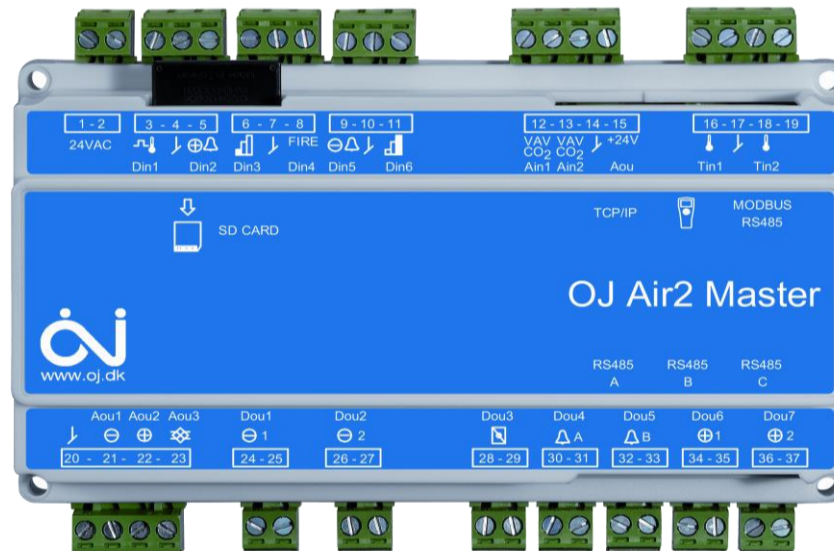


OJ-Air2 Master

BACnet Protocol

Fra SW 3.24

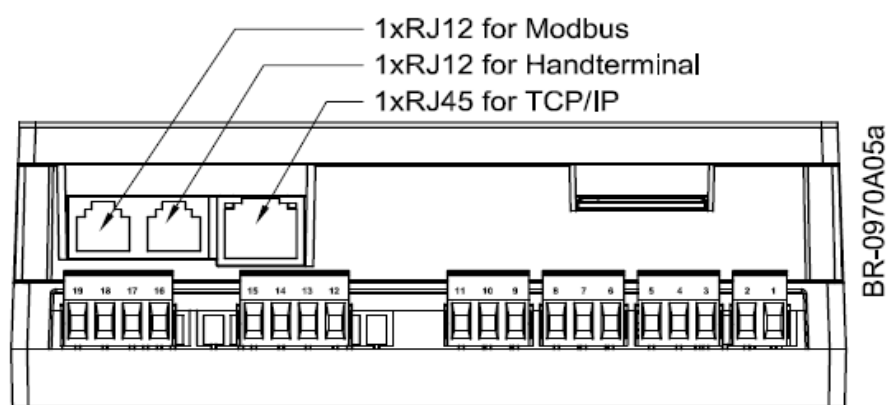
English



OJ Air2 Master Controller

1 x RJ45 TCP/IP for BACnet/IP forbindelse for internal BACnet-server in OJ Air2 Master

Fig. 1 OJ Air Master, Connector diagram, visual topside down



BACnet

OJ Air2, Program version 3.13 and subsequent versions.

Overview

BACnet features enable BACnet control and monitoring of a complete

Air Handling Unit (AHU), which is equipped with an OJ-Air2Master controller.

The BACnet functionality is implemented in OJ-Air2Masters with software version 2.00 or higher.

This protocol contains all BACnet addresses and registers in the OJ-Air2 Master. Updating of values in the individual registers is dependent on the actual configuration of the air handling unit. It will, for example, be possible to read out hydronic battery temperature Analog Input Object Instance 26 irrespective of whether or not an hydronic battery is installed in the system concerned.

The value will, however, only be used if the associated temperature sensor is installed.

The OJ-Air2Master is a BACnet Application Specific Controller (B-ASC)

Supported Data Link Layer Options: BACnet IP

Please also see the documents "OJ-Air2 BACnet PICS" (Protocol Implementation Conformance Statement) and "OJ-Air2 EDE" (Engineering Data Exchange).

Communication

BACnet TCP/IP: 1 pcs. 10/100Mbit Ethernet, RJ45 socket

Object Identifier:

The Object_Identifier is automatic set to the last 5 digits in the OJ-Air2Master IP adress.

Samples: IP-adresse = 172.21.0.95 Object Identifier = 95

IP-adresse = 155.37.0.216 Object Identifier = 216

IP-adresse = 155.37.35.123 Object Identifier = 35123

IP-adresse = 132.65.124.103 Object Identifier = 24103

IP-adresse = 172.20.211.47 Object Identifier = 11047

IP-adresse = 155.37.111.123 Object Identifier = 11123

IP-adresse = 168.25.111.1 Object Identifier = 11001

OBS! The Object_Identifier will only be set once and only when the OJ-Air2 Master is powered up or restarted

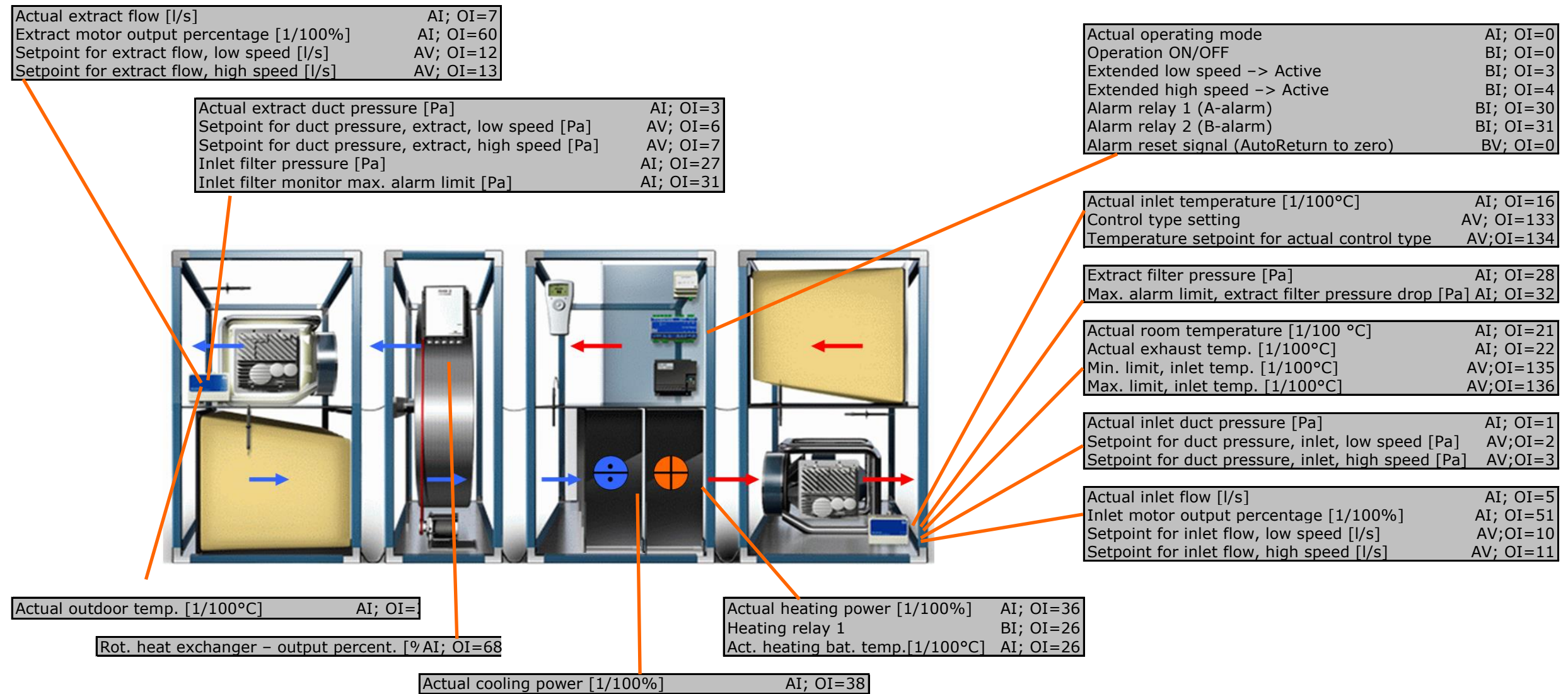
Max. 300 values can at the same time be registered to the COV (Change Of Value)

BACnet Interoperability Building Blocks Supported

Data Sharing	DS-RP-B	Data Sharing-Read Property-B
Data sharing	DS-WP-B	Data Sharing-Write Property-B
Device Management	DM-DDB-B	Device Management-Dynamic Device Binding-B
Device Management	DM-DOB-B	Device Management-Dynamic Object Binding-B
Device Management	DM-DCC-B	Device Management-Dynamic Communication Control-B

Standard Object Types Supported

Object type	Properties
Analog Input	Object_Identifier, Object_Name, Object_Type, Present_Value, Status_Flags, Event_State, Out_Of_Service, Units, Min_Pres_Value, Max_Pres_Value, Resolution, Reliability, COV_Increment
Analog Value	Object_Identifier, Object_Name, Object_Type, Present_Value, Status_Flags, Event_State, Out_Of_Service, Units, Priority_Array, Relinquish_Default, COV_Increment.
Binary Input	Object_Identifier, Object_Name, Object_Type, Present_Value, Status_Flags, Event_State, Out_Of_Service, Polarity.
Binary Value	Object_Identifier, Object_Name, Object_Type, Present_Value, Status_Flags, Event_State, Out_Of_Service, Priority_Array, Relinquish_Default.
Device	Object_Identifier, Object_Name, Object_Type, System_Status, Vendor_Name, Vendor_Identifier, Model_Name, Firmware_Revision, Application_Software_Version, Location, Description, Protocol_Version, Protocol_Revision, Protocol_Services_Supported, Protocol_Object_Types_Supported, Object_list, Max_APDU_Length_Accepted, Segmentation_Supported, APDU_Timeout, Number_Of_APDU_Retries, Device_Address_Binding, Database_Revision.



