

KLIC-MITT

KNX - IT Terminal Gateway for Mitsubishi Electric A/C Units

ZCL-MITT

Application program version: [1.1]

User manual edition: [1.1]_a

www.zennio.com

CONTENTS

Contents	2
Document Updates	3
1 Introduction	4
1.1 KILC-MITT	4
1.2 Installation.....	5
1.3 Start-Up and Power Loss.....	6
2 Configuration.....	7
2.1 General.....	7
2.2 Inputs	9
2.2.1 Binary Input.....	9
2.2.2 Temperature Probe.....	10
2.2.3 Motion Detector	10
2.3 Logic Functions.....	11
2.4 AC Gateway.....	12
2.4.1 Configuration	12
2.4.2 Fan.....	15
2.4.3 Flaps	18
2.4.4 Initial Configuration	21
2.4.5 Scenes	22
2.4.6 Error Handling.....	23
ANNEX I. Communication Objects.....	25

DOCUMENT UPDATES

Version	Changes	Page(s)
[1.1]_a	Changes in the application program: <ul style="list-style-type: none"><li data-bbox="416 517 951 555">• Compatibility with additional models.	-

1 INTRODUCTION

1.1 KILC-MITT

KLIC-MITT from Zennio is a gateway that provides full-duplex communication between the KNX home automation system and **Mitsubishi Electric air-conditioning** systems through the IT Terminal interface provided by the latter.

Because of this **bidirectional** communication, the air conditioning system can be controlled from the home automation system in the same manner as it is through its own controls. Moreover, the actual status of the unit can be monitored and periodically sent to the KNX bus to inform other devices.

The most outstanding features of KLIC-MITT are:

- Bidirectional control of Mitsubishi Electric HVAC units through their **IT Terminal connector** (CN105/CN92).
- Control of the main functions of the A/C unit: On/Off, temperature, mode of operation, fan speed, position of the flaps, etc.
- **Error management** to handle specific error codes from the A/C unit itself as well as any communication issues that may arise.
- Up to **five scenes**.
- **Three analogue-digital inputs**, for the connection of temperature probes, motion detectors or binary pushbuttons or switches.
- 10 customisable, multi-operation **logic functions**.
- **Heartbeat** or periodical “still-alive” notification.

1.2 INSTALLATION

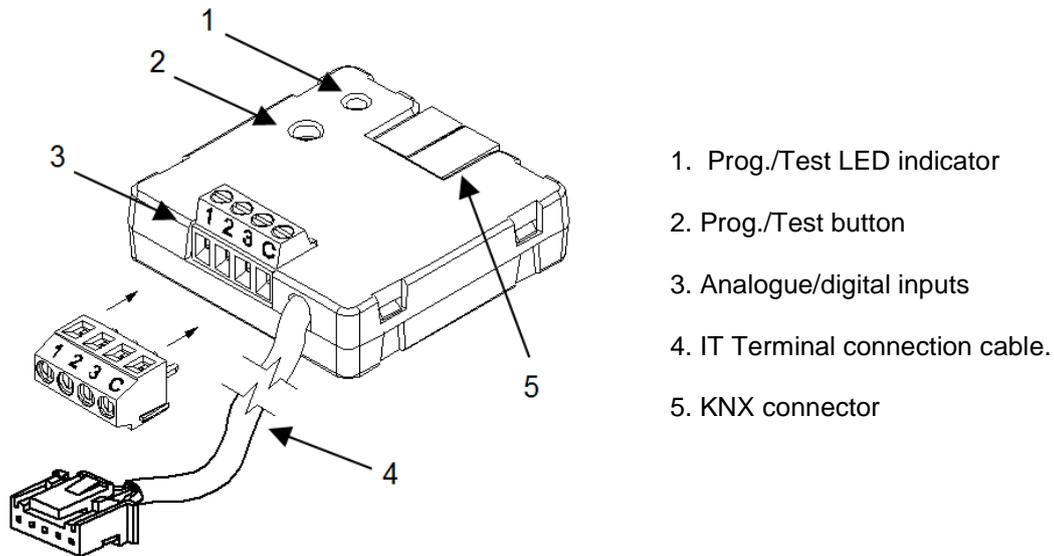


Figure 1. Element scheme

KLIC-MITT connects to the KNX bus via the corresponding built-in terminal (5). Once the device is provided with power from the KNX bus, both the physical address and the KLIC-MITT application program can be downloaded.

This device does not need any external power as it is entirely powered through the KNX bus.

The remaining elements are described next.

- **Prog./Test button (2):** a short press on this button will set the device into the programming mode, making the associated LED (1) light in red.

Note: if this button is held while plugging the device into the KNX bus, the device will enter into safe mode. The LED will blink in red every 0.5 seconds

- **Analogue-Digital Inputs (3):** input ports for the stripped cables of external elements such as switches, motion detectors, temperature probes, etc..
- **Communication cable (4):** cable with a CN105/CN92 connector that will connect KLIC-MITT to the A/C unit. The other end of the cable, therefore, is intended to be connected to the IT Terminal connector in the PCB board of the internal unit.

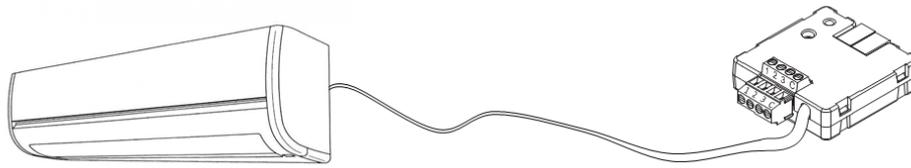


Figure 2. Connecting KLIC-MITT to the A/C unit

Important: *if intending to control the A/C unit both through its incorporated wired remote control and through KLIC-MITT, it must be taken into account that orders sent from the wired control will have a higher priority than those sent through KLIC-MITT. In addition, certain parameterisations made in the device can be ignored.*

For detailed information about the technical features of KLIC-MITT, as well as on security and installation procedures, please refer to the device **Datasheet**, bundled in the device packaging and also available at <http://www.zennio.com>.

1.3 START-UP AND POWER LOSS

Depending on the configuration, some specific actions will be performed during the device start-up. The integrator may set up an initial status to be sent to the A/C unit after the bus power recovery, and whether certain objects should be sent to the bus after the power recovery, as described in later sections.

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

2 CONFIGURATION

2.1 GENERAL

The general configuration of the device consists in enabling the specific functionalities that will be required during normal operation:

- **Heartbeat** or periodical “still-alive” notification.
- **Inputs**: see section 2.2.
- **Logic functions**: see section 2.3.
- **AC gateway**: see section 2.4.

The latter entails all functions specific to KLIC-MITT, i.e., all the functions related to interfacing with the A/C unit and to the management of the climate control system.

