Integration manual

Aidoo KNX

Air-to-Water Heat Pump [AZAI6KNX2xxx]

MEMBER
KNX
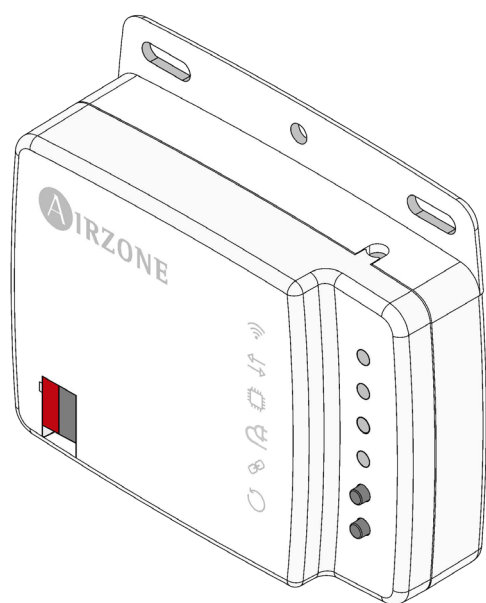
AIRZONE

CONTENTS

Warnings and environmental policy

WARNINGS

For your security, and to protect the devices, follow these instructions:

- Do not handle the system with wet or damp hands.
- Disconnect the power supply before making any connections.
- Take care not to cause a short circuit in any of the system connections.

ENVIRONMENTAL POLICY

Do not dispose of this equipment in the household waste. Electrical and electronic equipment contain substances that may damage the environment if they are not handled appropriately. The symbol of a crossed-out waste bin indicates that electrical equipment should be collected separately from other urban waste. For correct environmental management, it must be taken to the collection centers provided for this purpose, at the end of its useful life.
The equipment's components may be recycled. Act in accordance with current regulations on environmental protection.
If you replace it with other equipment, you must return it to the distributor or take it to a specialized collection center.
Those breaking the law or by-laws will be subject to such fines and measures as are laid down in environmental protection legislation.

General requirements

Strictly follow the directions outlined in this manual:

- This system must be installed by a qualified technician.
- Verify that the units to be controlled have been installed according to the manufacturer's requirements and operate correctly before installing the Airzone System.
- Locate and connect all the devices of the installation in accordance with the electronic regulations in force.
- Verify that the air conditioning installation to be controlled is in accordance with the regulations in force.
- Perform all the connections with total absence of power supply.
- Do not place the system bus close to lines of force, fluorescent lights, LED lamps, motors, etc. It might cause interference on thecommunications.
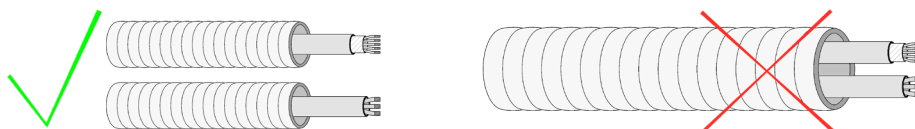

- Respect the connection polarity of each device. A wrong connection may seriously damage the product.

Introduction

Device to manage and integrate Air-to-Water HP units in KNX TP-1 control systems. Externally powered by the KNX bus.

Functionalities:

- Control of the parameters of the unit.
- KNX control.
- KNX standard data.
- 3 digital inputs.
- Easily configurable from ETS.
- Communication errors detection.
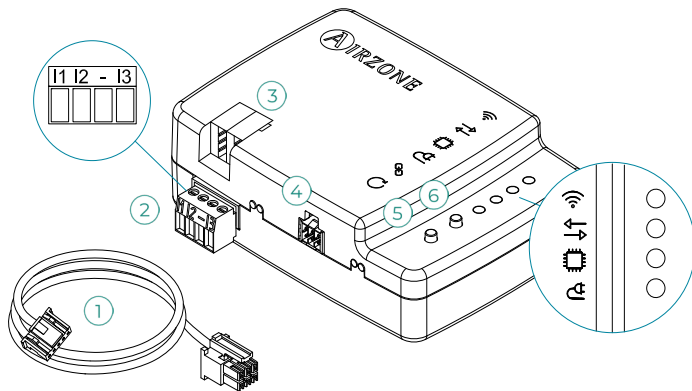
	Meaning
1	Indoor unit wire
2	I1: Digital input 1
	I2: Digital input 2
	-: Commom input
	I3: Digital input 3
3	KNX connection
4	Indoor unit port
5	Device reboot
6	Enable KNX programming

Assembly

The device can be mounted using screws or double-sided adhesive tape (included with the product).
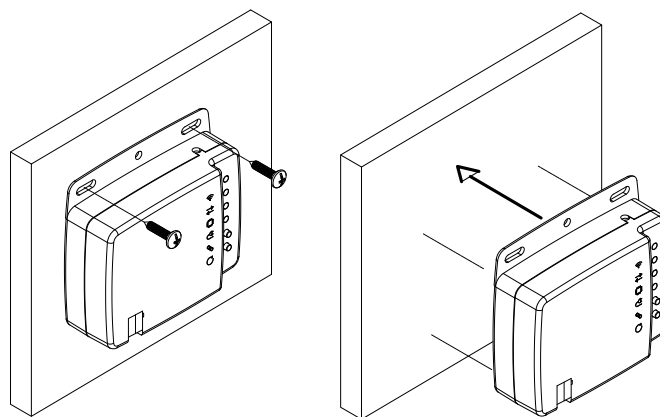
Connection

To connect the device to the ATW HP unit, follow the instructions on the technical datasheet that comes with the Aidoo.

It has a standard KNX connector for connecting to the KNX bus. Connect the Aidoo to the KNX TP-1 bus, following the color code.

+ Red
= Black
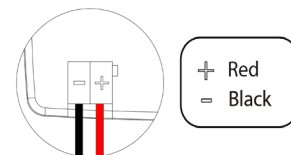
Configuration

This device is totally compatible with KNX, so you can configure it and set it up through ETS tool.
To do this, download the product database at:

KNX Database

The installation of the database in the ETS tool is carried out following the usual procedure for importing new products.

Communication objects

The Aidoo KNX device has a series of communication objects available for configuration by default. If you wish to use all the communication objects contained in this device, go to the "Parameters" tab in order to enable them (see the *Configuration parameters* section for more information).

IMPORTANT: The number of functionalities that can be controlled by the different communication objects offered by the Aidoo KNX device will depend on the particular ATW HP unit being controlled.

DEFAULT COMMUNICATION OBJECTS

By selecting **"Air-to-Water"** as unit type, the default communication objects available in ETS for the Aidoo KNX device are included in "Basic functions" within the control type option. The default temperature unit is Celsius, the number of circuits available is 1 configured as outlet control.

|	
Object number	**150: Control On/Off - ATW HP**
Description	This allows you to switch the Air-to-Water HP unit on or off
Values	0 → Off 1 → On
Type of access to the bus	Write
Datapoint identification	1.001 (DPT_Switch)

Object number	**185: Status On/Off - ATW HP**
Description	This shows the status of the Air-to-Water HP unit (on or off)
Values	0 → Off 1 → On
Type of access to the bus	Reading
Datapoint identification	1.001 (DPT_Switch)

Object number	**153: Control On/Off C1 - ATW HP**
Description	This allows you to switch circuit 1 of the Air-to-Water HP unit on or off
Values	0 → Off 1 → On
Type of access to the bus	Write
Datapoint identification	1.001 (DPT_Switch)

Object number	**188: Status On/Off C1 - ATW HP**
Description	This shows the status of the circuit 1 of the Air-to-Water HP unit
Values	0 → Off 1 → On
Type of access to the bus	Reading
Datapoint identification	1.001 (DPT_Switch)

Object number	**156: Control operation mode - ATW HP**
Description	This allows you to change the Air-to-Water HP unit's operating mode
Values	0 → Auto 1 → Heat 3 → Cool
Type of access to the bus	Write
Datapoint identification	20.105 (DPT_HVACContrMode)

