

Gateway for integration of Fujitsu General Limited air conditioners into KNX TP-1 (EIB) control systems

Application's Program Version: 1.2

USER MANUAL

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Gateway for integration of Fujitsu General Limited air conditioners into KNX TP-1 (EIB) control systems.

Application's Program Version: 1.2

| ORDER CODE | LEGACY ORDER CODE |
|-----------------|-------------------|
| INKNXFGL001R000 | FJ-RC-KNX-1i |



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1 Presentation



INKNXFGL001R000 allows a complete and natural integration of Fujitsu General Limited (FGL from now on) air conditioners with KNX control systems.

Main features:

- Reduced dimensions and quick installation.
- Multiple objects for control and status (bit, byte, characters...) with KNX standard datapoint types.
- Status objects for every control available.
- Timeout for Open Window and Occupancy. Sleep function also available.
- Control of the AC unit based in the ambient temperature read by the wired remote controller of the AC unit¹ or the ambient temperature read by any KNX thermostat.
- AC unit can be controlled simultaneously by the wired remote control of the AC unit and by KNX.
- Total Control and Monitoring of the AC unit from KNX, including monitoring of AC unit's state of internal variables, running hours counter (for filter maintenance control), and error indication and error code.
- Up to 5 scenes can be saved and executed from KNX, fixing the desired combination of Operation Mode, Set Temperature, Fan Speed, Vane Position and Remote Controller Lock in any moment by using a simple switching.
- Four binary inputs for potential-free contacts provide the possibility to integrate many types of external devices. Also configurable from ETS, they can be used for switching, dimming, shutter/blind control, and more.



¹ This feature requires a Fujitsu wired remote controller equipped with a thermo sensor.

2 Connection

Connection of the INKNXFGL001R000 to the AC indoor unit

The INKNXFGL001R000 can be connected directly to the RWB (1:Red, 2:White, 3:Black) bus of the indoor unit (No FGL remote controller -RC from Now on- connected in the RWB bus) or with the FGL RC. See connection diagram below.



Figure 2.1 INKNXFGL001R000 connection diagrams

2.1 INKNXFGL001R000 with FGL Remote Controller

Connection of the INKNXFGL001R000 to the KNX bus:

Disconnect power of the KNX bus. Connect the INKNXFGL001R000 to the KNX TP-1 (EIB) bus using the KNX standard connector (red/grey) of the INKNXFGL001R000, respect polarity.

Reconnect power of the KNX bus and mains power of the AC unit.

▲ **Important**: Please, connect first the Intesis on the KNX bus and then to the AC unit. Afterwards, power the AC unit and wait 30 seconds for the unit and the Intesis to start communicating properly.

3 Configuration and setup

This is a fully compatible KNX device which must be configured and setup using standard KNX tool ETS.

The ETS database for this device can be downloaded from the product page.

Please consult the README.txt file, located inside the downloaded zip file, to find instructions on how to install the database.

▲ **Important**: Do not forget to select the correct settings of AC indoor unit being connected to the INKNXFGL001R000. This is in "Parameters" of the device in ETS.



4 ETS Parameters

When imported to the ETS software for the first time, the gateway shows the following default parameter configuration:

| <u> </u> | | |
|---|--|------------------------|
| General Mode Configuration | Download latest database entry for this product and its User Manual from: | http://www.intesis.com |
| Special Modes Configuration Fan Speed Configuration Vanes Up-Down Configuration | Address in Fujitsu bus (3-wire) 0:master, 1:slave | 1 |
| Vanes Left-Right Configuration | Fujitsu error type | Туре А 🗸 |
| Scene Configuration Switch-Off Timeouts Configuration | Send READs for Control_ objects on bus recovery (T & U flags must be active) | No |
| Binary Input 1 Configuration Binary Input 2 Configuration | Scene to load on bus recovery / startup (needs to define vals for that scene) | (none) - |
| Binary Input 3 Configuration Binary Input 4 Configuration | Disallow control from remote controller | No |
| | > Enable comm obj "Ctrl_ Remote Lock" | No |
| | Enable func "Control_ Lock Control Obj" | No |
| | Enable func "Operating Hour Counter" | No |
| | Enable object "Error Code [2byte]" | No |
| | Enable object "Error Text Code [14byte]" (4 ASCII-char Error Code) | Yes 🗸 |