ETS PARAMETERISATION

After importing the corresponding database in ETS and adding the device into the topology of the desired project, the configuration process begins by right-clicking into the device and selecting Edit parameters

The General screen is shown in the first place, containing the following parameters:

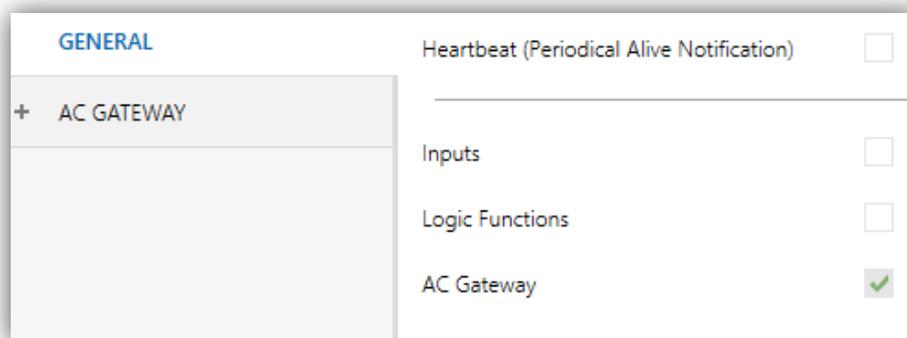
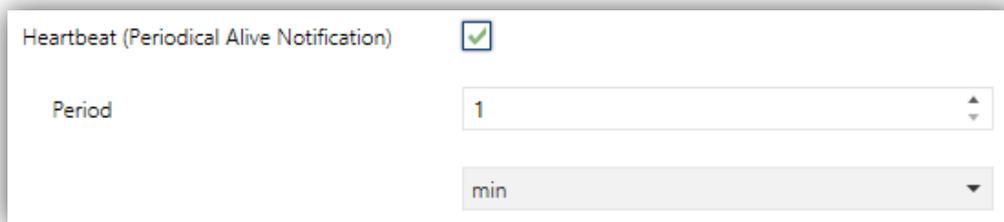


Figure 3. General

- Enabling **Inputs**, **Logic Functions** and **AC Gateway** brings additional tabs into the menu on the left. These functions and their parameters will be

explained in later sections of this document. Please note that **AC Gateway** is permanently enabled.

- **Heartbeat (Periodical Alive Notification)**: this parameter 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*).



The screenshot shows a configuration window for 'Heartbeat (Periodical Alive Notification)'. At the top left, the title 'Heartbeat (Periodical Alive Notification)' is followed by a checked checkbox. Below this, there is a 'Period' label next to a dropdown menu showing the value '1'. Underneath the dropdown is another dropdown menu showing the unit 'min'.

Figure 4. Heartbeat

Regardless of the above parameters, the following objects are available by default:

- “[AC] On/Off” and “[AC] On/Off (Status)”: allow switching on (value “1”) and off (value “0”) the A/C unit or reading the current status, respectively.
- “[AC] Temperature Setpoint” and “[AC] Temperature Setpoint (Status)”: allow setting the desired temperature setpoint or reading the current value, respectively. See section 2.4.1 for further options.
- “[AC] Mode” and “[AC] Mode (Status)”: allow setting the desired operation mode (either Automatic, Heating, Cooling, Fan or Dry) or reading the current mode, respectively. See section 2.4.1 for further options.
- Several **error objects**. See section 2.4.6.

2.2 INPUTS

KLIC-MITT incorporates **three analogue/digital inputs**, each configurable as a:

- **Binary Input**, for the connection of a pushbutton or a switch/sensor.
- **Temperature Probe**, for the connection of a temperature sensor (such as models ZN1AC-NTC68 S/E/F and SQ-AmbienT from Zennio).
- **Motion Detector**, for the connection of a motion detector (models ZN1IO-DETEC-P and ZN1IO-DETEC-X from Zennio).

Important: *older models of the Zennio motion detector (e.g., ZN1IO-DETEC and ZN1IO-DETEC-N) will not work properly with KLIC-MITT.*

ETS PARAMETERISATION

When **Inputs** has been activated in the General parameters screen, the following drop-down lists will be available for the selection of the specific functions required.

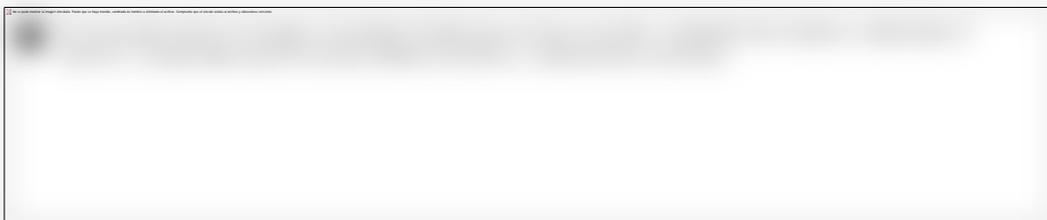


Figure 5. Inputs. Configuration

All inputs are disabled by default. Depending on the function selected for each input, additional tabs will be included in the menu on the left.

2.2.1 BINARY INPUT

Please refer to the “**Binary Inputs**” user manual, available in the KLIC-MITT product section, at the Zennio website (www.zennio.com).

2.2.2 TEMPERATURE PROBE

Please refer to the “**Temperature Probe**” user manual, available in the KLIC MITT product section, at the Zennio website (www.zennio.com).

2.2.3 MOTION DETECTOR

It is possible to connect motion detectors (models **ZN1IO-DETEC-P** and **ZN1IO-DETEC-X** from Zennio) to the input ports of KLIC-MITT.

Please refer to the “**Motion Detector**” user manual, available in the KLIC-MITT product section, at the Zennio website (www.zennio.com).

Notes:

- The ZN1IO-DETEC-P motion detector is compatible with a variety of Zennio devices. However, depending on the device it is actually being connected to, the functionality may differ slightly. Therefore, please refer specifically to the corresponding product section to obtain the aforementioned document.
- Motion detectors with references ZN1IO-DETEC and ZN1IO-DETEC-N are **not compatible** with KLIC-MITT (may report inaccurate measurements if connected to this device).
- When connected to KLIC-MITT, the rear micro-switch of model ZN1IO-DETEC-P should be set to position “**Type B**”.

2.3 LOGIC FUNCTIONS

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

KLIC-MITT can implement **up to 10 different and independent functions**, each of them entirely customisable and consisting in **up to 4 consecutive operations each**.

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 in the KLIC-MITT product section at the Zennio homepage, www.zennio.com) for detailed information about the functionality and the configuration of the related parameters.

2.4 AC GATEWAY

2.4.1 CONFIGURATION

KLIC-MITT allows controlling and monitoring an air-conditioning unit in the same way it would be through the wired remote control it is provided with.

Through the KNX bus, KLIC-MITT can be sent orders to control the following basic functions of the air conditioning unit:

- **ON/OFF** switch of the air-conditioning unit.
- **Operation mode**: automatic, heating, cooling, fan and dry.
- **Temperature setpoint**, which can be modified within a specific range of values, depending on the capabilities of the specific A/C unit being controlled.
- **Fan speed**: either 2, 3 or 4, depending on the model of the A/C unit.
- **Position of the flaps (or vanes)**: either 4 or 5, depending on the A/C unit.

