BACnet IP

GOLD RX/PX/CX/SD, GENERATION C/D

Applicable to program version 5.15 and newer versions

Overview

This BACnet driver is implemented in GOLD PV 5.15 and provides the function
of monitoring and operating the air handling unit.
GOLD is a BACnet Application Specific Controller (B-ASC).
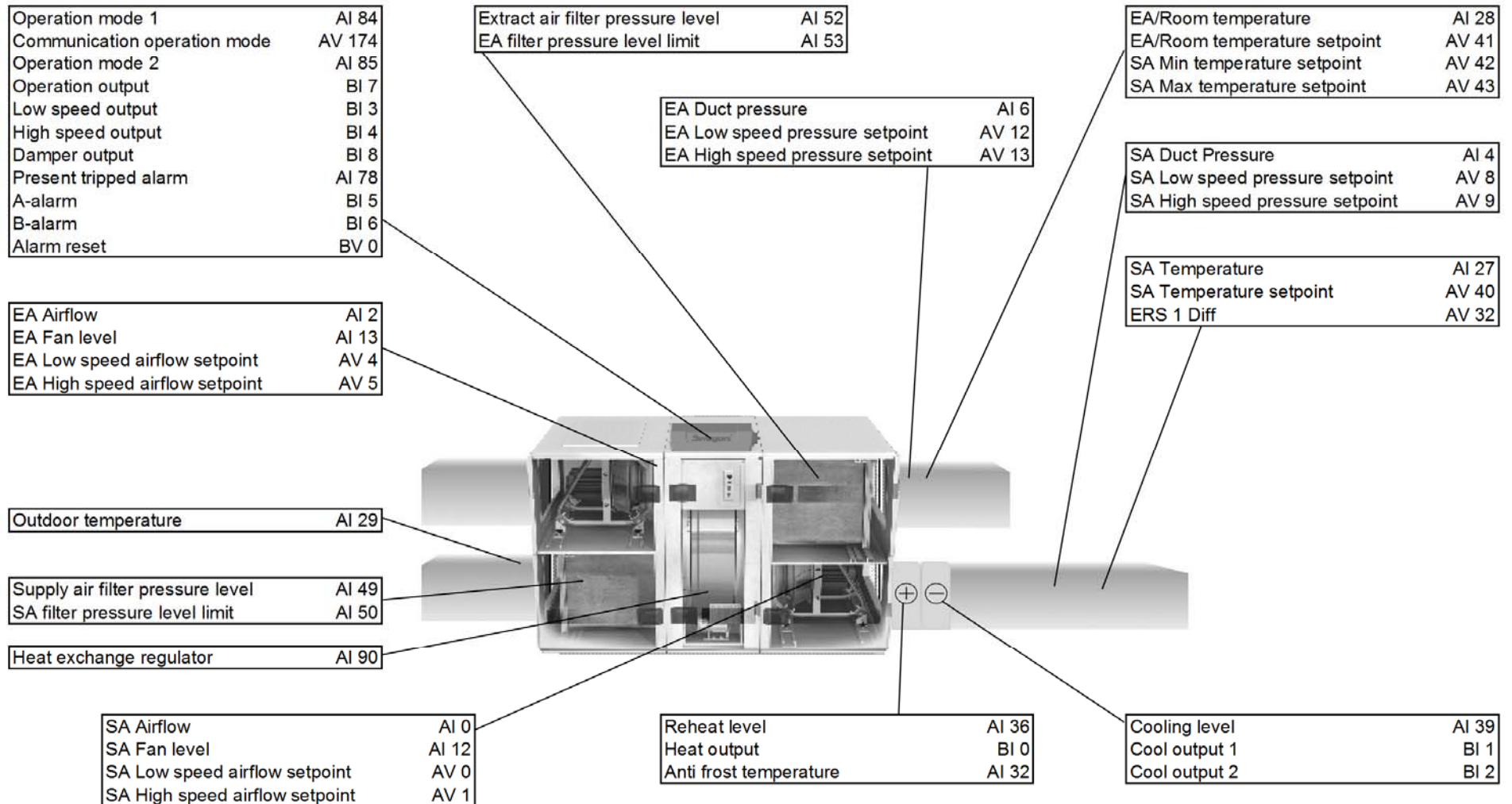The supported Data Link Layer Options are BACnet / IP.
See also document BACnet PICS (Protocol Implementation Conformance Statement) GOLD
and GOLD EDE (Engineering Data Exchange).

BACnet Interoperability Building Blocks Supported.

Data Sharing	DS-RP-B	Data Sharing-Read Property-B
Data Sharing	DS-RPM-B	Data Sharing-Read Property Multiple-B
Data Sharing	DS-WP-B	Data Sharing-Write Property-B
Data Sharing	DS-COV-B	Data Sharing-COV-B
Alarm&Event Management	AE-N-I-B	Alarm&Event-Notification Internal-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, 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, Time_Delay, Notification_Class, Alarm_Value, Event_Enable, Acked_Transitions, Notify_Type, Event_Time_Stamps.
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, Active_COV_Subscriptions.
Notification Class	Object_Identifier, Object_Name, Object_Type, Description, Notification_Class, Priority, Ack_Required, Recipient_List, Profile_Name.

Operation mode 1	AI 84
Communication operation mode	AV 174
Operation mode 2	AI 85
Operation output	BI 7
Low speed output	BI 3
High speed output	BI 4
Damper output	BI 8
Present tripped alarm	AI 78
A-alarm	BI 5
B-alarm	BI 6
Alarm reset	BV 0

EA Airflow	AI 2
EA Fan level	AI 13
EA Low speed airflow setpoint	AV 4
EA High speed airflow setpoint	AV 5

Outdoor temperature	AI 29

Supply air filter pressure level	AI 49
SA filter pressure level limit	AI 50

Heat exchange regulator	AI 90

SA Airflow	AI 0
SA Fan level	AI 12
SA Low speed airflow setpoint	AV 0
SA High speed airflow setpoint	AV 1

Extract air filter pressure level	AI 52
EA filter pressure level limit	AI 53

EA Duct pressure	AI 6
EA Low speed pressure setpoint	AV 12
EA High speed pressure setpoint	AV 13

Reheat level	AI 36
Heat output	BI 0
Anti frost temperature	AI 32

EA/Room temperature	AI 28
EA/Room temperature setpoint	AV 41
SA Min temperature setpoint	AV 42
SA Max temperature setpoint	AV 43

SA Duct Pressure	AI 4
SA Low speed pressure setpoint	AV 8
SA High speed pressure setpoint	AV 9

SA Temperature	AI 27
SA Temperature setpoint	AV 40
ERS 1 Diff	AV 32

Cooling level	AI 39
Cool output 1	BI 1
Cool output 2	BI 2

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
0	**SA Airflow**	0-20000l/s	
	Present supply airflow.		
1	**SA Airflow regulator**	0-20000l/s	
	Present supply airflow regulator setpoint.		
2	**EA Airflow**	0-20000l/s	
	Present extract airflow.		
3	**EA Airflow regulator**	0-20000l/s	
	Present extract airflow regulator setpoint.		
4	**SA Duct pressure**	0-2000Pa	
	Present supply air duct pressure.		
5	**SA Duct pressure regulator**	0-2000Pa	
	Present supply air duct pressure regulator setpoint.		
6	**EA Duct pressure**	0-2000Pa	
	Present extract air duct pressure.		
7	**EA Duct pressure regulator**	0-2000Pa	
	Present extract air duct pressure regulator setpoint.		
8	**SA VAV demand/boost input**	0-100.00%	
	Present input signal for supply air VAV demand or boosting function.		
9	**SA VAV demand regulator**	0-100.00%	
	Present supply air VAV demand regulator setpoint.		
10	**EA VAV demand/boost input**	0-100.00%	
	Present input signal for extract air VAV demand or boosting function.		
11	**EA VAV demand regulator**	0-100.00%	
	Present supply air VAV demand regulator setpoint.		
12	**SA Fan level**	0-100.00%	
	Present running level for the supply air fan.		
13	**EA Fan level**	0-100.00%	
	Present running level for the extract air fan.		
14	**SA Fan power**	0-32700W	PV 6.04
	Present power consumption level for the supply air fan. Also included slaves. PV 6.04		
15	**EA Fan power**	0-32700W	PV 6.04
	Present power consumption level for the extract air fan. Also included slaves. PV 6.04		
16	**SFP**	0.0-9.9	
	SFP supply air + extract air.		
17	**SA Frequency**	0-100.00Hz	
	Present frequency level for the supply air fan.		
18	**EA Frequency**	0-100.00Hz	
	Present frequency level for the extract air fan.		
19	**SA Voltage**	0-500V	
	Present voltage level for the supply air fan.		
20	**EA Voltage**	0-500V	
	Present voltage level for the extract air fan.		
21	**SA Current**	0-32.700A	PV 6.04
	Present current level for the supply air fan. Also included slaves. PV 6.04		

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
22	**EA Current**	0-32.700A	PV 6.04
	Present current level for the extract air fan. Also included slaves. PV 6.04		
23	**SA Airflow pressure**	0-2000Pa	
	Present airflow pressure in the supply air fan inlet.		
24	**EA Airflow pressure**	0-2000Pa	
	Present airflow pressure in the extract air fan inlet.		
25	**SA Temp regulator**	-55.00-125.00°C	
	Present supply air temperature regulator setpoint.		
26	**EA Temp regulator**	-55.00-125.00°C	
	Present extract air temperature regulator setpoint.		
27	**SA Temperature**	-55.00-125.00°C	
	Present supply air temperature.		
28	**EA/Room temperature**	-55.00-125.00°C	
	Present extract air/room temperature in the unit.		
29	**Outdoor temperature**	-55.00-125.00°C	
	Present outdoor air temperature in the unit.		
30	**EA/Room temperature external**	-55.00-125.00°C	
	Present room temperature external from the unit.		
31	**Outdoor temperature external**	-55.00-125.00°C	
	Present outdoor air temperature external from the unit.		
32	**Anti frost temperature**	-55.00-125.00°C	
	Present anti frost temperature for water reheating coils.		
33	**Temperature sensor 3**	-55.00-125.00°C	
	Present temperature for temp sensor no.3		
34	**Temperature sensor 4**	-55.00-125.00°C	
	Present temperature for temp sensor no.4		
35	**Rotary heat exchanger level**	0-100.00%	
	Present operation level from rotary heat exchanger.		
36	**Reheat level**	0-100.00%	
	Present level of reheat.		
37	**SA Down regulation level**	0-100.00%	
	Present level of supply airflow down regulation.		
38	**Extra regulation sequence level**	0-100.00%	
	Present level of the extra regulation sequence.		
39	**Cooling level**	0-100.00%	
	Present level of cooling.		
40	**Heating boost level**	0-100.00%	
	Present level of heating boost.		
41	**Cooling boost level**	0-100.00%	
	Present level of cooling boost.		
42	**HX pressure level**	0-2000Pa	
	Present pressure drop for the rotary heat exchanger.		
43	**HX pressure alarm limit**	0-2000Pa	
	Present pressure drop alarm limit for the rotary heat exchanger.		
44	**HX temperature**	0-100.00°C	
	Present temperature inside the control unit for the rotary heat exchanger.		
45	**Effect reduction level**	0-100.00%	
	Present level of max output signal for electrical reheaters, active during low supply airflow.		
46	**Anti frost temp setpoint/operation**	10.00-16.00°C	

