

## **Application Description**

**HVAC General Functional Blocks** 

**HVAC Interface Object Type Identifier** 

## Summary

This document defines the Identifiers for HVAC Interface Object Types.

Version 01.01.01 is a KNX Approved Standard.

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

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## **Document updates**

Version	Date	Modifications
0.1	2000.12.06	BKY, PLU, AHU document creation
0.2	2000.12.20	BKY identifiers for DHW FB's added
0.3	2001.07.09	BKY identifiers for Scheduler FB's added, HVACOPT added HIRCOPT, HZCOPT, DHWCOPT deleted
0.4	2001.11.28	BKY: new FB's for VAC added: CRC, CZC, SSLSTA, CDAUX; deleted: HVB, CVA, CVB, HCV
0.5	2001.12.20	BKY: CAL deleted; new: DHWCPS rename UDHWM (181) => UDHWSET rename VAVC -> VAVCSA (261) new VAVCEA (262), PMC (104), BOS (109) delete: UDHWTS (182), UDHWP (183), RRTS (114)
0.6	2002.02.07	BKY: rename AQSS (387) ->UAQSS; AHSS (388) -> URHSS new: HDAUXPER (146), CDAUXPER (210), ACOS (341), CFWTS (326), CRNWTS (327) deleted: URTSA, URTSR, UTD, UHM, UCPB, UCP new: UHRS, UHD
0.7	2002.02.22	BKY, rename OAD (362) -> ADA, CIV (357) -> CIVA OAHS (336) -> ORHS, RAHS (337) -> RRHS, SAHS (338) -> SARHS, RNAHS (339) -> RNARHS, deleted VAVD1 (363), VAVD2 (364)
1.0	2002.09.16	BKY, editorial corrections, new HVACEMS (108), UCOS (392), DATS (328), RTSA (385) TFI approved, updated for KNX Handbook 1.1
1.1	2004.12.21	BKY, new FTS (329), POOC (116), HOOA (353) editorial PMC (104) name corrected
1.1	2009.06.16	Update in view of publication in the KNX Specifications v2.0.
01.01.01	2013.10.29	Editorial updates for the publication of KNX Specifications 2.1.

Filename: 07\_10\_10 HVAC IOT Identifier v01.01.01 AS.docx

Version: 01.01.01

Status: Approved Standard

Savedate: 2013.10.29

Number of pages: 8

## 1 HVAC Interface Object Type Identifier

IO Type @	Functional Block	Remark
Range 100-127	HVAC common management	
100	RSMHD	Room Setpoint Manager HVAC-Mode Driven
101	RSMTD	Room Setpoint Manager Temperature Driven
102	SMAQ	Setpoint Manager Air Quality
103	SMRH	Setpoint Manager Relative Humidity
104	PMC	Program to HVAC Mode conversion
105-107	reserved	
108	HVACEMS	HVAC Emergency Mode Source
109	BOS	Building / Occ-Mode Source
110	HVACS	HVAC Mode Scheduler
111	DHWS	DHW Mode Scheduler
112	DHWCPS	DHW Circulation Pump Scheduler
113	ARTS	Absolute Room Temperature Scheduler
114	reserved	
115	HVACOPT	HVAC Optimiser
116	POOC	Position to ON/OFF Converter
117-119	reserved	
120	FTC	Flow Temperature Controller
121	SSLSTA	Setpoint Shift by Load Shedding & Tariff
122-127	reserved	
Range 128-143	HVAC-HWH Heat Production	
128	BUC	Burner Controller
129	BOC	Boiler Controller
130-135	reserved	for other producers
136	HPM	Heat Producer Manager
137	HPM-BST	Heat Producer Manager for Buffer Storage Tank
138	HPM-BST/BOC	Heat Producer Manager for BST in boiler sub-cascade
139-143	reserved	
Range 144-159	HVAC-HWH Heat Distribution and Heat Flow Demand Transformers and General Purpose Heat Flow Demand	

IO Type @	Functional Block	Remark
144	HFDM	Heat Flow Demand Manager
145	HDAUX	Auxiliary Heat Demand (flow temp demand)
146	HDAUXPER	Auxiliary Heat Demand (percent demand)
147-150	reserved	reserved for future Heat Flow Demand Transformers and Consumers
151	HDTRT	Heat Flow Demand Transformer Room Temperature
152	HDTAHU	Heat Flow Demand Transformer for Air Handling Unit
153	RHDTTU	Radiator Heating Energy Demand Transformer TU
154	AHDTTU	Air Heater Energy Demand Transformer TU
155-159	reserved	
Range 160-175	HVAC-HWH Heat Consumers Room Heating	
160	HZC	Heat Zone Controller
161-166	reserved	
167	HIRC	Heating Individual Room Controller
168	reserved	
169	HDTACT	Heat Demand Transformer Actuator
170	HRDM	Heating Room Demand Manager
171-175	reserved	
Range 176-191	HVAC-HWH Domestic Hot Water	
176	DHWSM	Domestic Hot Water Setpoint Manager
177	DHWC	Domestic Hot Water Controller
178	reserved	
179	DHWCPC	Domestic Hot Water Circulation Pump Control
180	DHWTS	DHW Temperature Sensor
181	UDHWSET	User DHW Settings
182-185	reserved	
186	SDHWC	Solar Domestic Hot Water Controller
187	COLTS	Solar Collector Temperature Sensor
188-191	reserved	
Range 192-207	HVAC-VAC Cooling Production	
192	CC	Chiller Controller