Figure 4.1 Default parameter configuration

With this configuration it's possible to send On/Off (*Control_ On/Off*), change the AC Mode (*Control_ Mode*), the Fan Speed (*Control_ Fan Speed*) and also the Setpoint Temperature (*Control_ Setpoint Temperature*). The Status_ objects, for the mentioned Control_ objects, are also available to use if needed. Also objects *Status_ AC Ambient Ref Temp* and *Status_ Error/Alarm* are shown.

| I5.15 FJ RC interface, 4 binary inputs | | | |
|---|--|--|--|
| ■之0: Control_ On/Off [DPT_1.001 - 1bit] - 0-Off;1-On | | | |
| ■之2: Control_ Mode [DPT_20.105 - 1byte] - 0-Aut;1-Hea;3-Coo;9-Fan;14-Dry | | | |
| ■之 12: Control_ Fan Speed / 3 Speeds [DPT_5.001 - 1byte] - Thresholds: 50 and 83% | | | |
| ■之 36: Control_ Setpoint Temp [DPT_9.001 - 2byte] - °C | | | |
| ■2 64: Status_ On/Off [DPT_1.001 - 1bit] - 0-Off;1-On | | | |
| ■之66: Status_ Mode [DPT_20.105 - 1byte] - 0-Aut;1-Hea;3-Coo;9-Fan;14-Dry | | | |
| ■之 74: Status_ Fan Speed / 3 Speeds [DPT_5.001 - 1byte] - 33, 67 and 100% | | | |
| ■之96: Status_ AC Setpoint Temp [DPT_9.001 - 2byte] - °C | | | |
| ■之 97: Status_ AC Ambient Ref Temp [DPT_9.001 - 2byte] - °C | | | |
| ■之98: Status_ Error/Alarm [DPT_1.005 - 1bit] - 0-No alarm;1-Alarm | | | |
| ■之 100: Status_ Error Text Code [DPT_16.001 - 14byte] - 4-char FJ Error; Empty-None | | | |
| Figure 4.2 Default communication objects | | | |



4.1 General dialog

Inside this parameter's dialog it is possible to activate or change the parameters shown in the Figure 4.1.

The first field shows the URL where to download the database and the user manual for the product. (Currently: <u>https://www.intesis.com</u>)

4.1.1 Address in Fujitsu Remote Controller bus (3 wire)

Fujitsu dual remote controller function setting. 0: master, 1: slave (default).

This parameter is used to select the function our gateway will have in the RWB RC-bus.

- If set to "O" the gateway will act as a master in the RC-bus. (No BRC present, or BRC set as slave).
- If set to "1" the gateway will act as a **slave** in the RC-bus. (BRC present set as master).

| Address in Fujitsu bus (3-wire) | 1 | - |
|---------------------------------|---|---|
| 0:master, 1:slave | | |

Figure 4.3 Parameter detail

▲ **Important:** After changing this parameters value and downloading to the gateway, it is required to perform a power cycle of the FGL system to apply the changes in the systems active runtime memory.

4.1.2 Fujitsu Error Type

This parameter defines the type of FGL unit you have and the associated error codes. Please, check table below which value you have to use depending on the AC system type you have.

| Fujitsu error type | Type A 🔹 | |
|--------------------|----------|--|
| | | |

Figure 4.4 Parameter detail

| AC System Type | Error Type |
|---|------------|
| RAC Non inverter models RAC inverter models | Туре А |
| VRF V / S / J | Туре А |
| RAC inverter model G* series VRF J-II / V-II / VR-II | Туре В |

Table 4.1 Parameter detail



4.1.3 Send READs for Control_ objects on bus recovery

When this parameter is enabled, INKNXFGL001R000 will send READ telegrams for the group addresses associated on its *Control_* objects on bus recovery or application reset/start-up.

- If set to **"No"** the gateway will not perform any action.
- If set to **"Yes"** all *Control_* objects with both Transmit **(T)** and Update **(U)** flags enabled will send READs and their values will be updated with the response when received.

| Send READs for Control_ objects on bus recovery (T & U flags must be active) | Yes 🗸 |
|---|-------|
| > Delay before sending READs (sec) | 10 |

Figure 4.5 Parameter detail

Delay before sending READs (sec):

With this parameter, a delay can be configured between 0 and 30 seconds for the READs sent by the *Control_* objects. This is to give time enough to other KNX devices on the bus to start-up before sending the READs.

