



MAXinBOX FC 0-10V

Fan coil controller for 2/4 pipe units with 0-10 VDC control of fan and/or valves and KNX secure

ZCLFC010

Application Program Version: [1.0]

User manual edition: [1.0]_a

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1 INTRODUCTION

1.1 MAXINBOX FC 0-10V

Zennio MAXinBOX FC 0-10V is a versatile, multifunctional KNX actuator designed to meet the climate control needs of KNX environments with integrated fan coil units. The actuator provides **two analogue outputs** and **four binary outputs**, allowing for the following options when controlling fan coils with two or four pipes (each with its own valve) and ventilation systems with up to four speeds:

- A fan coil unit capable of **any possible configuration**.
- **Two fan coil units** with the following restrictions: fan speeds controlled by a **0–10 VDC analogue signal** and pipe valves controlled by **binary outputs** (relays).

The key features of the MAXinBOX FC 0-10V are:

- **4 relay outputs**, configurable as ON/OFF outputs, for controlling two-pipe fan coil units where both the fan speed and the valve are controlled via relays, or as a combination of the two.
- **2 analogue voltage outputs (0–10 V)**.
- **4 multi-purpose inputs**, configurable as:
 - Temperature probes (possibility to parameterise a custom probe).
 - Binary inputs (i.e., pushbuttons, switches, sensors),
 - Motion detectors.
- **10 customisable, multi-operation logic functions**.
- **2 independent thermostats**.
- **Manual operation / supervision** of the outputs through the on-board pushbuttons and LEDs.
- **Heartbeat** or periodical “still-alive” notification.

- **KNX Security.** For detailed information about the functionality and configuration of KNX security, consult the specific user manual “KNX Security”, available in the product section of the Zennio web portal (www.zennio.com).

1.2 START-UP AND POWER LOSS

During the start-up of the device, the Test/Prog. LED will blink in blue colour for a few seconds before MAXinBOX is ready. External orders will not be executed during this time, but afterwards.

Depending on the configuration, some specific actions will also be performed during the start-up. For example, the integrator can set whether the output channels should switch to a particular state and whether the device should send certain objects to the bus after the power recovery. Please consult the next sections of this document for further details.

On the other hand, when a bus power failure takes place, MAXinBOX will interrupt any pending actions, and will save its state so it can be recovered once the power supply is restored.

For safety reasons, all **shutter channels** will be stopped (i.e., the relays will open) if a power loss takes place, while the individual outputs will switch to the specific state configured in ETS (if any).

2 CONFIGURATION

2.1 GENERAL

After importing the corresponding database in ETS and adding the device to the desired project topology, the configuration process is started by accessing the device parameters tab.

ETS PARAMETERISATION

The only parameterisable screen available by default is General. From this screen it is possible to activate/deactivate all the required functionality.

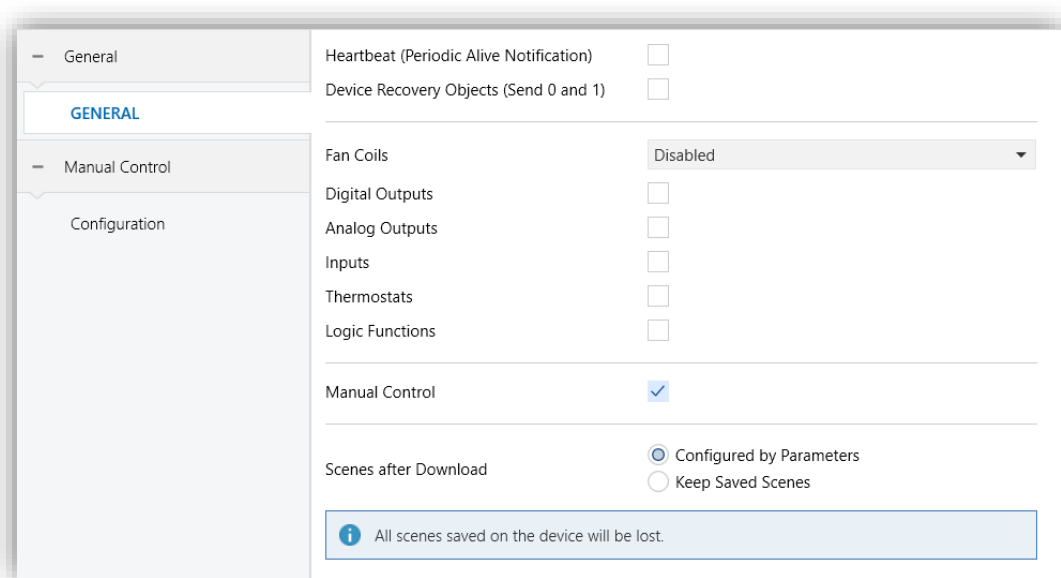


Figure 1. General tab

- **Heartbeat (Periodic Alive Notification)** [*disabled / enabled*]¹: lets the integrator incorporate a one-bit object to the project (“**[Heartbeat] Object to Send ‘1’**”) that will be sent periodically with value “1” to notify that the device is still working (*still alive*).

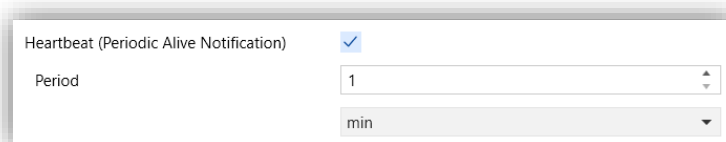


Figure 2. Heartbeat (Periodic Alive Notification)

¹ The default values of each parameter will be highlighted in blue in this document, as follows: [*default / rest of options*].

Note: the first sending after download or bus failure takes place with a delay of up to 255 seconds, to prevent bus overload. The following sendings match the period set.

- **Device Recovery Objects (Send 0 and 1)** [*disabled / enabled*]: this parameter lets the integrator activate two new communication objects (“**[Heartbeat] Device Recovery**”), which will be sent to the KNX bus with values “0” and “1” whenever the device begins operation (for example, after a bus power failure). It is possible to parameterise a certain **delay** [0...255] [s] to this sending.

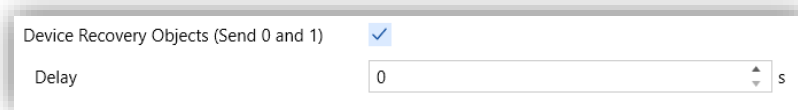


Figure 3. Device Recovery Objects

Note: After download or bus failure, the sending takes place with a delay of up to 6,35 seconds plus the parameterised delay, to prevent bus overload.

- **Fan Coils** [*Disabled / 1 Fan coil (Any Type) / 2 Fan coils (Valves -> Relays | Fan -> Analog Output)*]: enables o disables the “Fan Coils” tab on the left menu. See section 2.2 for more details.
- **Digital Outputs** [*Disabled / Enabled*]: enables o disables the “Digital Outputs” tab on the left menu. See section 2.3 for more details.
- **Analog Outputs** [*Disabled / Enabled*]: enables o disables the “Analog Outputs” tab on the left menu. See section 2.4 form more details.
- **Inputs** [*Disabled / Enabled*]: enables o disables the “Inputs” tab on the left menu. See section **¡Error! No se encuentra el origen de la referencia.5** for more details.
- **Thermostat** [*Disabled / Enabled*]: enables o disables the “Thermostats” tab on the left menu. See section **¡Error! No se encuentra el origen de la referencia.6** for more details.
- **Logic Functions** [*Disabled / Enabled*]: enables o disables the “Logic Functions” tab on the left menu. See section **¡Error! No se encuentra el origen de la referencia.** for more details.

- **Manual control** [*Disabled / Enabled*]: enables or disables the “Manual Control” tab on the left menu. See section **¡Error! No se encuentra el origen de la referencia.** for more details.
- **Scenes after Download** [*Configured by Parameters / Keep Saved Scenes*]: allows defining whether the value of the scenes is the configured by parameter or whether the previously saved value is kept after download.

Note: if “Keep Saved Scenes” option has been configured, but it is the first download of the device or a different version from the current one, the values configured by parameter will be adopted. If new scenes are added in successive downloads, it will be necessary to perform a download by checking the option “Configured by Parameters” to ensure the correct operation of these scenes.