IO Type @	Functional Block	Remark
193-198	reserved	for other producers
199	СРМ	Cold Water Production Manager
200	CRC	Re-Cooling Controller
201-207	reserved	
Range 208-223	HVAC-VAC Cooling Distribution and Cooling Demand Transformers	
208	CFDM	Cooling Flow Demand Manager
209	CDAUX	Auxiliary Cooling Demand (flow temp demand)
210	CDAUXPER	Auxiliary Cooling Demand (percent demand)
211-214	reserved CFDG1-5	Cooling Flow Demand General Type 1-5 for future Cool Flow Demand Transformers
215	CDTAHU	Cooling Demand Transformer for Air Handling Unit
216	CCDTTU	Chilled Ceiling Energy Demand Transformer Terminal Unit
217	ACDTTU	Air Cooler Energy Demand Transformer Terminal Unit
218-223	reserved	
Range 224-239	HVAC-VAC Cooling Consumers	
224	CZC	Cooling Zone Controller
225-239	reserved (not defined yet)	
Range 240-255	HVAC-VAC Ventilation	
240	AHUC	Air Handler Unit Controller
241	SATC	Supply Air Temperature Controller
242-247	reserved	for other Ventilation Units
248	VDTTU	Ventilation Demand Transformer Terminal Unit
249-255	reserved	
Range <b>256-287</b>	HVAC-TU	
256	RRCTU	Radiator Room Control TU
257	RCCRC	Radiator and Chilled Ceiling Room Control
258	FCC	Fan Coil Control
259	WHPC	Water Heat Pump Control
260	SPUC	Split Unit Control

IO Type @	Functional Block	Remark
261	VAVCSA	VAV Control Supply Air
262	VAVCEA	VAV Control Extract Air
262-266	reserved for other controls	
267	RMOHD ? (t.b.d. by DEH)	Room Optimiser HVAC-Mode Driven
268	RMOTD ? (t.b.d. by DEH)	Room Optimiser Temperature Driven
269	APO ? (t.b.d. by DEH)	Apartment Optimiser
270	RRTC	Room Reference Temperature Calculation
271-287	reserved	
Range <b>288-319</b>	HVAC-DEH	to be defined by DEH
288		
Range <b>320-351</b>	HVAC Sensors	
320	OTS	Outside Temperature Sensor
321	RTS	Room Temperature Sensor
322	SATS	Supply Air Temperature Sensor
323	RNATS	Return Air Temperature Sensor
324	FWTS	Flow Water Temperature Sensor
325	RNWTS	Return Water Temperature Sensor
326	CFWTS	Condensor Flow Water Temperature Sensor
327	CRNWTS	Condensor Return Water Temperature Sensor
328	DATS	Discharge Air Temperature Sensor
329	FTS	Floor Temperature Sensor
330	OAQS	Outside Air Quality Sensor
331	RAQS	Room Air Quality Sensor
332	SAQS	Supply Air Quality Sensor
333	RNAQS	Return Air Quality Sensor
334-335	reserved for other AQ sensors	
336	ORHS	Outside Air Humidity Sensor Relative
337	RRHS	Room Air Humidity Sensor Relative
338	SARHS	Supply Air Humidity Sensor Relative
339	RNARHS	Return Air Humidity Sensor Relative
340	reserved for other air humidity sensors	
341	ACOS	Air Change Over Status Sensor
342	WCOS	Water Change Over Status Sensor

IO Type @	<b>Functional Block</b>	Remark
343	WOS	Window Switch
344	DPS	Dew Point Status Sensor
345	PRD	Presence Detector
346	reserved	
347	WSS	Wind Speed Sensor
348	SIS	Sun Intensity Sensor
349-351	reserved	
Range <b>352-383</b>	HVAC Actuators	
352	HVA	HVAC Valve Actuator
353	HOOA	HVAC ON/OFF Actuator
354-356	reserved	
357	CIVA	Compressor Inverting Valve Actuator
358-361	reserved for other valves	
362	ADA	Air Damper Actuator
363	reserved	
364	reserved	
365-368	reserved for other dampers	
369	ЕНЕА	Electrical Heating Element Actuator
370-371	reserved	
372	FSA	Fan Speed Actuator
373	CPA	Compressor Actuator
374-383	reserved	
Range <b>384-399</b>	HVAC MMI	
384	UHRS	User HVAC Room Settings
385	RTSA	Room Temperature Setpoint Absolute Setting
386	reserved	
387	UAQSS	User Air Quality Setpoint Setting
388	URHSS	User Air Humidity Setpoint Setting
389	reserved	
390	UHD	User HVAC Display
391	UPS	User Presence Switch
392	UCOS	User Changeover Setting
393	UFS	User Fan Speed Setting
394	reserved	

IO Type @	Functional Block	Remark
395	reserved	
396	UEARTS	User Enable Alternative Room Temp Setp
397-399	reserved	