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
	Present anti frost temperature setpoint for water reheating coils during unit operation.		
47	**Anti frost temp setpoint/stop**	15.00-40.00°C	
	Present anti frost temperature setpoint for water reheating coils when the unit is in stop.		
48	**Anti frost temp alarm limit**	5.00-30.00°C	
	Setting of antifrost temperature alarm limit.		
49	**Supply air filter pressure level**	0-2000Pa	
	Present supply air filter pressure drop.		
50	**Supply air filter pressure alarm limit.**	0-2000Pa	
	Present supply air filter pressure alarm limit.		
51	**Supply air filter pressure level, new**	0-2000Pa	
	Supply air filter pressure saved from calibration.		
52	**Extract air filter pressure level**	0-2000Pa	
	Present extract air filter pressure drop.		
53	**Extract air filter pressure alarm limit.**	0-2000Pa	
	Present extract air filter pressure alarm limit.		
54	**Extract air filter pressure level, new**	0-2000Pa	
	Extract air filter pressure saved from calibration.		
55	**Temperature displacement**	-5.00 - 5.00°C	
	Present temperature displacement from input signal.		
56	**Coil type**	0-20	
	Present connected reheat coil type.		
57	**Cool step time**	0-600s	
	Present time between cool step shift.		
58	**Cool relay 1 restart time**	0-900s	
	Present time between two starts of cool relay 1.		
59	**Cool relay 2 restart time**	0-900s	
	Present time between two starts of cool relay 2.		
60	**Program version, HMI**	0-10.00	
	Present program version for the hand terminal.		
61	**Program version, HMI-slave**	0-10.00	
	Present program version for the extra hand terminal.		
62	**Program version, main controller.**	0-10.00	
	Present program version for the main control unit.		
63	**Program version, SA FC-1.**	0-10.00	
	Present program version for the supply air frequency converter no.1.		
64	**Program version, SA FC-2.**	0-10.00	
	Present program version for the supply air frequency converter no.2.		
65	**Program version, EA FC-1.**	0-10.00	
	Present program version for the extract air frequency converter no.1.		
66	**Program version, EA FC-2.**	0-10.00	
	Present program version for the extract air frequency converter no.2.		
67	**Program version, HX control unit**	0-10.00	
	Present program version for the rotary heat exchange control unit.		
68	**Weekday**	0 - 6	
	Present weekday for the unit's internal clock.		
69	**Extended low speed op. Hours**	0-23	
	Present time for extended low speed operation.		

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
70	**Extended low speed op. Minutes**	0-59	
	Present time for extended low speed operation.		
71	**Extended high speed op. Hours**	0-23	
	Present time for extended high speed operation.		
72	**Extended high speed op. Minutes**	0-59	
	Present time for extended high speed operation.		
73	**SA Fan operation time**	0-9999	
	Present operation time for the supply air fan, measured in minutes and present in days (24h).		
74	**EA Fan operation time**	0-9999	
	Present operation time for the extract air fan, measured in minutes and present in days (24h).		
75	**Cool operation time**	0-9999	
	Present operation time for cooling, measured in minutes and present in days (24h).		
76	**Heat exchange operation time**	0-9999	
	Present operation time for heat exchange, measured in minutes and present in days (24h).		
77	**Reheat operation time**	0-9999	
	Present operation time for reheat, measured in minutes and present in days (24h).		
78	**Present tripped alarm**	0-200	
	Present tripped alarm number with highest priority.		
79	**Active not tripped alarm no.1**	0-200	
	Present active alarm in delay.		
80	**Active not tripped alarm no.2**	0-200	
	Present active alarm in delay.		
81	**Active not tripped alarm no.3**	0-200	
	Present active alarm in delay.		
82	**SA Fan size**	04 - 120	
	Present supply air fan size.		
83	**EA Fan size**	04 - 120	
	Present extract air fan size.		
84	**Operation mode 1**	0 - 18	
	0=Manual stop. 1=Ext. stop. 2=Com. stop 1. 3=Manual high speed. 4=Summer night cooling. 5=Int. night heat. 6=Manual low speed. 7=Ext. high speed. 8=Com. high speed. 9=Year channel stop. 10=Year channel high speed. 11=Year channel low speed. 12=Time channel high speed. 13=Ext. low speed. 14=Com. low speed. 15=Time channel low speed. 16=Time channel stop. 17=Low speed=stop. 18=Com. stop 2. (New in PV 5.00)		
85	**Operation mode 2**	0 - 22	

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
	0= 1=Cold air recovery. 2=Cooling boost. 3=SA down regulation. 4=HX defrosting. 5=Anti frost func. active. 6=Effect reduction. 7=Startup. 8=Zero calibration. 9=Extended low speed. 10=Extended high speed. 11=Air adjustment. 12=Cooling off. 13=Purging R.HX. 14=Extended R.HX. op. 15=Filter calibration. 16=R.HX. calibration 17=Morning boost. 18=Heating boost. 19=Alarm. 20=CoolDX pressure reduction. (PV 2.00) 21=Startup extract air fan (New in 4.00) R.HX speed limited. (Only in PV 2.00-2.02) 22=Fan heat retention (New in PV 5.00)		
86	**Operation mode, manual**	0 - 3	
	Present manual operation set on the unit's hand terminal. 0=Stop. 1=Auto operation. 2=Manual low speed. 3=Manual high speed.		
87	**Copy of Input Status 1-16.**	0-65535	
	Bit 0=1x0001 Bit 1=1x0002 Bit 15=1x0016		
88	**Copy of Input Status 17-32.**	0-65535	
	Bit 0=1x00017 Bit 1=1x00018 Bit 15=1x0032		
89	**Copy of Input Status 33-48.**	0-65535	
	Bit 0=1x00033 Bit 1=1x00034 Bit 15=1x0048		
90	**Heat exchanger regulator**	0-100.00%	
	Present level of heat exchanger regulator RX/CX/PX.		
91	**Extract air-humidity**	0-100.00%	
	Present level of extract air-humidity.		
92	**Extract air-humidity temperature**	-55.00-125.00°C	
	Present temperature inside extract air-humidity sensor.		
93	**Extract air-dewpoint**	-55.00-125.00°C	
	Calculated extract air-dewpoint.		
94	**AYC chilled water temperature**	-55.00-125.00°C	
	Present AYC chilled water temperature.		
95	**AYC chilled water temperature regulator**	-55.00-125.00°C	
	Present AYC chilled water temperature regulator setpoint.		

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
96	**AYC chilled water output**	0-100.00%	
	Present level of AYC chilled water valve output.		
97	**Supply air-dewpoint regulator**	-55.00-125.00°C	
	Present supply air-dewpoint regulator setpoint.		
98	**Supply air-humidity**	0-100.00%	
	Present level of supply air-humidity		
99	**Supply air-humidity temperature**	-55.00-125.00°C	
	Present temperature inside supply air-humidity sensor.		
100	**Supply air-dewpoint**	-55.00-125.00°C	
	Calculated supply air-dewpoint.		
101	**C.HX. Temperature**	-55.00-125.00°C	
	Present temperature of coil heat exchanger.		
102	**P.HX. Temperature 1**	-55.00-125.00°C	
	Present temperature 1 of plate heat exchanger.		
103	**P.HX. Temperature 2**	-55.00-125.00°C	
	Present temperature 2 of plate heat exchanger.		
104	**P/C.HX. Humidity**	0-100.00%	
	Present level of air-humidity in plate/coil heat exchanger.		
105	**R.HX. Efficiency**	0-100.00%	
	Calculated level of rotary heat exchanger efficiency.		
106	**C.HX. Valve output**	0-100.00%	
	Present level of coil heat exchanger valve output.		
107	**P.HX bypass output**	0-100.00%	
	Present level of plate heat exchanger bypass output.		
108	**Supply air pre-filter pressure level**	0-2000Pa	
	Present supply air pre-filter pressure drop.		
109	**Supply air pre-filter pressure alarm limit.**	0-2000Pa	
	Present supply air pre-filter pressure alarm limit.		
110	**Supply air pre-filter pressure level, new**	0-2000Pa	
	Supply air pre-filter pressure saved from calibration.		
111	**Extract air pre-filter pressure level**	0-2000Pa	
	Present extract air pre-filter pressure drop.		
112	**Extract air pre-filter pressure alarm limit.**	0-2000Pa	
	Present extract air pre-filter pressure alarm limit.		
113	**Extract air pre-filter pressure level, new**	0-2000Pa	
	Extract air pre-filter pressure saved from calibration.		
114	**Xzone reheat level**	0-100.00%	
	Present level of Xzone reheat.		
115	**Xzone anti frost temperature**	-55.00-125.00°C	
	Present Xzone anti frost temperature for water reheating coils.		
116	**Xzone cooling level**	0-100.00%	
	Present level of Xzone cooling.		
117	**Xzone cool step time**	0-600s	
	Present time between Xzone cool step shift.		
118	**Xzone cool relay 1 restart time**	0-900s	
	Present time between two starts of Xzone cool relay 1.		
119	**Xzone cool relay 2 restart time**	0-900s	
	Present time between two starts of Xzone cool relay 2.		
120	**Xzone SA Temp regulator**	-55.00-125.00°C	
	Present Xzone supply air temperature regulator setpoint.		
121	**Xzone EA Temp regulator**	-55.00-125.00°C	
	Present Xzone extract air temperature regulator setpoint.		
122	**Xzone SA Temperature**	-55.00-125.00°C	

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
	Present Xzone supply air temperature.		
123	**Xzone EA/Room temperature**	-55.00-125.00°C	
	Present Xzone extract air/room temperature.		
124	**Pre-heating air temperature**	-55.00-125.00°C	
	Present pre-heating air temperature.		
125	**Pre-heating level**	0-100.00%	
	Present level of pre-heating.		
126	**Pre-heating anti frost temperature**	-55.00-125.00°C	
	Present anti frost temperature for water pre-heating coils.		
127	**ReCO2 CO2 input**	0-100.00%	
	Present input signal for ReCO2 CO2.		
128	**ReCO2 internal damper output**	0-100.00%	
	Present output signal for ReCO2 internal damper.		
129	**ReCO2 external damper output**	0-100.00%	
	Present output signal for ReCO2 external damper.		
130	**ReCO2 outdoor airflow**	0-20000l/s	
	Present ReCO2 outdoor airflow.		
131	**ReCO2 outdoor airflow regulator**	0-20000l/s	
	Present ReCO2 outdoor airflow regulator setpoint.		
132	**ReCO2 outdoor airflow pressure**	0-2000Pa	
	Present ReCO2 outdoor airflow pressure.		
133	**Preheat operation time**	0-9999	
	Present operation time for preheat, measured in minutes and present in days (24h).		
134	**Xzone cool operation time**	0-9999	
	Present operation time for Xzone cooling, measured in minutes and present in days (24h).		
135	**Xzone reheat operation time**	0-9999	
	Present operation time for Xzone reheat, measured in minutes and present in days (24h).		
136	**Supply air-D temperature**	-55.00-125.00°C	
	Present supply air-D temperature.		
137	**Extract air-D temperature**	-55.00-125.00°C	
	Present extract air-D temperature.		
138	**AYC heat temperature**	-55.00-125.00°C	
	Present AYC heat temperature.		
139	**AYC heat temp regulator**	-55.00-125.00°C	
	Present AYC heat temperature regulator setpoint.		
140	**AYC heat valve output**	0-100.00%	
	Present level of AYC heat valve output.		
141	**Min/Max/Average Sens1Temp**	-55.00-125.00°C	PV 5.15
	Present Min/Max/Average sensor 1 temperature.		
142	**Min/Max/Average Sens2Temp**	-55.00-125.00°C	PV 5.15
	Present Min/Max/Average sensor 2 temperature.		
143	**Min/Max/Average Sens3Temp**	-55.00-125.00°C	PV 5.15
	Present Min/Max/Average sensor 3 temperature.		
144	**Min/Max/Average Sens4Temp**	-55.00-125.00°C	PV 5.15
	Present Min/Max/Average sensor 4 temperature.		
145	**Miru 1 Airflow**	0-10000l/s	PV 6.04
	Present Miru 1 airflow.		
146	**Miru 1 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 1 airflow regulator setpoint.		
147	**Miru 1 Pressure**	0-750Pa	PV 6.04
	Present Miru 1 air duct pressure.		