Object number	**191: Status operation mode - ATW HP**
Description	This shows the operating mode of the Air-to-Water HP unit
Values	0 → Auto 1 → Heat 3 → Cool
Type of access to the bus	Reading
Datapoint identification	20.105 (DPT_ HVACContrMode)

Object number	**164: Control set point outlet water temperature C1 - ATW HP**
Description	This allows you to select the circuit 1 set point outlet water temperature in increments of 1 °C/°F
Values	°C °F
Type of access to the bus	Write
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**197: Status set point outlet water temperature C1 - ATW HP**
Description	This shows the set point outlet water temperature selected for circuit 1
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**330: Status error/alarm**
Description	This shows whether or not an error/alarm has occurred in the indoor unit
Values	0 → No alarm 1 → Alarm
Type of access to the bus	Reading
Datapoint identification	1.005 (DPT_Alarm)

Object number	**331: Status error code text**
Description	This shows the text of the error that has occurred in the indoor unit
Values	ASCII String
Type of access to the bus	Reading
Datapoint identification	16.001 (DPT_String_8859_1)

Object number	**427: Status temperature units**
Description	This shows the temperature units available in the indoor unit
Values	0 → Celsius 1 → Fahrenheit
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

CONFIGURATION PARAMETERS

The Aidoo KNX device has a series of communication objects that can be enabled for use via the "Parameters" tab in ETS.
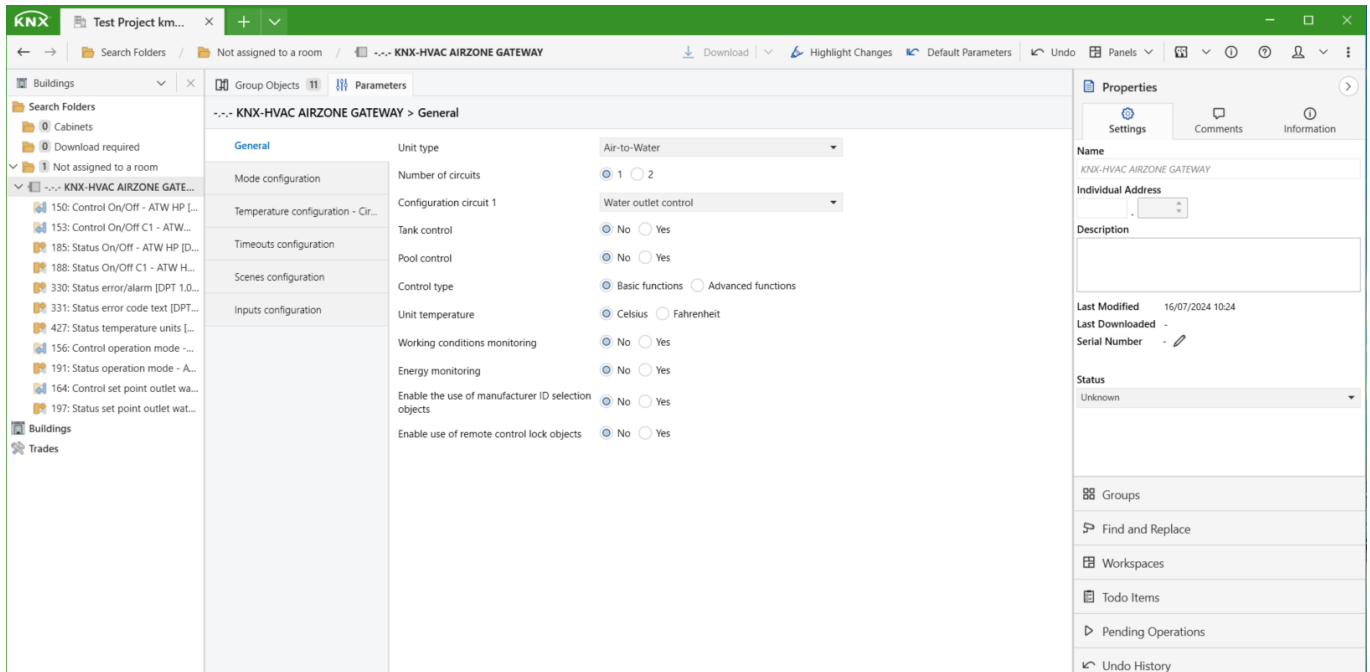
General

- Number of circuits

Select "2" to enable the basic functions of circuit 2.

Object number	**154: Control On/Off C2 - ATW HP**
Description	This allows you to switch circuit 2 of the Air-to-Water HP unit on or off
Values	0 → Off 1 → On
Type of access to the bus	Write
Datapoint identification	1.001 (DPT_Switch)

Object number	**189: Status On/Off C2 - ATW HP**
Description	This shows the status of the circuit 2 of the Air-to-Water HP unit
Values	0 → Off 1 → On
Type of access to the bus	Reading
Datapoint identification	1.001 (DPT_Switch)

Object number	**166: Control set point outlet water temperature C2 - ATW HP**
Description	This allows you to select the circuit 2 set point outlet water temperature in increments of 1 °C/°F
Values	°C °F
Type of access to the bus	Write
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**198: Status set point outlet water temperature C2 - ATW HP**
Description	This shows the set point outlet water temperature selected for circuit 2
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

- Circuit configuration. The available options are:

  ◇ Water outlet control. Default selection that enables objects 164 and 197 (C1) and 166 and 198 (C2).
  ◇ Ambient control. Replace objects 164 and 197 with 173 and 202 (C1) and objects 166 and 198 (C2) with 176 and 204.
  ◇ Curve control. Disables objects 164 and 197 (C1) and 166 and 198 (C2).

Object number	**173: Control set point ambient temperature C1 - ATW HP**	
Description	This allows you to select the circuit 1 set point ambient temperature in increments of 1 °C/°F	
Values	°C	°F
Type of access to the bus	Write	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**202: Status set point ambient temperature C1 - ATW HP**	
Description	This shows the set point ambient temperature selected for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**176: Control set point ambient temperature C2 - ATW HP**	
Description	This allows you to select the circuit 2 set point ambient temperature in increments of 1 °C/°F	
Values	°C	°F
Type of access to the bus	Write	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**204: Status set point ambient temperature C2 - ATW HP**	
Description	This shows the set point ambient temperature selected for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

- Tank control

Object number	**151: Control On/Off DHW - ATW HP**	
Description	This allows you to switch the DHW on or off	
Values	0 → Off	1 → On
Type of access to the bus	Write	
Datapoint identification	1.001 (DPT_Switch)	

Object number	**186: Status On/Off DHW - ATW HP**	
Description	This shows the status of the DHW (on or off)	
Values	0 → Off	1 → On
Type of access to the bus	Reading	
Datapoint identification	1.001 (DPT_Switch)	

Object number	**152: Control Powerful function - ATW HP**	
Description	This allows you to switch the Powerful function on or off	
Values	0 → Off	1 → On
Type of access to the bus	Write	
Datapoint identification	1.001 (DPT_Switch)	

Object number	**187: Status Powerful function - ATW HP**	
Description	This shows the status of the Powerful function	
Values	0 → Off	1 → On
Type of access to the bus	Reading	
Datapoint identification	1.001 (DPT_Switch)	

Object number	**168: Control set point temperature DHW - ATW HP**	
Description	This shows the set point outlet water temperature selected for DHW	
Values	°C	°F
Type of access to the bus	Write	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**199: Status set point temperature DHW - ATW HP**	
Description	This shows the set point outlet water temperature selected for DHW	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

• Pool control

Object number	**155: Control On/Off pool - ATW HP**	
Description	This allows you to switch the pool on or off	
Values	0 → Off	1 → On
Type of access to the bus	Write	
Datapoint identification	1.001 (DPT_Switch)	

Object number	**190: Status On/Off pool - ATW HP**	
Description	This shows the status of the pool (on or off)	
Values	0 → Off	1 → On
Type of access to the bus	Reading	
Datapoint identification	1.001 (DPT_Switch)	

Object number	**171: Control set point temperature pool - ATW HP**	
Description	This shows the set point outlet water temperature selected for the pool	
Values	°C	°F
Type of access to the bus	Write	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**201: Status set point temperature pool - ATW HP**	
Description	This shows the set point outlet water temperature selected for the pool	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

• Control type

Select "Advanced functions" to enable more control options.