Moreover, KLIC-MITT allows configuring several advanced functions:

- **Initial configuration**, which allows establishing the desired initial parameters for the state of the A/C unit after programming or restarting the device.
- **Setpoint limits**, to restrict the range for the temperature setpoint.
- **Automatic off**, which allows an automatic and temporary switch-off of the unit (after a pre-established delay, if desired) when the communication object associated to this function is triggered due to a certain event.
- **Scenes**, which allows defining specific climate control presets, to be sent to the machine on the reception of scene orders from the KNX bus.

These functionalities imply changes in the state of the A/C unit, which therefore notifies KLIC-MITT periodically about the current state. When KLIC-MITT is notified about a change, it updates the **status objects** and sends them to the KNX bus. In addition, KLIC-MITT provides an **error management** function (see section 2.4.6), which allows sending messages to the KNX bus in case the A/C unit reports any errors.

ETS PARAMETRIZATION

The Configuration window under AC Gateway provides the following parameters:



Figure 6: AC Gateway Configuration

OPERATION MODES

- **Simplified Mode:** in addition to the “**Mode**” and “**Mode (Status)**” one-byte objects, available by default, it is possible to commute and to verify the current operation mode through the following one-bit objects, which get enabled after activating this parameter:
 - “**Simplified Mode**”, which allows switching to the Cooling mode by sending it a “0” and to the Heating mode by sending it a “1”.
 - “**Simplified Mode (Status)**”, which will send a value of “0” when the mode switches to Cooling or to Dry, or a value of “1” when it switches to Heating. The Fan mode is not reflected in the value of this object.

VENTILATION

- **Fan:** enables the Fan function. See section 2.4.2.

- **Flaps:** enables the fan Flaps function. See section 2.4.3.

TEMPERATURE MEASURED BY THE A/C UNIT

- **Monitoring:** enables the “[AC] AC Unit Measured Temperature” two-byte object, which provides the value of its internal temperature sensor, which is used by the AC machine to execute the control loop. Once enabled, a secondary parameter will show:
 - **Sending Type:** sets whether the above object should be sent only in case of a change in the value (“Variation”), periodically (“Periodic”) or in both cases (“Periodic + Variation”). The latter two options bring entail one more parameter:
 - **Period:** sets the cycle time for the periodic sending, between 1 and 3600 seconds, or 1 and 1440 minutes, or 1 and 24 hours.

TEMPERATURE SETPOINT

- **Setpoint Limits:** allows restricting the range of the temperature setpoint (from below in the Cooling, Dry and Auto modes and from above in the Heating and Auto modes), provided that the limits are still within the predefined limits of the A/C unit. When KLIC-MITT receives an order to send the A/C unit a setpoint which is greater or lower than the configured limits, it will actually send the limit value.
 - **Minimum (Cooling / Dry / Auto Mode):** sets the upper limit.
 - **Maximum (Heating / Auto Mode):** sets the lower limit.

Note: *if the maximum limit is lower than or equal to the minimum limit, the limits will not be taken into account under the Auto mode.*

- **Automatic Off:** enables the “[AC] Automatic Off” binary object, which lets performing a temporary switch-off of the A/C unit by sending it a value of “1” and a later switch-on by sending it a value of “0”. This object will be typically linked to a window sensor or a similar event trigger.

During the temporary switch-off state, KLIC-MITT will still monitor any control orders being received (setpoint, fan speed, etc.), so they can be applied once it leaves such state.

- **Automatic Off Delay:** sets the time, in seconds, KLIC-MITT waits before switching the A/C machine off. Any switch-off order received during the delay will abort the time count.

Note: *switch-on orders sent to the A/C unit from a wired remote control have a higher priority than the Auto Off mode.*

- **Initial Configuration:** allows setting the desired initial state that KLIC-MITT will send the A/C unit after programming or restarting the device:
 - **“Default”:** the initial state will be the last one KLIC-MITT is aware of.
 - **“Custom”:** see section 2.4.4.
- **Scenes:** allows setting up different scenes (up to 5), consisting each of them in a set of orders to be sent to the A/C unit upon the reception of scene trigger values through the KNX bus. See section 2.4.5.

2.4.2 FAN

The Fan function allows sending the A/C unit orders to switch the ventilation speed along the available levels. To that end, KLIC-MITT provides both a **percentage** control and a **binary** control.

In addition, KLIC-MITT allows activating the **automatic fan speed mode**, in case of being available in the unit.

Referring to the user manual of the A/C unit is advisable prior to setting up these options.

ETS PARAMETRISATION

After enabling this function, the menu on the left will show a new tab named Fan, containing the following parameters:

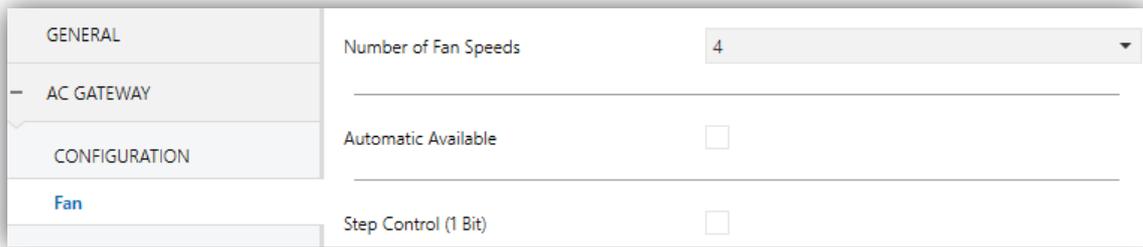


Figure 7: Fan

- **Number of Fan Speeds:** allows specifying the number of the fan levels distinguished by the A/C unit, which may be **2, 3 or 4 levels**. This determines the values of the "[AC] Fan: Percentage Control" and "[AC] Fan: Percentage Control (Status)" one-byte objects, which allow setting and reading the fan speed, respectively. The following tables show the percentage values that correspond to each of the available fan speeds:

➤ “Two levels”:

Control Values	Status Value	Level Sent to the Unit
1-50%	50%	1 (minimum)
51-100%	100%	2 (maximum)

Table 1. Fan speed (two levels)

➤ “Three levels”:

Control Values	Status Value	Level Sent to the Unit
1-33%	33%	1 (minimum)
34-66%	66%	2
67-100%	100%	3 (maximum)

Table 2. Fan speed (three levels)

➤ “Four levels”:

Control Values	Status Values	Level Sent to the Unit
1-25%	25%	1 (minimum)
26-50%	50%	2
51-75%	75%	3
76-100%	100%	4 (maximum)

Table 3. Fan speed (four levels)

- **Automatic Available:** sets whether the A/C unit incorporates an automatic fan speed mode. If enabled, value “0%” of the "[AC] Fan: Percentage Control" and "[AC] Fan: Percentage Control (Status)" objects will be reserved for triggering or reporting such mode, respectively. Moreover, two more parameters will show:
 - **Individual Object for Automatic Mode:** enables the “[AC] Fan: Automatic” and “[AC] Fan: Automatic (Status)” one-bit objects, which will let activating/deactivating the automatic mode or reading the current status, respectively.
 - **Automatic Mode Object:** sets the polarity of the above objects: “0 = Automatic Off; 1 = Automatic On” or “0 = Automatic On; 1 = Automatic Off”.
- **Step Control (1 Bit):** enables the “[AC] Fan: Step Control” one-bit object for increasing (value “1”) or decreasing (value “0”) the current speed level sequentially.