2.2 FAN COIL ANALOG

Settings for controlling the fan and valves for up to **two 2-pipe or 4-pipe fan coil** units.

Please refer to the “Fan Coil Analog” user manual, available under the product section at www.zennio.com for detailed information about the functionality and the configuration of the related parameters.

This feature, integrated into the **MAXinBOX FC 0-10V**, allows the fan coil’s **analogue outputs** to be controlled via a **communication object**, and the **binary outputs** to be managed **internally via the device’s relays** associated with valve or fan control, depending on the fan coil module’s configuration. The number of digital outputs available for other uses will depend on the settings.

2.3 DIGITAL OUTPUTS

Settings for independent load control. Up to four different loads can be controlled using a MAXinBOX FC 0-10V.

Please refer to the “Analog Outputs” user manual, available under the product section at www.zennio.com for detailed information about the functionality and the configuration of the related parameters.

2.4 ANALOG OUTPUTS

Configuration for the independent control of a dimmable load using 0–10 VDC. Up to two different loads can be controlled using a MAXinBOX FC 0–10V.

Please refer to the “**Analog Outputs**” user manual, available under the product section at www.zennio.com for detailed information about the functionality and the configuration of the related parameters.

The device allows the analogue signal to be monitored via its built-in LEDs; when configuring the analogue outputs, the LED will be off if the signal is at 0%, and will remain on in all other cases.

2.5 INPUTS

The **MAXinBOX FC 0-10V** features four analogue-to-digital input ports. Each of these has three possible configurations, which are explained below.

2.5.1 BINARY INPUT

Configuration for the connection of a pushbutton or a switch/sensor. Please refer to the “**Binary Inputs**” user manual, available under the product section at www.zennio.com for detailed information about the functionality and the configuration of the related parameters.

2.5.2 TEMPERATURE PROBE

Configuration for the connection of a temperature sensor from Zennio. Please refer to the “**Temperature Probe**” user manual, available under the product section at www.zennio.com for detailed information about the functionality and the configuration of the related parameters.

2.5.3 MOTION DETECTOR

Zennio motion and light detectors can be connected to the input ports available on the actuators. Please refer to the “**Motion Detector**” user manual, available under the product section at www.zennio.com, for detailed information about the functionality and the configuration of the related parameters.

2.6 THERMOSTATS

The devices implement **four Zennio thermostats** which can be enabled and configured independently.

Please refer to the specific “**Zennio Thermostat**” user manual available under the product section at the Zennio homepage (www.zennio.com), for detailed information about the functionality and the configuration of the related parameters.

2.7 LOGIC FUNCTIONS

This module makes it possible to perform numeric and binary operations to incoming values received from the KNX bus, and to send the results through other communication objects specifically enabled for this purpose.

It may be implemented until **10 different and independent logical functions** can be implemented, which are fully customisable and consist of a **maximum of 4 consecutive operations for each one**.

The execution of each function can depend on a configurable **condition**, which will be evaluated every time the function is **triggered** through specific, parameterisable communication objects. The result after executing the operations of the function can also be evaluated according to certain **conditions** and afterwards sent (or not) to the KNX bus, which can be done every time the function is executed, periodically or only when the result differs from the last one.

Please refer to the “**Logic Functions**” user manual available under the product section at the Zennio homepage (www.zennio.com), for detailed information about the functionality and the configuration of the related parameters.

2.8 MANUAL CONTROL

The device allows manually switching the state of its output relays through the respective pushbuttons on the top of the device. A specific pushbutton is therefore available per output.

Manual operation can be done in two different ways, named as **Test On mode** (for testing purposes during the configuration of the device) and **Test Off mode** (for a normal use, anytime). Whether both, only one, or none of these modes should be accessible

needs to be parameterised in ETS. Moreover, it is possible to enable a specific binary object for locking and unlocking the manual control in runtime.

Note:

- *The **Test Off mode** will be active (unless it has been disabled by parameter) after a download or a reset with no need of a specific activation – the pushbuttons will respond to user presses from the start.*
- *On the contrary, switching to the **Test On mode** (unless disabled by parameter) needs to be done by long pressing the Prog/Test button (for at least three seconds), until the LED is no longer red and turns yellow. From that moment, once the button is released, the LED light will remain green to confirm that the device has switched from the Test Off mode to the Test On mode. After that, an additional press will turn the LED yellow and then off, once the button is released. This way, the device leaves the Test On mode. Note that it will also leave this mode if a bus power failure takes place or if a manual control lock is sending from KNX bus.*

Test Off Mode

Under the Test Off Mode, the outputs can be controlled through both their communication objects and the actual pushbuttons located on the top of the device.

Pressing any of these buttons directly affects the outputs as if a command had been received via the corresponding communication object, depending on its configuration (digital output, analogue output or fan coil-controlled output):

- **Digital Output:** a simple press (short or long) will make the output switch its on-off state, which will be reported to the KNX bus through the corresponding status object, if enabled.
- **Digital Output associated with Fan Coil Analog:** In Test Off mode, any button presses on the digital outputs managed internally by the Fan Coil Analog block will be ignored.
- **Analog Output:** The status of analogue outputs configured as “generic outputs” can only be controlled manually.

When you press the button, the device will control the output depending on how long the button is held down and the current state of the output:

- **Short press:** his action is equivalent to a 0% or 100% control command on the output control object. The status is sent via the associated status object.
- **Long press:** it initiates an upward adjustment if the output status is 0% at that moment, or a downward adjustment if it is 100%. For values between 0% and 100%, the direction of the adjustment will be reversed with each long press. The status object will be sent to the bus once the press is released or the minimum or maximum value is reached.
- **Disabled Outputs:** outputs disabled by parameter will not react to button presses under the Test Off mode.

Test On Mode

After entering the Test On mode, it will only be possible to control the outputs through the on-board pushbuttons. Orders received through communication objects will be ignored, with independence of the channel or the output they are addressed to.

Depending on whether an output is configured (digital output or analogue output) or forms part of a fan coil unit, pressing the manual control will trigger different responses:

- **Digital Output:** short or long pressing the button will commute the on-off state of the relay.
- **Digital Output associated with Fan Coil Analog:** in this situation, the behaviour of manual actions during Test On varies depending on whether the output is linked to the valve control or the fan control:
 - **Fan:** when the fan control via relays has been configured in **switching mode**, only one of the digital outputs linked to the fan speeds will be allowed to be closed; therefore, to activate another speed, the previous digital output must first be opened. Similarly, when set to **accumulation mode**, all digital outputs may be active simultaneously; however, if an intermediate speed is deactivated, all digital outputs corresponding to higher speeds will also be deactivated.
 - **Valve:** once the valve control via relays has been configured, only one of the valves on the fan coil module will be permitted to be open; to activate another valve (in the case of a 4-pipe fan coil), the previous valve must be closed.

It should be noted that, in this case, the configured polarity of the valves will be respected; therefore, it may be the case that when both valves are closed, the two relays on the digital outputs are either open or closed.

- **Analog Output:** the action performed on the output when the buttons are pressed will be the same as that described in Test Off mode, with the exception that state objects will not be affected.

Note: *Unlike in Test Off mode, in Test On mode you can control any type of output, not just the generic ones.*

- **Disabled Outputs:** short and long presses will switch the state of the corresponding relay. In case this consists in closing the relay, then the remaining relays of its block will open, for safety reasons.

As described previously if the device is in Test On mode, any command sent from the KNX bus to the actuator will not affect the outputs and no status objects will be sent (only periodically timed objects such as Heartbeat and logic functions will continue to be sent to the bus) while Test ON mode is active.

Important: *the device is delivered from factory with all the outputs disabled, and with both manual modes (Test Off and Test On) enabled.*

ETS PARAMETERISATION

By default, “Manual Control” is enabled on the General screen (see section 2.8), so a tab appears in the tree on the left.