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
148	**Miru 1 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 1 air duct pressure regulator setpoint.		
149	**Miru 1 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 1 outdoor air temperature.		
150	**Miru 1 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 1, measured in minutes and present in days (24h).		
151	**Miru 1 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 1 air fan.		
152	**Miru 1 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 1 air fan.		
153	**Miru 1 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 1 air fan.		
154	**Miru 1 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 1 air fan.		
155	**Miru 1 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 1 air fan.		
156	**Miru 2 Airflow**	0-10000l/s	PV 6.04
	Present Miru 2 airflow.		
157	**Miru 2 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 2 airflow regulator setpoint.		
158	**Miru 2 Pressure**	0-750Pa	PV 6.04
	Present Miru 2 air duct pressure.		
159	**Miru 2 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 2 air duct pressure regulator setpoint.		
160	**Miru 2 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 2 outdoor air temperature.		
161	**Miru 2 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 2, measured in minutes and present in days (24h).		
162	**Miru 2 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 2 air fan.		
163	**Miru 2 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 2 air fan.		
164	**Miru 2 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 2 air fan.		
165	**Miru 2 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 2 air fan.		
166	**Miru 2 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 2 air fan.		
167	**Miru 3 Airflow**	0-10000l/s	PV 6.04
	Present Miru 3 airflow.		
168	**Miru 3 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 3 airflow regulator setpoint.		
169	**Miru 3 Pressure**	0-750Pa	PV 6.04
	Present Miru 3 air duct pressure.		
170	**Miru 3 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 3 air duct pressure regulator setpoint.		
171	**Miru 3 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 3 outdoor air temperature.		
172	**Miru 3 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 3, measured in minutes and present in days (24h).		
173	**Miru 3 Fan level**	0-100.00%	PV 6.04

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
	Present running level for the Miru 3 air fan.		
174	**Miru 3 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 3 air fan.		
175	**Miru 3 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 3 air fan.		
176	**Miru 3 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 3 air fan.		
177	**Miru 3 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 3 air fan.		
178	**Miru 4 Airflow**	0-10000l/s	PV 6.04
	Present Miru 4 airflow.		
179	**Miru 4 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 4 airflow regulator setpoint.		
180	**Miru 4 Pressure**	0-750Pa	PV 6.04
	Present Miru 4 air duct pressure.		
181	**Miru 4 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 4 air duct pressure regulator setpoint.		
182	**Miru 4 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 4 outdoor air temperature.		
183	**Miru 4 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 4, measured in minutes and present in days (24h).		
184	**Miru 4 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 4 air fan.		
185	**Miru 4 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 4 air fan.		
186	**Miru 4 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 4 air fan.		
187	**Miru 4 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 4 air fan.		
188	**Miru 4 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 4 air fan.		
189	**Miru 5 Airflow**	0-10000l/s	PV 6.04
	Present Miru 5 airflow.		
190	**Miru 5 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 5 airflow regulator setpoint.		
191	**Miru 5 Pressure**	0-750Pa	PV 6.04
	Present Miru 5 air duct pressure.		
192	**Miru 5 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 5 air duct pressure regulator setpoint.		
193	**Miru 5 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 5 outdoor air temperature.		
194	**Miru 5 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 5, measured in minutes and present in days (24h).		
195	**Miru 5 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 5 air fan.		
196	**Miru 5 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 5 air fan.		
197	**Miru 5 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 5 air fan.		
198	**Miru 5 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 5 air fan.		
199	**Miru 5 MWH**	0-32000MWH	PV 6.04

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
	MWH value for Miru 5 air fan.		
200	**Miru 6 Airflow**	0-10000l/s	PV 6.04
	Present Miru 6 airflow.		
201	**Miru 6 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 6 airflow regulator setpoint.		
202	**Miru 6 Pressure**	0-750Pa	PV 6.04
	Present Miru 6 air duct pressure.		
203	**Miru 6 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 6 air duct pressure regulator setpoint.		
204	**Miru 6 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 6 outdoor air temperature.		
205	**Miru 6 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 6, measured in minutes and present in days (24h).		
206	**Miru 6 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 6 air fan.		
207	**Miru 6 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 6 air fan.		
208	**Miru 6 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 6 air fan.		
209	**Miru 6 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 6 air fan.		
210	**Miru 6 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 6 air fan.		
211	**Miru 7 Airflow**	0-10000l/s	PV 6.04
	Present Miru 7 airflow.		
212	**Miru 7 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 7 airflow regulator setpoint.		
213	**Miru 7 Pressure**	0-750Pa	PV 6.04
	Present Miru 7 air duct pressure.		
214	**Miru 7 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 7 air duct pressure regulator setpoint.		
215	**Miru 7 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 7 outdoor air temperature.		
216	**Miru 7 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 7, measured in minutes and present in days (24h).		
217	**Miru 7 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 7 air fan.		
218	**Miru 7 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 7 air fan.		
219	**Miru 7 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 7 air fan.		
220	**Miru 7 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 7 air fan.		
221	**Miru 7 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 7 air fan.		
222	**Miru 8 Airflow**	0-10000l/s	PV 6.04
	Present Miru 8 airflow.		
223	**Miru 8 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 8 airflow regulator setpoint.		
224	**Miru 8 Pressure**	0-750Pa	PV 6.04
	Present Miru 8 air duct pressure.		
225	**Miru 8 Pressure regulator**	0-750Pa	PV 6.04

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
	Present Miru 8 air duct pressure regulator setpoint.		
226	**Miru 8 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 8 outdoor air temperature.		
227	**Miru 8 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 8, measured in minutes and present in days (24h).		
228	**Miru 8 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 8 air fan.		
229	**Miru 8 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 8 air fan.		
230	**Miru 8 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 8 air fan.		
231	**Miru 8 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 8 air fan.		
232	**Miru 8 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 8 air fan.		
233	**Miru 9 Airflow**	0-10000l/s	PV 6.04
	Present Miru 9 airflow.		
234	**Miru 9 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 9 airflow regulator setpoint.		
235	**Miru 9 Pressure**	0-750Pa	PV 6.04
	Present Miru 9 air duct pressure.		
236	**Miru 9 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 9 air duct pressure regulator setpoint.		
237	**Miru 9 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 9 outdoor air temperature.		
238	**Miru 9 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 9, measured in minutes and present in days (24h).		
239	**Miru 9 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 9 air fan.		
240	**Miru 9 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 9 air fan.		
241	**Miru 9 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 9 air fan.		
242	**Miru 9 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 9 air fan.		
243	**Miru 9 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 9 air fan.		
244	**Miru 10 Airflow**	0-10000l/s	PV 6.04
	Present Miru 10 airflow.		
245	**Miru 10 Airflow regulator**	0-10000l/s	PV 6.04
	Present Miru 10 airflow regulator setpoint.		
246	**Miru 10 Pressure**	0-750Pa	PV 6.04
	Present Miru 10 air duct pressure.		
247	**Miru 10 Pressure regulator**	0-750Pa	PV 6.04
	Present Miru 10 air duct pressure regulator setpoint.		
248	**Miru 10 Outdoor temperature**	-55.00-95.00°C	PV 6.04
	Present Miru 10 outdoor air temperature.		
249	**Miru 10 Operation time**	0-9999	PV 6.04
	Present operation time for Miru 10, measured in minutes and present in days (24h).		
250	**Miru 10 Fan level**	0-100.00%	PV 6.04
	Present running level for the Miru 10 air fan.		

Analog Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
251	**Miru 10 Fan power**	0-6000W	PV 6.04
	Present power consumption level for the Miru 10 air fan.		
252	**Miru 10 SFP**	0.00-5.00	PV 6.04
	SFP value for Miru 10 air fan.		
253	**Miru 10 KWH**	0-999KWH	PV 6.04
	KWH value for Miru 10 air fan.		
254	**Miru 10 MWH**	0-32000MWH	PV 6.04
	MWH value for Miru 10 air fan.		
255	**BB Operation mode**	0-2	PV 6.05
	Present Blue Box operation mode. 0=Stop 1=Heat 2=Cool		
256	**BB Cool temp regulator**	-40.0-176.0°C	PV 6.05
	Present Blue Box cool temperature regulator setpoint.		
257	**BB Heat temp regulator**	-40.0-176.0°C	PV 6.05
	Present Blue Box heat temperature regulator setpoint.		
258	**BB Supply water temperature**	-20.0-80.0°C	PV 6.05
	Present Blue Box supply water temperature.		
259	**BB Return water temperature**	-40.0-176.0°C	PV 6.05
	Present Blue Box return water temperature.		
260	**BB Supply pre-coil temperature**	-20.0-80.0°C	PV 6.05
	Present Blue Box pre-coil water temperature.		
261	**Extended ext. reg. seq. frost temp**	-55.00-125.00°C	PV 6.07
	Present extended extra regulation sequence frost temperature.		
262	**Extended ext. reg. seq. Output**	0-100.00%	PV 6.07
	Present extended extra regulation sequence output.		
263	**Steam humid output**	0-100.00%	PV 6.07
	Present steam humidification output.		
264	**End-filter pressure level**	0-2000Pa	PV 6.07
	Present supply air end-filter pressure drop.		
265	**End-filter pressure level, new**	0-2000Pa	PV 6.07
	Supply air end-filter pressure saved from calibration.		
266	**End-filter pressure alarm limit**	0-2000Pa	PV 6.07
	Present supply air end-filter pressure alarm limit.		