This sequence can be either **cyclical** (a further step once reaching the maximum level activates the minimum level again) or **non-cyclical**.

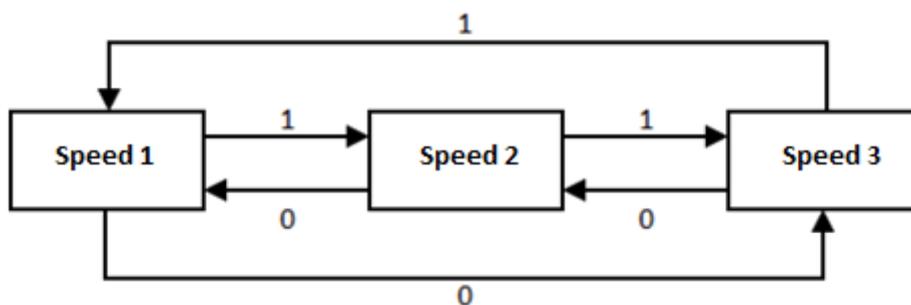


Figure 8: Cyclical fan step control (three fan speeds without automatic mode).

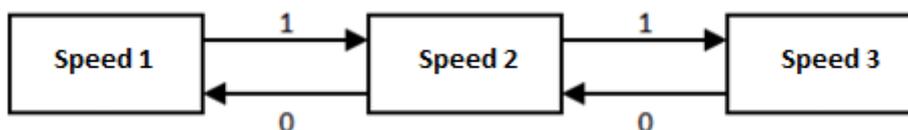


Figure 9: Non-cyclical fan step control (three fan speeds without automatic mode).

In case of having enabled the **automatic mode**, the control sequence will differ:

- **Non-cyclical:** the automatic mode will be placed before the minimum speed (speed 1): **Auto** ↔ **Minimum** ↔ ... ↔ **Maximum**.
- **Cyclical:** the automatic mode will be placed between the maximum speed (speed n) and the minimum speed (speed 1): **Auto** ↔ **Minimum** ↔ ... ↔ **Maximum** ↔ **Auto** ↔ **Minimum** ↔ ...

2.4.3 FLAPS

The Flaps function allows sending the A/C unit orders to switch the position of the flaps (or vanes) that direct the air flow outwards. To that end, KLIC-MITT provides both a **percentage** control and a **binary** control.

In addition, KLIC-MITT allows activating the **automatic flap position mode** and the **swing function** (so the flaps oscillate continuously for better distribution of the airflow), in case of being available in the unit.

Referring to the user manual of the A/C unit is advisable prior to setting up these options

ETS PARAMETRISATION

After enabling this function, the menu on the left will show a new tab named Flaps, containing the following parameters:



Figure 10: Flaps

- **Number of Flap Positions:** either “4” or “5”. This determines the values of the “[AC] Flaps: Percentage Control” and “[AC] Flaps: Percentage Control (Status)” one-byte objects, which allow setting and reading the position of the

flaps, respectively. The following tables show the percentage values that correspond to each of the available positions:

- “Four positions”:

Control Values	Status Value	Position Sent to the Unit
1-25%	25%	Position 1
26-50%	50%	Position 2
51-75%	75%	Position 3
76-100%	100%	Position 4

Table 4. Flap position (four positions)

- “Five positions”:

Control Values	Status Value	Position Sent to the Unit
1-20%	20%	Position 1
21-40%	40%	Position 2
41-60%	60%	Position 3
61-80%	80%	Position 4
81-100%	100%	Position 5

Table 5. Flap position (five positions)

- **Swing available:** sets whether the A/C unit incorporates a Swing function. If enabled, value “0%” of the “[AC] Flaps: Percentage Control” and “[AC] Flaps: Percentage Control (Status)” objects will be reserved for triggering such function and reporting whether it is currently active, respectively. Moreover, two more parameters will show:
 - **Individual Object for Swing:** enables the “[AC] Flaps: Swing” and “[AC] Flaps: Swing (Status)” one-bit objects, which will let activating/deactivating the swing function or reading its current status, respectively.
 - **Swing Object On/Off:** sets the polarity of the above objects: “0 = Swing Off; 1 = Swing On” or “0 = Swing On; 1 = Swing Off”.
- **Automatic available:** sets whether the A/C unit incorporates an automatic flap position control. If enabled, the “[AC] Flaps: Automatic” and “[AC] Flaps:

Automatic (Status)" binary objects are incorporated into the project topology to allow activating or deactivating such mode and consulting whether it is currently active, respectively. An additional parameter is also shown:

- **Automatic Mode Object On/Off:** sets the polarity of the above objects: "0 = Automatic Off; 1 = Automatic On" or "0 = Automatic On; 1 = Auto. Off".

Note: the device will leave the automatic mode if a manual request to set a specific flap position is received from the KNX bus.

- **Step Control (1 Bit):** enables the "[AC] Flap: Step Control" one-bit object to allow navigating along the available flap positions, either in one way (value "1") or another (value "0"). This sequence can be either **cyclical** (a further step once reaching the last position activates the first position again) or **non-cyclical**:

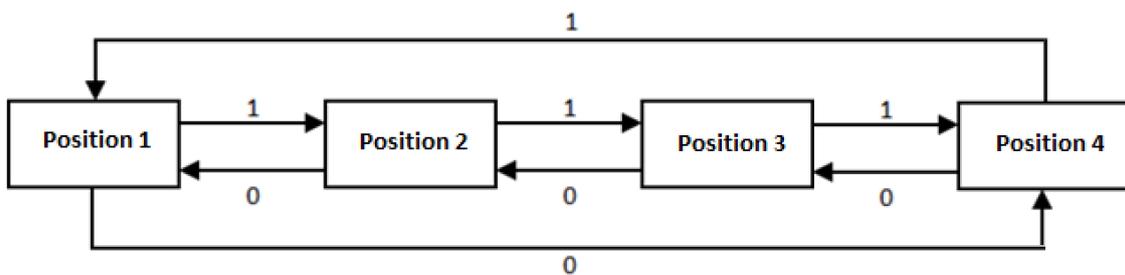


Figure 11: Cyclical flap step control (4 positions and no swing function)



Figure 12: Non-cyclical flap step control (4 positions and no swing function)

In case of having enabled the **swing function**, the control sequence will differ:

- **Non-cyclical:** the swing function will be placed before the initial position: **Swing ↔ Position 1 ↔ ... ↔ Position n.**
- **Cyclical:** the swing function will be placed between the last position (position n) and the first position (position 1): **Swing ↔ Position 1 ↔ ... ↔ Position n ↔ Swing ↔ Position 1 ↔ ...**

Note: on certain A/C unit models, some positions may not be available under the Cool mode, as a measure to prevent that a cold air flow is outputted directly to particular

points of the room where people are supposed to stand. Analogously, other positions may not be permitted by the A/C unit under the Heat mode, to prevent hot air accumulation on the top of the room.