4.1.4 Scene to load on bus recovery / startup

This parameter executes a selected scene on bus recovery or startup, only if the selected scene has an enabled preset or values previously saved from KNX bus (see 4.8 for more information).

If the gateway is disconnected from the indoor unit the scene will not be applied, even when connecting to the indoor unit again.

| Scene to load on bus recovery / startup | scene 2 | • |
|---|---------|---|
| (needs to define vals for that scene) | | |

Figure 4.6 Parameter detail

4.1.5 Disallow control from remote controller

This parameter allows:

- 1- Having the remote controller always locked, or
- 2- Decide through a new communication object if the RC is locked or not. (Default)
- If set to **"Yes"** all the actions performed through the remote controller will be disabled.
- If set to **"No"** the remote controller will work as usually. It also appears a new parameter and the communication object *Control_ Lock Remote Control*.

42: Control_Lock Remote Control [DPT_1.002 - 1bit] - 0-Unlock;1-Lock

101: Status_ Lock Remote Control [DPT_1.002 - 1bit] - 0-Unlocked;1-Locked



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Disallow control from remote controller

> Enable comm obj "Ctrl_ Remote Lock" yes

Figure 4.7 Communication Object and parameter detail

no

Enable comm obj "Ctrl Remote Lock":

If set to "No" the object will not be shown. (Default).

If set to "Yes" the Control_ Lock Remote Control object will appear.

- When a "1" value is sent to this communication object, the remote controller is locked. To be unlocked a "0" value must be sent. *The gateway remembers the last value received even if a KNX bus reset/failure happens*.
- ▲ **Important:** If an initial scene is enabled and it has as Value for Remote Lock (unchanged) or unlocked, this would unlock the remote controller because the initial scene has priority over the Control_ Lock Remote Control communication object.

4.1.6 Enable func "Control_ Lock Control Obj"

This parameter shows/hide the *Control_ Lock Control Obj* communication object which, depending on the sent value, locks or unlocks ALL the *Control_* communication objects except itself. It also shows/hide the Status_ Lock Control Obj.

 ■2
 43
 Control_Lock Control Objects [DPT_1.002 - 1bit] - 0-Unlocked;1-Locked

 ■2
 104
 Status_Lock Control Objects [DPT_1.002 - 1bit] - 0-Unlocked;1-Locked

- If set to **"No"** the object will not be shown.
- If set to **"Yes"** the *Control_ Lock Control Objects* object will appear.
 - When a "1" value is sent to this communication object, all the *Control_* objects will be locked. To unlock a "0" value must be sent, as the gateway remembers the last value received even if a KNX bus reset/failure happens.

4.1.7 Enable func "Operating Hours Counter"

This parameter shows/hides the *Status_ Operation Hour Counter* communication object which counts the number of operating hours for the INKNXFGL001R000.

■↓ 107 Status_ Operation Hour Counter [DPT_7.001 - 2byte] - Number of operating hours

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Status_ Operation Hour Counter object will appear.



- This object can be read and sends its status every time an hour is counted. The gateway keeps that count in memory and the status is sent also after a KNX bus reset/failure. Although this object is marked as a *Status_* object it also can be written to update the counter when needed. To reset the counter should be written a "0" value.
- ▲ **Important:** This object comes by default without the write **(W)** flag activated. If is necessary to write on it, this flag must be activated.
- ▲ **Important:** This object will also return its status, every time a value is written, only if it's different from the existing one.
- ▲ **Important:** If the stored value is 0 hours, the gateway will not send the status to KNX.

4.1.8 Enable object "Error Code [2byte]"

This parameter shows/hides the *Status_ Error Code* communication object which shows the indoor unit errors, if occurred, in numeric format.

■之 99 Status_ Error Code [2byte] - 0-No error /Any other see man.

- If set to **"No"** the object will not be shown.
- If set to **"Yes"** the *Status_ Error Code [2byte]* object will appear.
 - This object can be read and also sends the indoor unit error, if occurred, in numeric format. If a "O" value is shown that means No error.