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
0	**SA Low speed airflow setpoint**	0-8200l/s	
	Supply airflow setpoint for the unit when running in low speed operation.		
1	**SA High speed airflow setpoint**	0-8200l/s	
	Supply airflow setpoint for the unit when running in high speed operation.		
2	**SA Max speed airflow setpoint**	0-8200l/s	
	Supply airflow max. limit for the unit when the low/high speed operation setpoint is altered by boosting function etc.		
3	**SA Min speed airflow setpoint**	0-8200l/s	
	Supply airflow min. limit for the unit when the low/high speed operation setpoint is altered when running in fan regulation mode VAV demand.		
4	**EA Low speed airflow setpoint**	0-8200l/s	
	Extract airflow setpoint for the unit when running in low speed operation.		
5	**EA High speed airflow setpoint**	0-8200l/s	
	Extract airflow setpoint for the unit when running in high speed operation.		
6	**EA Max speed airflow setpoint**	0-8200l/s	
	Extract airflow max. limit for the unit when the low/high speed operation setpoint is altered by boosting function etc.		
7	**EA Min speed airflow setpoint**	0-8200l/s	
	Extract airflow min. limit for the unit when the low/high speed operation setpoint is altered when running in fan regulation mode VAV demand.		
8	**SA Low speed pressure setpoint**	0-750Pa	
	Supply air duct pressure setpoint for the unit when running in low speed operation.		
9	**SA High speed pressure setpoint**	20-750Pa	
	Supply air duct pressure for the unit when running in high speed operation.		
10	**SA Max speed output signal**	10.00-100.00%	
	Max. limit for the supply air fan speed when running in pressure regulation mode.		
11	**SA Max speed pressure setpoint**	20-750Pa	
	Supply air duct pressure max. limit for the unit when the low/high speed operation setpoint is altered by boosting function etc.		
12	**EA Low speed pressure setpoint**	0-750Pa	
	Extract air duct pressure setpoint for the unit when running in low speed operation.		
13	**EA High speed pressure setpoint**	20-750Pa	
	Extract air duct pressure setpoint for the unit when running in high speed operation.		
14	**EA Max speed output signal**	10.00-100.00%	
	Max. limit for the extract air fan speed when running in pressure regulation mode.		
15	**EA Max speed pressure setpoint**	20-750Pa	
	Extract air duct pressure max. limit for the unit when the low/high speed operation setpoint is altered by boosting function etc.		
16	**SA Low speed demand setpoint**	0-100.00%	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Supply air setpoint for the 0-10V input signal on terminal 30..31 for the unit when running in low speed operation.		
17	SA High speed demand setpoint	0-100.00%	
	Supply air setpoint for the 0-10V input signal on terminal 30..31 for the unit when running in high speed operation.		
18	EA Low speed demand setpoint	0-100.00%	
	Extract air setpoint for the 0-10V input signal on terminal 32..33 for the unit when running in low speed operation.		
19	EA High speed demand setpoint	0-100.00%	
	Extract air setpoint for the 0-10V input signal on terminal 32..33 for the unit when running in high speed operation.		
20	SA Airflow regulation zone	1.00 - 10.00	
	Supply airflow regulation zone setting in % of the present airflow setpoint that the regulator is allowed to work within.		
21	SA Airflow C-factor	0.005 - 2.500	
	Supply airflow regulator affection setting.		
22	EA Airflow regulation zone	1.00 - 10.00	
	Extract airflow regulation zone setting in % of the present airflow setpoint that the regulator is allowed to work within.		
23	EA Airflow C-factor	0.005 - 2.500	
	Extract airflow regulator affection setting.		
24	SA Pressure regulation zone	1.00 - 10.00	
	Supply air pressure regulation zone setting in % of the present duct pressure setpoint that the regulator is allowed to work within.		
25	SA Pressure C-factor	0.005 - 2.500	
	Supply air pressure regulator affection setting.		
26	EA Pressure regulation zone	1.00 - 10.00	
	Extract air pressure regulation zone setting in % of the present duct pressure setpoint that the regulator is allowed to work within.		
27	EA Pressure C-factor	0.005 - 2.500	
	Extract air pressure regulator affection setting.		
28	SA Demand P-band.	1.00 - 100.00	
	Supply air demand regulator P-band setting.		
29	SA Demand C-factor	0.005 - 2.500	
	Supply air demand regulator affection setting.		
30	EA Demand P-band.	1.00 - 100.00	
	Extract air demand regulator P-band setting.		
31	EA Demand C-factor	0.005 - 2.500	
	Extract air demand regulator affection setting.		
32	ERS 1 Diff	1.00 - 7.00°C	
	Supply air temperature difference setting according to the diagram for ERS 1.		
33	ERS 1 Breakpoint	12.00 - 26.00°C	
	Breakpoint setting according to the diagram for ERS 1.		
34	ERS 2 Breakpoint X1	10.00-38.00°C	
	Breakpoint X1 setting according to the diagram for ERS 2.		
35	ERS 2 Breakpoint Y1	10.00-40.00°C	
	Breakpoint Y1 setting according to the diagram for ERS 2.		
36	ERS 2 Breakpoint X2	11.00-39.00°C	
	Breakpoint X2 setting according to the diagram for ERS 2.		
37	ERS 2 Breakpoint Y2	10.00-40.00°C	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Breakpoint Y2 setting according to the diagram for ERS 2.		
38	**ERS 2 Breakpoint X3**	12.00-40.00°C	
	Breakpoint X3 setting according to the diagram for ERS 2.		
39	**ERS 2 Breakpoint Y3**	10.00-40.00°C	
	Breakpoint Y3 setting according to the diagram for ERS 2.		
40	**SA Temperature setpoint**	10.00-40.00°C	
	Supply air temperature setting, for supply air temp regulation mode.		
41	**EA/Room Temperature setpoint**	10.00-40.00°C	
	Extract air/room temperature setting, for Extract air/room temp regulation mode.		
42	**SA Min temp setpoint**	8.00-20.00°C	
	Supply air min.setpoint during EA/room regulation mode.		
43	**SA Max temp setpoint**	16.00-50.00°C	
	Supply air max.setpoint during EA/room regulation mode.		
44	**SA Temperature P-band**	1.00 - 40.00	
	Supply air temperature regulator P-band setting.		
45	**EA/Room Temperature P-band**	1.00 - 40.00	
	Extract air/room temperature regulator P-band setting.		
46	**SA HX. Reg C-factor**	0.000 - 2.500	
	Supply air heat exchange regulator affection setting.		
47	**EA/Room HX. Reg C-factor**	0.000 - 2.500	
	Extract air/room heat exchange regulator affection setting.		
48	**SA Heat Reg C-factor**	0.000 - 2.500	
	Supply air reheat regulator affection setting.		
49	**EA/Room Heat Reg C-factor**	0.000 - 2.500	
	Extract air/room reheat regulator affection setting.		
50	**SA Extra Reg heat C-factor**	0.000 - 2.500	
	Supply air extra regulation sequence for reheating regulator affection setting.		
51	**SA Extra Reg cool C-factor**	0.000 - 2.500	
	Supply air extra regulation sequence for cooling regulator affection setting.		
52	**EA Extra Reg heat C-factor**	0.000 - 2.500	
	Extract air extra regulation sequence for reheating regulator affection setting.		
53	**EA Extra Reg cool C-factor**	0.000 - 2.500	
	Extract air extra regulation sequence for cooling regulator affection setting.		
54	**SA Down regulation Reg C-factor**	0.000 - 2.500	
	Supply air reheat regulator affection setting.		
55	**Reserve AV1**		
56	**SA Cool reg C-factor**	0.000 - 2.500	
	Supply air cool regulator affection setting.		
57	**EA/Room Cool reg C-factor**	0.000 - 2.500	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Extract air/room cool regulator affection setting.		
58	**SA Cooling boost C-factor**	0.000 - 2.500	
	Supply air cooling boost affection setting.		
59	**EA/Room Cooling boost reg C-factor**	0.000 - 2.500	
	Extract air/room cooling boost regulator affection setting.		
60	**HX Pressure alarm set.**	30 - 100Pa	
	Heat exchange pressure alarm limit setting (alarm no.38).		
61	**P/C.HX. defrost P-band**	1.00 - 40.00	
	Plate/coil heat exchange defrost P-band setting.		
62	**P/C.HX. defrost C-factor**	0.000 - 2.500	
	Plate/coil heat exchange defrost C-factor setting.		
63	**Cooling off set.**	10 - 50%	
	Cooling off airflow setting in % of max. airflow.		
64	**SA Down regulation neutral zone**	0.00-10.00°C	
	Neutral zone setting before downregulation is permitted.		
65	**Cool Outdoor temp limit.1**	0.00-25.00°C	
	Outdoor temperature limit setting for cooling stage 1.		
66	**Cool Outdoor temp limit.2**	0.00-25.00°C	
	Outdoor temperature limit setting for cooling stage 2.		
67	**Cool Outdoor temp limit.3**	0.00-25.00°C	
	Outdoor temperature limit setting for cooling stage 3.		
68	**Temperature reg. Neutral zone**	0.50-10.00°C	
	Neutral zone setting before shift between heating and cooling.		
69	**SA Cool min air flow**	0-8200l/s	
	Supply air min. air flow setting for cooling.		
70	**EA Cool min air flow**	0-8200l/s	
	Extract air min. air flow setting for cooling.		
71	**Heating boost start limit**	0.00-40.00°C	
	Heating boost start temperature limit.		
72	**Cooling boost start limit**	0.00-40.00°C	
	Cooling boost (comfort) start temperature limit.		
73	**SA Filter alarm limit**	50-300Pa	
	Supply air filter pressure alarm limit setting.		
74	**EA Filter alarm limit**	50-300Pa	
	Extract air filter pressure alarm limit setting.		
75	**Int. Night heat room start temp**	5.00-25.00°C	
	Intermittent night heat function, extract air temperature setting for start.		
76	**Int. Night heat room stop temp**	5.00-25.00°C	
	Intermittent night heat function, extract air temperature setting for stop.		
77	**Int. Night heat SA temp setpoint**	5.00-40.00°C	
	Intermittent night heat function, supply air temperature setpoint during night heat.		
78	**Int. Night heat SA airflow setpoint**	0-8200l/s	
	Intermittent night heat function, supply airflow setpoint during night heat.		
79	**Int. Night heat EA airflow setpoint**	0-8200l/s	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Intermittent night heat function, extract airflow setpoint during night heat.		
80	**Summer night cool EA start temp**	17.00-27.00°C	
	Summer night cool function, extract air temperature setting for start.		
81	**Summer night cool EA stop temp**	12.00-22.00°C	
	Summer night cool function, extract air temperature setting for stop.		
82	**Summer night cool outdoor temp limit**	5.00-15.00°C	
	Summer night cool function, outdoor temperature limit.		
83	**Summer night cool SA temp setpoint**	10.00-20.00°C	
	Summer night cool function, supply air temperature setpoint during summer night cool.		
84	**Outdoor temp comp. Winter X1.**	-30.00-(-10.00)°C	
	Endpoint of winter compensation.		
85	**Outdoor temp comp. Winter X2.**	-10.00-15.00°C	
	Startpoint of winter compensation.		
86	**Outdoor temp comp. Winter Y1.**	0.00-10.00°C	
	Level of winter compensation at X1.		
87	**Outdoor temp comp. Summer X3.**	15.00-25.00°C	
	Startpoint of summer compensation.		
88	**Outdoor temp comp. Summer X4.**	25.00-40.00°C	
	Endpoint of summer compensation.		
89	**Outdoor temp comp. Summer Y2.**	-10.00-10.00°C	
	Level of summer compensation at X4.		
90	**Outdoor airflow comp. Winter X1.**	-30.00-(-10.00)°C	
	Endpoint of winter compensation.		
91	**Outdoor airflow comp. Winter X2.**	-10.00-15.00°C	
	Startpoint of winter compensation.		
92	**Outdoor airflow comp. Winter Y1.**	0-50.00%	
	Level of airflow compensation at X1.		
93	**Extra Reg. Sequence max output**	0-100.00%	
	Maximum output signal setting for the extra regulation sequence.		
94	**EA/Room min temp alarm limit**	8.00-20.00°C	
	Setting for min extract air /room temp alarm no.40.		
95	**SA Deviation alarm limit**	2.00-15.00°C	
	Setting for supply air temperature below present setpoint, alarm no.41.		
96	**Reserve AV2**		
97	**SA Fan regulation mode**	0 - 3	
	Setting of regulation type for the supply air fan. 0=Airflow reg. 1=Pressure reg. 2=Demand reg. 3=Slave controlled by EA fan.		
98	**EA Fan regulation mode**	0 - 3	
	Setting of regulation type for the extract air fan. 0=Airflow reg. 1=Pressure reg. 2=Demand reg. 3=Slave controlled by SA fan.		