AI= Analog Input
 AV= Analog Value
 BI= Binary Input
 BV= Binary Value

OI= Object Instance

Binary value (R/W)

NAME (Binary Value)	UNIT	Object		REMARKS
		Instance	MIN. MAX.	
Alr_Reset		0	0 1	Alarm reset signal (AutoReturn to zero)
CoolRecovFunc		1	0 1	Cooling recovery: ON/OFF
SN_Func		2	0 1	Summer night cooling: ON/OFF
SWTC_Func		3	0 1	Summer/winter temp. compensation: ON/OFF
FlwTmpCmpFunc		4	0 1	Flow/outdoor temperature compensation: ON/OFF
RecircFunc		5	0 1	Recirculation: ON/OFF
CoolFlwForceFc		6	0 1	Forced flow with cooling demand: ON/OFF
TimeSw-SumFunc		7	0 1	Automatic summer/winter time: ON/OFF
ExtDrfHiPeriod		8	0 1	Input for forced high speed
ExtDrfPeriodON		9	0 1	Run-on time for forced high speed active
ManZeroCali		10	0 1	Start manual zero calibration (can be used together with automatic zero calibration) Is automatically reset to zero (OFF) once calibration has been completed
AutoZeroCali		11	0 1	Automatic zero calibration: ON/OFF
FiltDynAlrFunc		12	0 1	Dynamic filter alarm -> ON/OFF OFF -> static alarm limit (constant) ON -> dynamic alarm limit (limit based on flow) Start filter calibration. Is automatically reset to zero (OFF) once calibration has been completed.
FiltCalibrate		13	0 1	NOTE! ONLY IF "DYNAMIC MODE" IS SET
FiltCaliDone		14	0 1	Filter calibration completed (valid filter data) NOTE! ONLY IF "DYNAMIC MODE" IS SET
MBTOutd_Act		15	0 1	Activating outdoor sensor via BMS
MBTRoom1_Act		16	0 1	Activating room sensor via BMS
CmbEnHeatMB		17	0 1	Release combi battery - heating mode
CmbEnCoolMB		18	0 1	Release combi battery - cooling mode

Binary Input (R)

NAME (Binary Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
Operation		0	0	1	Operation ON/OFF
ExtStop		1	0	1	External stop
ExtHiSpeed		2	0	1	External high speed
ExtDrfLoSpeed		3	0	1	Extended low speed -> Active
ExtDrfHiSpeed		4	0	1	Extended high speed -> Active
ElBattPowerRed		5	0	1	Power to electric heating battery reduced due to low flow
SN_Drift		6	0	1	Summer night cooling is active
SN_Reset		7	0	1	Reset parameters for summer night cooling (new calculation is initiated)
SWTC_WintComp		8	0	1	Winter temperature compensation is active
SWTC_SumComp		9	0	1	Summer temperature compensation is active
SW_Status		10	0	1	Summer/winter actual status (SW_Mode = 1..3) OFF -> winter operation ("0") ON -> summer operation ("1")
RecircStatus		11	0	1	Recirculation status
EXC_Exercise		12	0	1	Exercising heat exchanger -> Active
ExhaustPowRed		13	0	1	Signal to cross-flow exchanger reduced (frost protection)
SupDuctMinFlow		14	0	1	Inlet duct pressure controller reduced to min. flow
SupDuctMaxFlow		15	0	1	Inlet duct pressure controller increased to max. flow
ExtDuctMinFlow		16	0	1	Extract duct pressure controller reduced to min. flow
ExtDuctMaxFlow		17	0	1	Extract duct pressure controller increased to max. flow
CoolRecovery		18	0	1	Cooling recovery -> status
HW_FrosrReg		19	0	1	Circulation pump on heating battery 1: Frost protection -> Active
HW_PumpExer		20	0	1	Circulation pump on heating battery 1: Pump exercising -> Active
CW_PumpExer		21	0	1	Circulation pump on cooling battery: Pump exercising -> Active
Heat_FlwDnReg		22	0	1	Signal to heating battery reduced (insufficient flow) -> Active
TempRegMinSup		23	0	1	"1" when min. inlet temperature control is active. Only active when TempRegMode is 1 or 2 (room temp. control)
TempRegMaxSup		24	0	1	"1" when max. inlet temperature control is active. Only active when TempRegMode is 1 or 2 (room temp. control)

NAME (Binary Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
BattEXC_Exer		25	0	1	Circulation pump on heat recovery battery: Pump exercising -> Active
Heat_RE1		26	0	1	Heating relay 1
Cool_RE1		27	0	1	Cooling relay 1
BattEXC_PumpRE		28	0	1	Circulation pump on heat recovery battery: Pump -> Running
AlrActive		29	0	1	At least one active alarm
Alr_RE1		30	0	1	Alarm relay 1 (A-alarm)
Alr_RE2		31	0	1	Alarm relay 2 (B-alarm)
Alr_FireSignal		32	0	1	Fire alarm signal (room sensor)
Alr_SmokeSig		33	0	1	Smoke/fire alarm signal (duct sensor)
ElBattOverHeat		34	0	1	Electric battery: High temperature alarm signal
FiltSupalarm		35	0	1	Filter alarm for inlet filter (pressure drop above set limit)
FiltExtalarm		36	0	1	Filter alarm for extract filter (pressure drop above set limit)
SupTempSensErr		37	0	1	Inlet temperature sensor - sensor fault
ExtTempSensErr		38	0	1	Extract temperature sensor - sensor fault
OutDoorSensErr		39	0	1	Outdoor temperature sensor - sensor fault
RoomSensErr		40	0	1	Room temperature sensor - sensor fault
ExhaustSensErr		41	0	1	Exhaust temperature sensor - sensor fault
HW_SensErr		42	0	1	Heating battery temperature sensor - sensor fault
BattEXC_SensEr		43	0	1	Heat recovery battery temperature sensor - sensor fault
HW_FrostAlr		44	0	1	Heating battery frost alarm
Cool_Sumalarm		45	0	1	Cooling shared alarm
Cool_DI1_alarm		46	0	1	Cooling digital alarm 1 input
Cool_DI2_alarm		47	0	1	Cooling digital alarm 2 input
Cool_DI3_alarm		48	0	1	Cooling digital alarm 3 input
Cool_DI4_alarm		49	0	1	Cooling digital alarm 4 input
SupmotorON		50	0	1	Supply air motor ON/OFF
Supmotoralarm		51	0	1	Alarm from supply air motor ON/OFF
FCsupMtrAlrVlo		52	0	1	Inlet motor low voltage alarm (only with OJ-FC)
FCsupMtrAlrVHi		53	0	1	Inlet motor high voltage alarm (only with OJ-FC)
FCsupMtrAlrIHi		54	0	1	Inlet motor high current alarm (only with OJ-FC), motor protection
FCsupMtrAlrTmp		55	0	1	Inlet motor temperature alarm (only with OJ-FC)
FCsupMtrAlrPhs		56	0	1	Inlet motor phase fault alarm (only with OJ-FC)

NAME (Binary Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
FCsupMtrAlrRip		57	0	1	Inlet motor ripple voltage alarm (only with OJ-FC)
FCsupMtrIHiLim		58	0	1	Inlet motor high current limit: short-circuit protection (only with OJ-FC)
ExtmotorON		59	0	1	Extract motor ON/OFF
Extmotoralarm		60	0	1	Extract motor alarm ON/OFF
FCextMtrAlrVlo		61	0	1	Extract motor low voltage alarm (only with OJ-FC)
FCextMtrAlrVHi		62	0	1	Extract motor high voltage alarm (only with OJ-FC)
FCextMtrAlrIHi		63	0	1	Extract motor high current alarm (only with OJ-FC)
FCextMtrAlrTmp		64	0	1	Extract motor temperature alarm (only with OJ-FC)
FCextMtrAlrPhs		65	0	1	Extract motor phase fault alarm (only with OJ-FC)
FCextMtrAlrRip		66	0	1	Extract motor ripple voltage alarm (only with OJ-FC)
FCextMtrIHiLim		67	0	1	Extract motor high current limit (only with OJ-FC)
EXC_ON		68	0	1	Rotary heat exchanger – motor control ON/OFF (only with OJ-RHX2M)
EXC_Reset		69	0	1	Rotary heat exchanger – reset signal (only with OJ-RHX2M)
EXC_Direction		70	0	1	Rotary heat exchanger – rotation direction (only with OJ-RHX2M)
EXC_Rotalarm		71	0	1	Rotary heat exchanger – rotation alarm (only with OJ-RHX2M)
EXC_Vloalarm		72	0	1	Rotary heat exchanger – low voltage alarm (only with OJ-RHX2M)
EXC_VHialarm		73	0	1	Rotary heat exchanger – high voltage alarm (only with OJ-RHX2M)
EXC_IHialarm		74	0	1	Rotary heat exchanger – high current alarm (only with OJ-RHX2M)
EXC_Tempalarm		75	0	1	Rotary heat exchanger – temperature alarm (only with OJ-RHX2M)
EXC_RotSignal		76	0	1	Rotary heat exchanger – rotation signal (only with OJ-RHX2M)
EXC_Overload		77	0	1	Rotary heat exchanger – torque overload (only with OJ-RHX2M)