Object number	**179: Control antifreeze function - ATW HP**	
Description	This allows you to activate the antifreeze function	
Values	0 → Disable	1 → Enable
Type of access to the bus	Write	
Datapoint identification	1.003 (DPT_Enable)	

Object number	**234: Status antifreeze function - ATW HP**	
Description	This shows whether the antifreeze function is activated	
Values	0 → Disable	1 → Enable
Type of access to the bus	Reading	
Datapoint identification	1.003 (DPT_Enable)	

Object number	**180: Control sterilization function - ATW HP**
Description	This allows you to activate the sterilization function
Values	0 → Disable 1 → Enable
Type of access to the bus	Write
Datapoint identification	1.003 (DPT_Enable)

Object number	**236: Status sterilization function - ATW HP**
Description	This shows whether the sterilization function is activated
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.003 (DPT_Enable)

Object number	**181: Control curve selection - ATW HP**
Description	This allows you to activate the curve selection
Values	2 byte unsigned value
Type of access to the bus	Write
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	**237: Status curve selection - ATW HP**
Description	This shows the selected curve value
Values	2 byte unsigned value
Type of access to the bus	Reading
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	**182: Control Eco function - ATW HP**
Description	This allows you to activate the Eco function
Values	0 → Disable 1 → Enable
Type of access to the bus	Write
Datapoint identification	1.003 (DPT_Enable)

Object number	**256: Status Eco function - ATW HP**
Description	This shows whether the Eco function is activated
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.003 (DPT_Enable)

Object number	**183: Control silence function - ATW HP**
Description	This allows you to activate the silence function
Values	0 → Disable 1 → Enable
Type of access to the bus	Write
Datapoint identification	1.003 (DPT_Enable)

Object number	**257: Status silence function - ATW HP**
Description	This shows whether the silence function is activated
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.003 (DPT_Enable)

Object number	**184: Control external heater function - ATW HP**
Description	This allows you to activate the external heater
Values	0 → Disable 1 → Enable
Type of access to the bus	Write
Datapoint identification	1.003 (DPT_Enable)

Object number	**259: Status external heater function - ATW HP**
Description	This shows whether the external heater is activated
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.003 (DPT_Enable)

Object number	**235: Status defrost function - ATW HP**
Description	This shows whether the defrost function is activated
Values	1 → Defrost
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**238: Status of the air to water working settings in water supply temperature mode C1**
Description	This shows the Air-to-Water HP unit working settings in outlet water temperature mode for circuit 1
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**239: Status of the air to water working settings in water supply temperature mode C2**
Description	This shows the Air-to-Water HP unit working settings in outlet water temperature mode for circuit 2
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**240: Status of the air to water working settings in room temperature mode C1**
Description	This shows the Air-to-Water HP unit working settings in ambient temperature mode for circuit 1
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**241: Status of the air to water working settings in room temperature mode C2**
Description	This shows the Air-to-Water HP unit working settings in ambient temperature mode for circuit 2
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**242: Status of the air to water working settings in temperature curve mode C1**
Description	This shows the Air-to-Water HP unit working settings in temperature curve mode for circuit 1
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**243: Status of the air to water working settings in temperature curve mode C2**
Description	This shows the Air-to-Water HP unit working settings in temperature curve mode for circuit 2
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**244: Status of the air to water working settings in pool temperature mode C1**
Description	This shows the air to water unit working settings in pool temperature mode for circuit 1
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**245: Status of the air to water working settings in pool temperature mode C2**
Description	This shows the air to water unit working settings in pool temperature mode for circuit 2
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**246: Status of the air to water working settings unknown C1**
Description	Working settings unknown for circuit 1 of the Air-to-Water HP unit
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**247: Status of the air to water working settings unknown C2**
Description	Working settings unknown for circuit 2 of the Air-to-Water HP unit
Values	1 → Active
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**248: Status solar integration - ATW HP**	
Description	This shows whether the solar integration is activated	
Values	0 → Disable	1 → Enable
Type of access to the bus	Reading	
Datapoint identification	1.003 (DPT_Enable)	

Object number	**249: Status DHW capacity - ATW HP**
Description	This shows the DHW capacity
Values	2 byte unsigned value
Type of access to the bus	Reading
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	**250: Status internal/external tank heater - ATW HP**	
Description	This shows whether the internal/external tank heater is activated	
Values	0 → Disable	1 → Enable
Type of access to the bus	Reading	
Datapoint identification	1.003 (DPT_Enable)	

Object number	**251: Status bivalent Heat source - ATW HP**
Description	This shows whether the bivalent heat mode is activated
Values	1 → Bivalent Heat mode
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**252: Status bivalent DHW source - ATW HP**
Description	This shows whether the bivalent DHW mode is activated
Values	1 → Bivalent DHW mode
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**253: Status C1 pump - ATW HP**
Description	This shows the status of the circuit 1 pump
Values	0 → Stop 1 → Start
Type of access to the bus	Reading
Datapoint identification	1.010 (DPT_Start)

Object number	**254: Status C2 pump - ATW HP**
Description	This shows the status of the circuit 2 pump
Values	0 → Stop 1 → Start
Type of access to the bus	Reading
Datapoint identification	1.010 (DPT_Start)

Object number	**255: Status SG Ready control function - ATW HP**
Description	This shows whether the SG Ready is activated
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.003 (DPT_Enable)

Object number	**258: Status solar energy input - ATW HP**
Description	This shows whether the solar energy input is activated
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.003 (DPT_Enable)

Object number	**260: Status Intelligent Energy**
Description	This shows whether the intelligent energy is activated
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.003 (DPT_Enable)

Object number	**261: Status DHW tank sensor - ATW HP**
Description	This shows whether the DHW tank sensor is activated
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.003 (DPT_Enable)

- Working conditions monitoring

Object number	**332: Status return temperature**
Description	This shows the return temperature of the indoor unit
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**333: Status internal probe temperature**
Description	This shows the temperature measured by the indoor unit's thermostat probe
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**334: Status external probe temperature**
Description	This shows the temperature measured by the outdoor unit's probe
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**335: Status working temperature**	
Description	This shows the working temperature of the indoor unit	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**336: Status operating hours counter**
Description	This shows the indoor unit's number of operating hours
Values	Number of operating hours
Type of access to the bus	Reading
Datapoint identification	13.100 (DPT_Value_2_Ucount)

Object number	**337: Status indoor unit exchange heating temperature**	
Description	This shows the heat exchanger temperature of the indoor unit	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**338: Status outdoor unit exchange heating temperature**	
Description	This shows the heat exchanger temperature of the outdoor unit	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**339: Status pump flowrate**
Description	This shows the volume of fluid flowing through the pump
Values	l/h
Type of access to the bus	Reading
Datapoint identification	9.025 (DPT_Value_Volume_Flow)