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
99	**ERS Step**	1 - 4	
	Setting of curve when temperature is above breakpoint.		
100	**Temperature regulation mode.**	0 - 3	
	Setting of temperature regulation type. 0=ERS 1 reg. 1=ERS 2 reg. 2=SA reg. 3=EA/Room reg.		
101	**Cooling off period**	60 - 900s	
	Time setting for cooling off electrical heating coil.		
102	**Cool step time set**	0 - 600s	
	Time setting between cool step shift.		
103	**Cool restart time**	60 - 900s	
	Setting of time between two starts of the cool relays.		
104	**Cool regulation mode**	0 - 6	
	Setting of cool regulation type 0=Controlled 0-10V 1=Controlled 10-0V 2=On/Off 1-step 3=On/Off 2-steps 4=On/Off 3-steps binary 5=CoolDX economy (PV 2.00) 6=CoolDX comfort (PV 3.00)		
105	**Heating boost regulation mode.**	0 - 1	
	Setting for heating boost function. 0=Inactive. 1=Active.		
106	**Cooling boost regulation mode.**	0 - 5	
	Setting of cooling boost regulation type. 0=Inactive. 1=Comfort. 2=Economy. 3=Sequence. 4=Comfort+economy (New in PV 5.00). 5=Economy+sequence (New in PV 5.00).		
107	**Filter calibration mode**	0 - 5	
	Setting for required filter calibration. 0=Inactive. 1=SA+EA-Filter. 2=SA-Filter. 3=EA-Filter. 4=HX. 5=ReCO2 (New in PV 5.00).		
108	**Air adjustment time, minutes**	0 - 1727	
	Setting for amount of minutes to air adjustment function.		
109	**Air adjustment time, hours**	0 - 28	
	Setting for amount of hours to air adjustment function.		
110	**Hand terminal language**	0 - 18	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	0=Svenska 1=Norsk 2=Dansk 3=Suomi 4=English 5=Français 6=Deutsch 7=Polski 8=Český 9=Italiano 10=Español 11=Português 12=Русский 13=Eesti 14=Latviesu 15=Lietiviu 16=Nederlands 17=Magyar (New in PV 5.00) 18=Türkçe (New in PV 5.01)		
111	**Summer night cool start, hour**	0-23	
	Setting for start time of summer night cooling function.		
112	**Summer night cool start, minute**	0-59	
	Setting for start time of summer night cooling function.		
113	**Summer night cool stop, hour**	0-23	
	Setting for stop time of summer night cooling function.		
114	**Summer night cool stop, minute**	0-59	
	Setting for stop time of summer night cooling function.		
115	**Extra regulation sequence cool mode**	0 - 2	
	Setting of extra regulation sequence cool type. 0=Inactive. 1=Comfort. 2=Economy.		
116	**Extra regulation sequence heat mode**	0 - 2	
	Setting of extra regulation sequence heat type. 0=Inactive. 1=Comfort. 2=Economy.		
117	**Morning boost time, hours**	0-23	
	Setting of morning boost time before normal operation.		
118	**Morning boost time, minutes**	0-59	
	Setting of morning boost time before normal operation.		
119	**Startup time**	0 - 600s	
	Setting of time for startup when the unit regulator is running with fixed signals.		
120	**Start delay SA fan.**	0 - 600s	
	Setting of start delay time for the supply air fan.		
121	**Start delay EA fan.**	0 - 600s	
	Setting of start delay time for the extract air fan after supply air fan has started.		
122	**Air flow unit**	0 -2	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Setting of air flow unit presented in the unit's hand terminal and WEB. 0=l/s. 1=m3/s. 2=m3/h.		
123	Reserve AV3		
124	Year	2000-2099	
	Setting for the unit's internal clock.		
125	Month	1-12	
	Setting for the unit's internal clock.		
126	Date	0-31	
	Setting for the unit's internal clock.		
127	Hour	0-23	
	Setting for the unit's internal clock.		
128	Minute	0-59	
	Setting for the unit's internal clock.		
129	Second	0-59	
	Setting for the unit's internal clock.		
130	Time channel 1 status	0-10,16-26	
	Low speed High speed 0=Inactive 16=Inactive 1=Monday 17=Monday 2=Tuesday 18=Tuesday 3=Wednesday 19=Wednesday 4=Thursday 20=Thursday 5=Friday 21=Friday 6=Saturday 22=Saturday 7=Sunday 23=Sunday 8=Monday..Friday 24=Monday..Friday 9=Monday..Sunday 25=Monday..Sunday 10=Saturday..Sunday 26=Saturday..Sunday		
131	Time channel 1 start hour	0-23	
132	Time channel 1 start minute	0-59	
133	Time channel 1 stop hour	0-23	
134	Time channel 1 stop minute	0-59	
135	Time channel 2 status	0-10,16-26	
136	Time channel 2 start hour	0-23	
137	Time channel 2 start minute	0-59	
138	Time channel 2 stop hour	0-23	
139	Time channel 2 stop minute	0-59	
140	Time channel 3 status	0-10,16-26	
141	Time channel 3 start hour	0-23	
142	Time channel 3 start minute	0-59	
143	Time channel 3 stop hour	0-23	
144	Time channel 3 stop minute	0-59	
145	Time channel 4 status	0-10,16-26	
146	Time channel 4 start hour	0-23	
147	Time channel 4 start minute	0-59	
148	Time channel 4 stop hour	0-23	
149	Time channel 4 stop minute	0-59	
150	Time channel 5 status	0-10,16-26	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
151	**Time channel 5 start hour**	0-23	
152	**Time channel 5 start minute**	0-59	
153	**Time channel 5 stop hour**	0-23	
154	**Time channel 5 stop minute**	0-59	
155	**Time channel 6 status**	0-10,16-26	
156	**Time channel 6 start hour**	0-23	
157	**Time channel 6 start minute**	0-59	
158	**Time channel 6 stop hour**	0-23	
159	**Time channel 6 stop minute**	0-59	
160	**Time channel 7 status**	0-10,16-26	
161	**Time channel 7 start hour**	0-23	
162	**Time channel 7 start minute**	0-59	
163	**Time channel 7 stop hour**	0-23	
164	**Time channel 7 stop minute**	0-59	
165	**Time channel 8 status**	0-10,16-26	
166	**Time channel 8 start hour**	0-23	
167	**Time channel 8 start minute**	0-59	
168	**Time channel 8 stop hour**	0-23	
169	**Time channel 8 stop minute**	0-59	
170	**Extended low speed op. Hours set**	0-23	
	Setting for extended low speed operation.		
171	**Extended low speed op. Minutes set**	0-59	
	Setting for extended low speed operation.		
172	**Extended high speed op. Hours set**	0-23	
	Setting for extended low speed operation.		
173	**Extended high speed op. Minutes set**	0-59	
	Setting for extended low speed operation.		
174	**Communication operation mode**	0 - 4	

	Setting of unit operation mode from communication.
	0=Auto operation (Normal stop when time channels are deactivated).
	1=Communication stop 1.
	2=Communication low speed.
	3=Communication high speed.
	4=Communication stop 2 (New in PV 5.00).
	    Intermittent night heat and
	    morning boost functions works at stop 2.		