NAME (Binary Input)	UNIT	Object		REMARKS
		Instance	MIN. MAX.	
ExtBrandStop		78	0 1	External fire stop input, status
AddOnTSens1Err		80	0 1	Extra sensor 1 - Sensor fault
AddOnTSens2Err		81	0 1	Extra sensor 2 - Sensor fault
AddOnTSens3Err		82	0 1	Extra sensor 3 - Sensor fault
AddOnTSens4Err		83	0 1	Extra sensor 4 - Sensor fault
AlrFrostLuft		84	0 1	Frost alarm from frost thermostat; digital input
HW2_FrostReg		85	0 1	Heating battery 2 - Frost protection -> Active
HW2_PumpExer		86	0 1	Heating battery 2 - Pump exercising -> Active
HW2_SensErr		87	0 1	Heating battery 2 - Return sensor - Sensor fault
HW2_FrostAlr		88	0 1	Heating battery 2 - Frost alarm
PHFreezeAlarm		89	0 1	Pre-heating element - Frost alarm
PHFrostRegAct		90	0 1	Pre-heating element - Frost protection active
PHPumpExer		91	0 1	Pre-heating element - Pump exercising
PHHeatRelay		92	0 1	Pre-heating element - Heating relay active
PH_OverHeat		93	0 1	Pre-heating element - Overheating fault
PH_PowReduc		94	0 1	Pre-heating element - Output reduction, low air volume (electric battery only)
PH_HWBSensErr		95	0 1	Pre-heating element - Return sensor; sensor fault
AlrEXCEffToLow		96	0 1	Alarm due to insufficient heat exchanger efficiency
AlrAtvSupComm		97	0 1	Alarm ATV FC inlet - No communication with ATV frequency converter
AlrAtvExtComm		98	0 1	Alarm ATV FC exhaust - No communication with ATV frequency converter
AlrAtvSupFC		99	0 1	Alarm ATV FC inlet - Shared alarm from ATV frequency converter
AlrAtvExtFC		100	0 1	Alarm ATV FC exhaust - Shared alarm from ATV frequency converter
AlrFrzBattEXC		101	0 1	Frost alarm - Fluid-coupled heat exchanger (BattEXC)
AlrDeIceCont		101	0 1	Ice-protection Pre-heater - Contactor stuck (only if electrical heating battery)
AlrDeIceOverh		102	0 1	Ice-protection Pre-heater - Overheating error (only if electrical heating battery)
AlrDeIceReduc		103	0 1	Ice-protection Pre-heater - Power reduction low air flow (only if electrical heating battery)
AlrNoREXCali		104	0 1	Pressuretransmitter over rotary heat exchanger; Extract/Exhaust; not calibrated
AlrSensREXNC		105	0 1	Pressuretransmitter over rotary heat exchanger; Extract/Exhaust; No connection
NO_CRecovStat		106	0 1	Cooling recovery recirculation is activated
NO_CStpRoomAct		107	0 1	Cooling blocked; Room temperature stop
HP_CoolingActv		108	0 1	Heat pump; Cooling mode activated
HP_De-icingAct		109	0 1	Heat pump; De-icing activated
AlrRexFrozen		110	0 1	Alarm rotary heat exchanger is ice-blocked
AlrRexDusty		111	0 1	Alarm rotary heat exchanger is dusty
Ht2FlowChgAct		112	0 1	Flow changed caused Heat2 is activated
Ht2DelayStatus		113	0 1	Status timer Heat2
Ht2DelLimBlkNo		114	0 1	Limitting Heat2 is not activated
Ht2RecBlkAct		115	0 1	Blocking Heat2 during recirculation = Aktivated
IntRecFlowStat		116	0 1	Status low flow during 100% recirculation

NAME (Binary Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
RecClosDmpAct		117	0	1	reciculation damper is closed
HW1RiFaActiv		118	0	1	Max. raise-/fall-time is activated
EC2supMtIhiLim		119	0	1	EC 2-Inlet/supply air motor high current limit; shortcuit protection
EC2supMtAlrVlo		120	0	1	EC 2-inlet/supply air motor voltage low alarm
EC2supMtAlrVhi		121	0	1	EC 2-inlet/supply air motor voltage high alarm
EC2supMtAlrIhi		122	0	1	EC 2-inlet/supply air motor high current limit alarm
EC2supMtAlrTmp		123	0	1	EC 2-inlet/supply air motor temperature alarm
EC2supMtAlrPhs		124	0	1	EC 2-inlet/supply air motor alarm for phase error
EC2sup_I_Rip		125	0	1	EC 2-Inlet/supply air motor alarm high rippel voltage
EC2supRoBlok		126	0	1	EC 2-inlet/supply air motor alarm for blocked rotor
EC2extMtIhiLim		127	0	1	EC 2-inlet/supply air motor high current limit; shortcuit protection
EC2extMtAlrVlo		128	0	1	EC 2-extract/exhaust motor voltage low alarm
EC2extMtAlrVhi		129	0	1	EC 2-extract/exhaust motor voltage high alarm
EC2extMtAlrIhi		130	0	1	EC 2-extract/exhaust motor high current limit alarm
EC2extMtAlrTmp		131	0	1	EC 2-extract/exhaust motor temperature alarm
EC2extMtAlrPhs		132	0	1	EC 2-extract/exhaust motor alarm for phase error
EC2ext_I_Rip		133	0	1	EC 2-Extract/Exhaust air motor alarm high rippel voltage
EC2extRoBlok		134	0	1	EC 2-extract/exhaust motor alarm for blocked rotor
EC-Sup2-Comm		135	0	1	EC 2-Inlet/supply air motor; communication error
EC-Ext2-Comm		136	0	1	EC 2-Extract/Exhaust air motor; communication error
ECsupMtIhiLim		137	0	1	EC-Inlet/supply air motor high current limit; shortcuit protection
ECsupMtAlrVlo		138	0	1	EC-Inlet/supply air motor voltage low alarm
ECsupMtAlrVhi		139	0	1	EC-Inlet/supply air motor voltage high alarm
ECsupMtAlrIhi		140	0	1	EC-Inlet/supply air motor high current limit alarm
ECsupMtAlrTmp		141	0	1	EC-Inlet/supply air motor temperature alarm
ECsupMtAlrPhs		142	0	1	EC-Inlet/supply air motor alarm for phase error
ECsup_I_Rip		143	0	1	EC-Inlet/supply air motor alarm for høj rippel
ECsupRotBlok		144	0	1	EC-Inlet/supply air motor alarm for blocked rotor
ECextMtIhiLim		145	0	1	EC-Extract/Exhaust air motor high current limit; shortcuit protection
ECextMtAlrVlo		146	0	1	EC-Extract/Exhaust air motor voltage low alarm
ECextMtAlrVhi		147	0	1	EC-Extract/Exhaust air motor voltage high alarm
ECextMtAlrIhi		148	0	1	EC-Extract/Exhaust air motor high current limit alarm
ECextMtAlrTmp		149	0	1	EC-Extract/Exhaust air motor temperature alarm
ECextMtAlrPhs		150	0	1	EC-Extract/Exhaust air motor alarm for phase error
ECext_I_Rip		151	0	1	EC-Extract/Exhaust air motor alarm for high rippel voltage
ECextRotBlok		152	0	1	EC-Extract/Exhaust air motor alarm for blocked rotor
EC-Sup-Comm		153	0	1	EC-Inlet/supply air motor alarm for manglende kommunikation
EC-Ext-Comm		154	0	1	EC-Extract/Exhaust air motor alarm; communication error
TTH6202ComAlr		155	0	1	TTH-6202 communication error
BELDampSmokeComErr		156	0	1	Alarm communication error smoke evacuation damper