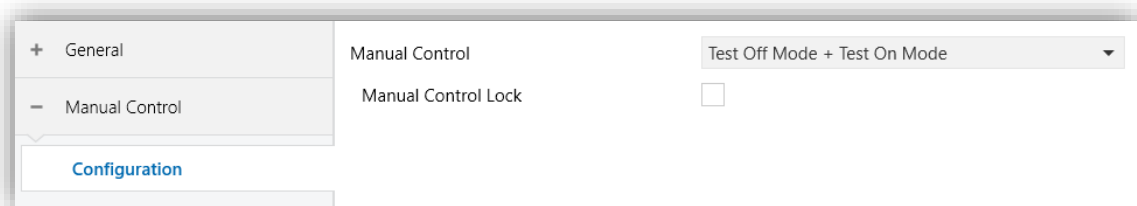


Figure 4. Manual control

The only two parameters are:

- **Manual Control** [*Disabled / Only Test Off Mode / Only Test On Mode / Test Off Mode + Test On Mode*]. Depending on the selection, the device will permit using the manual control under the Test Off, the Test On, or both modes. Note that, as

stated before, using the Test Off mode does not require any special action, while switching to the Test On mode does require long pressing the Prog/Test button.

- **Manual Control Lock** [*enabled / disabled*]: unless the above parameter has been “Disabled,” the Lock Manual Control parameter provides an optional procedure for locking the manual control in runtime. When this checkbox is enabled, object “**Manual Control Lock**” turns visible, as well as two more parameters:
 - **Value** [*0 = Lock; 1 = Unlock / 0 = Unlock; 1 = Lock*]: defines whether the manual control lock/unlock should take place respectively upon the reception (through the aforementioned object) of values “0” and “1”, or the opposite.
 - **Initialisation** [*Unlocked / Locked / Last Value*]: sets how the lock state of the manual control should remain after the device start-up (after an ETS download or a bus power failure). “Last Value” (default; on the very first start-up, this will be Unlocked).

ANNEX I. COMMUNICATION OBJECTS

- “Functional range” shows the values that, with independence of any other values permitted by the bus according to the object size, may be of any use or have a particular meaning because of the specifications or restrictions from both the KNX standard or the application program itself.

Number	Size	I/O	Flags	Data type (DPT)	Functional Range	Name	Function
1	1 Bit	O	CR-T-	DPT_Trigger	0/1	[Heartbeat] Object to Send '1'	Sending of '1' Periodically
2	1 Bit	O	CR-T-	DPT_Trigger	0/1	[Heartbeat] Device Recovery	Send 0
3	1 Bit	O	CR-T-	DPT_Trigger	0/1	[Heartbeat] Device Recovery	Send 1
4, 39	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] On/Off	0 = Off; 1 = On
5, 40	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] On/Off (Status)	0 = Off; 1 = On
6, 41	1 Bit	I	C-WTU	DPT_Heat_Cool	0/1	[FCx] Mode	0 = Cool; 1 = Heat
7, 42	1 Bit	O	CR-T-	DPT_Heat_Cool	0/1	[FCx] Mode (Status)	0 = Cool; 1 = Heat
8, 43	1 Byte	I	C-WTU	DPT_Scaling	0% - 100%	[FCx] Control Variable (Cooling)	0 - 100%
9, 44	1 Byte	I	C-WTU	DPT_Scaling	0% - 100%	[FCx] Control Variable (Heating)	0 - 100%
10, 45	1 Bit	I	C-W--	DPT_Enable	0/1	[FCx] Protection Lock	0 = Unlock; 1 = Lock
	1 Bit	I	C-W--	DPT_Enable	0/1	[FCx] Protection Lock	0 = Lock; 1 = Unlock
11, 46	1 Byte	I	C-W--	DPT_SceneControl	0-63; 128-191	[FCx] Scenes	0 - 63 (Execute 1 - 64); 128 - 191 (Save 1 - 64)
12, 47	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Cooling Valve: Control Variable (1 Bit)	0 = Close Valve; 1 = Open Valve
13, 48	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[FCx] Cooling Valve: Control (1 Byte)	0 - 100%
	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[FCx] Valve: Control (1 Byte)	0 - 100%
	1 Bit	O	CR-T-	DPT_OpenClose	0/1	[FCx] Cooling Valve: Control (1 Bit)	0 = Open; 1 = Closed
	1 Bit	O	CR-T-	DPT_OpenClose	0/1	[FCx] Valve: Control (1 Bit)	0 = Open; 1 = Closed
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Cooling Valve: Control (1 Bit)	0 = Closed; 1 = Open
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Valve: Control (1 Bit)	0 = Closed; 1 = Open
	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[FCx] Valve: Cooling Control (1 Byte)	0 - 100%
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Valve (Status)	0 = Closed; 1 = Open
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Cooling Valve (Status)	0 = Closed; 1 = Open
	1 Bit	O	CR-T-	DPT_OpenClose	0/1	[FCx] Valve (Status)	0 = Open; 1 = Closed
	1 Bit	O	CR-T-	DPT_OpenClose	0/1	[FCx] Cooling Valve (Status)	0 = Open; 1 = Closed
14, 49	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Cooling Valve: Anti-Seize Protection (Status)	0 = Not Active; 1 = Active

	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Valve: Anti-Seize Protection (Status)	0 = Not Active; 1 = Active
15, 50	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Heating Valve: Control Variable (1 Bit)	0 = Close Valve; 1 = Open Valve
16, 51	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[FCx] Heating Valve: Control (1 Byte)	0 - 100%
	1 Bit	O	CR-T-	DPT_OpenClose	0/1	[FCx] Heating Valve: Control (1 Bit)	0 = Open; 1 = Closed
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Heating Valve: Control (1 Bit)	0 = Closed; 1 = Open
	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[FCx] Valve: Heating Control (1 Byte)	0 - 100%
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Heating Valve (Status)	0 = Closed; 1 = Open
	1 Bit	O	CR-T-	DPT_OpenClose	0/1	[FCx] Heating Valve (Status)	0 = Open; 1 = Closed
17, 52	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Heating Valve: Anti-Seize Protection (Status)	0 = Not Active; 1 = Active
18, 53	1 Bit	I	C-WTU	DPT_Enable	0/1	[FCx] Fan: Manual/Automatic	0 = Automatic; 1 = Manual
	1 Bit	I	C-WTU	DPT_Enable	0/1	[FCx] Fan: Manual/Automatic	0 = Manual; 1 = Automatic
19, 54	1 Bit	O	CR-T-	DPT_Enable	0/1	[FCx] Fan: Manual/Automatic (Status)	0 = Automatic; 1 = Manual
	1 Bit	O	CR-T-	DPT_Enable	0/1	[FCx] Fan: Manual/Automatic (Status)	0 = Manual; 1 = Automatic
20, 55	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[FCx] Fan: Speed Control	0 - 100%
21, 56	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Fan: Speed 1 Control	0 = Off; 1 = On
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Fan: Speed 1 (Status)	0 = Off; 1 = On
22, 57	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Fan: Speed 2 Control	0 = Off; 1 = On
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Fan: Speed 2 (Status)	0 = Off; 1 = On
23, 58	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Fan: Speed 3 Control	0 = Off; 1 = On
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Fan: Speed 3 (Status)	0 = Off; 1 = On
24, 59	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Fan: Speed 4 Control	0 = Off; 1 = On
	1 Bit	O	CR-T-	DPT_Switch	0/1	[FCx] Fan: Speed 4 (Status)	0 = Off; 1 = On
25, 60	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Fan: Boost Mode	0 = Boost Mode Off; 1 = Boost Mode On
26, 61	1 Bit	I	C-WTU	DPT_Step	0/1	[FCx] Manual Fan: Step Control	0 = Down; 1 = Up
27, 62	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Manual Fan: Speed 0	0 = Off; 1 = On
28, 63	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Manual Fan: Speed 1	0 = Off; 1 = On
29, 64	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Manual Fan: Speed 2	0 = Off; 1 = On
30, 65	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Manual Fan: Speed 3	0 = Off; 1 = On
31, 66	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Manual Fan: Speed 4	0 = Off; 1 = On
32, 67	1 Bit	I	C-WTU	DPT_Switch	0/1	[FCx] Manual Fan: Speed 5	0 = Off; 1 = On
33, 68	1 Byte	I	C-WTU	DPT_Fan_Stage	0 - 255	[FCx] Manual Fan: Enumeration Control	S0 = 0; S1 = 20%; S2 = 40%; S3 = 60%; S4 = 80%; S5 = 100%
	1 Byte	I	C-WTU	DPT_Fan_Stage	0 - 255	[FCx] Manual Fan: Enumeration Control	S0 = 0; S1 = 50%; S2 = 100%