4.1.9 Enable object "Error Text Code [14byte]"

This parameter shows/hides the *Status_ Error Text Code* communication object which shows the indoor unit errors, if occurred, in text format.

100 Status_ Error Text Code [DPT_16.001 - 14byte] - 3-charFJ Error; Empty-None

- If set to **"No"** the object will not be shown.
- If set to **"Yes"** the *Status_ Error Text Code* object will appear.
 - This object can be read and also sends the indoor unit error, if occurred, in text format. The errors shown have the same format as at the remote controller and at the error list from the indoor unit manufacturer. If the object's value is empty that means No error.



4.2 Mode Configuration dialog

Device: 15.15.- FJ RC interface, 4 binary inputs

| - | | | | |
|---|-----------------------------------|---|------|--|
| | General | Fachla "Mada Caslillant" abianta | No | |
| | Mode Configuration | (for Control and Status) | N0 • | |
| | Special Modes Configuration | (ior control and statas) | | |
| | Fan Speed Configuration | Enable PID-Compat. Scaling Mode objects | No | |
| | Vanes Up-Down Configuration | (for Control) | | |
| | Vanes Left-Right Configuration | Enable use of +/- object for Mode | No | |
| | Temperature Configuration | | | |
| | Scene Configuration | Enable use of bit-type Mode objects | No | |
| | Switch-Off Timeouts Configuratior | (for Control) | | |
| | Binary Input 1 Configuration | Enable use of bit-type Mode objects | No | |
| | Binary Input 2 Configuration | (for Status) | | |
| | Binary Input 3 Configuration | Fuchie was of Task shinet for Made | No | |
| | Binary Input 4 Configuration | Enable use of Text object for Mode | • | |
| | | | | |

Figure 4.8 Default Mode Configuration dialog

All the parameters in this section are related to the different mode properties and communication objects.

4.2.1 Enable "Mode Cool/Heat" objects

This parameter shows/hides the *Control_* and *Status_ Mode Cool/Heat* communication objects.

■ 3 Control_ Mode Cool/Heat [DPT_1.100 - 1bit] - 0-Cool;1-Heat
 ■ 467 Status_ Mode Cool/Heat [DPT_1.100 - 1bit] - 0-Cool;1-Heat

- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Control_ and Status_ Mode Cool/Heat objects will appear.
 - When a "1" value is sent to the *Control_* communication object, **Heat mode** will be enabled in the indoor unit, and the *Status_* object will return this value.
 - When a "O" value is sent to the *Control_* communication object, **Cool mode** will be enabled in the indoor unit, and the *Status_* object will return this value.

4.2.2 Enable PID-Compat. Scaling Mode Objects (for Control)

This parameter shows/hides the *Control_ Mode Cool & On* and *Control_ Mode Heat & On* communication objects.

■2 4 Control_ Mode Cool & On [DPT_5.001 - 1byte] - 0%-Off;0.1%-100%-On+Cool

- ■2 5 Control_ Mode Heat & On [DPT_5.001 1byte] 0%-Off;0.1%-100%-On+Heat
- $\circ~$ If set to "No" the objects will not be shown.
- If set to "Yes" the Control_ Mode Cool & On and Control_ Mode Heat & On objects will appear.



- These objects provide compatibility with those KNX thermostats that control the demand of heating or cooling by using scaling (percentage) objects. In these thermostats, the percentage demand is meant to be applied on a fluid valve of the heating / cooling system.
- INKNXFGL001R000 device does not provide individual control on the internal parts of the indoor unit (as can be its compressor, refrigerant valves, etc.). Rather, it provides the same level of control as a (user) remote controller.
- Objects "Control_ Mode Cool & On" and "Control_ Mode Heat & On" intend to bring compatibility between thermostats oriented to the control of custom heating / cooling systems and ready-made AC indoor units, by applying the following logic:
 - Whenever a Non-zero value (>0%) is received at "Control_ Mode Cool & On", indoor unit will switch On in COOL mode.
 - Whenever a Non-zero value (>0%) is received at "Control_ Mode Heat & On", indoor unit will switch On in HEAT mode.
 - Latest updated object will define the operating mode
 - Indoor unit will switch off only when both objects become zero (0%) or when an OFF is requested at object "0. On/Off [DPT_1.001 - 1bit]"
- * **Important:** These objects function is only to send On/Off and Cool/Heat to the indoor unit. The PID (Inverter system) is calculated by the indoor unit itself. Please consider introducing an appropriate PID configuration to the external KNX thermostat to not interfere the indoor unit PID.