175	**Service period alarm.**	0-99	
	Setting for delay time in months before service alarm.		
176	**External alarm 1 delay**	1 - 600s	
	Setting of delay time for external alarm no 1		
177	**External alarm 2 delay**	1 - 600s	
	Setting of delay time for external alarm no 2		
178	**Int. Night heat SA pressure setpoint**	20-750Pa	
	Intermittent night heat function, supply pressure setpoint during night heat.		
179	**Int. Night heat EA pressure setpoint**	20-750Pa	
	Intermittent night heat function, extract pressure setpoint during night heat.		
180	**Copy of Coil Status 1-16**	0-65535	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Bit 0=1x0001 Bit 1=1x0002 Bit 15=1x0016		
181	Copy of Coil Status 17-32	0-65535	
	Bit 0=1x00017 Bit 1=1x00018 Bit 15=1x0032		
182	Copy of Coil Status 33-48	0-65535	
	Bit 0=1x00033 Bit 1=1x00034 Bit 15=1x0048		
183	Heat relay periodic func.	0-3	
	Setting of periodic operation. 0=Inactive 1=Pump 2=Pump+valve 3=Valve (PV 2.02)		
184	Cool relay 1 periodic func.	0-3	
	Setting of periodic operation. 0=Inactive 1=Pump 2=Pump+valve 3=Valve (PV 2.02)		
185	Cool relay 2 periodic func.	0-3	
	Setting of periodic operation. 0=Inactive 1=Pump 2=Pump+valve 3=Valve (PV 2.02)		
186	Slave control C-factor	0.5 - 2.0	
	Slave regulator affection setting.		
187	SA dehumid P-band	1.00 - 40.00	
	SA dehumid regulator P-band setting.		
188	SA dehumid C-factor	0.000 - 2.500	
	SA dehumid regulator affection setting.		
189	Dewpoint reg. P-band	1.00 - 40.00	
	Dewpoint regulator P-band setting.		
190	Dewpoint reg. C-factor	0.000 - 2.500	
	Dewpoint regulator affection setting.		
191	AYC chilled water temperature set	5.00-30.00°C	
	Setting of AYC chilled water temperature setpoint.		
192	Dewpoint neutral zone	0.00-5.00°C	
	Dewpoint neutral zone setting.		
193	Comp. airflow	0-30.00%	
	Setting of comp. airflow.		
194	Supply air-humidity	10.00-90.00%	
	Setting of supply air-humidity.		
195	Water heating periodic op. time	0-60min	
	Setting of periodic op. time (minute).		
196	Water heating interval	0-168h	
	Setting of water heating interval time (hour).		
197	Cool periodic op. time	0-60min	
	Setting of periodic op. time (minute).		
198	Cool interval	0-168h	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Setting of cool interval time (hour).		
199	P/C.HX. bypass adj.	-5.00-5.00°C	
	Setting of plate/coil heat exchange bypass adjustment.		
200	EA/Room temperature external func.	0-3	PV 5.15
	Setting of EA/Room temperature (external) function. 0=Inactive. 1=Input signal on terminal 40..41. 2=Communication (AV 201). 3=Min/Max/Average (PV 5.15).		
201	EA/Room temperature com.	-55.00-125.00°C	
	Setting of EA/Room temperature via communication.		
202	Outdoor temperature external func.	0-2	
	Setting of outdoor temperature (external) function. 0=Inactive. 1=Input signal on terminal 38..39. 2=Communication (AV 203).		
203	Outdoor temperature com.	-55.00-125.00°C	
	Setting of outdoor temperature via communication.		
204	Timeout temperature com.	0-9999min	
	Setting of timeout for temperature via communication (AV 201, AV 203).		
205	Flow at fire function.	0-3	
	Setting for activating the air fan operation at fire function 0=Inactive. 1=SA. 2=EA. 3=SA+EA.		
206	Air fan down regulation func.	0-2	
	Setting for activating the air fan down regulation function 0=Inactive. 1=SA. 2=SA+EA.		
207	SA speed at fire.	50.00-100.00%	
	Setting of supply air speed at fire.		
208	EA speed at fire.	50.00-100.00%	
	Setting of extract air speed at fire.		
209	Temperature alarm setpoint.	-25.00-25.00°C	
	Temperature alarm function setting (no.80).		
210	Temperature alarm time.	1-999s	
	Setting of delay time for temperature alarm (no.80).		
211	Supply air min P-band.	1.00 - 40.00	
	Supply air min regulator P-band setting.		
212	Supply air min C-factor.	0.000 - 2.500	
	Supply air min regulator affection setting.		
213	Supply air max P-band.	1.00 - 40.00	
	Supply air max regulator P-band setting.		
214	Supply air max C-factor.	0.000 - 2.500	
	Supply air max regulator affection setting.		
215	Year channel 1 function.	0 - 3	
	0=Inactive. 1=Stop. 2=Low speed. 3=High speed.		
216	Year channel 1 start year.	2000 - 2099	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
271	Year channel 6 start year.	2000 - 2099	
272	Year channel 6 start month.	1 - 12	
273	Year channel 6 start date.	1 - 31	
274	Year channel 6 start hour.	0 - 23	
275	Year channel 6 start minute.	0 - 59	
276	Year channel 6 stop year.	2000 - 2099	
277	Year channel 6 stop month.	1 - 12	
278	Year channel 6 stop date.	1 - 31	
279	Year channel 6 stop hour.	0 - 23	
280	Year channel 6 stop minute.	0 - 59	
281	Year channel 7 function.	0 - 3	
282	Year channel 7 start year.	2000 - 2099	
283	Year channel 7 start month.	1 - 12	
284	Year channel 7 start date.	1 - 31	
285	Year channel 7 start hour.	0 - 23	
286	Year channel 7 start minute.	0 - 59	
287	Year channel 7 stop year.	2000 - 2099	
288	Year channel 7 stop month.	1 - 12	
289	Year channel 7 stop date.	1 - 31	
290	Year channel 7 stop hour.	0 - 23	
291	Year channel 7 stop minute.	0 - 59	
292	Year channel 8 function.	0 - 3	
293	Year channel 8 start year.	2000 - 2099	
294	Year channel 8 start month.	1 - 12	
295	Year channel 8 start date.	1 - 31	
296	Year channel 8 start hour.	0 - 23	
297	Year channel 8 start minute.	0 - 59	
298	Year channel 8 stop year.	2000 - 2099	
299	Year channel 8 stop month.	1 - 12	
300	Year channel 8 stop date.	1 - 31	
301	Year channel 8 stop hour.	0 - 23	
302	Year channel 8 stop minute.	0 - 59	
303	Filter select.	0 - 3	
	Setting for filter select function. 0=Inactive. 1=Supply air. 2=Extract air. 3=SA+EA.		
304	Pre-filter select.	0 - 3	
	Setting for pre-filter select function. 0=Inactive. 1=Supply air. 2=Extract air. 3=SA+EA.		
305	SA pre-filter alarm limit.	50-300Pa	
	Supply air pre-filter pressure alarm limit setting.		
306	EA pre-filter alarm limit.	50-300Pa	
	Extract air pre-filter pressure alarm limit setting.		
307	Pre-filter calibration mode.	0 - 3	
	Setting for required filter calibration. 0=Inactive. 1=SA+EA-Filter. 2=SA-Filter. 3=EA-Filter.		

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
308	**Xzone reheat function.**	0 - 4	
	Setting for Xzone reheat function. 0=Inactive. 1=El. coil P/P. 2=El. coil 0-10V. 3=Water coil with FP. 4=Water coil without FP.		
309	**Xzone cooling function.**	0 - 5	
	Setting for Xzone cooling function. 0=Inactive. 1=0-10V. 2=10-0V. 3=On/off 1. 4=On/off 2. 5=On/off 3.		
310	**Xzone temperature reg. Neutral zone.**	0.50-10.00°C	
	Xzone neutral zone setting before shift between heating and cooling.		
311	**Xzone temperature regulation mode.**	0 - 3	
	Setting of Xzone temperature regulation type. 0=ERS 1 reg. 1=ERS 2 reg. 2=SA reg. 3=EA/Room reg.		
312	**Xzone ERS Step.**	1 - 4	
	Setting of Xzone curve when temperature is above breakpoint.		
313	**Xzone ERS 1 Diff.**	1.00 - 7.00°C	
	Supply air temperature difference setting according to the diagram for Xzone ERS 1.		
314	**Xzone ERS 1 Breakpoint.**	12.00 - 26.00°C	
	Breakpoint setting according to the diagram for Xzone ERS 1.		
315	**Xzone ERS 2 Breakpoint X1.**	10.00-38.00°C	
	Breakpoint X1 setting according to the diagram for Xzone ERS 2.		
316	**Xzone ERS 2 Breakpoint Y1.**	10.00-40.00°C	
	Breakpoint Y1 setting according to the diagram for Xzone ERS 2.		
317	**Xzone ERS 2 Breakpoint X2.**	11.00-39.00°C	
	Breakpoint X2 setting according to the diagram for Xzone ERS 2.		
318	**Xzone ERS 2 Breakpoint Y2.**	10.00-40.00°C	
	Breakpoint Y2 setting according to the diagram for Xzone ERS 2.		
319	**Xzone ERS 2 Breakpoint X3.**	12.00-40.00°C	
	Breakpoint X3 setting according to the diagram for Xzone ERS 2.		
320	**Xzone ERS 2 Breakpoint Y3.**	10.00-40.00°C	
	Breakpoint Y3 setting according to the diagram for Xzone ERS 2.		
321	**Xzone SA Temperature setpoint.**	10.00-40.00°C	
	Xzone supply air temperature setting, for supply air temp regulation mode.		

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
322	**Xzone EA/Room Temperature setpoint.**	10.00-40.00°C	
	Xzone extract air/room temperature setting, for extract air/room temp regulation mode.		
323	**Xzone SA Min temp setpoint.**	8.00-20.00°C	
	Xzone supply air min.setpoint during EA/room regulation mode.		
324	**Xzone SA Max temp setpoint.**	16.00-50.00°C	
	Xzone supply air max.setpoint during EA/room regulation mode.		
325	**Pre-heating function.**	0 - 4	
	Setting of pre-heating function. 0=Inactive. 1=El. coil P/P. 2=El. coil 0-10V. 3=Water coil with FP. 4=Water coil without FP.		
326	**Pre-heating setpoint.**	-30.00-30.00°C	
	Setting of pre-heating temperature setpoint.		
327	**Xzone P-band.**	1.00-40.00	
	Xzone regulator P-band setting.		
328	**Xzone SA reheat C-factor.**	0.000 - 2.500	
	Xzone supply air reheat regulator affection setting.		
329	**Xzone SA cooling C-factor.**	0.000 - 2.500	
	Xzone supply air cooling regulator affection setting.		
330	**Xzone EA reheat C-factor.**	0.000 - 2.500	
	Xzone extract air reheat regulator affection setting.		
331	**Xzone EA cooling C-factor.**	0.000 - 2.500	
	Xzone extract air cooling regulator affection setting.		
332	**Xzone SA min P-band.**	1.00 - 40.00	
	Xzone supply air min regulator P-band setting.		
333	**Xzone SA min C-factor.**	0.000 - 2.500	
	Xzone supply air min regulator affection setting.		
334	**Xzone SA max P-band.**	1.00 - 40.00	
	Xzone supply air max regulator P-band setting.		
335	**Xzone SA max C-factor.**	0.000 - 2.500	
	Xzone supply air min regulator affection setting.		
336	**Preheat P-band.**	1.00 - 40.00	
	Preheat regulator P-band setting.		
337	**Preheat C-factor.**	0.000 - 2.500	
	Preheat regulator affection setting.		
338	**ReCO2 CO2 function.**	0 - 2	
	Setting of ReCO2 CO2 function. 0=Inactive. 1=CO2. 2=CO2+flow.		
339	**ReCO2 CO2 setpoint.**	0-100.00%	
	Setting of ReCO2 CO2 setpoint.		
340	**ReCO2 cooling function.**	0 - 2	
	Setting of ReCO2 cooling function. 0=Inactive. 1=Comfort. 2=Economy.		
341	**ReCO2 heating function.**	0 - 2	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Setting of ReCO2 heating function. 0=Inactive. 1=Comfort. 2=Economy.		
342	**ReCO2 min outdoor air.**	0-8200l/s	
	Setting of ReCO2 min outdoor air.		
343	**ReCO2 min exhaust air.**	0-8200l/s	
	Setting of ReCO2 min exhaust air.		
344	**ReCO2 CO2 P-band.**	1.00 - 100.00	
	ReCO2 CO2 regulator P-band setting.		
345	**ReCO2 CO2 C-factor.**	0.000 - 5.000	
	ReCO2 CO2 regulator affection setting.		
346	**ReCO2 CO2 flow C-factor.**	0.000 - 5.000	
	ReCO2 flow regulator affection setting.		
347	**ReCO2 heating C-factor.**	0.000 - 5.000	
	ReCO2 heating regulator affection setting.		
348	**ReCO2 cooling C-factor.**	0.000 - 5.000	
	ReCO2 cooling regulator affection setting.		
349	**AYC function.**	0 - 3	
	Setting of AYC function. 0=Inactive. 1=Cool. 2=Heat. 3=Cool+heat.		
350	**AYC heat temp set.**	10.00-80.00°C	
	Setting of AYC heated water temperature setpoint.		
351	**AYC night comp. channel.**	1 - 2	
	Setting of AYC night compensation channel. 1=Channel 1. 2=Channel 2.		
352	**AYC channel start hour.**	0-23h	
	Setting of AYC channel start time (hour).		
353	**AYC channel start minute.**	0-59min	
	Setting of AYC channel start time (minute).		
354	**AYC channel stop hour.**	0-23h	
	Setting of AYC channel stop time (hour).		
355	**AYC channel stop minute.**	0-59min	
	Setting of AYC channel stop time (minute).		
356	**AYC channel period.**	0-10	
	Setting of AYC channel period. 0=Inactive 1=Monday 2=Tuesday 3=Wednesday 4=Thursday 5=Friday 6=Saturday 7=Sunday 8=Monday..Friday 9=Monday..Sunday 10=Saturday..Sunday		
357	**AYC heat P-band.**	1.00 - 40.00	
	AYC heat regulator P-band setting.		
358	**AYC heat C-factor.**	0.000 - 2.500	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	AYC heat regulator affection setting.		
359	**AYC cool P-band.**	1.00 - 40.00	
	AYC cool regulator P-band setting.		
360	**AYC cool C-factor.**	0.000 - 2.500	
	AYC cool regulator affection setting.		
361	**AYC heat out comp. X1.**	-40.00-40.00°C	
	AYC outdoor compensation of heated water, outdoor temp X1 setting.		
362	**AYC heat out comp. Y1.**	10.00-80.00°C	
	AYC outdoor compensation of heated water, heated water temp Y1 setting.		
363	**AYC heat out comp. X2.**	-40.00-40.00°C	
	AYC outdoor compensation of heated water, outdoor temp X2 setting.		
364	**AYC heat out comp. Y2.**	10.00-80.00°C	
	AYC outdoor compensation of heated water, heated water temp Y2 setting.		
365	**AYC heat out comp. X3.**	-40.00-40.00°C	
	AYC outdoor compensation of heated water, outdoor temp X3 setting.		
366	**AYC heat out comp. Y3.**	10.00-80.00°C	
	AYC outdoor compensation of heated water, heated water temp Y3 setting.		
367	**AYC heat room comp. temp limit.**	0.00-40.00°C	
	AYC room compensation of heated water, heated water temp limit setting.		
368	**AYC heat room comp P-band.**	1.00-10.00°C	
	AYC room compensation of heated water, heated water P-band setting.		
369	**AYC heat night comp temp.**	-10.00-10.00°C	
	AYC night compensation of heated water, heated water night setting.		
370	**AYC heat pump on temp.**	-40.00-40.00°C	
	AYC pump operation of heated water, outdoor temp start setting.		
371	**AYC heat pump off temp.**	-40.00-40.00°C	
	AYC pump operation of heated water, outdoor temp stop setting.		
372	**AYC heat pump alarm.**	0 - 3	
	Setting for selecting the AYC heated water pump alarm function. 0=Inactive. 1=Open. 2=Closed. 3=Contactor.		
373	**AYC heat per op function.**	0 - 3	
	Setting for selecting the AYC heated water periodic operation function. 0=Inactive. 1=Pump. 2=Pump+valve. 3=Valve.		
374	**AYC heat per op time.**	0-60min	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	AYC periodic operation of heated water, time (minute) setting.		
375	**AYC heat per op interval.**	0-168h	
	AYC periodic operation of heated water, interval time (hour) setting.		
376	**AYC cool out comp. X1.**	-40.00-40.00°C	
	AYC outdoor compensation of chilled water, outdoor temp X1 setting.		
377	**AYC cool out comp. Y1.**	10.00-80.00°C	
	AYC outdoor compensation of chilled water, chilled water temp Y1 setting.		
378	**AYC cool out comp. X2.**	-40.00-40.00°C	
	AYC outdoor compensation of chilled water, outdoor temp X2 setting.		
379	**AYC cool out comp. Y2.**	10.00-80.00°C	
	AYC outdoor compensation of chilled water, chilled water temp Y2 setting.		
380	**AYC cool out comp. X3.**	-40.00-40.00°C	
	AYC outdoor compensation of chilled water, outdoor temp X3 setting.		
381	**AYC cool out comp. Y3.**	10.00-80.00°C	
	AYC outdoor compensation of chilled water, chilled water temp Y3 setting.		
382	**AYC cool room comp. temp limit.**	0.00-40.00°C	
	AYC room compensation of chilled water, chilled water temp limit setting.		
383	**AYC cool room comp. P-band.**	1.00-10.00°C	
	AYC room compensation of chilled water, chilled water P-band setting.		
384	**AYC cool night comp temp.**	-10.00-10.00°C	
	AYC night compensation of chilled water, chilled water night setting.		
385	**AYC cool pump on temp.**	-40.00-40.00°C	
	AYC pump operation of chilled water, outdoor temp start setting.		
386	**AYC cool pump off temp.**	-40.00-40.00°C	
	AYC pump operation of chilled water, outdoor temp stop setting.		
387	**AYC cool pump alarm.**	0 - 3	
	Setting for selecting the AYC chilled water pump alarm function. 0=Inactive. 1=Open. 2=Closed. 3=Contactor.		
388	**AYC cool per op function.**	0 - 3	
	Setting for selecting the AYC chilled water periodic operation function. 0=Inactive. 1=Pump. 2=Pump+valve. 3=Valve.		
389	**AYC cool per op time.**	0-60min	