Object number	**340: Status inlet water temperature**	
Description	This shows the inlet water temperature	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**341: Status outlet water temperature**	
Description	This shows the outlet water temperature	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**342: Status buffer tank water temperature**	
Description	This shows the temperature of the domestic hot water (DHW)	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**343: Status solar water temperature**	
Description	This shows the water temperature of the solar panels	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**344: Status pool water temperature**	
Description	This shows the pool water temperature	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**345: Status compressor discharge temperature**	
Description	This shows the compressor discharge temperature	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**346: Status indoor piping temperature**	
Description	This shows the temperature of the indoor unit's gas piping	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**347: Status outdoor piping temperature**	
Description	This shows the temperature of the outdoor unit's gas piping	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**348: Status evaporation outlet temperature**	
Description	This shows the evaporation outlet temperature of the outdoor unit	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**349: Status IPM temperature**	
Description	This shows the PHE water supply temperature	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**350: Status high pressure**
Description	This shows the condensation pressure value
Values	Pa
Type of access to the bus	Reading
Datapoint identification	14.058 (DPT_Value_Pressure)

Object number	**351: Status low pressure**
Description	This shows the evaporation pressure value
Values	Pa
Type of access to the bus	Reading
Datapoint identification	14.058 (DPT_Value_Pressure)

Object number	**352: Status outdoor unit current**
Description	This shows the compressor's consumption
Values	A
Type of access to the bus	Reading
Datapoint identification	14.019 (DPT_Value_Electric_Current)

Object number	**353: Status compressor frequency**
Description	This shows the compressor frequency
Values	Hz
Type of access to the bus	Reading
Datapoint identification	14.033 (DPT_Value_Frequency)

Object number	**354: Status indoor unit expansion valve**
Description	This shows the status of the indoor unit expansion valve
Values	Pulses
Type of access to the bus	Reading
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	**355: Status outdoor unit expansion valve**
Description	This shows the status of the outdoor unit expansion valve
Values	Pulses
Type of access to the bus	Reading
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	**356: Status 4 ways valve**
Description	This shows the position of the 4-way valve
Values	Pulses
Type of access to the bus	Reading
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	**357: Status 3 ways valve**
Description	This shows the position of the 3-way valve
Values	Pulses
Type of access to the bus	Reading
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	**358: Status 2 ways valve**
Description	This shows the position of the 2-way valve
Values	Pulses
Type of access to the bus	Reading
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	**359: Status refrigerant temperature**	
Description	*This shows the temperature of the indoor unit's refrigerant*	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**360: Status water flow**
Description	This shows the volume of water flowing through the circuit
Values	l/h
Type of access to the bus	Reading
Datapoint identification	9.025 (DPT_Value_Volume_Flow)

Object number	**361: Status water pressure**
Description	This shows the circuit's pressure value
Values	Pa
Type of access to the bus	Reading
Datapoint identification	14.058 (DPT_Value_Pressure)

Object number	**362: Status ambient temperature C2**	
Description	This shows the ambient temperature of circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**363: Status outlet water temperature C2**	
Description	This shows the outlet water temperature of circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**364: Status relative humidity**
Description	This shows the % humidity in the room
Values	%
Type of access to the bus	Reading
Datapoint identification	9.007 (DPT_Value_Humidity)

- Energy monitoring

Object number	**365: Status total heating energy production**
Description	This shows the total energy generated in heating mode
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	**366: Status current heating energy production**
Description	This shows the current energy generated in heating mode
Values	kW
Type of access to the bus	Reading
Datapoint identification	9.024 (DPT_Power)

Object number	**367: Status total cooling energy production**
Description	This shows the total energy generated in cooling mode
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	**368: Status current cooling energy production**
Description	This shows the current energy generated in cooling mode
Values	kW
Type of access to the bus	Reading
Datapoint identification	9.024 (DPT_Power)

Object number	**369: Status total DHW energy production**
Description	This shows the total energy generated in DHW mode
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	**370: Status current DHW energy production**
Description	This shows the current energy generated in DHW mode
Values	kW
Type of access to the bus	Reading
Datapoint identification	9.024 (DPT_Power)

Object number	**371: Status current photovoltaic energy production**
Description	This shows the current photovoltaic energy generated
Values	kW
Type of access to the bus	Reading
Datapoint identification	9.024 (DPT_Power)

Object number	**372: Status total energy produced**
Description	This shows the total energy generated by the system
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	**373: Status heatpump total energy consumption**
Description	This shows the total energy consumed by the heat pump
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	**374: Status heatpump current energy consumption**
Description	This shows the current energy consumed by the heat pump
Values	kW
Type of access to the bus	Reading
Datapoint identification	9.024 (DPT_Power)

Object number	**375: Status building current energy consumption**
Description	This shows the total energy consumed by the system
Values	kW
Type of access to the bus	Reading
Datapoint identification	9.024 (DPT_Power)

Object number	**376: Status electric heat resistor total energy consumption**
Description	This shows the total energy consumed by the heating resistor
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	**377: Status DHW electric resistor total energy consumption**
Description	This shows the total energy consumed by the DHW resistor
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	**378: Status heating compressor total energy consumption**
Description	This shows the energy consumed by the compressor in heating mode
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	**379: Status cooling compressor total energy consumption**
Description	This shows the energy consumed by the compressor in cooling mode
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	380: Status DHW compressor total energy consumption
Description	This shows the energy consumed by the compressor in DHW mode
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

Object number	381: Status total energy consumption
Description	This shows the total energy consumed by the system
Values	kWh
Type of access to the bus	Reading
Datapoint identification	13.013 (DPT_ActiveEnergy_kWh)

- Enable the use of manufacturer ID selection objects

Object number	384: Control manufacturer ID
Description	This allows you to select the ID of the indoor unit's manufacturer
Values	2 byte unsigned value
Type of access to the bus	Write
Datapoint identification	7.001 (DPT_Value_2_Ucount)

Object number	387: Status manufacturer ID
Description	This shows the ID of the indoor unit's manufacturer
Values	2 byte unsigned value
Type of access to the bus	Reading
Datapoint identification	7.001 (DPT_Value_2_Ucount)

- Enable use of remote control lock objects. If you select Yes, it allows you to select the unit's parameters that you want to lock.

  ◊ Lock tank On/Off changes
  ◊ Lock mode changes
  ◊ Lock tank set point temperature changes

Object number	382: Control lock KNX control objects	
Description	This allows you to lock control of KNX communication objects	
Values	0 → Unlocked	1 → Locked
Type of access to the bus	Write	
Datapoint identification	1.002 (DPT_Bool)	

Object number	385: Status KNX control objetcs lock	
Description	This shows whether control of KNX communication objects has been locked	
Values	0 → Unlocked	1 → Locked
Type of access to the bus	Reading	
Datapoint identification	1.002 (DPT_Bool)	

Object number	383: Control remote controller lock	
Description	This allows you to lock control from the indoor unit's controller	
Values	0 → Unlocked	1 → Locked
Type of access to the bus	Write	
Datapoint identification	1.002 (DPT_Bool)	

Object number	386: Status remote controller lock	
Description	This shows whether the indoor unit's controller has been locked	
Values	0 → Unlocked	1 → Locked
Type of access to the bus	Reading	
Datapoint identification	1.002 (DPT_Bool)	

Mode configuration

- Enable "Mode cool/heat" objects

Object number	**157: Control operation mode Cool/Heat ATW HP**
Description	This allows you to select the air to water unit's operation mode (cooling or heating)
Values	0 → Cool 1 → Heat
Type of access to the bus	Write
Datapoint identification	1.100 (DPT_Heat/Cool)

Object number	**192: Status operation mode Cool/Heat - ATW HP**
Description	This shows the operation mode selected for the air to water unit
Values	0 → Cool 1 → Heat
Type of access to the bus	Reading
Datapoint identification	1.100 (DPT_Heat/Cool)

- Enable PID-Compat scaling mode objects

Object number	**158: Control operation mode Cool + On - ATW HP**
Description	This allows you to switch the air to water unit on or off, with the selected operation mode being cooling
Values	0 % → Off 1 ... 100 % → On + Cool
Type of access to the bus	Write
Datapoint identification	5.001 (DPT_Scaling)