4.2.3 Enable use of + / - object for Mode

This parameter shows/hides the *Control_ Mode* +/- communication object which lets change the indoor unit mode by using two different datapoint types.

■2 11 Control_ Mode -/+ [DPT_1.007 - 1bit] - 0-Decrease;1-Increase

- If set to **"No"** the object will not be shown.
- If set to **"Yes"** the *Control_ Mode* +/- object and a new parameter will appear.

| Enable use of +/- object for Mode | yes 🔹 |
|-----------------------------------|---------------------------|
| > DPT type for +/- Mode Object | 0-Up / 1-Down [DPT_1.008] |

Figure 4.9 Parameter detail

DPT type for +/- Mode Object

This parameter allows you to select between the datapoints **0-Up / 1-Down** [DPT_1.008] and **0-Decrease / 1-Increase** [DPT_1.007] for the *Control_ Mode* +/- object.



The sequence followed when using this object is shown below:



▲ **Important:** Read the documentation of your indoor unit to check if it has HEAT mode available.

4.2.4 Enable use of bit-type Mode objects (for control)

This parameter shows/hides the bit-type *Control_ Mode* objects.

- c Control_ Mode Auto [DPT_1.002 1bit] 1-Set AUTO mode
 7 Control_ Mode Heat [DPT_1.002 1bit] 1-Set HEAT mode
 8 Control_ Mode Cool [DPT_1.002 1bit] 1-Set COOL mode
 9 Control_ Mode Fan [DPT_1.002 1bit] 1-Set FAN mode
- ■之 10 Control_ Mode Dry [DPT_1.002 1bit] 1-Set DRY mode
- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Control_ Mode objects for Auto, Heat, Cool, Fan and Dry will appear. To activate a mode by using these objects a "1" value has to be sent.

4.2.5 Enable use of bit-type Mode objects (for status)

This parameter shows/hides the bit-type *Status_ Mode* objects.

A Status_ Mode Auto [DPT_1.002 - 1bit] - 1-AUTO mode is active
 69 Status_ Mode Heat [DPT_1.002 - 1bit] - 1-HEAT mode is active
 70 Status_ Mode Cool [DPT_1.002 - 1bit] - 1-COOL mode is active
 71 Status_ Mode Fan [DPT_1.002 - 1bit] - 1-FAN mode is active
 72 Status_ Mode Dry [DPT_1.002 - 1bit] - 1-DRY mode is active

- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Status_ Mode objects for Auto, Heat, Cool, Fan and Dry will appear.
 When enabled, a mode will return a "1" through its bit-type object.

4.2.6 Enable use of Text object for Mode

This parameter shows/hides the *Status_ Mode Text* communication object.

■2 73 Status_ Mode Text [DPT_16.001 - 14byte] - ASCII String

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URL https://www.intesis.com

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Status_ Mode Text object will appear. Also, in the parameters, will be shown five text fields, one for each mode, that will let modify the text string displayed by the Status_ Mode Text when changing mode.

| > String when mode is AUTO | AUTO | |
|----------------------------|------|--|
| | | |
| > String when mode is HEAT | HEAT | |
| (if available) | | |
| > String when mode is COOL | CO01 | |
| · stang men mode is coole | | |
| > String when mode is FAN | FAN | |
| - | | |
| > String when mode is DRY | DRY | |
| | | |

Figure 4.10 Parameter detail

4.3 Special Modes Configuration dialog

| Dev | Device: 15.15 FJ RC interface, 4 binary inputs | | | | |
|-----|--|---------------------------------------|------|--|--|
| | General | Enable use of "ECONOMV" mode | | | |
| | Mode Configuration | (AC feature) | • | | |
| | Special Modes Configuration | (| | | |
| | Fan Speed Configuration | Enable use of POWER mode | No | | |
| | Vanes Up-Down Configuration | | | | |
| | Vanes Left-Right Configuration | Enable use of ECONOMY mode | No ¥ | | |
| | Temperature Configuration | Enable use of ADDITIONAL HEATING mode | No | | |
| | Scene Configuration | | | | |
| | Switch-Off Timeouts Configuratior | Enable use of ADDITIONAL COOLING mode | No | | |
| | Binary Input 1 Configuration | | | | |
| | Binary Input 2 Configuration | | | | |
| | Binary Input 3 Configuration | | | | |
| | Binary Input 4 Configuration | | | | |
| | | | | | |

Figure 4.11 Default Special Modes Configuration dialog

The Special Modes can be parameterized through the ETS parameters dialog and they can be used to give extra functionality.