NAME (Binary Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
AlrBDDampSmokePos		157	0	1	Alarm; position error smoke evacuation damper
AlrExtIO1_Comm		158	0	1	Externalal IO-Module no. 1 - communication error
AlrExtIO2_Comm		159	0	1	Externalal IO-Module no. 2 - communication error
AlrExtIO3_Comm		160	0	1	Externalal IO-Module no. 3 - communication error
AlrExtIO4_Comm		161	0	1	Externalal IO-Module no. 4 - communication error
AlrExtIO5_Comm		162	0	1	Externalal IO-Module no. 5 - communication error
AlrExtIO6_Comm		163	0	1	Externalal IO-Module no. 6 - communication error
AlrExtIO7_Comm		164	0	1	Externalal IO-Module no. 7 - communication error
AlrExtIO8_Comm		165	0	1	Externalal IO-Module no. 8 - communication error
AlrSupTemp2		166	0	1	Special customer code function
AlrAddOnSens1		167	0	1	Addon sensor 1 - Sensor error
AlrAddOnSens2		168	0	1	Addon sensor 2 - Sensor error
AlrAddOnSens3		169	0	1	Addon sensor 3 - Sensor error
AlrAddOnSens4		170	0	1	Addon sensor 4 - Sensor error
AlrSupMtr		171	0	1	Alarm inlet/supply air motor
AlrExtMtr		172	0	1	Alarm extract/exhaust motor
Cmb2CoolRel		173	0	1	Multi-purpose battery; Cooling relay no. 2 aktive
HW1RIFaActRH		174	0	1	Special customer code function
CmbEnCtrlMB		175	0	1	Enable multi purpose battery for external Modbus control
CmbEnHeatMB		176	0	1	Hot water supply is available for the multi purpose battery
CmbEnCoolMB		177	0	1	Cold water supply is available for the multi purpose battery
ECsupEEP_Err		178	0	1	EC-Inlet/supply air motor alarm for EEPROM error
EC2supEEP_Err		179	0	1	EC-Inlet/supply air motor2 alarm for EEPROM error
ECextEEP_Err		180	0	1	EC-Extract/Exhaust air motor alarm for EEPROM error
EC2extEEP_Err		181	0	1	EC-Extract/Exhaust air motor2 alarm for EEPROM error
TTH6040ComAlr		182	0	1	TTH-6040 (Room sensor) kommunikation error
LowOilDXHPAlr		183	0	1	Alarm for low oil in compressor
AlrComWBPump		184	0	1	Alarm 27
AlrComSupFan		185	0	1	Common Alarm - supply air fan
AlrComExtFan		186	0	1	Common Alarm - exhaust air fan
AlrComSupFIDu		187	0	1	Common Alarm - supply air pressure/flow
AlrComExtFIDu		188	0	1	Common Alarm - exhaust air pressure/flow
AlrComEXC		189	0	1	Common Alarm - heat exchanger
AlrComFreeze		190	0	1	Common Alarm - frost
AlrComElHeat		191	0	1	Common Alarm - electric heating barrery
AlrComTemp		192	0	1	Common Alarm - temperature high/low
AlrComSFilt		193	0	1	Common Alarm - supply air filter
AlrComEFilt		194	0	1	Common Alarm - exhaust air filter
AlrComTmpSens		195	0	1	Common Alarm - temperature sensor
AlrComCool		196	0	1	Common Alarm - cooling
AlrComBDamp		197	0	1	Common Alarm - Belimo damper
AlrComIntern		198	0	1	Common Alarm - internal Modbus error

NAVN (Binary Input)	ENHED	Object		MAX	BEMÆRKNINGER
		Instance	MIN		
BMS_InpState		199	0	1	Input for activating BMS control
ExternLowState		200	0	1	Input for activating external low speed
Alr_MBTOutds		201	0	1	Alarm - BMS outdoor sensor out of range in more than 10 sec.
Alr_MBTRoom1		202	0	1	Alarm - BMS room sensor out of range in more than 10 sec.
AlrFireManstop		203	0	1	Alarm - AHU stopped from "FiremanStop"
AlrSmokEvac		204	0	1	Smoke evacuation activated
AlrSmokEvaFan		205	0	1	Alarm Smoke evacuation fan
StatInleRel		206	0	1	Output for outdoor/exhaust damper activated
StatSupRel		207	0	1	Output for supply air damper activated
StatRecRel		208	0	1	Output for recirculation damper activated
ExOutDSensErr		209	0	1	External outdoor - sensor error
PHTempSensErr		210	0	1	Temperature sensor pre-heater - sensor error
CW_TSensErr		211	0	1	Cooling water supply - sensor error
Heat_RE21		212	0	1	Relay 1 on heating battery 2 activated
Heat_RE22		213	0	1	Relay 2 on heating battery 2 activated
Heat_RE23		214	0	1	Relay 3 on heating battery 2 activated
Heat_RE24		215	0	1	Relay 4 on heating battery 2 activated
Heat_RE25		216	0	1	Relay 5 on heating battery 2 activated
Heat_RE26		217	0	1	Relay 6 on heating battery 2 activated
Combi_PumpRE		218	0	1	Pump Relay combibattery activated
AlrBatOverHeat		219	0	1	Alarm over heating electrical heating battery 1
AlrElBattCont		220	0	1	Alarm relay stucked on electrical heating battery 1
AlrBat2OverHea		221	0	1	Alarm over heating electrical heating battery 2
AlrBat2Contact		222	0	1	Alarm relay stucked on electrical heating battery 2
OutFiltAlrOn		223	0	1	Alarm for filter change supply air
ExtFiltAlrOn		224	0	1	Alarm for filter change exhaust air
ExtDrfMeSpeed		225	0	1	Extended medium speed -> Aktiv
PHHeatRelay2		226	0	1	Pre-heating battery varmetrin 2
FiltCaliDone		227	0	1	Filter calibration done
ExtDrfMePeriod		228	0	1	Extended operation period set to medium speed
FCAIrSupPoLim		229	0	1	Alarm supply air DV-FC max power limit
FCAIrExtPoLim		230	0	1	Alarm exhaust air DV-FC max power limit
FCAIrSupDVRBlk		231	0	1	Alarm supply air DV-FC rotor blocked
FCAIrExtDVRBlk		232	0	1	Alarm exhaust air DV-FC rotor blocked
DVAIrSupIStop		233	0	1	Alarm DV-EC supply air motor stopped caused an internal alarm
DVAIrExtIStop		234	0	1	Alarm DV-EC exhaust air motor stopped caused an internal alarm
DV2AlrSupIStop		235	0	1	Alarm DV-EC2 supply air motor stopped caused an internal alarm
DV2AlrExtIStop		236	0	1	Alarm DV-EC2 exhaust air motor stopped caused an internal alarm
CmbHeatState		237	0	1	Combibatteri in status heating
CmbCoolState		238	0	1	Combibatteri in status cooling



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Analog Input

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NAME (Analog Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
DriftMode		0	0	500	Actual operating mode 000-099: Unit stopped 100-199: Unit in low speed mode 200-299: Unit in high speed mode 300-399: Unit in spec. control mode 410-414: Unit in medium speed mode
SupDuctPa	Pa	1	0	2000	Actual inlet duct pressure [Pa]
SupDuctPaRgSet	Pa	2	0	2000	Setpoint for inlet duct pressure controller [Pa]
ExtDuctPa	Pa	3	0	2000	Actual extract duct pressure [Pa]
ExtDuctPaRgSet	Pa	4	0	2000	Setpoint for extract duct pressure controller [Pa]
SupFlow	l/s	5	0	30000	Actual inlet flow [l/s]
SupFlowRegSet	l/s	6	250	30000	Setpoint for inlet flow controller [l/s]
ExtFlow	l/s	7	0	30000	Actual extract flow [l/s]
ExtFlowRegSet	l/s	8	0	30000	Setpoint for extract flow controller [l/s]
CO2_ppmMeas	ppm	9	0	10000	CO2 concentration recorded by CO2 sensor [ppm]
MtrFanSupVin	%	10	0	10000	0-10 V DC signal to inlet motor
MtrFanExtVin	%	11	0	10000	0-10 V DC signal to extract motor
FAN_SupPrcMeas	%	12	0	10000	Voltage on fan optimizer input: inlet signal [1/100%]
FAN_ExtPrcMeas	%	13	0	10000	Voltage on fan optimizer input: extract signal [1/100%]
SupFC_MaxFlow	l/s	14	100	30000	Inlet FC max. flow [l/s] / [m3/h]
ExtFC_MaxFlow	l/s	15	100	30000	Extract FC max. flow [l/s] / [m3/h]
SupTemp	°C	16	0	6000	Actual inlet temperature [1/100°C]
SupTempRegSet	°C	17	0	4000	Setpoint for inlet temperature controller [1/100°C]
ExtTemp	°C	18	0	4000	Actual extract temperature [1/100°C]
ExtTempRegSet	°C	19	10	4000	Setpoint for extract temperature controller [1/100°C]
OutdoorTemp	°C	20	0	4000	Actual outdoor temperature [1/100°C]
RoomTemp	°C	21	0	4000	Actual room temperature [1/100°C]
ExhaustTemp	°C	22	0	4000	Actual exhaust temperature [1/100°C]
TempRegMeas	°C	23	0	4000	Temp. recorded by actual temperature controller [1/100°C]
TempRegVal	°C	24	0	4000	Control value for actual temperature controller [1/100°C]
BattEXC_Temp	°C	25	0	6000	Water battery temperature downstream from heat exchanger [1/100°C]
HW_BattTemp	°C	26	0	4000	Actual heating battery temperature [1/100°C]
SupFiltPaAvr	Pa	27	0	2000	Inlet filter pressure [Pa]
ExtFiltPaAvr	Pa	28	0	2000	Extract filter pressure [Pa]
SupMotorSet	%	29	0	10000	Inlet motor signal setpoint [%]