	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[FCx] Manual Fan: Enumeration Control	S0 = 0; S1 = 33,3%; S2 = 66,6%; S3 = 100%
	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[FCx] Manual Fan: Enumeration Control	S0 = 0; S1 = 25%; S2 = 50%; S3 = 75%; S4 = 100%
	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[FCx] Manual Fan: Enumeration Control	S0 = 0; S1 = 100%
34, 69	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[FCx] Manual Fan: Percentage Control	0 - 100%
35, 70	2 Bytes	I	C - W T U	DPT_TimePeriodMin	0 - 65535	[FCx] Manual Fan: Manual Control Duration	0 = Endless; 1 - 1440 min
	2 Bytes	I	C - W T U	DPT_TimePeriodHrs	0 - 65535	[FCx] Manual Fan: Manual Control Duration	0 = Endless; 1 - 24 h
36, 71	1 Byte	I	C - W T U	DPT_Scaling	0% - 100%	[FCx] Fan: Automatic Air Recirculation Speed	0 - 100%
	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[FCx] Fan: Automatic Air Recirculation Speed	S0 = 0; S1 = 1; S2 = 2; S3 = 3
	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[FCx] Fan: Automatic Air Recirculation Speed	S0 = 0; S1 = 1; S2 = 2
	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[FCx] Fan: Automatic Air Recirculation Speed	S0 = 0; S1 = 1
	1 Byte	I	C - W T U	DPT_Fan_Stage	0 - 255	[FCx] Fan: Automatic Air Recirculation Speed	S0 = 0; S1 = 1; S2 = 2; S3 = 3; S4 = 4
37, 72	1 Byte	O	C R - T -	DPT_Fan_Stage	0 - 255	[FCx] Fan: Speed Enumeration (Status)	S0 = 0; S1 = 1; S2 = 2; S3 = 3
	1 Byte	O	C R - T -	DPT_Fan_Stage	0 - 255	[FCx] Fan: Speed Enumeration (Status)	S0 = 0; S1 = 1; S2 = 2
	1 Byte	O	C R - T -	DPT_Fan_Stage	0 - 255	[FCx] Fan: Speed Enumeration (Status)	S0 = 0; S1 = 1
	1 Byte	O	C R - T -	DPT_Fan_Stage	0 - 255	[FCx] Fan: Speed Enumeration (Status)	S0 = 0; S1 = 1; S2 = 2; S3 = 3; S4 = 4
38, 73	1 Byte	O	C R - T -	DPT_Scaling	0% - 100%	[FCx] Fan: Speed Percentage (Status)	0 - 100%
74, 88, 102, 116	1 Byte	I	C - W - -	DPT_SceneControl	0-63; 128-191	[Ox] Scenes	0 - 63 (Execute 1 - 64); 128 - 191 (Save 1 - 64)
75, 89, 103, 117	1 Bit	I	C - W - -	DPT_BinaryValue	0/1	[Ox] On/Off	N.O. (0 = Open Relay; 1 = Close Relay)
	1 Bit	I	C - W - -	DPT_BinaryValue	0/1	[Ox] On/Off	N.C. (0 = Close Relay; 1 = Open Relay)
76, 90, 104, 118	1 Bit	O	C R - T -	DPT_BinaryValue	0/1	[Ox] On/Off (Status)	0 = Output Off; 1 = Output On
77, 91, 105, 119	1 Bit	I	C - W - -	DPT_Trigger	0/1	[Ox] Switched Control	0/1 = On/Off Depending on the Last Status
78, 92, 106, 120	1 Bit	I	C - W - -	DPT_Enable	0/1	[Ox] Lock	0 = Unlock; 1 = Lock
79, 93, 107, 121	1 Bit	O	C R - T -	DPT_Enable	0/1	[Ox] Lock (Status)	0 = Unlock; 1 = Lock
80, 94, 108, 122	1 Bit	I	C - W - -	DPT_Start	0/1	[Ox] Timer	0 = Switch Off; 1 = Switch On
81, 95, 109, 123	2 Bytes	I	C - W - -	DPT_TimePeriodSec	0 - 65535	[Ox] On Duration Time (s)	0 - 3600 s

	2 Bytes	I	C-W--	DPT_TimePeriod100Msec		[Ox] On Duration Time (ds)	0 - 600 ds
	2 Bytes	I	C-W--	DPT_TimePeriodMin	0 - 65535	[Ox] On Duration Time (min)	0 - 1440 min
	2 Bytes	I	C-W--	DPT_TimePeriodHrs	0 - 65535	[Ox] On Duration Time (h)	0 - 24 h
82, 96, 110, 124	1 Bit	O	CR-T-	DPT_State	0/1	[Ox] Warning Countdown (Status)	0 = Normal; 1 = Warning
83, 97, 111, 125	1 Bit	I	C-W--	DPT_Start	0/1	[Ox] Flashing	0 = Stop; 1 = Start
84, 98, 112, 126	1 Bit	I	C-W--	DPT_Alarm	0/1	[Ox] Alarm	0 = No Alarm; 1 = Alarm
	1 Bit	I	C-W--	DPT_Alarm	0/1	[Ox] Alarm	0 = Alarm; 1 = No Alarm
85, 99, 113, 127	1 Bit	O	CR-T-	DPT_Alarm	0/1	[Ox] Alarm (Status)	0 = No Alarm; 1 = Alarm
	1 Bit	O	CR-T-	DPT_Alarm	0/1	[Ox] Alarm (Status)	0 = Alarm; 1 = No Alarm
86, 100, 114, 128	1 Bit	I	C-W--	DPT_Ack	0/1	[Ox] Unfreeze Alarm	Alarm = 0 + Unfreeze = 1 => End Alarm
87, 101, 115, 129	4 Bytes	I/O	CRWT-	DPT_LongDeltaTimeSec	-2147483648 - 2147483647	[Ox] Operating Time (s)	Time in Seconds
	4 Bytes	I/O	CRWT-	1.xxx	0/1	[Ox] Operating Time (h)	Time in Hours
130, 145	1 Bit	I	C-W--	DPT_Switch	0/1	[AOx] On/Off	0 = Off; 1 = On
131, 146	1 Bit	O	CR-T-	DPT_Switch	0/1	[AOx] On/Off (Status)	0 = Off; 1 = On
132, 147	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[AOx] Heating Control	0 - 100 %
	4 Bit	I	C-W--	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[AOx] Relative Control	4-bits control
133, 148	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[AOx] Cooling Control	0 - 100 %
	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[AOx] Absolute Control	0 - 100 %
134, 149	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[AOx] Output (Status)	0 - 100 %
135, 150	1 Bit	I	C-W--	DPT_Switch	0/1	[AOx] Custom On/Off	0 = Off; 1 = On
136, 151	1 Bit	I	C-W--	DPT_DayNight	0/1	[AOx] Day/Night Mode	0 = Day Mode; 1 = Night Mode
	1 Bit	I	C-W--	DPT_DayNight	0/1	[AOx] Day/Night Mode	0 = Night Mode; 1 = Day Mode
137, 152	1 Bit	I	C-W--	DPT_Switch	0/1	[AOx] Day/Night Mode On/Off	0 = Off; 1 = On
138, 153	1 Bit	I	C-W--	DPT_Start	0/1	[AOx] Simple Timer	0 = Deactivate; 1 = Activate
139, 154	1 Bit	I	C-W--	DPT_Start	0/1	[AOx] Flashing	0 = Deactivate; 1 = Activate
140, 155	1 Bit	I	C-W--	DPT_Enable	0/1	[AOx] Lock	0 = Unlock; 1 = Lock
	1 Bit	I	C-W--	DPT_Enable	0/1	[AOx] Lock	0 = Lock; 1 = Unlock
141, 156	1 Bit	I	C-W--	DPT_Alarm	0/1	[AOx] Alarm	0 = No Alarm; 1 = Alarm
	1 Bit	I	C-W--	DPT_Alarm	0/1	[AOx] Alarm	0 = Alarm; 1 = No Alarm
142, 157	1 Bit	I	C-W--	DPT_Ack	0/1	[AOx] Unfreeze Alarm	Alarm = 0 + Unfreeze = 1 => End Alarm
	1 Bit	I	C-W--	DPT_Ack	0/1	[AOx] Unfreeze Alarm	Alarm = 1 + Unfreeze = 1 => End Alarm
143, 158	1 Bit	O	CR-T-	DPT_Switch	0/1	[AOx] Standby (status)	0 = Standby Off; 1 = Standby On
	1 Bit	O	CR-T-	DPT_Switch	0/1	[AOx] Standby (status)	0 = Standby On; 1 = Standby Off
144, 159	1 Byte	I	C-W--	DPT_SceneControl	0-63; 128-191	[AOx] Scenes	0 - 63 (Execute 1 - 64); 128 - 191 (Save 1 - 64)
160, 169, 178, 187	1 Bit	I	C-W--	DPT_Enable	0/1	[Ix] Input Lock	0 = Unlock; 1 = Lock