Object number	**159: Control operation mode Heat + On - ATW HP**
Description	This allows you to switch the air to water unit on or off, with the selected operation mode being heating
Values	0 % → Off 1 ... 100 % → On + Heat
Type of access to the bus	Write
Datapoint identification	5.001 (DPT_Scaling)

- Enable use of bit-type mode objects

Object number	**160: Control operation mode Auto - ATW HP**
Description	This allows you to select auto mode as the air to water unit's operation mode
Values	1 → Auto
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**193: Status operation mode Auto - ATW HP**
Description	This shows that the operation mode currently selected for the air to water unit is auto mode
Values	1 → Auto
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	**161: Control operation mode Heat - ATW HP**
Description	This allows you to select heating mode as the air to water unit's operation mode
Values	1 → Heat
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**194: Status operation mode Heat - ATW HP**
Description	This shows that the operation mode currently selected for the air to water unit is heating mode
Values	1 → Heat
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

Object number	162: Control operation mode Cool - ATW HP
Description	This allows you to select cooling mode as the air to water unit's operation mode
Values	1 → Cool
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	195: Status operation mode Cool - ATW HP
Description	This shows that the operation mode currently selected for the air to water unit is cooling mode
Values	1 → Cool
Type of access to the bus	Reading
Datapoint identification	1.002 (DPT_Bool)

- Enable use of +/- object for mode

Select the DPT that you want to use: DPT 1.007 (Step) or DPT 1.008 (Up/Down).

Object number	163: Control operation mode +/- - ATW HP	
Description	This allows you to change the air to water unit's operation mode	
Values	0 → Decrease 1 → Increase	0 → Up 1 → Down
Type of access to the bus	Write	
Datapoint identification	1.007 (DPT_Step)	1.008 (DPT_UpDown)

- Enable use of text object for mode

Object number	196: Status operation mode text - ATW HP
Description	This shows the air to water unit's operation mode
Values	ASCII String
Type of access to the bus	Reading
Datapoint identification	16.001 (DPT_String_8859_1)

Temperature configuration - Circuit 1

The available parameters will depend on how the circuit has been configured (outlet control or ambient control). If the circuit is configured as curve control, this section will be disabled.

- **Outlet control**

  ◊ Periodic sending of "Status_Setpoint_C1" (in seconds, 0 = no periodic sending)

    Indicate how often you want the set point temperature status to be sent to the air to water unit (in seconds).

  ◊ Enable use of +/- object for set point

    Select the DPT that you want to use: DPT 1.007 (Step) or DPT 1.008 (Up/Down).

Object number	**165: Control set point outlet water temperature C1 +/- - ATW HP**	
Description	This allows you to raise or lower the outlet water set point temperature of the air to water unit in increments of 1 °C/°F for circuit 1	
Values	0 → Decrease 1 → Increase	0 → Up 1 → Down
Type of access to the bus	Write	
Datapoint identification	1.007 (DPT_Step)	1.008 (DPT_UpDown)

  ◊ Enable use of "Status_limits" object for set point

Object number	**206: Status Auto mode maximum C1 outlet water set point limitation**	
Description	This shows the upper outlet water set point temperature limit in auto mode for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**207: Status Auto mode minimum C1 outlet water set point limitation**	
Description	This shows the lower outlet water set point temperature limit in auto mode for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**208: Status Cool mode maximum C1 outlet water set point limitation**	
Description	This shows the upper outlet water set point temperature limit in cooling mode for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**209: Status Cool mode minimum C1 outlet water set point limitation**	
Description	This shows the lower outlet water set point temperature limit in cooling mode for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**210: Status Heat mode maximum C1 outlet water set point limitation**	
Description	This shows the upper outlet water set point temperature limit in heating mode for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**211: Status Heat mode minimum C1 outlet water set point limitation**	
Description	This shows the lower outlet water set point temperature limit in heating mode for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

- **Ambient control**

  ◊ Periodic sending of "Status_Setpoint_C1" (in seconds, 0 = no periodic sending)

  Indicate how often you want the set point temperature status to be sent to the air to water unit (in seconds).

  ◊ Enable use of +/- object for set point

  Select the DPT that you want to use: DPT 1.007 (Step) or DPT 1.008 (Up/Down).

Object number	**174: Control set point ambient temperature C1 +/- - ATW HP**
Description	This allows you to raise or lower the ambient set point temperature of the air to water unit in increments of 1 °C/°F for circuit 1
Values	0 → Decrease 0 → Up 1 → Increase 1 → Down
Type of access to the bus	Write
Datapoint identification	1.007 (DPT_Step) 1.008 (DPT_UpDown)

  ◊ Enable limitation on control set point

  Select the minimum and maximum set point temperature that can be set for the air to water unit (in increments of 1 °C/°F).

Object number	**175: Control set point ambient temperature C1 limitation**
Description	This allows you to enable the function to limit the ambient set point temperature of the air to water unit for circuit 1
Values	0 → Disable 1 → Enable
Type of access to the bus	Write
Datapoint identification	1.001 (DPT_Switch)

Object number	**203: Status set point ambient temperature C1 limitation**
Description	This shows whether the function to limit the ambient set point temperature set for the air to water unit is enabled for circuit 1
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.001 (DPT_Switch)

Object number	**222: Status Auto mode set point ambient temperature C1 maximum limitation**
Description	This shows the upper ambient set point temperature limit in auto mode for circuit 1
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**223: Status Auto mode set point ambient temperature C1 minimum limitation**
Description	This shows the lower ambient set point temperature limit in auto mode for circuit 1
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**224: Status Cool mode set point ambient temperature C1 maximum limitation**
Description	This shows the upper ambient set point temperature limit in cooling mode for circuit 1
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**225: Status Cool mode set point ambient temperature C1 minimum limitation**
Description	This shows the lower ambient set point temperature limit in cooling mode for circuit 1
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	226: Status Heat mode set point ambient temperature C1 maximum limitation	
Description	This shows the upper ambient set point temperature limit in heating mode for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	227: Status Heat mode set point ambient temperature C1 minimum limitation	
Description	This shows the lower ambient set point temperature limit in heating mode for circuit 1	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Temperature configuration - Circuit 2

The available parameters will depend on how the circuit has been configured (outlet control or ambient control). If the circuit is configured as curve control, this section will be disabled.

- **Outlet control**

    ◊ Periodic sending of "Status_Setpoint_C2" (in seconds, 0 = no periodic sending)

    Indicate how often you want the set point temperature status to be sent to the air to water unit (in seconds).

    ◊ Enable use of +/- object for set point

    Select the DPT that you want to use: DPT 1.007 (Step) or DPT 1.008 (Up/Down).

Object number	**167: Control set point outlet water temperature C2 +/- - ATW HP**	
Description	This allows you to raise or lower the outlet water set point temperature of the air to water unit in increments of 1 °C/°F for circuit 2	
Values	0 → Decrease 1 → Increase	0 → Up 1 → Down
Type of access to the bus	Write	
Datapoint identification	1.007 (DPT_Step)	1.008 (DPT_UpDown)

    ◊ Enable use of "Status_limits" object for set point

Object number	**212: Status Auto mode maximum C2 outlet water set point limitation**	
Description	This shows the upper outlet water set point temperature limit in auto mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**213: Status Auto mode minimum C2 outlet water set point limitation**	
Description	This shows the lower outlet water set point temperature limit in auto mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**214: Status Cool mode maximum C2 outlet water set point limitation**	
Description	This shows the upper outlet water set point temperature limit in cooling mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**215: Status Cool mode minimum C2 outlet water set point limitation**	
Description	This shows the lower outlet water set point temperature limit in cooling mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**216: Status Heat mode maximum C2 outlet water set point limitation**	
Description	This shows the upper outlet water set point temperature limit in heating mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**217: Status Heat mode minimum C2 outlet water set point limitation**	
Description	This shows the lower outlet water set point temperature limit in heating mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

- **Ambient control**

  ◇ Periodic sending of "Status_Setpoint_C2" (in seconds, 0 = no periodic sending)

  Indicate how often you want the set point temperature status to be sent to the air to water unit (in seconds).