NAME (Analog Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
ExtMotorSet	%	30	0	10000	Extract motor signal setpoint [%]
FiltSupAlrPa	Pa	31	0	100	Inlet filter monitor max. alarm limit [Pa] ONLY IN DYNAMIC MODE ("0" IS STATIC MODE)
FiltExtAlrPa	Pa	32	0	100	Extract filter monitor max. alarm limit [Pa] ONLY IN DYNAMIC MODE ("0" IS STATIC MODE)
FlwTmpCmpOut	%	33	-4000	10000	Temp. compensated flow setpoint percentage [1/100%]
SWTC_ActSetOfs	°C	34	-1000	1000	Summer/winter temp. compensation of actual setpoint offset [1/100°C]
HeatEXCPower	%	35	0	10000	Heat exchange controller heating power [1/100%]
HeatPower	%	36	0	10000	Actual heating power [1/100%]
CoolPower	%	37	0	10000	Cooling controller power [1/100%]
CoolActPower	%	38	0	10000	Actual cooling power [1/100%]
CoolFlwForcePw	%	39	0	10000	Cooling forced flow power [1/100%]
CoolVin1Alarm	%	40	0	10000	Cooling alarm 1 transducer signal [1/100%]
CoolVin2Alarm	%	41	0	10000	Cooling alarm 2 transducer signal [1/100%]
CoolVin3Alarm	%	42	0	10000	Cooling alarm 3 transducer signal [1/100%]
CoolVin4Alarm	%	43	0	10000	Cooling alarm 4 transducer signal [1/100%]
C_LoPress1Bar	bar	44	0	10000	Actual low pressure sensor 1 [1/100 bar]
C_HiPress1Bar	bar	45	0	10000	Actual high pressure sensor 1 [1/100 bar]
C_LoPress2Bar	bar	46	0	10000	Actual low pressure sensor 2 [1/100 bar]
C_HiPress2Bar	bar	47	0	10000	Actual high pressure sensor 2 [1/100 bar]
FCsupMtrType		48	0	256	Inlet motor type (only with OJ-FC)
FCsupMtrFC_SW		49	0	1000	Inlet motor software version [1/100] (only with OJ-FC)
FCsupMtrIO_SW		50	0	1000	Inlet motor IO card software version [1/100] (only with OJ-FC)
FCsupMtrPrcOut	%	51	0	10000	Inlet motor output percentage [1/100%] (only with OJ-FC)
FCsupMtrHzOut	Hz	52	0	10000	Inlet motor frequency output [1/100 Hz] (only with OJ-FC)
FCsupMtrIout	mA	53	0	30000	Inlet motor actual current output [mA] (only with OJ-FC)
FCsupMtrPowOut	W	54	0	6000	Inlet motor actual power output [Watt] (only with OJ-FC)
FCsupMtrPrcSet	%	55	0	10000	Inlet motor setpoint [%]
SupSFP	J/m3	56	0	10000	Specific fan power (SFP), inlet [W·s/m3 = J/m3] (only with OJ-FC)
FCextMtrType		57	0	256	Extract motor type (only with OJ-FC)
FCextMtrFC_SW		58	0	1000	Extract motor software version [1/100] (only with OJ-FC)
FCextMtrIO_SW		59	0	1000	Extract motor IO card software version [1/100] (only with OJ-FC)
FCextMtrPrcOut	%	60	0	10000	Extract motor output percentage [1/100%] (only with OJ-FC)

NAME (Analog Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
FCextMtrHzOut	Hz	61	0	10000	Extract motor frequency output [1/100 Hz] (only with OJ-FC)
FCextMtrIout	mA	62	0	30000	Extract motor actual current output [mA] (only with OJ-FC)
FCextMtrPowOut	W	63	0	6000	Extract motor actual power output [Watt] (only with OJ-FC)
FCextMtrPrcSet	%	64	0	10000	Extract motor output setpoint [%]
ExtSFP	J/m3	65	0	10000	Specific fan power (SFP), extract [W·s/m3 = J/m3] (only with OJ-FC)
EXC_Type		66	0	3	Rotary heat exchanger – motor type (only with OJ RHX2M)
EXC_Software		67	0	10000	Rotary heat exchanger – software version [1/100] (only with OJ RHX2M)
EXC_PrcOut	%	68	0	10000	Rotary heat exchanger – percentage [1/100%]
EXC_RpmOut	rpm	69	0	20000	Rotary heat exchanger – speed output [1/100 rpm]
EXC_Iout	mA	70	0	10000	Rotary heat exchanger – actual output [mA] (only with OJ RHX2M)
EXC_Power	W	71	0	100	Rotary heat exchanger – output power [W] (only with OJ RHX2M)
EXC_DriftDays	days	72	0	32000	Rotary heat exchanger – days of operation (only with OJ RHX2M)
EXC_PrcSet	%	73	0	10000	Rotary heat exchanger – percentage setpoint [1/100%] (only with OJ RHX2M)
EXTM1_SW_Ver		74	0	10000	Extension module 1 software version [1/100]
EXTM2_SW_Ver		75	0	10000	Extension module 2 software version [1/100]
TimeSw-WeekDay		76	0	6	Actual day of the week (0=Mon..6=Sun)
ExtDrfDaysLeft		77	0	6	Extended operation, remaining number of days
ExtDrfMinLeft	min	78	0	1439	Extended operation, remaining number of minutes
Alr_Released00		79	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released01		80	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released02		81	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released03		82	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released04		83	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released05		84	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released06		85	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released07		86	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released08		87	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released09		88	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released10		89	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released11		90	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released12		91	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released13		92	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released14		93	0	100	Stack for active alarms (0 indicates end of stack)
Alr_Released15		94	0	100	Stack for active alarms (0 indicates end of stack)

NAME (Analog Input)	UNIT	Object Instance	MIN.	MAX.	REMARKS
MasterSW_Ver		95	0	30000	Master software version [1/100]
DisplaySW_Ver		96	0	30000	Display software version [1/100]
AddOnTSensor1		97	0	10000	Extra sensor 1 [1/100°C]
AddOnTSensor2		98	0	10000	Extra sensor 2 [1/100°C]
AddOnTSensor3		99	0	10000	Extra sensor 3 [1/100°C]
AddOnTSensor4		100	0	10000	Extra sensor 4 [1/100°C]
MtrFanSupVin		101	0	10000	0-10 V DC signal to inlet motor
MtrFanExtVin		102	0	10000	0-10 V DC signal to exhaust motor
Heat2Power		103	0	10000	Heating 2 - Regulator Power [1/100%]
PHeatPower		104	0	10000	Actual output of pre-heating element [1/100%]
PHeatTempAir		105	0	10000	Actual temperature of pre-heating element [1/100%]
AtvSupFCTyp		106	0	30000	Inlet ATV frequency converter - Actual FC type
AtvExtFCTyp		107	0	30000	Exhaust ATV frequency converter - Actual FC type
EXCActualEff		108	0	10000	Actual heat exchanger efficiency [1/100%]
HW12_VDCOut	VDC	109	0	10000	Heat12; VDC-Signal [1/1000 V]
HP_CoilPaMeas	Pa	110	0	2000	Pressure over heat pump outdoor unit [Pa]
RecAltFlwAct		111	0	2	Actual status changed flow recirculation - 0=No chg.; 1=Low to high; 2=High to low
RecClosTimer	Sec	112	0	7200	Actual status timer for closed recirculation [Sec]
CombiVDC_Out	VDC	113	0	10000	Multi purpose battery VDC-Signal heating [1/1000 V]
CombiHeatPow	%	114	0	10000	Multi purpose battery %-Signal heat [1/100 %]
CombiCoolPow	%	115	0	10000	Heatpump power active by heat demand. Else CoolPower [1/100 %]
AtvExtPower	W	116	0	30000	Exhaust air fan actual power output [Watt] (only ATV)
AtvSupPower	W	117	0	30000	Supply air fan actual power output [Watt] (only ATV)
ExtOutDTemp	°C	118	-40	100	Extern outdoor sensor temperature [°C]
PHeatTempAir	°C	119	-40	100	Temperature after pre-heating battery [°C]
CW_InletTemp	°C	120	-40	100	Temperature supply cooling water [°C]
RecFreshAirDis	%	121	0	100	Outdoor damper position modulated recirculation [%]
RecDampPrcDis	%	122	0	100	Recirculation damper position modulated recirculation [%]
CoolVDC_Out2	VDC	123	0	10	CombiBattery VDC-Signal heating2 [V]
OutFilRestDay		124	0	366	Days until alarm supply air filter
ExtFilRestDay		125	0	366	Days until alarm exhaust air filter
CombiBattTemp	°C	126	0	100	Temperature return sensor combibattery