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	AYC periodic operation of chilled water, time (minute) setting.		
390	**AYC cool per op interval.**	0-168h	
	AYC periodic operation of chilled water, interval time (hour) setting.		
391	**IO-mod 3 output 1 function.**	0 - 10	
	Setting of I/O-module no. 3 relay 1 output. 0=Cooling boost. 1=Heating boost. 2=Cooling. 3=Heat exchange. 4=Reheat. 5=Down regulation. 6=Effect reduction. 7=Intermittent night heat. 8=Summer night cooling. 9=Morning boost. 10=Heat exchange defrost.		
392	**IO-mod 3 output 2 function.**	0 - 10	
	Setting of I/O-module no. 3 relay 2 output. 0=Cooling boost. 1=Heating boost. 2=Cooling. 3=Heat exchange. 4=Reheat. 5=Down regulation. 6=Effect reduction. 7=Intermittent night heat. 8=Summer night cooling. 9=Morning boost. 10=Heat exchange defrost.		
393	**Humid reg. func.**	0 - 3	PV 6.07
	Setting for selecting humidifying function. 0=Inactive. 1=Supply air. 2=Extract air. 3=Steam (New in PV 6.07)		
394	**Humid reg. Start.**	10.00-90.00%	PV 5.10
	Humidifying start limit setting.		
395	**Humid reg. Stop.**	15.00-95.00%	PV 5.10
	Humidifying stop limit setting.		
396	**Min/Max/Average SensNumber**	1 - 4	PV 5.15
	Setting for selecting numbers of sensors to the Min/Max/Average function.		
397	**Min/Max/Average SensFunction**	0 - 2	PV 5.15
	Setting for selecting sensor function. 0=Min. 1=Max. 2=Average.		
398	**Miru 1 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 1 airflow setpoint for the unit when running in low speed operation.		
399	**Miru 1 High speed airflow setpoint**	0-10000l/s	PV 6.04

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Miru 1 airflow setpoint for the unit when running in high speed operation.		
400	**Miru 1 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 1 air duct pressure setpoint for the unit when running in low speed operation.		
401	**Miru 1 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 1 air duct pressure setpoint for the unit when running in high speed operation.		
402	**Miru 2 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 2 airflow setpoint for the unit when running in low speed operation.		
403	**Miru 2 High speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 2 airflow setpoint for the unit when running in high speed operation.		
404	**Miru 2 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 2 air duct pressure setpoint for the unit when running in low speed operation.		
405	**Miru 2 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 2 air duct pressure setpoint for the unit when running in high speed operation.		
406	**Miru 3 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 3 airflow setpoint for the unit when running in low speed operation.		
407	**Miru 3 High speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 3 airflow setpoint for the unit when running in high speed operation.		
408	**Miru 3 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 3 air duct pressure setpoint for the unit when running in low speed operation.		
409	**Miru 3 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 3 air duct pressure setpoint for the unit when running in high speed operation.		
410	**Miru 4 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 4 airflow setpoint for the unit when running in low speed operation.		
411	**Miru 4 High speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 4 airflow setpoint for the unit when running in high speed operation.		
412	**Miru 4 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 4 air duct pressure setpoint for the unit when running in low speed operation.		
413	**Miru 4 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 4 air duct pressure setpoint for the unit when running in high speed operation.		
414	**Miru 5 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 5 airflow setpoint for the unit when running in low speed operation.		
415	**Miru 5 High speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 5 airflow setpoint for the unit when running in high speed operation.		
416	**Miru 5 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 5 air duct pressure setpoint for the unit when running in low speed operation.		
417	**Miru 5 High speed pressure setpoint**	0-750Pa	PV 6.04

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Miru 5 air duct pressure setpoint for the unit when running in high speed operation.		
418	**Miru 6 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 6 airflow setpoint for the unit when running in low speed operation.		
419	**Miru 6 High speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 6 airflow setpoint for the unit when running in high speed operation.		
420	**Miru 6 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 6 air duct pressure setpoint for the unit when running in low speed operation.		
421	**Miru 6 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 6 air duct pressure setpoint for the unit when running in high speed operation.		
422	**Miru 7 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 7 airflow setpoint for the unit when running in low speed operation.		
423	**Miru 7 High speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 7 airflow setpoint for the unit when running in high speed operation.		
424	**Miru 7 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 7 air duct pressure setpoint for the unit when running in low speed operation.		
425	**Miru 7 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 7 air duct pressure setpoint for the unit when running in high speed operation.		
426	**Miru 8 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 8 airflow setpoint for the unit when running in low speed operation.		
427	**Miru 8 High speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 8 airflow setpoint for the unit when running in high speed operation.		
428	**Miru 8 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 8 air duct pressure setpoint for the unit when running in low speed operation.		
429	**Miru 8 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 8 air duct pressure setpoint for the unit when running in high speed operation.		
430	**Miru 9 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 9 airflow setpoint for the unit when running in low speed operation.		
431	**Miru 9 High speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 9 airflow setpoint for the unit when running in high speed operation.		
432	**Miru 9 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 9 air duct pressure setpoint for the unit when running in low speed operation.		
433	**Miru 9 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 9 air duct pressure setpoint for the unit when running in high speed operation.		
434	**Miru 10 Low speed airflow setpoint**	0-10000l/s	PV 6.04
	Miru 10 airflow setpoint for the unit when running in low speed operation.		
435	**Miru 10 High speed airflow setpoint**	0-10000l/s	PV 6.04

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Miru 10 airflow setpoint for the unit when running in high speed operation.		
436	**Miru 10 Low speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 10 air duct pressure setpoint for the unit when running in low speed operation.		
437	**Miru 10 High speed pressure setpoint**	0-750Pa	PV 6.04
	Miru 10 air duct pressure setpoint for the unit when running in high speed operation.		
438	**BB Cool temp setpoint**	-20.0-80.0°C	PV 6.05
	Blue Box cooling temperature setpoint.		
439	**BB Heat temp setpoint**	10.0-80.0°C	PV 6.05
	Blue Box heating temperature setpoint.		
440	**BB Unit type**	0-3	PV 6.05
	Blue Box unit type. 0=None 1=Heat pump 2=Chiller 3=Reversible		
441	**BB Optimize upper valve limit**	70.00-100.00%	PV 6.05
	Blue Box optimize function upper valve limit.		
442	**BB Optimize lower valve limit**	5.00-90.00%	PV 6.05
	Blue Box optimize function lower valve limit.		
443	**BB Optimize delay**	30-32000s	PV 6.05
	Blue Box optimize function delay time.		
444	**BB Cool optimize up**	0.1-6.0°C	PV 6.05
	Blue Box cooling optimize function up.		
445	**BB Cool optimize down**	0.1-6.0°C	PV 6.05
	Blue Box cooling optimize function down.		
446	**BB Heat optimize up**	0.1-6.0°C	PV 6.05
	Blue Box heating optimize function up.		
447	**BB Heat optimize down**	0.1-6.0°C	PV 6.05
	Blue Box heating optimize function down.		
448	**BB Cool optimize diff temperature**	1.0-10.0°C	PV 6.05
	Blue Box cooling optimize function differential temperature.		
449	**BB Heat optimize diff temperature**	1.0-10.0°C	PV 6.05
	Blue Box heating optimize function differential temperature.		
450	**BB AQUA Link function**	0-3	PV 6.05
	Blue Box AQUA Link function. 0=Inactive 1=Heat 2=Cool 3=Heat + Cool		
451	**BB AQUA Link cool pump alarm function**	0-3	PV 6.05
	Blue Box AQUA Link cool pump alarm function. 0=Inactive 1=Open 2=Close 3=Contactor		
452	**BB AQUA Link heat pump alarm function**	0-3	PV 6.05
	Blue Box AQUA Link heat pump alarm function. 0=Inactive 1=Open 2=Close 3=Contactor		

Analog Value (R/W).