161, 170, 179, 188	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Short Press] 0	Sending of 0
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Short Press] 1	Sending of 1
	1 Bit	I	C-WT-	DPT_Switch	0/1	[Ix] [Short Press] 0/1 Switching	Switching 0/1
	1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Short Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Short Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit	I	C-WT-	DPT_UpDown	0/1	[Ix] [Short Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit	I	C-WT-	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Short Press] Brighter	Increase Brightness
	4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Short Press] Darker	Decrease Brightness
	4 Bit	I	C-WT-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Short Press] Brighter/Darker	Switch Bright/Dark
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Short Press] Light On	Sending of 1 (On)
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Short Press] Light On/Off	0/1
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Short Press] Light Off	Sending of 0 (Off)
	1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Short Press] Run Scene	Sending of 0 - 63
	1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Short Press] Save Scene	Sending of 128 - 191
	1 Byte	O	C--T-	DPT_Value_1_Ucount	0 - 255	[Ix] [Short Press] Constant Value (Integer)	0 - 255
	1 Byte	O	C--T-	DPT_Scaling	0% - 100%	[Ix] [Short Press] Constant Value (Percentage)	0% - 100%
	2 Bytes	O	C--T-	DPT_Value_2_Ucount	0 - 65535	[Ix] [Short Press] Constant Value (Integer)	0 - 65535
	2 Bytes	O	C--T-	9.xxx	-671088.64 - 670433.28	[Ix] [Short Press] Constant Value (Float)	Float Value
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 0	Sending of 0
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 1	Sending of 1
	1 Bit	I	C-WT-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 0/1 Switching	Switching 0/1
1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Rising Edge] Move Up Shutter	Sending of 0 (Up)	
1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Rising Edge] Move Down Shutter	Sending of 1 (Down)	

1 Bit	I	C - W T -	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Rising Edge] Move Up/Down Shutter	Switching 0/1 (Up/Down)
1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Rising Edge] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
1 Bit	O	C - - T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Rising Edge] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
1 Bit	I	C - W T -	DPT_Step	0/1	[Ix] [Switch/Sensor] [Rising Edge] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] Light On	Sending of 1 (On)
1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] Light Off	Sending of 0 (Off)
1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] Light On/Off	0/1
4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Rising Edge] Brighter	Increase Brightness
4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Rising Edge] Darker	Decrease Brightness
4 Bit	I	C - W T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Rising Edge] Brighter/Darker	Switch Bright/Dark
1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Switch/Sensor] [Rising Edge] Run Scene	Sending of 0 - 63
1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Ix] [Switch/Sensor] [Rising Edge] Save Scene	Sending of 128 - 191
1 Byte	O	C - - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Switch/Sensor] [Rising Edge] Constant Value (Integer)	0 - 255
1 Byte	O	C - - T -	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Rising Edge] Constant Value (Percentage)	0% - 100%
2 Bytes	O	C - - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Switch/Sensor] [Rising Edge] Constant Value (Integer)	0 - 65535
2 Bytes	O	C - - T -	9.xxx	-671088.64 - 670433.28	[Ix] [Switch/Sensor] [Rising Edge] Constant Value (Float)	Float Value
1 Bit	O	C - - T -	DPT_Ack	0/1	[Ix] [Pulse Counter] Counter	Send 1
1 Byte	O	CR - T -	DPT_Value_1_Ucount	0 - 255	[Ix] [Pulse Counter] Counter	Number of Pulses
2 Bytes	O	CR - T -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Pulse Counter] Counter	Number of Pulses
2 Bytes	O	CR - T -	DPT_Power	-671088.64 - 670433.28 kW	[Ix] [Pulse Counter] Counter	Power (kW)
2 Bytes	O	CR - T -	DPT_Value_Volume_Flow		[Ix] [Pulse Counter] Counter	Flow (l/h)
4 Bytes	O	CR - T -	DPT_Value_4_Ucount	0 - 4294967295	[Ix] [Pulse Counter] Counter	Number of Pulses
4 Bytes	O	CR - T -	1.xxx	0/1	[Ix] [Pulse Counter] Counter	Flow Rate (m3/h)
4 Bytes	O	CR - T -	DPT_ActiveEnergy	0 - 2147483647	[Ix] [Pulse Counter] Counter	Energy (Wh)
4 Bytes	O	CR - T -	DPT_ActiveEnergy_kWh	0 - 2147483647	[Ix] [Pulse Counter] Counter	Energy (kWh)

	4 Bytes	O	CR-T-	DPT_Value_Power	-3.4E+38 W - 3.4E+38 W	[Ix] [Pulse Counter] Counter	Power (W)
	4 Bytes	O	CR-T-	DPT_Value_Volume		[Ix] [Pulse Counter] Counter	Volume (m3)
	1 Bit	I/O	CRWT-	DPT_Switch	0/1	[Ix] [Switch/Sensor] Edge	0/1
162, 171, 180, 189	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[Ix] [Short Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[Ix] [Short Press] Dimming Status (Input)	0% - 100%
	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Rising Edge] Dimming Status (Input)	0% - 100%
	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Rising Edge] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Bit	I	C-WT-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 0/1 Switching (Immediate Object)	Switching 0/1
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 0 (Immediate Object)	Sending of 0
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Rising Edge] 1 (Immediate Object)	Sending of 1
163, 172, 181, 190	1 Bit	I	C-W--	DPT_Reset	0/1	[Ix] [Pulse Counter] Reset	0 = No Action; 1 = Reset
	1 Bit	O	CR-T-	DPT_Alarm	0/1	[Ix] [Switch/Sensor] Alarm: Breakdown or Sabotage	1 = Alarm; 0 = No Alarm
164, 173, 182, 191	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Double Press] 0	Sending of 0
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Double Press] 1	Sending of 1
	1 Bit	I	C-WT-	DPT_Switch	0/1	[Ix] [Double Press] 0/1 Switching	Switching 0/1
	1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Double Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Double Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit	I	C-WT-	DPT_UpDown	0/1	[Ix] [Double Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Double Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Double Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit	I	C-WT-	DPT_Step	0/1	[Ix] [Double Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Double Press] Brighter	Increase Brightness
	4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Double Press] Darker	Decrease Brightness
4 Bit	I	C-WT-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Double Press] Brighter/Darker	Switch Bright/Dark	