Analog value

NAME (Analog Value)	UNIT	Object Instance	MIN	MAX	REMARKS
ManDriftMode		0	0	3	0=auto, 1=manual stop, 3=manual low, 3=manual high, 6=manual Medium
MtrRegMode		1	0	6	0=pressure, 1=flow, 2=extract slave, 3=inlet slave, 4=external V DC Setpoint, 5=fan optimizer inlet/extract, 6=fan optimizer with extract slave, 7-Green Zone, 8-Green Zone slave, 9-Constant speed
SupDuctPaLoSet	Pa	2	0	2000	Setpoint for duct pressure, low inlet [Pa]
SupDuctPaHiSet	Pa	3	0	2000	Setpoint for duct pressure, high inlet [Pa]
SupDuctMinFlow	l/s	4	0	30000	Min. inlet duct flow [l/s] / [m3/h]
SupDuctMaxFlow	l/s	5	0	30000	Max. inlet duct flow [l/s] / [m3/h]
ExtDuctPaLoSet	Pa	6	0	2000	Setpoint for low duct pressure, extract [Pa]
ExtDuctPaHiSet	Pa	7	0	2000	Setpoint for high duct pressure, extract [Pa]
ExtDuctMinFlow	l/s	8	0	30000	Min. extract duct flow [l/s] / [m3/h]
ExtDuctMaxFlow	l/s	9	0	30000	Max. extract duct flow [l/s] / [m3/h]
SupLoSpeedSet	l/s	10	0	30000	Setpoint for inlet flow, low speed [l/s] / [m3/h]
SupHiSpeedSet	l/s	11	0	30000	Setpoint for inlet flow, high speed [l/s] / [m3/h]
ExtLoSpeedSet	l/s	12	0	30000	Setpoint for extract flow, low speed [l/s] / [m3/h]
ExtHiSpeedSet	l/s	13	0	30000	Setpoint for extract flow, high speed [l/s] / [m3/h]
MtrRegOffset	%	14	-5000	5000	Inlet/extract motor offset, slave and CO2 control [1/100%]
MtrRegMinFlow	l/s	15	0	30000	Min. flow for inlet/extract motor, slave control [l/s] / [m3/h]
MtrRegMaxFlow	l/s	16	0	30000	Max. flow for inlet/extract motor, slave control [l/s] / [m3/h]
CO2_BrugerSetLP	ppm	17	0	10000	CO2 control: Setpoint for low period (high CO2 value) [ppm]
CO2_BrugerSetHP	ppm	18	0	10000	CO2 control: Setpoint for high period (high CO2 value) [ppm]
CO2_MinFlow	l/s	19	0	30000	CO2 control: min. flow [l/s] / [m3/h]
CO2_MaxFlow	l/s	20	0	30000	CO2 control: max. flow [l/s] / [m3/h]
CO2_SupFlwOffs	%	21	-5000	5000	CO2 control: inlet flow offset [1/100%]
CO2_AlrLimit	ppm	22	100	10000	CO2 concentration alarm limit Setpoint [ppm]
CO2_PB	ppm	23	10	10000	CO2 control: P-band [ppm]
CO2_I_Time	sec	24	10	30000	CO2 control: I-time [sec]
FAN_SupMinFlow	l/s	25	0	30000	Fan optimizer inlet control: min. flow [l/s] / [m3/h]
FAN_SupMaxFlow	l/s	26	0	30000	Fan optimizer inlet control: max. flow [l/s] / [m3/h]
FAN_ExtMinFlow	l/s	27	0	30000	Fan optimizer extract control: min. flow [l/s] / [m3/h]
FAN_ExtMaxFlow	l/s	28	0	30000	Fan optimizer extract control: max. flow [l/s] / [m3/h]
FAN_ExtFlwOffs	%	29	-5000	5000	Fan optimizer extract control: flow offset [1/100%]
SupMtr_I_Time	sec	30	5	1000	Inlet motor control: I-time Setpoint [sec]
ExtMtr_I_Time	sec	31	5	1000	Extract motor control: I-time Setpoint [sec]
SupFlowFireSet	%	32	0	10000	Inlet motor speed Setpoint in case of fire alarm [%]
ExtFlowFireSet	%	33	0	10000	Extract motor speed Setpoint in case of fire alarm [%]

NAME (Analog Value)	UNIT	Object		MIN	MAX	REMARKS
		Instance				
HS_AfterRunSet		34		0	480	Run-on time, high speed [min]
FlwTmpCmpSet	%	35		0	50	Reduction of flow / percentage of Setpoint [1/100%]
FlwTmpCmpStart	°C	36		-10	15	Reduction of flow / start temp. Setpoint [1/100°C]
FlwTmpCmpStop	°C	37		-30	-10	Reduction of flow / stop temp. Setpoint [1/100°C]
TimeSw-Year		38		2000	2099	Actual year
TimeSw-Month		39		1	12	Actual month
TimeSw-Date		40		1	31	Actual date
TimeSw-Hour	h	41		0	23	Actual hour
TimeSw-Minute	min	42		0	59	Actual minutes
TimeSw-Second	sec	43		0	59	Actual seconds
ExtDrfStartDay		44		0	6	Extended operation start - day (0=Mon..6=Sun)
ExtDrfStartMin	min	45		0	1439	Extended operation start - time (hours times 60 plus minutes)
ExtDrfStopDay		46		0	6	Extended operation stop - day (0=Mon..6=Sun)
ExtDrfStopMin	min	47		0	1439	Extended operation stop - time (hours times 60 plus minutes)
TimeSw-DayMode		48		0	2	Timer program type (0..2) 0=Mon..Sun, 1=Mon..Fri+weekend, 2=all week
TimeSw-Start00	min	49		0	1439	Monday: First period start time [minutes after midnight]
TimeSw-Start01	min	50		0	1439	Tuesday: First period start time [minutes after midnight]
TimeSw-Start02	min	51		0	1439	Wednesday: First period start time [minutes after midnight]
TimeSw-Start03	min	52		0	1439	Thursday: First period start time [minutes after midnight]
TimeSw-Start04	min	53		0	1439	Friday: First period start time [minutes after midnight]
TimeSw-Start05	min	54		0	1439	Saturday: First period start time [minutes after midnight]
TimeSw-Start06	min	55		0	1439	Sunday: First period start time [minutes after midnight]
TimeSw-Start07	min	56		0	1439	Monday: Second period start time [minutes after midnight]
TimeSw-Start08	min	57		0	1439	Tuesday: Second period start time [minutes after midnight]
TimeSw-Start09	min	58		0	1439	Wednesday: Second period start time [minutes after midnight]
TimeSw-Start10	min	59		0	1439	Thursday: Second period start time [minutes after midnight]
TimeSw-Start11	min	60		0	1439	Friday: Second period start time [minutes after midnight]
TimeSw-Start12	min	61		0	1439	Saturday: Second period start time [minutes after midnight]
TimeSw-Start13	min	62		0	1439	Sunday: Second period start time [minutes after midnight]
TimeSw-Start14	min	63		0	1439	Monday: Third period start time [minutes after midnight]
TimeSw-Start15	min	64		0	1439	Tuesday: Third period start time [minutes after midnight]
TimeSw-Start16	min	65		0	1439	Wednesday: Third period start time [minutes after midnight]
TimeSw-Start17	min	66		0	1439	Thursday: Third period start time [minutes after midnight]
TimeSw-Start18	min	67		0	1439	Friday: Third period start time [minutes after midnight]
TimeSw-Start19	min	68		0	1439	Saturday: Third period start time [minutes after midnight]
TimeSw-Start20	min	69		0	1439	Sunday: Third period start time [minutes after midnight]
TimeSw-Start21	min	70		0	1439	Monday: Fourth period start time [minutes after midnight]
TimeSw-Start22	min	71		0	1439	Tuesday: Fourth period start time [minutes after midnight]
TimeSw-Start23	min	72		0	1439	Wednesday: Fourth period start time [minutes after midnight]
TimeSw-Start24	min	73		0	1439	Thursday: Fourth period start time [minutes after midnight]

NAME (Analog Value)	UNIT	Object		MIN	MAX	REMARKS
		Instance				
TimeSw-Start25	min	74		0	1439	Friday: Fourth period start time [minutes after midnight]
TimeSw-Start26	min	75		0	1439	Saturday: Fourth period start time [minutes after midnight]
TimeSw-Start27	min	76		0	1439	Sunday: Fourth period start time [minutes after midnight]
TimeSw-Stop00	min	77		1	1440	Monday: First period stop time [minutes after midnight]
TimeSw-Stop01	min	78		1	1440	Tuesday: First period stop time [minutes after midnight]
TimeSw-Stop02	min	79		1	1440	Wednesday: First period stop time [minutes after midnight]
TimeSw-Stop03	min	80		1	1440	Thursday: First period stop time [minutes after midnight]
TimeSw-Stop04	min	81		1	1440	Friday: First period stop time [minutes after midnight]
TimeSw-Stop05	min	82		1	1440	Saturday: First period stop time [minutes after midnight]
TimeSw-Stop06	min	83		1	1440	Sunday: First period stop time [minutes after midnight]
TimeSw-Stop07	min	84		1	1440	Monday: Second period stop time [minutes after midnight]
TimeSw-Stop08	min	85		1	1440	Tuesday: Second period stop time [minutes after midnight]
TimeSw-Stop09	min	86		1	1440	Wednesday: Second period stop time [minutes after midnight]
TimeSw-Stop10	min	87		1	1440	Thursday: Second period stop time [minutes after midnight]
TimeSw-Stop11	min	88		1	1440	Friday: Second period stop time [minutes after midnight]
TimeSw-Stop12	min	89		1	1440	Saturday: Second period stop time [minutes after midnight]
TimeSw-Stop13	min	90		1	1440	Sunday: Second period stop time [minutes after midnight]
TimeSw-Stop14	min	91		1	1440	Monday: Third period stop time [minutes after midnight]
TimeSw-Stop15	min	92		1	1440	Tuesday: Third period stop time [minutes after midnight]
TimeSw-Stop16	min	93		1	1440	Wednesday: Third period stop time [minutes after midnight]
TimeSw-Stop17	min	94		1	1440	Thursday: Third period stop time [minutes after midnight]
TimeSw-Stop18	min	95		1	1440	Friday: Third period stop time [minutes after midnight]
TimeSw-Stop19	min	96		1	1440	Saturday: Third period stop time [minutes after midnight]
TimeSw-Stop20	min	97		1	1440	Sunday: Third period stop time [minutes after midnight]
TimeSw-Stop21	min	98		1	1440	Monday: Fourth period stop time [minutes after midnight]
TimeSw-Stop22	min	99		1	1440	Tuesday: Fourth period stop time [minutes after midnight]
TimeSw-Stop23	min	100		1	1440	Wednesday: Fourth period stop time [minutes after midnight]
TimeSw-Stop24	min	101		1	1440	Thursday: Fourth period stop time [minutes after midnight]
TimeSw-Stop25	min	102		1	1440	Friday: Fourth period stop time [minutes after midnight]
TimeSw-Stop26	min	103		1	1440	Saturday: Fourth period stop time [minutes after midnight]
TimeSw-Stop27	min	104		1	1440	Sunday: Fourth period stop time [minutes after midnight]
TimeSw-Mode00		105		0	2	Monday: First period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode01		106		0	2	Tuesday: First period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode02		107		0	2	Wednesday: First period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode03		108		0	2	Thursday: First period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode04		109		0	2	Friday: First period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode05		110		0	2	Saturday: First period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode06		111		0	2	Sunday: First period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode07		112		0	2	Monday: Second period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode08		113		0	2	Tuesday: Second period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode09		114		0	2	Wednesday: Second period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed