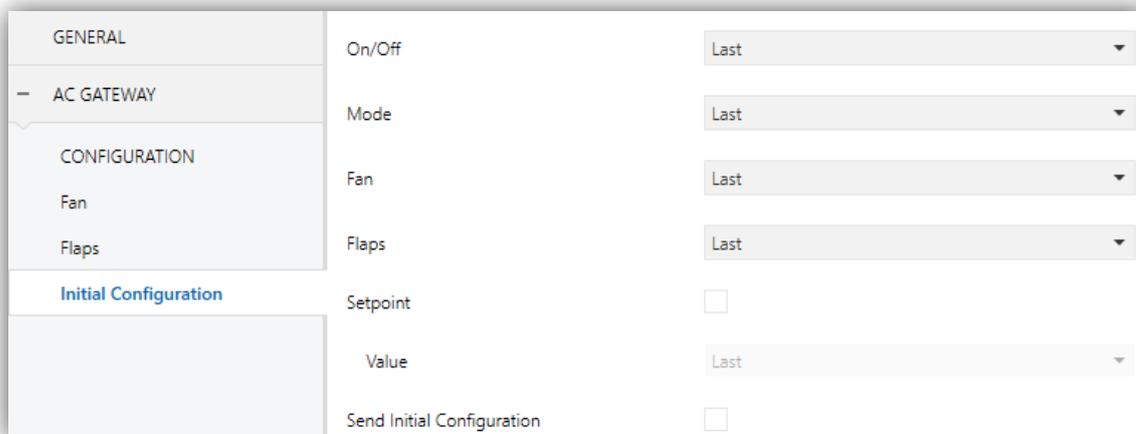
2.4.4 INITIAL CONFIGURATION

The custom initial configuration allows setting the desired status that KLIC-MITT will send the A/C unit after downloading or restarting the device. This status is defined in terms of on/off, mode, fan speed, flaps position and temperature setpoint.

In addition, it is possible to activate an initial sending of this status to the KNX bus.

ETS PARAMETRISATION

After selecting “Custom” for the **Initial Configuration** option under the Configuration tab (see section 2.4.1), a new tab named **Initial Configuration** is displayed with the following parameters:



GENERAL	On/Off	Last
AC GATEWAY	Mode	Last
CONFIGURATION	Fan	Last
Fan	Flaps	Last
Flaps	Setpoint	<input type="checkbox"/>
Initial Configuration	Value	Last
	Send Initial Configuration	<input type="checkbox"/>

Figure 13: Initial configuration

- **On/Off:** “Last” (the state the machine had before the power failure), “On” or “Off”.
- **Mode:** “Last”, “Automatic”, “Heating”, “Cooling”, “Fan” or “Dry”.
- **Fan:** “Last”, “Automatic” (if the automatic fan speed control is available), or any of the available fan speeds (1-4).

- **Flaps:** “Last”, “Swing” (if available), “Auto” (if the automatic flap position control is available) or any of the available flap positions (1-5).
- **Setpoint:** “Last” or any value between 16°C and 31°C.

On the other hand, the status objects can be sent to the KNX bus when applying the initial settings:

- **Send initial configuration:** If enabled, the status objects will be sent to the KNX bus after applying the initial configuration.

Note: *even if this option is not enabled, the status objects may be sent to the KNX bus if the initial configuration differs from the current status of the A/C machine.*

2.4.5 SCENES

The Scenes function allows defining a set of statuses (in terms of On/Off, mode, fan speed, etc.) that KLIC-MITT will send to the A/C unit whenever it receives the corresponding scene values from the KNX bus.

ETS PARAMETRISATION

Scene	Enabled	Scene Number	On/Off	Mode	Fan	Flaps	Setpoint	Value
Scene 1	<input checked="" type="checkbox"/>	1	No Change	No Change	No Change	No Change	<input type="checkbox"/>	No Change
Scene 2	<input type="checkbox"/>							
Scene 3	<input type="checkbox"/>							

Figure 14: Scenes

After enabling this function (see section 2.4.1), a new tab named Scenes will be incorporated to the tab tree. It allows setting up different scenes (up to 5), consisting each of them in a set of orders to be sent to the A/C unit upon the reception, through the KNX bus and by means of the **Scenes** object, of the corresponding scene value (decreased by 1, according to the KNX standard).

For every enabled scene, the particular parameters that should be configured are:

- **Scene number:** sets the scene number (1-64) that, upon reception through the Scenes object (decreased by one), will trigger the corresponding orders, as defined next:
 - **On/Off:** "No change", "On" or "Off".
 - **Mode:** "No change", "Automatic", "Heating", "Cooling", "Fan" or "Dry".
 - **Fan:** "No change", "Automatic" (if available) or any of the available fan speeds (1-4).
 - **Flaps:** "Last", "Swing" (if available), "Automatic" (if the automatic flap position control is available) or any of the available flap positions (1-5).
 - **Setpoint:** "Last" or any value between 16°C and 31°C.

2.4.6 ERROR HANDLING

KLIC-MITT is capable of managing two error types:

- **Communication (or internal) errors:** errors in the communication process between KLIC-MITT and the A/C unit:
 - **Configuration error:** KLIC-MITT is not able to establish communication with the A/C machine.
 - **No response (time out):** KLIC-MITT received no response after sending a request to the A/C unit.
 - **Wrong acknowledgement:** KLIC-MITT received an unexpected response after sending a request to the A/C unit

- **Errors in the A/C unit:** errors reported by the A/C unit itself. KLIC-MITT can notify the KNX bus about the reported error code, although referring to the specific documentation of the A/C machine is advisable in order to obtain further information.

ETS PARAMETRISATION

The error handling function does not entail any parameter configuration. The following objects are available by default:

- Internal error objects:
 - “[AC] Internal Error: Configuration” (one bit).
 - “[AC] Internal Error: Timeout” (one bit).
 - “[AC] Internal Error: Wrong Acknowledgement” (one bit).

In case any of the above errors is detected, the corresponding object will be sent periodically (with a value of “1”) to the KNX bus. Once the error is over, it the object will be sent (once) with a value of “0”.

- Errors in the AC machine:
 - “[AC] AC Unit Error: Active Error” (one bit).
 - “[AC] AC Unit Error: Error Code” (14 bytes).

In case the A/C unit reports an error, the former object will send a value of “1”, while the latter will report the corresponding error code. Once the error is over, the binary object will send a value of “0”. Please refer to the user manual of the A/C unit for details about the error codes.

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.