Object Instance	Object Name	Min/Max	Misc
453	**Extended ext. reg. seq. reheat function**	0-4	PV 6.07
	Extended extra regulation sequence reheat function. 0=Inactive 1=El. P/P 2=El. 0-10V 3=Water FP 4=Water		
454	**Season heat mode setpoint**	0-2	PV 6.07
	Season heat mode type setpoint. 0=Digital Input NO 1=Digital Input NC 2=Manual		
455	**Season heat function**	0-1	PV 6.07
	Season heating function. 0=Inactive 1=Active		
456	**Steam humid extract air setpoint**	0-100.00%	PV 6.07
	Steam humidification extract air setpoint.		
457	**Steam humid supply air max limit**	0-100.00%	PV 6.07
	Steam humidification supply air max limit.		
458	**Steam humid extract air P-band**	1-60.00%	PV 6.07
	Steam humidification extract air P-band.		
459	**Steam humid extract air C-factor**	0-3.000	PV 6.07
	Steam humidification extract air C-factor.		
460	**Steam humid supply air max P-band**	1-60.00%	PV 6.07
	Steam humidification supply air max P-band.		
461	**Steam humid supply air max C-factor**	0-3.000	PV 6.07
	Steam humidification supply air max C-factor.		
462	**End-filter alarm limit**	10-1000Pa	PV 6.07
	Supply air end-filter pressure alarm limit setting.		
463	**End-filter select**	0-1	PV 6.07
	Supply air end-filter function. 0=Inactive. 1=Active		
464	**End-filter calibration**	0-1	PV 6.07
	Supply air end-filter calibration. 0=Inactive 1=Active		

Binary Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
0	**Heat output**	0-1	
	Status for relay output.		
1	**Cool output 1**	0-1	
	Status for relay output.		
2	**Cool output 2**	0-1	
	Status for relay output.		
3	**Low speed output**	0-1	
	Status for relay output.		
4	**High speed output**	0-1	
	Status for relay output.		
5	**A-alarm.**	0-1	
	Status for relay output.		
6	**B-alarm.**	0-1	
	Status for relay output.		
7	**Operation output**	0-1	
	Status for relay output.		
8	**Damper output**	0-1	
	Status for relay output.		
9	**External low speed input**	0-1	
	Status for digital input.		
10	**External high speed input**	0-1	
	Status for digital input.		
11	**External alarm 1 input**	0-1	
	Status for digital input.		
12	**External alarm 2 input**	0-1	
	Status for digital input.		
13	**External fire alarm input.**	0-1	
	Status for digital input.		
14	**External stop input**	0-1	
	Status for digital input.		
15	**DIP Switch 1**	0-1	
	Status for dip switch setting.		
16	**DIP Switch 2**	0-1	
	Status for dip switch setting.		
17	**DIP Switch 3**	0-1	
	Status for dip switch setting.		
18	**DIP Switch 4**	0-1	
	Status for dip switch setting.		
19	**DIP Switch 5**	0-1	
	Status for dip switch setting.		
20	**DIP Switch 6**	0-1	
	Status for dip switch setting.		
21	**AYC heat pump output**	0-1	
	Status for AYC heat pump output.		
22	**AYC cool pump output**	0-1	
	Status for AYC cool pump output.		
23	**C.HX. pump output**	0-1	
	Status for coil heat exchanger pump output.		
24	**R.HX rotation monitor**	0-1	
	Status from the rotation detector.		
25	**Xzone heat output**	0-1	
	Status for relay output.		
26	**Xzone cool output 1**	0-1	
	Status for relay output.		

Binary Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
27	**Xzone cool output 2**	0-1	
	Status for relay output.		
28	**Pre-heat output**	0-1	
	Status for relay output.		
29	**IO-mod 3 output 1**	0-1	
	Status for I/O-module no. 3 relay 1 output.		
30	**IO-mod 3 output 2**	0-1	
	Status for I/O-module no. 3 relay 2 output.		
31	**IO-mod 4 output 1**	0-1	PV 5.10
	Status for I/O-module no. 4 relay 1 output.		
32	**Miru 1 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
33	**Miru 2 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
34	**Miru 3 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
35	**Miru 4 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
36	**Miru 5 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
37	**Miru 6 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
38	**Miru 7 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
39	**Miru 8 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
40	**Miru 9 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
41	**Miru 10 Alarm**	0-1	PV 6.04
	Status of group alarm from Miru fan.		
42	**Extended ext. reg. seq. Pump**	0-1	PV 6.07
	Status of extended extra regulation sequence pump output.		
43	**Season heating mode**	0-1	PV 6.07
	Status of season heating mode.		
44	**Reserve BI24**		
45	**Reserve BI25**		
46	**Reserve BI26**		
47	**Reserve BI27**		
48	**Alarm number 1**	0-1	
	Status if alarm number 1 is active.		
49	**Alarm number 2**	0-1	
	Status if alarm number 2 is active.		
50	**Alarm number 3**	0-1	
	Status if alarm number 3 is active.		
247	**Alarm number 200**	0-1	
	Status if alarm number 200 is active.		
248	**Info number 1**	0-1	

Binary Inputs (RO).

Object Instance	Object Name	Min/Max	Misc
	Status if info number 1 is active.		
249	**Info number 2**	0-1	
	Status if info number 2 is active.		
250	**Info number 3**	0-1	
	Status if info number 3 is active.		
347	**Info number 100**	0-1	
	Status if info number 100 is active.		

Binary Value (R/W).

Object Instance	Object Name	Min/Max	Misc
0	**Alarm reset**	0-1	
	Resets tripped alarms.		
1	**SA Boosting func.**	0-1	
	Setting for activating the boost function for the supply air fan.		
2	**EA Boosting func.**	0-1	
	Setting for activating the boost function for the extract air fan.		
3	**R.HX. Defrost func.**	0-1	
	Setting for activating the defrost function for the rotary heat exchanger.		
4	**SA Down regulation func.**	0-1	
	Setting for activating the down regulation function for the supply air fan. (Moved to AV 206 in PV 3.00)		
5	**Reserve BV1**		
6	**Reserve BV2**		
7	**Cool operation mode**	0-1	
	Setting for cooling between off and auto operation.		
8	**Int. Night heat func.**	0-1	
	Setting for activating the intermittent night heat function.		
9	**Damper func.**	0-1	
	Setting for activating the damper output relay during int. night heat.		
10	**Summer night cooling**	0-1	
	Setting for activating the summer night cool function.		
11	**Temp displacement**	0-1	
	Setting for activating the external temperature displacement function.		
12	**Outdoor temp compensation**	0-1	
	Setting for activating the outdoor temperature compensation function.		
13	**Outdoor airflow compensation**	0-1	
	Setting for activating the outdoor airflow compensation function.		
14	**Auto. Summer/winter switch**	0-1	
	Setting for activating the automatic switch between summer/winter time function.		
15	**Switch clock func.**	0-1	
	Setting for switch clock function type. 0=Stop - low speed - high speed. 1=Low speed - high speed.		
16	**Internal fire alarm func.**	0-1	
	Setting for activating the internal fire alarm function.		
17	**EA at fire**	0-1	
	Setting for activating the extract air fan operation at fire function. (Moved to 4x0206 in PV 3.00)		
18	**External alarm 1 active at closure**	0-1	
	Setting for external alarm number 1 condition to be activated. 0=Alarm at closed input. 1=Alarm at open input.		
19	**External alarm 2 active at closure**	0-1	

Binary Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Setting for external alarm number 2 condition to be activated. 0=Alarm at closed input. 1=Alarm at open input.		
20	Reserve BV3		
21	Dewpoint reg. func.	0-1	
	Setting for activating the dewpoint regulator function.		
22	Dehumid reg. func.	0-1	
	Setting for activating the dehumid regulator function.		
23	External fire alarm func.	0-1	
	Setting for external fire resetting function. 0=Manual. 1=Automatic.		
24	External alarm 1 func.	0-1	
	Setting for external alarm 1 resetting function. 0=Manual. 1=Automatic.		
25	External alarm 2 func.	0-1	
	Setting for external alarm 2 resetting function. 0=Manual. 1=Automatic.		
26	Temperature alarm func.	0-1	
	Setting for activating temperature below setpoint alarm function (no.80).		
27	Int. Night heat output func.	0-1	
	Setting for selecting the intermittent night heat output function. 0=IQnomic 1=IQnomic+		
28	AYC heat out comp. func.	0-1	
	Setting for selecting the AYC outdoor comp. heated water function. 0=Inactive 1=Active		
29	AYC heat room comp. func.	0-1	
	Setting for selecting the AYC room comp. heated water function. 0=Inactive 1=Active		
30	AYC heat room comp. night block func.	0-1	
	Setting for selecting the AYC room comp. heated water night block function. 0=Inactive 1=Active		
31	AYC heat night comp. func.	0-1	
	Setting for selecting the AYC night comp. heated water function. 0=Inactive 1=Active		
32	AYC heat valve signal func.	0-1	

Binary Value (R/W).

Object Instance	Object Name	Min/Max	Misc
	Setting for selecting the AYC valve signal heated water alarm function. 0=Inactive 1=Active		
33	**AYC cool out comp. func.**	0-1	
	Setting for selecting the AYC outdoor comp. chilled water function. 0=Inactive 1=Active		
34	**AYC cool room comp. func.**	0-1	
	Setting for selecting the AYC room comp. chilled water function. 0=Inactive 1=Active		
35	**AYC cool room comp. night block func.**	0-1	
	Setting for selecting the AYC room comp. chilled water night block function. 0=Inactive 1=Active		
36	**AYC cool night comp. func.**	0-1	
	Setting for selecting the AYC night comp. chilled water function. 0=Inactive 1=Active		
37	**AYC cool valve signal func.**	0-1	
	Setting for selecting the AYC valve signal chilled water alarm function. 0=Inactive 1=Active		
38	**BB func.**	0-1	PV 6.05
	Setting for selecting the Blue Box function. 0=Inactive 1=Active		
39	**BB optimize temp. func.**	0-1	PV 6.05
	Setting for selecting the Blue Box optimize temperature function. 0=Inactive 1=Active		

Notification Class.

Object Instance	Object Name	Min/Max	Misc
0	**NC 00 A-Alarm**		PV 5.15
	Notification class for A-Alarm.		
1	**NC 00 B-Alarm**		PV 5.15
	Notification class for B-Alarm.		