  ◇ Enable use of +/- object for set point

  Select the DPT that you want to use: DPT 1.007 (Step) or DPT 1.008 (Up/Down).

Object number	177: Control set point ambient temperature C2 +/- - ATW HP	
Description	This allows you to raise or lower the ambient set point temperature of the air to water unit in increments of 1 °C/°F for circuit 2	
Values	0 → Decrease 1 → Increase	0 → Up 1 → Down
Type of access to the bus	Write	
Datapoint identification	1.007 (DPT_Step)	1.008 (DPT_UpDown)

  ◇ Enable limitation on control set point

  Select the minimum and maximum set point temperature that can be set for the air to water unit (in increments of 1 °C/°F).

Object number	178: Control set point ambient temperature C2 limitation	
Description	This allows you to enable the function to limit the ambient set point temperature of the air to water unit for circuit 2	
Values	0 → Disable	1 → Enable
Type of access to the bus	Write	
Datapoint identification	1.001 (DPT_Switch)	

Object number	205: Status set point ambient temperature C2 limitation	
Description	This shows whether the function to limit the ambient set point temperature set for the air to water unit is enabled for circuit 2	
Values	0 → Disable	1 → Enable
Type of access to the bus	Reading	
Datapoint identification	1.001 (DPT_Switch)	

Object number	228: Status Auto mode set point ambient temperature C2 maximum limitation	
Description	This shows the upper ambient set point temperature limit in auto mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	229: Status Auto mode set point ambient temperature C2 minimum limitation	
Description	This shows the lower ambient set point temperature limit in auto mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	230: Status Cool mode set point ambient temperature C2 maximum limitation	
Description	This shows the upper ambient set point temperature limit in cooling mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	231: Status Cool mode set point ambient temperature C2 minimum limitation	
Description	This shows the lower ambient set point temperature limit in cooling mode for circuit 2	
Values	°C	°F
Type of access to the bus	Reading	
Datapoint identification	9.001 (DPT_Value_Temp)	9.027 (DPT_Value_Temp_F)

Object number	**232: Status Heat mode set point ambient temperature C2 maximum limitation**
Description	This shows the upper ambient set point temperature limit in heating mode for circuit 2
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**233: Status Heat mode set point ambient temperature C2 minimum limitation**
Description	This shows the lower ambient set point temperature limit in heating mode for circuit 2
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Temperature configuration - DHW

◊ Periodic sending of "Status_Setpoint_DHW" (in seconds, 0 = no periodic sending)

Indicate how often you want the set point temperature status to be sent to the air to water unit (in seconds).

◊ Enable use of +/- object for set point

Select the DPT that you want to use: DPT 1.007 (Step) or DPT 1.008 (Up/Down).

Object number	**169: Control set point temperature DHW +/- - ATW HP**
Description	This allows you to raise or lower the DHW set point temperature in increments of 1 °C/°F
Values	0 → Decrease 0 → Up 1 → Increase 1 → Down
Type of access to the bus	Write
Datapoint identification	1.007 (DPT_Step) 1.008 (DPT_UpDown)

◊ Enable limitation on control set point

Select the maximum set point temperature that can be set for DHW (in increments of 1 °C/°F).

Object number	**170: Control set point temperature limitation DHW**
Description	This allows you to enable the function to limit the set point temperature set for DHW
Values	0 → Disable 1 → Enable
Type of access to the bus	Write
Datapoint identification	1.001 (DPT_Switch)

Object number	**200: Status set point temperature limitation DHW**
Description	This shows whether the function to limit the set point temperature set for DHW is enabled
Values	0 → Disable 1 → Enable
Type of access to the bus	Reading
Datapoint identification	1.001 (DPT_Switch)

Object number	**218: Status DHW set point temperature maximum limitation**
Description	This shows the upper set point temperature limit for DHW
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**219: Status DHW set point temperature minimum limitation**
Description	This shows the lower set point temperature limit for DHW
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Temperature configuration - Pool

◇ Periodic sending of "Status_Setpoint_Pool" (in seconds, 0 = no periodic sending)

Indicate how often you want the set point temperature status to be sent to the air to water unit (in seconds).

◇ Enable use of +/- object for set point

Select the DPT that you want to use: DPT 1.007 (Step) or DPT 1.008 (Up/Down).

Object number	**172: Control set point temperature pool +/- - ATW HP**
Description	This allows you to raise or lower the pool's set point temperature in increments of 1 °C/°F
Values	0 → Decrease 0 → Up 1 → Increase 1 → Down
Type of access to the bus	Write
Datapoint identification	1.007 (DPT_Step) 1.008 (DPT_UpDown)

◇ Enable use of "Status_limits" object for set point

Select the minimum and maximum set point temperature that can be set for the pool (in increments of 1 °C/°F).

Object number	**220: Status pool set point temperature maximum limitation**
Description	This shows the upper set point temperature limit for the pool
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Object number	**221: Status pool set point temperature minimum limitation**
Description	This shows the lower set point temperature limit for the pool
Values	°C °F
Type of access to the bus	Reading
Datapoint identification	9.001 (DPT_Value_Temp) 9.027 (DPT_Value_Temp_F)

Timeouts configuration

- Enable use of open window. If you select Yes, objects 388 and 416 will be enabled.

  ◊ AC Off timeout (hh:mm:ss). Select the time after which the air to water unit will turn off after detecting that the window is open.
  ◊ Action on closing window.

    » Do not reload the last On/Off status. The air to water unit keep off when it detects that the window has been closed.
    » Reload the last On/Off status. Upon detecting that the window has been closed, the air to water unit will return to its status from before the window was opened.

  ◊ AC On timeout (hh:mm:ss). The "Action on closing window" parameter must be set to "Reload the last On/Off status". Select the time after which the air to water unit will turn on after detecting that the window is closed.
  ◊ Allow On/Off when window contact is active.

    » No. This does not allow the air to water unit to be turned on while the window is open.
    » Yes. This allows you to change the air to water unit's status while the window is open.

  ◊ Circuit on which acts. Select the circuit to be actuated: circuit 1, circuit 2 or both circuits.

Object number	388: Control window contact	
Description	This allows you to enable the use of the window contact	
Values	0 → Open	1 → Closed
Type of access to the bus	Write	
Datapoint identification	1.009 (DPT_OpenClose)	

Object number	416: Status window contact	
Description	This shows the window contact's status	
Values	0 → Open	1 → Closed
Type of access to the bus	Reading	
Datapoint identification	1.009 (DPT_OpenClose)	

- Enable use of timer function to switch off the unit. If you select Yes, objects 389 and 417 will be enabled.

  ◊ AC switch-off timeout (hh:mm:ss). Select the time after which the air to water unit will turn off after detecting that this function has been activated.
  ◊ Allow On/Off operation when timeout is elapsed.

    » No. This does not allow the air to water unit to be turned on while the function is activated.
    » Yes. This allows you to change the air to water unit's status while the function is activated.

  ◊ Circuit on which acts. Select the circuit to be actuated: circuit 1, circuit 2 or both circuits

Object number	389: Control switch Off timeout	
Description	This allows you to activate a timer to switch off the indoor unit	
Values	0 → Stop	1 → Start
Type of access to the bus	Write	
Datapoint identification	1.010 (DPT_Start)	

Object number	417: Status switch Off timeout	
Description	This shows whether the timer has been activated	
Values	0 → Stop	1 → Start
Type of access to the bus	Reading	
Datapoint identification	1.010 (DPT_Start)	

- Enable use of unoccupied timer function. If you select Yes, objects 390 and 418 will be enabled.

  ◊ Timeout to apply actions (hh:mm:ss). Select the time after which the air to water unit will turn off after detecting that the room is unoccupied.
  ◊ Action after timeout elapsed.