Número	Tamaño	E/S	Banderas	Tipo de dato (DPT)	Rango funcional	Nombre	Función
1	1 Bit		CT---	DPT_Trigger	0/1	[Heartbeat] Object to Send '1'	Sending of '1' Periodically
2, 6, 10	2 Bytes	O	CTR--	DPT_Value_Temp	-273.00 - 670760.00	[I1] Current Temperature	Temperature sensor value
3, 7, 11	1 Bit	O	CTR--	DPT_Alarm	0/1	[I1] Overcooling	0 = No Alarm; 1 = Alarm
4, 8, 12	1 Bit	O	CTR--	DPT_Alarm	0/1	[I1] Overheating	0 = No Alarm; 1 = Alarm
5, 9, 13	1 Bit	O	CTR--	DPT_Alarm	0/1	[I1] Probe Error	0 = No Alarm; 1 = Alarm
14, 20, 26	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] Input Lock	1 = Locked; 0 = Unlocked
15, 21, 27	1 Bit		CT---	DPT_Switch	0/1	[I1] [Short Press] 0	Sending of 0
	1 Bit		CT---	DPT_Switch	0/1	[I1] [Short Press] 1	Sending of 1
	1 Bit	I	CT-W-	DPT_Switch	0/1	[I1] [Short Press] 0/1 Switching	Switching 0/1
	1 Bit		CT---	DPT_UpDown	0/1	[I1] [Short Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit		CT---	DPT_UpDown	0/1	[I1] [Short Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit		CT---	DPT_UpDown	0/1	[I1] [Short Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit		CT---	DPT_Step	0/1	[I1] [Short Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit		CT---	DPT_Step	0/1	[I1] [Short Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit		CT---	DPT_Step	0/1	[I1] [Short Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
4 Bit		CT---	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) 0x2 (Dec. by 50%) 0x3 (Dec. by 25%) 0x4 (Dec. by 12%) 0x5 (Dec. by 6%) 0x6 (Dec. by 3%) 0x7 (Dec. by 1%) 0x8 (Stop) 0x9 (Inc. by 100%) 0xA (Inc. by 50%)	[I1] [Short Press] Brighter	Increase Brightness	

				0xB (Inc. by 25%) 0xC (Inc. by 12%) 0xD (Inc. by 6%) 0xE (Inc. by 3%) 0xF (Inc. by 1%)		
	4 Bit		CT--- DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[I1] [Short Press] Darker	Decrease Brightness
	4 Bit		CT--- DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[I1] [Short Press] Brighter/Darker	Switch Bright/Dark
	1 Bit		CT--- DPT_Switch	0/1	[I1] [Short Press] Dimmer ON	Sending of 1 (ON)
	1 Bit		CT--- DPT_Switch	0/1	[I1] [Short Press] Dimmer OFF	Sending of 0 (OFF)
	1 Bit	I	CT-W- DPT_Switch	0/1	[I1] [Short Press] Dimmer ON/OFF	Switching 0/1
	1 Byte		CT--- DPT_SceneControl	0-63; 128-191	[I1] [Short Press] Run Scene	Sending of 0 - 63
	1 Byte		CT--- DPT_SceneControl	0-63; 128-191	[I1] [Short Press] Save Scene	Sending of 128 - 191
	1 Bit	I/O	CTRW- DPT_Switch	0/1	[I1] [Switch/Sensor] Edge	Sending of 0 or 1
	1 Byte		CT--- DPT_Value_1_Ucount	0 - 255	[I1] [Short Press] Constant Value (Integer)	0 - 255
	1 Byte		CT--- DPT_Scaling	0% - 100%	[I1] [Short Press] Constant Value (Percentage)	0% - 100%
	2 Bytes		CT--- DPT_Value_2_Ucount	0 - 65535	[I1] [Short Press] Constant Value (Integer)	0 - 65535
	2 Bytes		CT--- 9.xxx	-671088.64 - 670760.96	[I1] [Short Press] Constant Value (Float)	Float value
16, 22, 28	1 Byte	I	CT-W- DPT_Scaling	0% - 100%	[I1] [Short Press] Shutter Status (Input)	0% = Top; 100% = Bottom
	1 Byte	I	CT-W- DPT_Scaling	0% - 100%	[I1] [Short Press] Dimming Status (Input)	0% - 100%
17, 23, 29	1 Bit		CT--- DPT_Switch	0/1	[I1] [Long Press] 0	Sending of 0
	1 Bit		CT--- DPT_Switch	0/1	[I1] [Long Press] 1	Sending of 1
	1 Bit	I	CT-W- DPT_Switch	0/1	[I1] [Long Press] 0/1 Switching	Switching 0/1
	1 Bit		CT--- DPT_UpDown	0/1	[I1] [Long Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit		CT--- DPT_UpDown	0/1	[I1] [Long Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit		CT--- DPT_UpDown	0/1	[I1] [Long Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit		CT--- DPT_Step	0/1	[I1] [Long Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit		CT--- DPT_Step	0/1	[I1] [Long Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit		CT--- DPT_Step	0/1	[I1] [Long Press] Stop/Step Shutter	Switching of 0/1 (Stop/Step Up/Down)

					(Switched)	
	4 Bit		CT----	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[I1] [Long Press] Brighter Long Pr. -> Brighter; Release -> Stop
	4 Bit		CT----	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[I1] [Long Press] Darker Long Pr. -> Darker; Release -> Stop
	4 Bit		CT----	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[I1] [Long Press] Brighter/Darker Long Pr. -> Brighter/Darker; Release -> Stop
	1 Bit		CT----	DPT_Switch	0/1	[I1] [Long Press] Dimmer ON Sending of 1 (ON)
	1 Bit		CT----	DPT_Switch	0/1	[I1] [Long Press] Dimmer OFF Sending of 0 (OFF)
	1 Bit	I	CT-W-	DPT_Switch	0/1	[I1] [Long Press] Dimmer ON/OFF Switching 0/1
	1 Byte		CT----	DPT_SceneControl	0-63; 128-191	[I1] [Long Press] Run Scene Sending of 0 - 63
	1 Byte		CT----	DPT_SceneControl	0-63; 128-191	[I1] [Long Press] Save Scene Sending of 128 - 191
	1 Bit	O	CTR--	DPT_Alarm	0/1	[I1] [Switch/Sensor] Alarm: Breakdown or sabotage 1 = Alarm; 0 = No Alarm
	2 Bytes		CT----	9.xxx	-671088.64 - 670760.96	[I1] [Long Press] Constant Value (Float) Float value
	2 Bytes		CT----	DPT_Value_2_Ucount	0 - 65535	[I1] [Long Press] Constant Value (Integer) 0 - 65535
	1 Byte		CT----	DPT_Scaling	0% - 100%	[I1] [Long Press] Constant Value (Percentage) 0% - 100%
	1 Byte		CT----	DPT_Value_1_Ucount	0 - 255	[I1] [Long Press] Constant Value (Integer) 0 - 255
18, 24, 30	1 Bit		CT----	DPT_Trigger	0/1	[I1] [Long Press/Release] Stop Shutter Release -> Stop Shutter
19, 25, 31	1 Byte	I	CT--W-	DPT_Scaling	0% - 100%	[I1] [Long Press] Dimming Status (Input) 0% - 100%
	1 Byte	I	CT--W-	DPT_Scaling	0% - 100%	[I1] [Long Press] Shutter Status (Input) 0% = Top; 100% = Bottom
32	1 Byte	I	CT--W-	DPT_SceneControl	0-63; 128-191	[Motion Detector] Scene Input Scene Value
33	1 Byte		CT----	DPT_SceneControl	0-63; 128-191	[Motion Detector] Scene Output Scene Value
34, 63, 92	1 Byte	O	CTR--	DPT_Scaling	0% - 100%	[I1] Luminosity 0-100%