- ▲ **Important:** When executing any of the Special Modes the real state of the indoor unit will NOT be shown in KNX.
- ▲ **Important:** When the predefined time for the Special Mode is finished or a "**0**" value is sent to stop it; the previous state will be recovered.
- ▲ **Important:** If a value concerning On/Off, Mode, Fan Speed or Setpoint Temperature is received from KNX while any Special Mode is running ("1"), the Special Mode will stop and the previous state will be recovered. The value received will be also applied then.
- ▲ **Important:** If a value concerning On/Off, Mode, Fan Speed or Setpoint Temperature is modified through the remote controller, the Special Mode will stop WITHOUT recovering the previous state. Then the real indoor unit state will be shown in KNX including the new value received through the remote controller.



4.3.1 Enable use of ECONOMY mode (AC feature)

This parameter shows/hides the *Control_ Economy* and *Status_ Economy* communication objects. This communication object is using the Economy function provided by the AC unit itself. Please refer to your user manual for more information on this function.

I Control_ Economy [DPT_1.002 - 1bit] - 1-Set ECONOMY
 ↓ 65 Status_ Economy [DPT_1.002 - 1bit] - 1-ECONOMY is active

- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Control_ Economy and Status_ Economy objects and new parameters will appear.
 - When a **"1**" value is sent to the *Control*_ communication object, Economy will be enabled, and the *Status*_ object will return this value.
 - When a "O" value is sent to the *Control* communication object, Economy will be disabled, and the *Status* object will return this value.
 - ▲ **Important:** This mode will ONLY work if the indoor unit is both turned on and in a Heat, Cool, Auto-Heat, or Auto-Cool Mode.

4.3.2 Enable use of POWER mode

This parameter shows/hides the *Control_ Power Mode* and *Status_ Power Mode* communication objects. The Power Mode lets change the Setpoint Temperature and the Fan Speed within a given period of time.

- ■之 44 Control_Power Mode [DPT_1.010 1bit] 0-Stop;1-Start
- ■2 103 Status_ Power Mode [DPT_1.001 1bit] 0-Off;1-On
- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Control_ Power Mode and Status_ Power Mode objects and new parameters will appear.

| Enable use of POWER mode | Yes 💌 |
|---|-------------|
| > Action time for this mode (minutes) | 30 |
| > Setpoint delta increase (HEAT) or decrease (COOL) (°C) | 2.0 °C • |
| > Fan Speed for this mode | FAN SPEED 3 |

Figure 4.12 Parameter detail

• When a **"1**" value is sent to the *Control*_ communication object Power Mode will be enabled, and the *Status*_ object will return this value.



- When a "O" value is sent to the *Control* communication object, Power Mode will be disabled, and the *Status* object will return this value.
- ▲ **Important:** This mode will ONLY work if the indoor unit is both turned on and in a Heat, Cool, Auto-Heat or Auto-Cool Mode.
- > Action time for this mode (minutes):

Duration of Power Mode, in minutes, once started.

Setpoint delta increase (HEAT) or decrease (COOL) – in Celsius:

Number of degrees Celsius that will increase in Heat Mode, or decrease in Cool Mode, while in Power Mode.

> Fan Speed for this mode:

Fan Speed that will be set in the unit while in Power Mode.

4.3.3 Enable use of ECONOMY mode

This parameter shows/hides the *Control_ Econo Mode* and *Status_ Econo Mode* communication objects. The Econo Mode lets change the Setpoint Temperature and the Fan Speed within a given period of time.