    » Switch off. The air to water unit is switched off after the timeout has elapsed.
    » Unoccupied mode. The air to water unit switches to unoccupied mode after the timeout has elapsed.

  ◊ Timeout for unoccupied mode activation (hh:mm:ss). The "Action after timeout elapsed" parameter must be set to "Unoccupied mode". If the air to water unit enters unoccupied mode, a timeout is started to decrease (if in heating mode) / increase (if in cooling/ventilation mode) the temperature by 1 °C/°F. This action is carried out 3 times, after which the unit is switched off.
  ◊ Allow On/Off operation when not occupied.

    » No. This does not allow the air to water unit to be turned on while the room is unoccupied.
    » Yes. This allows you to change the air to water unit's status while the room is unoccupied.

  ◊ Circuit on which acts. Select the circuit to be actuated: circuit 1, circuit 2 or both circuits.

Object number	**390: Control occupancy sensor**
Description	This allows you to activate the unoccupied function in order to switch the indoor unit to unoccupied mode
Values	0 → Not occupied 1 → Occupied
Type of access to the bus	Write
Datapoint identification	1.018 (DPT_Occupancy)

Object number	**418: Status occupancy sensor**
Description	This shows whether the unoccupied function has been activated
Values	0 → Not occupied 1 → Occupied
Type of access to the bus	Reading
Datapoint identification	1.018 (DPT_Occupancy)

- Enable use of Sleep function. If you select Yes, objects 391 and 419 will be enabled.

  ◊ Sleep function switch-off timeout (hh:mm:ss). Select the time after which the air to water unit will turn off after detecting that this function has been activated.
  ◊ Circuit on which acts. Select the circuit to be actuated: circuit 1, circuit 2 or both circuits.

Object number	**391: Control Sleep timeout**
Description	This allows you to activate a timer to switch off the indoor unit
Values	0 → Stop 1 → Start
Type of access to the bus	Write
Datapoint identification	1.010 (DPT_Start)

Object number	**419: Status Sleep timeout**
Description	This shows whether the timer has been activated
Values	0 → Stop 1 → Start
Type of access to the bus	Reading
Datapoint identification	1.010 (DPT_Start)

Scenes configuration

- Enable use of scenes

  If you select Yes, objects 392 and 420 will be enabled, and the following fields will appear:

  ◊ Enable use of bit objects for saving scenes
  ◊ Enable use of bit objects for scene execution

Object number	**392: Control save/execute scene**
Description	This allows you to save or execute scenes. Changing the value of the object will also change the function and scene number
Values	(0)0 to (0)63* → Execute scene ID (1)28 to (1)91* → Save scene ID
Type of access to the bus	Write
Datapoint identification	18.001 (DPT_SceneControl)

*(0) and (1) are the default values set in ETS to execute or save scenes, respectively. Therefore, you only need to enter the values that follow the brackets, i.e., to execute scenes you must select a value between 0 and 63, to save scenes enter a value between 28 and 91.

Object number	**420: Status current scene**
Description	This shows the current scene being executed
Values	0 to 63 → Scene ID
Type of access to the bus	Reading
Datapoint identification	17.001 (DPT_SceneNumber)

- Enable use of bit objects for saving scenes

Object number	**393: Control save scene 1**
Description	This saves the indoor unit's settings as scene 1
Values	1 → Save scene 1
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**394: Control save scene 2**
Description	This saves the indoor unit's settings as scene 2
Values	1 → Save scene 2
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**395: Control save scene 3**
Description	This saves the indoor unit's settings as scene 3
Values	1 → Save scene 3
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**396: Control save scene 4**
Description	This saves the indoor unit's settings as scene 4
Values	1 → Save scene 4
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**397: Control save scene 5**
Description	This saves the indoor unit's settings as scene 5
Values	1 → Save scene 5
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**398: Control save scene 6**
Description	This saves the indoor unit's settings as scene 6
Values	1 → Save scene 6
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**399: Control save scene 7**
Description	This saves the indoor unit's settings as scene 7
Values	1 → Save scene 7
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**400: Control save scene 8**
Description	This saves the indoor unit's settings as scene 8
Values	1 → Save scene 8
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**401: Control save scene 9**
Description	This saves the indoor unit's settings as scene 9
Values	1 → Save scene 9
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**402: Control save scene 10**
Description	This saves the indoor unit's settings as scene 10
Values	1 → Save scene 10
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

- Enable use of bit objects for scene execution

Object number	**403: Control execute scene 1**
Description	This executes scene 1
Values	1→ Execute scene 1
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**404: Control execute scene 2**
Description	This executes scene 2
Values	1→ Execute scene 2
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**405: Control execute scene 3**
Description	This executes scene 3
Values	1→ Execute scene 3
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**406: Control execute scene 4**
Description	This executes scene 4
Values	1→ Execute scene 4
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**407: Control execute scene 5**
Description	This executes scene 5
Values	1→ Execute scene 5
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**408: Control execute scene 6**
Description	This executes scene 6
Values	1→ Execute scene 6
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**409: Control execute scene 7**
Description	This executes scene 7
Values	1→ Execute scene 7
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**410: Control execute scene 8**
Description	This executes scene 8
Values	1→ Execute scene 8
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**411: Control execute scene 9**
Description	This executes scene 9
Values	1→ Execute scene 9
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

Object number	**412: Control execute scene 10**
Description	This executes scene 10
Values	1→ Execute scene 10
Type of access to the bus	Write
Datapoint identification	1.002 (DPT_Bool)

- Scene 1 … 10

Select the scene ID (values available from 0 to 63). If you wish to configure each scene from ETS, activate the "Scene preset" parameter and set the desired parameter values according to the "Scene selection" being configured.

◊ Water scene / Ambient scene

» On-Off C1: Select if you want to switch circuit 1 of the air to water unit on/off, or if you do not want to carry out any action.
» On-Off C2: Select if you want to switch circuit 2 of the air to water unit on/off, or if you do not want to carry out any action.
» Mode: Select if you want to change the air to water unit's operation mode, or if you do not want to carry out any action.
» Set point C1: Select if you want to change the set point temperature of circuit 1 of the air to water unit, or if you do not want to carry out any action.
» Set point C2: Select if you want to change the set point temperature of circuit 2 of the air to water unit, or if you do not want to carry out any action.

◊ Tank scene

» On-Off tank: Select if you want to switch DHW on/off, or if you do not want to carry out any action.
» On-Off Powerful: Select if you want to turn the Powerful function on/off, or if you do not want to carry out any action.
» Set point DHW: Select if you want to change the set point temperature of DHW, or if you do not want to carry out any action.

◊ Pool scene

» On-Off pool: Select if you want to turn the pool on/off, or if you do not want to carry out any action.
» Set point pool: Select if you want to change the pool's set point temperature, or if you do not want to carry out any action.

Inputs configuration

Enable the use of the Aidoo KNX inputs:

- Enable use of input 1: communication object 421.
- Enable use of input 2: communication object 423.
- Enable use of input 3: communication object 425.

The objects will behave differently depending on the configuration of each input.

Parameters available for configuring each input:

- ◊ Disabling function. Select whether or not you want to enable the object that allows the input to be disabled if necessary (communication objects 413, 414 and 415). If yes, select whether you want to use Datapoint DPT 1.002 (0 = False) or DPT 1.003 (0 = Disable).
- ◊ Contact type. Sets the contact logic as "Normally open" or "Normally closed".
- ◊ Debounce time. Select the debounce time (in milliseconds) required for the system to recognize there has been a change in the contact.
- ◊ Function. Select the input function.