35, 64, 93	1 Bit	O	CTR--	DPT_Alarm	0/1	[I1] Open Circuit Error	0 = No Error; 1 = Open Circuit Error
36, 65, 94	1 Bit	O	CTR--	DPT_Alarm	0/1	[I1] Short Circuit Error	0 = No Error; 1 = Short Circuit Error
37, 66, 95	1 Byte	O	CTR--	DPT_Scaling	0% - 100%	[I1] Presence State (Scaling)	0-100%
38, 67, 96	1 Byte	O	CTR--	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[I1] Presence State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
39, 68, 97	1 Bit	O	CTR--	DPT_Occupancy	0/1	[I1] Presence State (Binary)	Binary Value
	1 Bit	O	CTR--	DPT_Trigger	0/1	[I1] Presence: Slave Output	1 = Motion Detected
40, 69, 98	1 Bit	I	C--W-	DPT_Window_Door	0/1	[I1] Presence Trigger	Binary Value to Trigger the Presence Detection
41, 70, 99	1 Bit	I	C--W-	DPT_Trigger	0/1	[I1] Presence: Slave Input	0 = Nothing; 1 = Detection from slave device
42, 71, 100	2 Bytes	I	C--W-	DPT_TimePeriodSec	0-65535	[I1] Presence: Waiting Time	0-65535 s.
43, 72, 101	2 Bytes	I	C--W-	DPT_TimePeriodSec	1-65535	[I1] Presence: Listening Time	1-65535 s.
44, 73, 102	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] Presence: Enable	According to parameters
45, 74, 103	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] Presence: Day/Night	According to parameters
46, 75, 104	1 Bit	O	CTR--	DPT_Occupancy	0/1	[I1] Presence: Occupancy State	0 = Not Occupied; 1 = Occupied
47, 76, 105	1 Bit	I	C--W-	DPT_Trigger	0/1	[I1] External Motion Detection	0 = Nothing; 1 = Motion detected by an external sensor
48, 77, 106	1 Byte	O	CTR--	DPT_Scaling	0% - 100%	[I1] [C1] Detection State (Scaling)	0-100%
49, 78, 107	1 Byte	O	CTR--	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[I1] [C1] Detection State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
50, 79, 108	1 Bit	O	CTR--	DPT_Switch	0/1	[I1] [C1] Detection State (Binary)	Binary Value
51, 80, 109	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] [C1] Enable Channel	According to parameters
52, 81, 110	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] [C1] Force State	0 = No Detection; 1 = Detection
53, 82,	1 Byte	O	CTR--	DPT_Scaling	0% - 100%	[I1] [C2] Detection State (Scaling)	0-100%

111							
54, 83, 112	1 Byte	O	CTR--	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[I1] [C2] Detection State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
55, 84, 113	1 Bit	O	CTR--	DPT_Switch	0/1	[I1] [C2] Detection State (Binary)	Binary Value
56, 85, 114	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] [C2] Enable Channel	According to parameters
57, 86, 115	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] [C2] Force State	0 = No Detection; 1 = Detection
58, 87, 116	1 Byte	O	CTR--	DPT_Scaling	0% - 100%	[I1] [C3] Detection State (Scaling)	0-100%
59, 88, 117	1 Byte	O	CTR--	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[I1] [C3] Detection State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
60, 89, 118	1 Bit	O	CTR--	DPT_Switch	0/1	[I1] [C3] Detection State (Binary)	Binary Value
61, 90, 119	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] [C3] Enable Channel	According to parameters
62, 91, 120	1 Bit	I	C--W-	DPT_Switch	0/1	[I1] [C3] Force State	0 = No Detection; 1 = Detection
121-152	1 Bit	I	C--W-	DPT_Bool	0/1	[LF] (1 bit) Data Entry 1	Binary Data Entry (0/1)
153-168	1 Byte	I	C--W-	DPT_Value_1_Ucount	0 - 255	[LF] (1 byte) Data Entry 1	1 byte Data Entry (0-255)
169	2 Bytes	I	C--W-	DPT_Value_2_Ucount	0 - 65535 -32768 - 32767 -273,00 - 670760,00	[LF] (2 bytes) Data Entry 1	2 bytes Data Entry
				DPT_Value_2_Count			
				DPT_Value_Temp			
185-192	4 Bytes	I	C--W-	DPT_Value_4_Count	-2147483648 - 2147483647	[LF] (4 bytes) Data Entry 1	4 bytes Data Entry
193-202	1 Bit	O	CTR--	DPT_Bool	0/1	[LF] Function 1 - Result	(1 bit) Boolean
	1 Byte	O	CTR--	DPT_Value_1_Ucount	0 - 255	[LF] Function 1 - Result	(1 byte) Unsigned
	2 Bytes	O	CTR--	DPT_Value_2_Ucount	0 - 65535	[LF] Function 1 - Result	(2 bytes) Unsigned
	4 Bytes	O	CTR--	DPT_Value_4_Count	-2147483648 - 2147483647	[LF] Function 1 - Result	(4 bytes) Signed
	1 Byte	O	CTR--	DPT_Scaling	0% - 100%	[LF] Function 1 - Result	(1 byte) Percentage
	2 Bytes	O	CTR--	DPT_Value_2_Count	-32768 - 32767	[LF] Function 1 - Result	(2 bytes) Signed
	2 Bytes	O	CTR--	DPT_Value_Temp	-273.00 - 670760.00	[LF] Function 1 - Result	(2 bytes) Float
203	1 Byte	I/O	CTR W U	DPT_SceneControl	0-63; 128-191	[AC] Scene	0 - 63 (Execute 1 - 64); 128 - 129 (Save 1 - 64)