NAME (Analog Value)	UNIT	Object Instance	MIN	MAX	REMARKS
TimeSw-Mode10		115	0	2	Thursday: Second period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode11		116	0	2	Friday: Second period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode12		117	0	2	Saturday: Second period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode13		118	0	2	Sunday: Second period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode14		119	0	2	Monday: Third period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode15		120	0	2	Tuesday: Third period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode16		121	0	2	Wednesday: Third period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode17		122	0	2	Thursday: Third period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode18		123	0	2	Friday: Third period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode19		124	0	2	Saturday: Third period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode20		125	0	2	Sunday: Third period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode21		126	0	2	Monday: Fourth period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode22		127	0	2	Tuesday: Fourth period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode23		128	0	2	Wednesday: Fourth period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode24		129	0	2	Thursday: Fourth period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode25		130	0	2	Friday: Fourth period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode26		131	0	2	Saturday: Fourth period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TimeSw-Mode27		132	0	2	Sunday: Fourth period operating mode: 0=OFF, 1=low speed, 2=high speed, 6=medium speed
TempRegMode		133	0	3	0=Inlet, 1-Extract, 2=Room, 3=Inlet/extract differential
TempRegSet	°C	134	0	4000	Temperature Setpoint for actual control type [1/100°C]
SupTempMinSet	°C	135	0	1800	Min. limit inlet temperature [1/100°C]
SupTempMaxSet	°C	136	2000	5000	Max. limit inlet temperature [1/100°C]
SupTempDiffSet	°C	137	100	1500	Setpoint: Temperature differential between inlet and extract Only relevant when TempRegMode is 3 (inlet/extract differential) (constant inlet/extract - differential temperature control) [1/100°C]
SupTempDiffAlr	°C	138	200	1500	Alarm limit for temperature differential between inlet Setpoint and actual value [1/100°C]
SupTempPB	°C	139	200	4000	P-band for inlet temperature control [1/100°C]
SupTempCool_It	sec	140	10	30000	I-time for inlet cooling control [sec]
SupTempEXC_It	sec	141	10	30000	I-time for inlet heat exchanger control [sec]
SupTempHeat_It	sec	142	10	30000	I-time for inlet heating control [sec]
SupTempDnRegIt	sec	143	10	30000	I-time for inlet flow reduction in case of low inlet temperature [sec]
ExtTempDiffAlr	°C	144	200	1500	Alarm limit for temperature differential between extract Setpoint and actual value [1/100°C]
ExtTempPB	°C	145	200	4000	P-band for extract temperature control [1/100°C]
ExtTempCool_It	sec	146	10	30000	I-time for extract cooling control [sec]
ExtTempEXC_It	sec	147	10	30000	I-time for extract heat exchanger control [sec]
ExtTempHeat_It	sec	148	10	30000	I-time for extract heating control [sec]
ExtTempDnRegIt	sec	149	10	30000	I-time for extract flow reduction in case of low inlet temperature [sec]
SWTC_WintX1	°C	150	-3000	0	Summer/winter temp. comp.: low outdoor temp. Setpoint, winter [1/100°C]
SWTC_WintX2	°C	151	-1000	1000	Summer/winter temp. comp.: high outdoor temp. Setpoint, winter [1/100°C]
SWTC_SumX1	°C	152	1000	3000	Summer/winter temp. comp.: low outdoor temp. Setpoint, summer [1/100°C]
SWTC_SumX2	°C	153	2000	4000	Summer/winter temp. comp.: high outdoor temp. Setpoint, summer [1/100°C]

NAME (Analog Value)	UNIT	Object Instance	MIN	MAX	REMARKS
SWTC_WintComp	°C	154	100	1000	Summer/winter temp. comp.: winter compensation [1/100°C]
SWTC_SumComp	°C	155	-1000	1000	Summer/winter temp. comp.: summer compensation [1/100°C]
SW_Mode		156	0	4	Summer/winter changeover: 0=OFF (no summer/winter changeover) 1=Changeover determined by outdoor temperature 2=Changeover determined by date 3=Manual summer 4=Manual winter
SW_OutWinterON	°C	157	-3000	4000	Outdoor temperature for start of winter operation (SW_Mode = 1) [1/100°C]
SW_OutSummerON	°C	158	-3000	4000	Outdoor temperature for start of summer operation (SW_Mode = 1) [1/100°C]
SW_MonthWintON		159	7	12	Month for start of winter operation (SW_Mode = 2)
SW_DateWintON		160	1	31	Date for start of winter operation (SW_Mode = 2)
SW_MonthSumON		161	1	6	Month for start of summer operation (SW_Mode = 2)
SW_DateSumON		162	1	31	Date for start of summer operation (SW_Mode = 2)
RecicStartTmp	°C	163	500	4000	Startup temperature for recirculation [1/100 °C]
RecicStopTmp	°C	164	500	4000	Stop temperature for recirculation [1/100 °C]
SupTempFireAlr	°C	165	5000	12000	Setpoint for internal fire alarm in inlet duct [1/100°C]
ExtTempFireAlr	°C	166	3500	12000	Setpoint for internal fire alarm in extract duct [1/100°C]
CoolFlwForcePc	%	167	0	10000	Increase in fan speed when cooling is active [%]
CoolOutTmpMin	°C	168	0	2500	Min. outdoor temperature for start of cooling
CoolSupMinTmp	°C	169	0	2500	Min. inlet temperature when cooling is active (only with room temp. control)
SN_ExtTmpStart	°C	170	1500	4000	Summer night extract/room temp. start [1/100°C]
SN_ExtTmpStop	°C	171	1000	3000	Summer night extract/room temp. stop [1/100°C]
SN_OutTmpStart	°C	172	500	2000	Summer night outdoor temp. start [1/100°C]
SN_SupTmpSet	°C	173	500	2000	Summer night inlet temp. control Setpoint [1/100°C]
SN_StartTid	min	174	0	1439	Summer night start [min]
SN_StopTid	min	175	0	1439	Summer night stop [min]
ExhaustBypass	°C	176	0	2000	Min. exhaust temp Setpoint for cross-flow heat exchanger [1/100°C]
ExhaustBypasPB	°C	177	200	2000	P-band for bypass control of cross-flow heat exchanger [1/100°C]
BattEXC_PumpFc		178	0	2	Circulation pump mode on heat exchanger battery: 0 -> Pump runs constantly 1 -> Pump runs if heat recovery demand is > 0 (AutoMode) 2 -> Pump runs if outdoor temp. is < temp. Setpoint for pump start
BattEXC_PumpSt	°C	179	0	4000	Startup temp. Setpoint for circulation pump on heat exchanger battery ONLY used if BattEXC_PumpFunc (Address 224) = 2. Pump runs if outdoor temp. is < temp. Setpoint for pump start
BattEXC_AlrSet	°C	180	0	2000	Temp. differential alarm Setpoint for heat exchanger battery Alarm activated if temperature differential (in relation to outdoor temp.) downstream from heat exchanger battery operating at 50% power (or more) is lower than the alarm Setpoint