- ■之 45 Control_Econo Mode [DPT_1.010 1bit] 0-Stop;1-Start
- ■↓ 104 Status_ Econo Mode [DPT_1.001 1bit] 0-Off;1-On
- If set to **"no"** the objects will not be shown.
- If set to "**yes**" the *Control_ Econo Mode* and *Status_ Econo Mode* objects and new parameters will appear.
 - When a **"1**" value is sent to the *Control*_ communication object, EconoMode will be enabled, and the *Status*_ object will return this value.
 - When a "O" value is sent to the *Control_* communication object, EconoMode will be disabled, and the *Status_* object will return this value.
 - ▲ **Important:** This mode will ONLY work if the indoor unit is both turned on and in a Heat, Cool, Auto-Heat or Auto-Cool Mode.
 - > <u>Action time for this mode (minutes):</u>

Duration of EconoMode, in minutes, once started.



> Setpoint delta increase (HEAT) or decrease (COOL) – in Celsius:

Number of degrees Celsius that will increase in Heat Mode, or decrease in Cool Mode, while in EconoMode.

Fan Speed for this mode:

Fan Speed that will be set in the unit while in EconoMode.

4.3.4 Enable use of ADDITIONAL HEATING mode

This parameter shows/hides the *Control_ Start Additional Heat Mode* and *Status_ Additional Heat Mode* communication objects. The Additional Heating Mode lets change the Setpoint Temperature and the Fan Speed within a given period of time.

■之 46 Control_Additional Heat [DPT_1.010 - 1bit] - 0-Stop;1-Start
 ■之 105 Status_Additional Heat [DPT_1.001 - 1bit] - 0-Off;1-On

| Enable use of ADDITIONAL HEATING mode | Yes 🔹 |
|---------------------------------------|----------------|
| > Action time for this mode (minutes) | 30 |
| > Setpoint temp for this mode (°C) | 30 °C 🔹 |
| > Fan Speed for this mode | FAN SPEED AUTO |

Figure 4.13 Communication object and parameter detail

- If set to **"No"** the objects will not be shown.
- If set to **"Yes"** the Control_ Start Additional Heat Mode and Status_ Additional Heat Mode objects and new parameters will appear.
 - When a "1" value is sent to the *Control_* communication object, Additional Heating Mode will be enabled, and the *Status_* object will return this value.
 - When a **"O**" value is sent to the *Control*_ communication object, Additional Heating Mode will be disabled, and the *Status*_ object will return this value.
 - ▲ **Important:** This mode will ALWAYS turn on the indoor unit in Heat mode.
 - > Action time for this mode (minutes):

Duration of Additional Heating Mode, in minutes, once started.

Setpoint temp for this mode (°C):

Setpoint temperature that will be applied while in Additional Heating Mode.

Fan Speed for this mode:

Fan Speed that will be set in the unit while in Additional Heating Mode.



4.3.5 Enable use of ADDITIONAL COOLING mode

This parameter shows/hides the *Control_ Start Additional Cool Mode* and *Status_ Additional Cool Mode* communication objects. The Additional Heating Mode lets change the Setpoint Temperature and the Fan Speed within a given period of time.

■2 47 Control_Additional Cool [DPT_1.010 - 1bit] - 0-Stop;1-Start
 ■2 106 Status Additional Cool [DPT 1.001 - 1bit] - 0-Off;1-On

| Enable use of ADDITIONAL HEATING mode | Yes 🔹 |
|---------------------------------------|----------------|
| > Action time for this mode (minutes) | 30 |
| > Setpoint temp for this mode (°C) | 30 °C 🔹 |
| > Fan Speed for this mode | FAN SPEED AUTO |

Figure 4.14 Communication object and parameter detail

- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Control_ Start Additional Cool Mode and Status_ Additional Cool Mode objects and new parameters will appear.
 - When a "1" value is sent to the *Control_* communication object, Additional Cooling Mode will be enabled, and the *Status_* object will return this value.
 - When a **"O**" value is sent to the *Control*_ communication object, Additional Cooling Mode will be disabled, and the *Status*_ object will return this value.
 - ▲ **Important:** This mode will ALWAYS turn on the indoor unit in Cool mode.
 - > Action time for this mode (minutes):

Duration of Additional Cooling Mode, in minutes, once started.

Setpoint temp for this mode (°C):

Setpoint temperature that will be applied while in Additional Cooling Mode.

Fan Speed for this mode:

Fan Speed that will be set in the unit while in Additional Cooling Mode.