204	1 Byte	I	C - - W -	DPT_HVACContrMode	0 = Auto 1 = Heating 3 = Cooling 9 = Fan 14 = Dry	[AC] Mode	0 = Automatic; 1 = Heating; 3 = Cooling; 9 = Fan; 14 = Dry
205	1 Byte	O	C T R - -	DPT_HVACContrMode	0 = Auto 1 = Heating 3 = Cooling 9 = Fan 14 = Dry	[AC] Mode (Status)	0 = Automatic; 1 = Heating; 3 = Cooling; 9 = Fan; 14 = Dry
206	1 Bit	I	C - - W -	DPT_Heat_Cool	0/1	[AC] Simplified Mode	0 = Cooling; 1 = Heating
207	1 Bit	O	C T R - -	DPT_Heat_Cool	0/1	[AC] Simplified Mode (Status)	0 = Cooling; 1 = Heating
208	1 Bit	I	C - - W -	DPT_Switch	0/1	[AC] On/Off	0 = Off; 1 = On
209	1 Bit	O	C T R - -	DPT_Switch	0/1	[AC] On/Off (Status)	0 = Off; 1 = On
210	1 Bit	O	C T R - -	DPT_Alarm	0/1	[AC] Internal Error: Configuration	Unable to set AC communication
211	1 Bit	O	C T R - -	DPT_Alarm	0/1	[AC] Internal Error: Timeout	No acknowledgement received from AC
212	1 Bit	O	C T R - -	DPT_Alarm	0/1	[AC] Internal Error: Wrong Acknowledgement	Acknowledgement received with errors
213	1 Bit	I	C - - W -	DPT_Alarm	0/1	[AC] AC Unit Error: Active Error	AC Unit Error
214	14 Bytes	O	C T R - -	DPT_String_ASCII	-	[AC] AC Unit Error: Error Code	See AC Unit Manual
215	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control	[0]% = Automatic; [0.4...50.2]% = S1; [50.6...100]% = S2
	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control	[0.4...50.2]% = S1; [50.6...100]% = S2
	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control	[0]% = Automatic; [0.4...33.3]% = S1; [33.7...66.7]% = S2; [67.1...100]% = S3
	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control	[0.4...33.3]% = S1; [33.7...66.7]% = S2; [67.1...100]% = S3
	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control	[0]% = Automatic; [0.4...25.1]% = S1; [25.5...50.2]% = S2; [50.6...75.3]% = S3; [75.5...100]% = S4
	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control	[0.4...25.1]% = S1; [25.5...50.2]% = S2; [50.6...75.3]% = S3; [75.5...100]% = S4
216	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control (Status)	Automatic = 0%; S1 = 50.2%; S2 = 100%
	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control (Status)	S1 = 50.2%; S2 = 100%
	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control (Status)	Automatic = 0%; S1 = 33.3%; S2 = 66.7%; S3 = 100%
	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control (Status)	S1 = 33.3%; S2 = 66.7%; S3 = 100%
	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control (Status)	Automatic = 0%; S1 = 25.1%; S2 = 50.2%; S3 = 75.3%; S4 = 100%
	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Fan: Percentage Control (Status)	S1 = 25.1%; S2 = 50.2%; S3 = 75.3%; S4 = 100%

217	1 Bit	I	C - - W -	DPT_Switch	0/1	[AC] Fan: Automatic	0 = Automatic On; 1 = Automatic Off (Speed 1)
	1 Bit	I	C - - W -	DPT_Switch	0/1	[AC] Fan: Automatic	0 = Automatic Off (Speed 1); 1 = Automatic On
218	1 Bit	O	C T R - -	DPT_Switch	0/1	[AC] Fan: Automatic (Status)	0 = Automatic On; 1 = Automatic Off
	1 Bit	O	C T R - -	DPT_Switch	0/1	[AC] Fan: Automatic (Status)	0 = Automatic Off; 1 = Automatic On
219	1 Bit	I	C - - W -	DPT_Step	0/1	[AC] Fan: Step Control	0 = Down; 1 = Up
220	1 Bit	I	C - - W -	DPT_Switch	0/1	[AC] Flaps: Swing	0 = Swing On; 1 = Swing Off (Pos.1)
	1 Bit	I	C - - W -	DPT_Switch	0/1	[AC] Flaps: Swing	0 = Swing Off (Pos.1); 1 = Swing On
221	1 Bit	O	C T R - -	DPT_Switch	0/1	[AC] Flaps: Swing (Status)	0 = Swing On; 1 = Swing Off
	1 Bit	O	C T R - -	DPT_Switch	0/1	[AC] Flaps: Swing (Status)	0 = Swing Off; 1 = Swing On
222	1 Bit	I	C - - W -	DPT_Switch	0/1	[AC] Flaps: Automatic	0 = Automatic On; 1 = Automatic Off (Pos. 1)
	1 Bit	I	C - - W -	DPT_Switch	0/1	[AC] Flaps: Automatic	0 = Automatic Off (Pos. 1); 1 = Automatic On
223	1 Bit	O	C T R - -	DPT_Switch	0/1	[AC] Flaps: Automatic (Status)	0 = Automatic On; 1 = Automatic Off
	1 Bit	O	C T R - -	DPT_Switch	0/1	[AC] Flaps: Automatic (Status)	0 = Automatic Off; 1 = Automatic On
224	1 Bit	I	C - - W -	DPT_Step	0/1	[AC] Flaps: Step Control	0 = Down; 1 = Up
225	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Flaps: Percentage Control	[0]% = Swing; [0.4...25.1]% = P1; [25.5...50.2]% = P2; [50.6...75.3]% = P3; [75.5...100]% = P4
	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Flaps: Percentage Control	[0.4...25.1]% = P1; [25.5...50.2]% = P2; [50.6...75.3]% = P3; [75.5...100]% = P4
	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Flaps: Percentage Control	[0]% = Swing; [0.39...20]% = P1; [20.39...40]% = P2; [40.39...60]% = P3; [60.39...80]% = P4; [80.39...100]% = P5
	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[AC] Flaps: Percentage Control	[0.39...20]% = P1; [20.39...40]% = P2; [40.39...60]% = P3; [60.39...80]% = P4; [80.39...100]% = P5
226	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Flaps: Percentage Control (Status)	Swing = 0%; P1 = 25.1%; P2 = 50.2%; P3 = 75.3%; P4 = 100%
	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Flaps: Percentage Control (Status)	P1 = 25.1%; P2 = 50.2%; P3 = 75.3%; P4 = 100%
	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Flaps: Percentage Control (Status)	Swing = 0%; P1 = 20%; P2 = 40%; P3 = 60%; P4 = 80%; P5 = 100%
	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[AC] Flaps: Percentage Control (Status)	P1 = 20%; P2 = 40%; P3 = 60%; P4 = 80%; P5 = 100%
227	2 Bytes	O	C T R - -	DPT_Value_Temp	-273.00 - 670760.00	[AC] AC Unit Measured Temperature	°C
228	2 Bytes	I	C - - W -	DPT_Value_Temp	16.00 - 31.00	[AC] Temperature Setpoint	[16 ... 31] °C
229	2 Bytes	O	C T R - -	DPT_Value_Temp	16.00 - 31.00	[AC] Temperature Setpoint (Status)	[16 ... 31] °C

230	1 Bit	I	C - - W -	DPT_Switch	0/1	[AC] Automatic Off	0 = Deactivate; 1 = Activate
231	1 Bit	O	C T R - -	DPT_State	0/1	[AC] Automatic Off (Status)	0 = Inactive, 1 = Active

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