1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Double Press] Light On	Sending of 1 (On)
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Double Press] Light Off	Sending of 0 (Off)
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Double Press] Light On/Off	0/1
1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Double Press] Run Scene	Sending of 0 - 63
1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Double Press] Save Scene	Sending of 128 - 191
1 Byte	O	C--T-	DPT_Value_1_Ucount	0 - 255	[Ix] [Double Press] Constant Value (Integer)	0 - 255
1 Byte	O	C--T-	DPT_Scaling	0% - 100%	[Ix] [Double Press] Constant Value (Percentage)	0% - 100%
2 Bytes	O	C--T-	DPT_Value_2_Ucount	0 - 65535	[Ix] [Double Press] Constant Value (Integer)	0 - 65535
2 Bytes	O	C--T-	9.xxx	-671088.64 - 670433.28	[Ix] [Double Press] Constant Value (Float)	Float Value
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 0	Sending of 0
1 Bit	I	C-WT-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 0/1 Switching	Switching 0/1
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 1	Sending of 1
4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Falling Edge] Brighter	Increase Brightness
4 Bit	I	C-WT-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Falling Edge] Brighter/Darker	Switch Bright/Dark
2 Bytes	O	C--T-	9.xxx	-671088.64 - 670433.28	[Ix] [Switch/Sensor] [Falling Edge] Constant Value (Float)	Float Value
2 Bytes	O	C--T-	DPT_Value_2_Ucount	0 - 65535	[Ix] [Switch/Sensor] [Falling Edge] Constant Value (Integer)	0 - 65535
1 Byte	O	C--T-	DPT_Value_1_Ucount	0 - 255	[Ix] [Switch/Sensor] [Falling Edge] Constant Value (Integer)	0 - 255
1 Byte	O	C--T-	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Falling Edge] Constant Value (Percentage)	0% - 100%
4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Switch/Sensor] [Falling Edge] Darker	Decrease Brightness
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] Light Off	Sending of 0 (Off)
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] Light On	Sending of 1 (On)
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] Light On/Off	0/1
1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Falling Edge] Move Down Shutter	Sending of 1 (Down)

	1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Falling Edge] Move Up Shutter	Sending of 0 (Up)
	1 Bit	I	C-WT-	DPT_UpDown	0/1	[Ix] [Switch/Sensor] [Falling Edge] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Switch/Sensor] [Falling Edge] Run Scene	Sending of 0 - 63
	1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Switch/Sensor] [Falling Edge] Save Scene	Sending of 128 - 191
	1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Switch/Sensor] [Falling Edge] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit	I	C-WT-	DPT_Step	0/1	[Ix] [Switch/Sensor] [Falling Edge] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Switch/Sensor] [Falling Edge] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
165, 174, 183, 192	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[Ix] [Double Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[Ix] [Double Press] Dimming Status (Input)	0% - 100%
	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Falling Edge] Dimming Status (Input)	0% - 100%
	1 Byte	I	C-W--	DPT_Scaling	0% - 100%	[Ix] [Switch/Sensor] [Falling Edge] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 0 (Immediate Object)	Sending of 0
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 1 (Immediate Object)	Sending of 1
	1 Bit	I	C-WT-	DPT_Switch	0/1	[Ix] [Switch/Sensor] [Falling Edge] 0/1 Switching (Immediate Object)	Switching 0/1
166, 175, 184, 193	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Long Press] 0	Sending of 0
	1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Long Press] 1	Sending of 1
	1 Bit	I	C-WT-	DPT_Switch	0/1	[Ix] [Long Press] 0/1 Switching	Switching 0/1
	1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Long Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Long Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit	I	C-WT-	DPT_UpDown	0/1	[Ix] [Long Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit	I	C-WT-	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Long Press] Brighter	Long Pr. -> Brighter; Release -> Stop

4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Long Press] Darker	Long Pr. -> Darker; Release -> Stop
4 Bit	I	C-WT-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Long Press] Brighter/Darker	Long Pr. -> Brighter/Darker; Release -> Stop
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Long Press] Light On	Sending of 1 (On)
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Long Press] Light Off	Sending of 0 (Off)
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Long Press] Light On/Off	0/1
1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Long Press] Run Scene	Sending of 0 - 63
1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Long Press] Save Scene	Sending of 128 - 191
1 Byte	O	C--T-	DPT_Value_1_Ucount	0 - 255	[Ix] [Long Press] Constant Value (Integer)	0 - 255
1 Byte	O	C--T-	DPT_Scaling	0% - 100%	[Ix] [Long Press] Constant Value (Percentage)	0% - 100%
2 Bytes	O	C--T-	DPT_Value_2_Ucount	0 - 65535	[Ix] [Long Press] Constant Value (Integer)	0 - 65535
2 Bytes	O	C--T-	9.xxx	-671088.64 - 670433.28	[Ix] [Long Press] Constant Value (Float)	Float Value
1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Triple Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
1 Bit	I	C-WT-	DPT_Step	0/1	[Ix] [Triple Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
1 Bit	O	C--T-	DPT_Step	0/1	[Ix] [Triple Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Triple Press] Save Scene	Sending of 128 - 191
1 Byte	O	C--T-	DPT_SceneControl	0-63; 128-191	[Ix] [Triple Press] Run Scene	Sending of 0 - 63
1 Bit	I	C-WT-	DPT_UpDown	0/1	[Ix] [Triple Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Triple Press] Move Up Shutter	Sending of 0 (Up)
1 Bit	O	C--T-	DPT_UpDown	0/1	[Ix] [Triple Press] Move Down Shutter	Sending of 1 (Down)
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Triple Press] Light On/Off	0/1
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Triple Press] Light On	Sending of 1 (On)
1 Bit	O	C--T-	DPT_Switch	0/1	[Ix] [Triple Press] Light Off	Sending of 0 (Off)
4 Bit	O	C--T-	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Triple Press] Darker	Decrease Brightness
1 Byte	O	C--T-	DPT_Scaling	0% - 100%	[Ix] [Triple Press] Constant Value (Percentage)	0% - 100%
2 Bytes	O	C--T-	DPT_Value_2_Ucount	0 - 65535	[Ix] [Triple Press] Constant Value (Integer)	0 - 65535
1 Byte	O	C--T-	DPT_Value_1_Ucount	0 - 255	[Ix] [Triple Press] Constant Value (Integer)	0 - 255

	2 Bytes	O	C - - T -	9.xxx	-671088.64 - 670433.28	[Ix] [Triple Press] Constant Value (Float)	Float Value
	4 Bit	I	C - W T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Triple Press] Brighter/Darker	Switch Bright/Dark
	4 Bit	O	C - - T -	DPT_Control_Dimming	0x0/0x8 (Stop) 0x1...0x7 (Dec.) 0x9...0xF (Inc.)	[Ix] [Triple Press] Brighter	Increase Brightness
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Triple Press] 1	Sending of 1
	1 Bit	I	C - W T -	DPT_Switch	0/1	[Ix] [Triple Press] 0/1 Switching	Switching 0/1
	1 Bit	O	C - - T -	DPT_Switch	0/1	[Ix] [Triple Press] 0	Sending of 0
167, 176, 185, 194	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Long Press] Dimming Status (Input)	0% - 100%
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Long Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Triple Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix] [Triple Press] Dimming Status (Input)	0% - 100%
168, 177, 186, 195	1 Bit	O	C - - T -	DPT_Trigger	0/1	[Ix] [Long Press/Release] Stop Shutter	Release -> Stop Shutter
196, 200, 204, 208	2 Bytes	O	CR - T -	DPT_Value_Temp	-273.00° - 670433.28°	[Ix] Current Temperature	Temperature Sensor Value
197, 201, 205, 209	1 Bit	O	CR - T -	DPT_Alarm	0/1	[Ix] Overcooling	0 = No Alarm; 1 = Alarm
198, 202, 206, 210	1 Bit	O	CR - T -	DPT_Alarm	0/1	[Ix] Overheating	0 = No Alarm; 1 = Alarm
199, 203, 207, 211	1 Bit	O	CR - T -	DPT_Alarm	0/1	[Ix] Probe Error	0 = No Alarm; 1 = Alarm
212	1 Byte	I	C - W - -	DPT_SceneNumber	0 - 63	[Motion Detector] Scene Input	Scene Value
213	1 Byte	O	C - - T -	DPT_SceneControl	0-63; 128-191	[Motion Detector] Scene Output	Scene Value
214, 251, 288, 325	1 Byte	O	CR - T -	DPT_Scaling	0% - 100%	[Ix] Luminosity	0 - 100%
215, 252, 289, 326	1 Bit	O	CR - T -	DPT_Alarm	0/1	[Ix] Open Circuit Error	0 = No Error; 1 = Open Circuit Error
216, 253, 290, 327	1 Bit	O	CR - T -	DPT_Alarm	0/1	[Ix] Short Circuit Error	0 = No Error; 1 = Short Circuit Error
217, 254, 291, 328	1 Byte	O	CR - T -	DPT_Scaling	0% - 100%	[Ix] Presence State (Scaling)	0 - 100%
218, 255, 292, 329	1 Byte	O	CR - T -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Ix] Presence State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
	1 Bit	O	CR - T -	DPT_Switch	0/1	[Ix] Presence State (Binary)	Binary Value
219, 256, 293, 330	1 Bit	O	CR - T -	DPT_Start	0/1	[Ix] Presence: Slave Output	1 = Motion Detected
	1 Bit	O	CR - T -	DPT_Start	0/1	[Ix] Presence: Slave Output	1 = Motion Detected
220, 257, 294, 331	1 Bit	I	C - W - -	DPT_Window_Door	0/1	[Ix] Presence Trigger	Binary Value to Trigger the Presence Detection
221, 258, 295, 332	1 Bit	I	C - W - -	DPT_Start	0/1	[Ix] Presence: Slave Input	0 = Nothing; 1 = Detection from slave device
222, 259, 296, 333	2 Bytes	I/O	CRW - -	DPT_TimePeriodSec	0 - 65535	[Ix] Presence: Waiting Time	0 - 65535 s
223, 260, 297, 334	2 Bytes	I/O	CRW - -	DPT_TimePeriodSec	0 - 65535	[Ix] Presence: Listening Time	1 - 65535 s