- Disabling function

Object number	413: Control disable input 1	
Description	This allows the use of input 1 to be disabled	
Values	0 → False 1 → True	0 → Disable 1 → Enable
Type of access to the bus	Write	
Datapoint identification	1.002 (DPT_Bool)	1.003 (DPT_Enable)

Object number	414: Control disable input 2	
Description	This allows the use of input 2 to be disabled	
Values	0 → False 1 → True	0 → Disable 1 → Enable
Type of access to the bus	Write	
Datapoint identification	1.002 (DPT_Bool)	1.003 (DPT_Enable)

Object number	415: Control disable input 3	
Description	This allows the use of input 3 to be disabled	
Values	0 → False 1 → True	0 → Disable 1 → Enable
Type of access to the bus	Write	
Datapoint identification	1.002 (DPT_Bool)	1.003 (DPT_Enable)

- Function

  - ◊ Switching

    - » Send telegram after bus recovery. Select the action to be performed on this digital input after bus recovery (e.g., after a power failure): no action, on, off or current status.

      - › Sending delay after bus recovery. If an action is selected, indicate the time delay for sending the telegram (in seconds).

    - » Value on raising edge (contact activated). Select the action to be sent to the associated communication object, if it produces a rising edge (activated input): no action, on, off or toggle.
    - » Value on falling edge (contact deactivated). Select the action to be sent to the associated communication object, if it produces a falling edge (deactivated input): no action, on, off or toggle.
    - » Cyclical sending. Select if you want cyclical sending to occur depending on the status of the digital input: never, always, when output value is "Off" or When output value is "On".

      - › Period for cyclical sending. If cyclical sending is selected, indicate the time period (in seconds) for this cycle.

◇ Dimming

» Send telegram after bus recovery. Select the action to be performed on this digital input after bus recovery (e.g., after a power failure): no action, on, off.

› Sending delay after bus recovery. If an action is selected, indicate the time delay for sending the telegram (in seconds).

» Mode for short/long operation. Select the action for a short operation to be sent on a falling edge (deactivated input): off (decrease), on (increase) or toggle. A press and hold will result in either an increasing step or a decreasing step.

› Increasing step. Select the percentage of the increasing step that will be sent for a long operation.
› Decreasing step. Select the percentage of the decreasing step that will be sent for a long operation.
› Short/long operation limit. Defines the time that must elapse for the object to interpret that a long operation has occurred (in milliseconds).
› Cyclical sending period in long operation (0 – no cyclical sending). Defines the time (in milliseconds) during which the long operation must be executed.

◇ Shutter/Blind

» Send telegram after bus recovery. Select the action to be performed on this digital input after bus recovery (e.g., after a power failure): no action, move up or move down.

› Sending delay after bus recovery. If an action is selected, indicate the time delay for sending the telegram (in seconds).

» Operation. Select the action to be sent on a rising edge (activated input): up, down or toggle.
» Method. Select the operating method for the shutter/blind: Step-Move-Step or Move-Step.

› Step-Move-Step. On a rising edge (activated input), a step telegram will be sent and counter 1 will start (Short/long operation limit).
    Note: No action will be taken if a falling edge (deactivated input) occurs during this time.
    If the rising edge is maintained for longer than the time defined in counter 1, a move telegram will be sent and counter 2 will start (Vanes adjustment time). If a falling edge (deactivated input) occurs during the time specified in this second counter, a step telegram will be sent.
    Note: No action will be taken if a falling edge (deactivated input) occurs after this time.
› Move-Step. On a rising edge (activated input), a move telegram will be sent and counter 2 will start (Vanes adjustment time). If a falling edge (deactivated input) occurs during this time, a stop telegram will be sent.
    Note: No action will be taken if a falling edge (deactivated input) occurs after this time.

» Short/long operation limit (counter 1). Defines the time that must elapse between a short operation and a long operation (in milliseconds).
» Vanes adjustment time (counter 2). Defines the time that must elapse before adjusting the slats or moving the shutter/blind (in milliseconds).

◇ Value

» Send telegram after bus recovery. Select if you want to send an action (fixed value) on this digital input after bus recovery (e.g., after a power failure) or if you do not want to send any action.

› Sending delay after bus recovery. If an action is selected, indicate the time delay for sending this telegram (in seconds).

» DPT to be sent. Select the type of DPT to be sent on activating the input:

› DPT 5.010 (1 byte unsigned value). Values: 0 … 255
› DPT 7.001 (2 byte unsigned value). Values: 0 … 655335
› DPT 8.001 (2 byte signed value). Values: -32767 … 32767
› DPT 9.001 (temperature). Values: Temperature (°C)
› DPT 12.001 (4 byte unsigned value). Values: 0 … 4294967295

» Value on raising edge (when contact activated). Defines the value to be sent when the contact is activated.

◇ Scene (internal)

» Scene when contact is activated. Select the scene that will be executed when the digital input is activated.

◇ Occupancy (internal). Switches to occupied mode when the digital input is activated.
◇ Window (internal). Activates the window contact timer when this digital input is activated.

- Input 1

Object number	**421: Status 1**		
	Switching	Dimming On/Off	Blind step
Description	Shows the status of input 1		
Values	0 → Off 1 → On	0 → Off 1 → On	0 → Step up 1 → Step down
Type of access to the bus	Reading		
Datapoint identification	1.001 (DPT_Switch)	1.001 (DPT_Switch)	1.008 (DPT_UpDown)

Object number	**422: Status 1**		
	Value	Dimming step	Blind move
Description	Shows the value generated according to the behavior defined for the input		
Values	1 byte unsigned value 2 byte unsigned value 2 byte signed value Temperature (ºC) 4 byte unsigned value	Dimming step	0 → Up 1 → Down
Type of access to the bus	Reading		
Datapoint identification	5.010 (DPT_Value_1_Ucount) 7.001 (DPT_Value_2_Ucount) 8.001 (DPT_Value_2_Count) 9.001 (DPT_Value_Temp) 12.001 (DPT_Value_4_Ucount)	3.007 (DPT_Control_Dimm.)	1.008 (DPT_UpDown)

- Input 2

Object number	**423: Status 2**		
	Switching	Dimming On/Off	Blind Step
Description	Shows the status of input 2		
Values	0 → Off 1 → On	0 → Off 1 → On	0 → Step up 1 → Step down
Type of access to the bus	Reading		
Datapoint identification	1.001 (DPT_Switch)	1.001 (DPT_Switch)	1.008 (DPT_UpDown)

Object number	**424: Status 2**		
	Value	Dimming step	Blind move
Description	Shows the value generated according to the behavior defined for the input		
Values	1 byte unsigned value 2 byte unsigned value 2 byte signed value Temperature (ºC) 4 byte unsigned value	Dimming step	0 → Up 1 → Down
Type of access to the bus	Reading		
Datapoint identification	5.010 (DPT_Value_1_Ucount) 7.001 (DPT_Value_2_Ucount) 8.001 (DPT_Value_2_Count) 9.001 (DPT_Value_Temp) 12.001 (DPT_Value_4_Ucount)	3.007 (DPT_Control_Dimm.)	1.008 (DPT_UpDown)

• Input 3

Object number	**425: Status 3**		
	Switching	Dimming On/Off	Blind Step
Description	Shows the status of input 3		
Values	0 → Off 1 → On	0 → Off 1 → On	0 → Step up 1 → Step down
Type of access to the bus	Reading		
Datapoint identification	1.001 (DPT_Switch)	1.001 (DPT_Switch)	1.008 (DPT_UpDown)

Object number	**426: Status 3**		
	Value	Dimming step	Blind move
Description	Shows the value generated according to the behavior defined for the input		
Values	1 byte unsigned value 2 byte unsigned value 2 byte signed value Temperature (°C) 4 byte unsigned value	Dimming step	0 → Up 1 → Down
Type of access to the bus	Reading		
Datapoint identification	5.010 (DPT_Value_1_Ucount) 7.001 (DPT_Value_2_Ucount) 8.001 (DPT_Value_2_Count) 9.001 (DPT_Value_Temp) 12.001 (DPT_Value_4_Ucount)	3.007 (DPT_Control_Dimm.)	1.008 (DPT_UpDown)

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