	210.100
Parameters and Diagnostic Data (individual addressing only)			
101	DistrSegmC	DPT_UcountValue8_Z	202.002
102	OutsideSensorZone	DPT_UcountValue8_Z	202.002
111	ValueEnergyDemAct	DPT_Percent_U8	5.004

2.2.6 Ventilation Demand Transformer TU

Object Name: **VDTTU**

Object Type: **248**

Property Identifier	Datapoint Name	Datapoint Type Name	Datapoint Type Code
LTE-HEE process data (runtime interworking, zone addressing and individual addressing)			
51	TempSupplyAirSetpSet	DPT_TempSupplyAirSetpSet	224.100
52	ValueFreshAirSetp	DPT_RelValue_Z	202.001
Parameters and Diagnostic Data (individual addressing only)			
101	DistrSegmV	DPT_UcountValue8_Z	202.002
102	OutsideSensorZone	DPT_UcountValue8_Z	202.002
111	ValueEnergyDemAirActMin	DPT_Percent_V8	6.001
112	ValueEnergyDemAirActMax	DPT_Percent_V8	6.001
113	ValueFreshAirDemAct	DPT_RelValue_Z	202.001
114	TempSupplyAirSetpMin	DPT_TempHVACAbs_Z	205.100
115	TempSupplyAirSetpMax	DPT_TempHVACAbs_Z	205.100