224, 261, 298, 335	2 Bytes	I/O	C R W - -	DPT_TimePeriodMin	0 - 65535	[Ix] Presence: Safety Time	0 - 1440 min
225, 262, 299, 336	1 Byte	I/O	C R W - -	DPT_Value_1_Ucount	0 - 255	[Ix] Presence: Number of Detections of the Filter	2 - 5
226, 263, 300, 337	1 Byte	I/O	C R W - -	DPT_Value_1_Ucount	0 - 255	[Ix] Presence: Filter Detection Window	15 - 60 s
227, 264, 301, 338	1 Bit	I	C - W - -	DPT_Enable	0/1	[Ix] Presence: Enable	0 = Disable; 1 = Enable
	1 Bit	I	C - W - -	DPT_Enable	0/1	[Ix] Presence: Enable	0 = Enable; 1 = Disable
228, 265, 302, 339	1 Bit	I/O	C R W - -	DPT_DayNight	0/1	[Ix] Presence: Day/Night	0 = Day; 1 = Night
	1 Bit	I/O	C R W - -	DPT_DayNight	0/1	[Ix] Presence: Day/Night	0 = Night; 1 = Day
229, 266, 303, 340	1 Bit	O	C R - T -	DPT_Occupancy	0/1	[Ix] Presence: Occupancy State (Master Output)	0 = Not Occupied; 1 = Occupied
	1 Bit	I	C - W - -	DPT_Occupancy	0/1	[Ix] Presence: Occupancy State (Master Input)	0 = Not Occupied; 1 = Occupied
230, 267, 304, 341	1 Bit	I	C - W - -	DPT_Switch	0/1	[Ix] Presence: Access Guest/Employee	0 = Guest; 1 = Employee
	1 Bit	I	C - W - -	DPT_Switch	0/1	[Ix] Presence: Access Guest/Employee	0 = Employee; 1 = Guest
231, 268, 305, 342	1 Bit	I	C - W - -	DPT_Bool	0/1	[Ix] Presence: Sold/Unsold Room	0 = Unsold; 1 = Sold
	1 Bit	I	C - W - -	DPT_Bool	0/1	[Ix] Presence: Sold/Unsold Room	0 = Sold; 1 = Unsold
232, 269, 306, 343	1 Bit	I	C - W - -	DPT_Start	0/1	[Ix] External Motion Detection	0 = Nothing; 1 = Motion detected by an external sensor
233, 239, 245, 270, 276, 282, 307, 313, 319, 344, 350, 356	1 Byte	O	C R - T -	DPT_Scaling	0% - 100%	[Ix][Cx] Detection State (Scaling)	0 - 100%
234, 240, 246, 271, 277, 283, 308, 314, 320, 345, 351, 357	1 Byte	O	C R - T -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Ix][Cx] Detection State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
235, 241, 247, 272, 278, 284, 309, 315, 321, 346, 352, 358	1 Bit	O	C R - T -	DPT_Switch	0/1	[Ix][Cx] Detection State (Binary)	Binary Value
236, 242, 248, 273, 279, 285, 310, 316, 322, 347, 353, 359	1 Bit	I	C - W - -	DPT_Enable	0/1	[Ix][Cx] Enable Channel	According to parameters
237, 243, 249, 274, 280, 286, 311, 317, 323, 348, 354, 360	1 Bit	I	C - W - -	DPT_Switch	0/1	[Ix][Cx] Force State	0 = No Detection; 1 = Detection
238, 244, 250, 275, 281, 287, 312, 318, 324, 349, 355, 361	1 Byte	I	C - W - -	DPT_Scaling	0% - 100%	[Ix][Cx] Luminosity Threshold	1 - 100%
362	1 Byte	I	C - W - -	DPT_SceneControl	0-63; 128-191	[Thermostat] Scenes	0 - 63 (Execute 1 - 64); 128 - 191 (Save 1 - 64)
363, 414	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Temperature Source 1	External Sensor Temperature
364, 415	2 Bytes	I	C - W T U	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Temperature Source 2	External Sensor Temperature

365, 416	2 Bytes	O	CR-T-	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Effective Temperature	Effective Control Temperature
366, 417	1 Byte	I	C-W--	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Tx] Special Mode	1-Byte HVAC Mode
367, 418	1 Bit	I	C-W--	DPT_Ack	0/1	[Tx] Special Mode: Comfort	0 = Nothing; 1 = Trigger
	1 Bit	I	C-W--	DPT_Switch	0/1	[Tx] Special Mode: Comfort	0 = Off; 1 = On
368, 419	1 Bit	I	C-W--	DPT_Ack	0/1	[Tx] Special Mode: Standby	0 = Nothing; 1 = Trigger
	1 Bit	I	C-W--	DPT_Switch	0/1	[Tx] Special Mode: Standby	0 = Off; 1 = On
369, 420	1 Bit	I	C-W--	DPT_Ack	0/1	[Tx] Special Mode: Economy	0 = Nothing; 1 = Trigger
	1 Bit	I	C-W--	DPT_Switch	0/1	[Tx] Special Mode: Economy	0 = Off; 1 = On
370, 421	1 Bit	I	C-W--	DPT_Ack	0/1	[Tx] Special Mode: Protection	0 = Nothing; 1 = Trigger
	1 Bit	I	C-W--	DPT_Switch	0/1	[Tx] Special Mode: Protection	0 = Off; 1 = On
371, 422	1 Bit	I	C-W--	DPT_Trigger	0/1	[Tx] Comfort Prolongation	0 = Nothing; 1 = Timed Comfort
372, 423	1 Byte	O	CR-T-	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Tx] Special Mode Status	1-Byte HVAC Mode
373, 424	1 Bit	I	C-W--	DPT_Window_Door	0/1	[Tx] Window Status 1 (Input)	0 = Closed; 1 = Open
374, 425	1 Bit	I	C-W--	DPT_Window_Door	0/1	[Tx] Window Status 2 (Input)	0 = Closed; 1 = Open
375, 426	1 Bit	I	C-W--	DPT_Window_Door	0/1	[Tx] Window Status 3 (Input)	0 = Closed; 1 = Open
376, 427	1 Bit	I	C-W--	DPT_Window_Door	0/1	[Tx] Window Status 4 (Input)	0 = Closed; 1 = Open
377, 428	2 Bytes	I	C-W--	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Setpoint	Thermostat Setpoint Input
	2 Bytes	I	C-W--	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Basic Setpoint	Reference Setpoint
378, 429	1 Bit	I	C-W--	DPT_Step	0/1	[Tx] Setpoint Step	0 = Decrease Setpoint; 1 = Increase Setpoint
379, 430	2 Bytes	I	C-W--	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Setpoint Shift Offset	Float Shift Offset Value
380, 431	2 Bytes	O	CR-T-	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Setpoint Status	Current Setpoint
381, 432	2 Bytes	O	CR-T-	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Basic Setpoint Status	Current Basic Setpoint
382, 433	2 Bytes	O	CR-T-	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Setpoint Shift Offset Status	Current Setpoint Shift Offset
383, 434	1 Bit	I	C-W--	DPT_Reset	0/1	[Tx] Setpoint Reset	Reset Setpoint to Default
	1 Bit	I	C-W--	DPT_Reset	0/1	[Tx] Shift Offset Reset	Reset Shift Offset
384, 435	2 Bytes	I/O	CRWTU	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Comfort Setpoint (Cooling)	[-20°C, 100°C]
	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Comfort Shift Offset (Cooling)	[-10°C, 10°C]
385, 436	2 Bytes	I/O	CRWTU	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Standby Setpoint (Cooling)	[-20°C, 100°C]
	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Standby Shift Offset (Cooling)	[-10°C, 10°C]
386, 437	2 Bytes	I/O	CRWTU	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Economy Setpoint (Cooling)	[-20°C, 100°C]
	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Economy Shift Offset (Cooling)	[-10°C, 10°C]
387, 438	2 Bytes	I/O	CRWTU	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Comfort Setpoint (Heating)	[-20°C, 100°C]
	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Comfort Shift Offset (Heating)	[-10°C, 10°C]