NAME (Analog Value)	UNIT	Object Instance	MIN	MAX	REMARKS
HW_UpStartPow	%	181	0	10000	Heating battery: Startup power Setpoint [1/100%]
HW_PumpFunc		182	0	2	Circulation pump mode on heating battery: 0 -> Pump runs constantly 1 -> Pump runs if heat demand is > 0 (AutoMode) 2 -> Pump runs if outdoor temp. is < temp. Setpoint for pump start
HW_PmpStartTmp	°C	183	500	3000	Startup temp. Setpoint for circulation pump on heating battery ONLY used if HW_PumpFunc (Address 230) = 2 Pump runs if outdoor temp. is < temp. Setpoint for pump start
HW_FrzStopSet	°C	184	500	4000	Setpoint for frost protection control when unit is in STOP mode [1/100°C]
HW_FrzDriftSet	°C	185	200	2000	Setpoint for frost prot. control when unit is in OPERATING mode [1/100°C]
HW_FreezePB	°C	186	200	2000	P-band for frost protection control [1/100°C]
HW_FrzAlrTpSet	°C	187	200	2000	Setpoint for frost protection temp. alarm [1/100°C]
CW_PumpFunc		188	0	3	Cooling water pump mode: 0 -> Pump runs constantly 1 -> Pump runs if cooling power is > 0 (AutoMode) 2 -> Pump runs if outdoor temp. > temp. Setpoint for pump start
CW_PmpStartTmp	°C	189	500	4000	Temp. Setpoint for start of cooling battery pump ONLY used if CW_PumpFunc (Address 239) = 2 Pump runs if outdoor temp. is > temp. Setpoint for pump start
FiltSupStatAlr	Pa	190	10	500	Alarm limit for pressure drop across intake filter (static mode)
FiltExtStatAlr	Pa	191	10	500	Alarm limit for pressure drop across exhaust filter (static mode)
FiltSupDynAlr	%	192	1000	10000	Alarm limit for pressure drop across intake filter (dynamic mode)
FiltExtDynAlr	%	193	1000	10000	Alarm limit for pressure drop across exhaust filter (dynamic mode)
Alr_MailSetup		194	0	3	Alarm email setup 0 -> Emails not sent 1 -> Emails sent for A-alarms 2 -> Emails sent for B-alarms 3 -> Emails sent for A and B-alarms
BrugerRE_Func		195	0	2	Alarm relay 2 mode: 0 -> B-alarm 1 -> Low speed indication 2 -> High speed indication
HW2_UpStartPow	%	196	0	10000	Heating battery 2 - Start-up output Setpoint [1/100%]
HW2_PumpFunc		197	0	2	Heating battery 2 Circulation pump function: 0 -> Pump runs constantly 1 -> Pump runs if heating valve %-open is > 0% 2 -> Pump runs if outdoor temp. is < temp. Setpoint for pump start (Object Instance = 198)
HW2_PmpStartTmp	°C	198	500	3000	Heating battery 2 Start temperature for circulation pump of heating battery 2 ONLY used if WaterPumpFunc (Object Instance 210) = 2 Pump runs if outdoor temp. is < temp. Setpoint for pump start
HW2_FrzStopSet	°C	199	500	4000	Heating battery 2 - Setpoint for frost protection control when unit is in STOP mode [1/100°C]
HW2_FrzDriftSet	°C	200	200	2000	Heating battery 2 - Setpoint for frost protection control when unit is in OPERATING mode [1/100°C]

NAME (Analog Value)	UNIT	Object		MIN	MAX	REMARKS
		Instance				
HW2 FreezePB	°C	201		200	2000	Heating battery 2 - P-band for frost protection control [1/100°C]
HW2 FrzAlrTpSet	°C	202		200	2000	Heating battery 2 - Setpoint for frost protection temperature alarm [1/100°C]
PHeatSet	°C	203		-3000	2000	Pre-heating element - Setpoint inlet duct; after pre-heating element
PHMinAlrFrz	°C	204		-4000	10000	Pre-heating element - Frost alarm Setpoint for frost protection temperature alarm [1/100°C]
PHStandbyTmp	°C	205		500	4000	Pre-heating element Setpoint for frost protection control when system is in STOP mode [1/100°C]
PHeatStartPrc	%	206		0	30000	Pre-heating element - Start-up output Setpoint [1/100%]; when system is in start-up sequence
PheatFrzPB	°C	207		200	2000	Pre-heating element P-band for frost protection control [1/100°C]
PHPmpStTmpH	°C	208		500	3000	Pre-heating element Start temperature for circulation pump of pre-heating element ONLY used if PHPumpMode (Object Instance 210) = 2 Pump runs if outdoor temp. is < temp. Setpoint for pump start
PHFrzDrSetH	°C	209		200	2000	Pre-heating element Setpoint for frost protection control when system is in OPERATING mode [1/100°C]
PHPumpMode		210		0	4	Pre-heating element Circulation pump function: 0 -> Pump runs constantly 1 -> Pump runs if heat output is > 0 (AutoMode) 2 -> Pump runs if outdoor temp. is > temp. Setpoint for pump start
DXOutTempMin1	°C	211		0	4000	Min. outdoor temperature for activating DX relay no. 1
DXOutTempMin2	°C	212		0	4000	Min. outdoor temperature for activating DX relay no. 2
DXOutTempMin3	°C	213		0	4000	Min. outdoor temperature for activating DX relay no. 3
DXOutTempMin4	°C	214		0	4000	Min. outdoor temperature for activating DX relay no. 4
HP_MinOpTemp1	°C	215		-4000	4000	Min. outdoor temperature for activating heat pump relay no. 1
HP_MinOpTemp2	°C	216		-4000	4000	Min. outdoor temperature for activating heat pump relay no. 2
HP_MinOpTemp3	°C	217		-4000	4000	Min. outdoor temperature for activating heat pump relay no. 3
HP_MinOpTemp4	°C	218		-4000	4000	Min. outdoor temperature for activating heat pump relay no. 4
BattEXCFrzStop		219		-1000	4000	Fluid-coupled battery - Setpoint for frost protection control, unit is in STOP mode [1/100°C]
BattEXCFrzDrf		220		-1000	2000	Fluid-coupled battery - Setpoint for frost protection control, unit is in OPERATING mode [1/100°C]
BattEXCFrzePB		221		200	2000	Fluid-coupled battery - P-band for frost protection control [1/100°C]
BattEXCFrzASet		222		-1000	2000	Fluid-coupled battery - Setpoint for frost protection temperature alarm [1/100°C]
FanOptSupExtIn	%	223		0	10000	External Signal Greenzone, Inlet/supply air [1/100%]
FanOptExtExtIn	%	224		0	10000	External Signal Greenzone, Extract/exhaust [1/100%]
HW12VDCOutFunc		225		0	1	Kundespecifik; Motorvalve control (Heat 12): 0->0-10V, 1->2-10V
REXDeIcePerc		226		3000	10000	Special customer code; Rotary heat exchg.; Actual pressure in % since last calibration [1/100%]
NOFairCoolBlk		227		-4000	2000	Special customer code; Stop temperature outdoor air cooling [1/100°C]
NO_CStopRTemp		228		0	3000	Special customer code; Stop cooling by higher room temperature [1/100°C]
Ht2LimitTyp		229		0	2	Special customer code; Heat2 limiting type 1=Room, 2=Outdoor

NAME (Analog Value)	UNIT	Object Instance	MIN	MAX	REMARKS
Ht2StLimRTemp		230	-500	0	Special customer code; Startdifference temperature [1/100°C]
Ht2StLimRPer		231	10	100	Special customer code; Step size by incremental switching Heat2; Percent pr. step [1/100%]
Ht2StLimOTemp		232	-20	20	Special customer code; Blocking Heat2 outdoor temperature [1/100°C]
Ht2FlowOffset		233	-50	50	Special customer code; Offset in % of Flow when Heat2 is aktive [1/100%]
Ht2SetDelTime		234	0	7200	Special customer code; Delayed start Heat2
RecFlowChg		235	0	2	Special customer code; Select flowchange at recircutaion - 0=No change; 1=Low to high; 2=High to low
RecClosDStTemp		236	-10	20	Special customer code; Temperature for start with open damper [1/100°C]
HW1RiseT100		237	120	7200	Special customer code; Minimum raise/fall time at Heat12 [Sec]
SNSupCoolFlw	m3/h	238	0	32000	Setpoint supply air flow summer night cooling [m3/h] [l/s] [CFM]
SNExtCoolFlw	m3/h	239	0	32000	Setpoint exhaust air flow summer night cooling [m3/h] [l/s] [CFM]
SNSupCoolPa	Pa	240	0	2500	Setpoint supply air pressure summer night cooling
SNExtCoolPa	Pa	241	0	2500	Setpoint exhaust air pressure somsummermer night cooling
SNSupCoolPrc	%	242	0	100	Setpoint supply air fixed speed summer night cooling
SNExtCoolPrc	%	243	0	100	Setpoint exhaust air fixed speed summer night cooling
ExternCtrlReg		244			11 = BMS stop 105 = BMS low speed 414 = BMS medium speed 210 = BMS high speed 211 = BMS summer night cooling 220 = BMS night heating (recirculation)
MBT_Outdoor	°C	245			Outdoor temperature from BMS
MBT_Room1	°C	246			Room temperature from BMS
SNSlvOffsPrc	%	247	-50	50	summer night slave offset
CO2_MaxModRec	ppm	248			Customer specific; Max CO2
CO2_MinModRec	ppm	249			Customer specific; Min CO2
DehumSet_RH	%rH	250	10	100	Setpoint for dehumidifying [%rH]
SupMedSpeedSet	l/s	251	0	30000	Setpoint supply air flow medium speed [l/s] / [m3/h]
SupDuctPaMeSet	Pa	252	0	2000	Setpoint for pressure medium supply air [Pa]
SupFixMePrcSet	%	253	0	100	Setpoint for fixed speed medium [%]
ExtMedSpeedSet	l/s	254	0	30000	Setpoint exhaust flow-medium speed [l/s] / [m3/h]
ExtDuctPaMeSet	Pa	255	0	2000	Setpoint for duct pressure Medium exhaust [Pa]
CO2_UserSetMP	ppm	256	0	8000	Setpoint for CO2 medium speed [ppm]
RecMinFresh	%	257	0	100	Setpoint recirculation minimum fresh air