388, 439	2 Bytes	I/O	CRWTU	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Standby Setpoint (Heating)	[-20°C, 100°C]
	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Standby Shift Offset (Heating)	[-10°C, 10°C]
389, 440	2 Bytes	I/O	CRWTU	DPT_Value_Temp	-273.00° - 670433.28°	[Tx] Economy Setpoint (Heating)	[-20°C, 100°C]
	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Economy Shift Offset (Heating)	[-10°C, 10°C]
390, 441	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Lower Dead Band (Only for Comfort Mode)	Automatic H/C Mode Changeover Band [0°C, 10°C]
	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Lower Dead Band	Automatic H/C Mode Changeover Band [0°C, 10°C]
391, 442	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Upper Dead Band (Only for Comfort Mode)	Automatic H/C Mode Changeover Band [0°C, 10°C]
	2 Bytes	I/O	CRWTU	DPT_Value_Tempd	-671088.64° - 670433.28°	[Tx] Upper Dead Band	Automatic H/C Mode Changeover Band [0°C, 10°C]
392, 443	1 Bit	I	C-W--	DPT_Heat_Cool	0/1	[Tx] Simplified Mode	0 = Cool; 1 = Heat
393, 444	1 Bit	O	CR-T-	DPT_Heat_Cool	0/1	[Tx] Simplified Mode Status	0 = Cool; 1 = Heat
394, 445	1 Bit	I	C-W--	DPT_Switch	0/1	[Tx] On/Off	0 = Off; 1 = On
395, 446	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] On/Off Status	0 = Off; 1 = On
396, 447	1 Bit	I	C-W--	DPT_Switch	0/1	[Tx] Force Secondary System (Cool)	0 = Off; 1 = On
397, 448	1 Bit	I	C-W--	DPT_Switch	0/1	[Tx] Force Secondary System (Heat)	0 = Off; 1 = On
398, 449	1 Byte	I	C-W--	DPT_ChangeoverMode		[Tx] Mode	0 = Auto; 1 = Cool; 2 = Heat
399, 450	1 Byte	O	CR-T-	DPT_ChangeoverMode		[Tx] Mode Status	0 = Auto; 1 = Cool; 2 = Heat
400, 451	1 Byte	I/O	CRWTU	1.xxx	0/1	[Tx] System Selector (Cool)	0 = S1 (Main) / S2 (Additional); 1 = Only S1; 2 = Only S2; 3 = S2 (Main) / S1 (Additional)
	1 Byte	I/O	CRWTU	1.xxx	0/1	[Tx] System Selector (Cool)	0 = S2 (Main) / S1 (Additional); 1 = Only S1; 2 = Only S2; 3 = S1 (Main) / S2 (Additional)
401, 452	1 Byte	I/O	CRWTU	1.xxx	0/1	[Tx] System Selector (Heat)	0 = S1 (Main) / S2 (Additional); 1 = Only S1; 2 = Only S2; 3 = S2 (Main) / S1 (Additional)
	1 Byte	I/O	CRWTU	1.xxx	0/1	[Tx] System Selector (Heat)	0 = S2 (Main) / S1 (Additional); 1 = Only S1; 2 = Only S2; 3 = S1 (Main) / S2 (Additional)
402, 408, 453, 459	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[Tx] [Sx] Control Variable (Cool)	PI Control (Continuous)
403, 409, 454, 460	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[Tx] [Sx] Control Variable (Heat)	PI Control (Continuous)
	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[Tx] [Sx] Control Variable	PI Control (Continuous)
404, 410, 455, 461	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] Control Variable (Cool)	2-Point Control
	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] Control Variable (Cool)	PI Control (PWM)
405, 411, 456, 462	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] Control Variable (Heat)	2-Point Control
	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] Control Variable (Heat)	PI Control (PWM)
	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] Control Variable	2-Point Control
	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] Control Variable	PI Control (PWM)
	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] PI State (Cool)	0 = PI Signal 0%; 1 = PI Signal Greater than 0%

407, 413, 458, 464	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] PI State (Heat)	0 = PI Signal 0%; 1 = PI Signal Greater than 0%
	1 Bit	O	CR-T-	DPT_Switch	0/1	[Tx] [Sx] PI State	0 = PI Signal 0%; 1 = PI Signal Greater than 0%
465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496	1 Bit	I	C-W--	DPT_Bool	0/1	[LF] (1-Bit) Data Entry x	Binary Data Entry (0/1)
497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512	1 Byte	I	C-W--	DPT_Value_1_Ucount	0 - 255	[LF] (1-Byte) Data Entry x	1-Byte Data Entry (0-255)
513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528	2 Bytes	I	C-W--	DPT_Value_2_Ucount	0 - 65535	[LF] (2-Byte) Data Entry x	2-Byte Data Entry
	2 Bytes	I	C-W--	DPT_Value_2_Count	-32768 - 32767	[LF] (2-Byte) Data Entry x	2-Byte Data Entry
	2 Bytes	I	C-W--	9.xxx	-671088.64 - 670433.28	[LF] (2-Byte) Data Entry x	2-Byte Data Entry
529, 530, 531, 532, 533, 534, 535, 536	4 Bytes	I	C-W--	DPT_Value_4_Count	-2147483648 - 2147483647	[LF] (4-Byte) Data Entry x	4-Byte Data Entry
537, 538, 539, 540, 541, 542, 543, 544, 545, 546	1 Bit	O	CR-T-	DPT_Bool	0/1	[LF] Function x - Result	(1-Bit) Boolean
	1 Byte	O	CR-T-	DPT_Value_1_Ucount	0 - 255	[LF] Function x - Result	(1-Byte) Unsigned
	2 Bytes	O	CR-T-	DPT_Value_2_Ucount	0 - 65535	[LF] Function x - Result	(2-Byte) Unsigned
	4 Bytes	O	CR-T-	DPT_Value_4_Count	-2147483648 - 2147483647	[LF] Function x - Result	(4-Byte) Signed
	1 Byte	O	CR-T-	DPT_Scaling	0% - 100%	[LF] Function x - Result	(1-Byte) Percentage
	2 Bytes	O	CR-T-	DPT_Value_2_Count	-32768 - 32767	[LF] Function x - Result	(2-Byte) Signed
	2 Bytes	O	CR-T-	9.xxx	-671088.64 - 670433.28	[LF] Function x - Result	(2-Byte) Float
547	1 Bit	I	C-W--	DPT_Enable	0/1	Manual Control Lock	0 = Unlock; 1 = Lock
	1 Bit	I	C-W--	DPT_Enable	0/1	Manual Control Lock	0 = Lock; 1 = Unlock



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