4.4 Fan Speed Configuration dialog

| Dev | ice: 15.15 FJ RC interface, 4 binary | inputs | |
|-----|---|---|---------------------|
| | General Mode Configuration | Available fanspeeds in Indoor Unit (see docum, for your indoor unit) | 3 |
| | Special Modes Configuration | | |
| | Fan Speed Configuration | DPT object type for fanspeed | Scaling [DPT_5.001] |
| | Vanes Up-Down Configuration Vanes Left-Right Configuration | Enable use of +/- object for Fan Speed | No |
| | Temperature Configuration Scene Configuration | Enable "Fan Speed Man/Auto" objects (for Control and Status) | No |
| | Switch-Off Timeouts Configuration Binary Input 1 Configuration Binary Input 2 Configuration | Enable use of bit-type Fan Speed objects (for Control) | No |
| | Binary Input 3 Configuration Binary Input 4 Configuration | Enable use of bit-type Fan Speed objects (for Status) | No |
| | | Enable use of Text object for Fan Speed | No |

Figure 4.15 Default Fan Speed Configuration dialog

All the parameters in this section are related to the Fan Speed properties and communication objects.

4.4.1 Available fanspeeds in Indoor Unit

This parameter needs to be fixed according to your indoor unit capacity. Please check your indoor unit user manual and introduce the right number of fanspeeds.

| Available fanspeeds in Indoor Unit | 3 |
|------------------------------------|---|
| (see docum. for your indoor unit) | |

Figure 4.16 Parameter detail

4.4.2 DPT object type for fanspeed

With this parameter is possible to change de DPT for the *Control_ Fan Speed* and *Status_ Fan Speed* byte-type communication objects. Datapoints Scaling (DPT_5.001) and Enumerated (DPT_5.010) can be selected.

- ▲ **Important:** The communication objects shown in this section may be different depending on the number of fan speeds available, although they all share the same communication object number.
- When **"Enumerated [DPT 5.010]"** is selected, *Control_ Fan Speed* and *Status_ Fan Speed* communication objects for this DPT will appear.

12 Control_ Fan Speed / 3 Speeds [DPT_5.010 - 1byte] - Speed values: 1,2,3
 74 Status_ Fan Speed / 3 Speeds [DPT_5.010 - 1byte] - Speed Values: 1,2,3

■ 2 Control_ Fan Speed / 4 Speeds [DPT_5.010 - 1byte] - Speed values: 1,2,3,4
 ■ 2 74 Status_ Fan Speed / 4 Speeds [DPT_5.010 - 1byte] - Speed Values: 1,2,3,4



The first fan speed will be selected if a "1" is sent to the *Control*_ object. The second one will be selected sending a "2"; the third one will be selected sending a "3"; the fourth one selecting "4".

The *Status*_ object will always return the value for the fan speed selected.

- ▲ **Important:** If a "**0**" value is sent to the Control_ object, the minimum fan speed will be selected. If a value greater than "**4**" is sent to the Control_ object, then the maximum fan speed will be selected.
- When **"Scaling [DPT 5.001]"** is selected, the *Control_ Fan Speed* and *Status_ Fan Speed* communication objects for this DPT will appear.

■ 12 Control_ Fan Speed / 3 Speeds [DPT_5.001 - 1byte] - Thresholds: 50 and 83%

- ■2 74 Status_ Fan Speed / 3 Speeds [DPT_5.001 1byte] 33, 67 and 100%
- 2 Control_ Fan Speed / 4 Speeds [DPT_5.001 1byte] Thresholds: 38, 63 and 88%
 2 74 Status_ Fan Speed / 4 Speeds [DPT_5.001 1byte] 25, 50, 75 and 100%

The following tables show the range of values that can be sent through the *Control_* object and the value returned by the *Status_* object.

| | Fan Speed 1 | Fan Speed 2 | Fan Speed 3 |
|----------|-------------|-------------|-------------|
| Control_ | 0% - 49% | 50% - 82% | 83% - 100% |
| Status_ | 33% | 67% | 100% |

| | Fan Speed 1 | Fan Speed 2 | Fan Speed 3 | Fan Speed 4 |
|----------|-------------|-------------|-------------|-------------|
| Control_ | 0% - 37% | 38% - 62% | 63% - 87% | 88% - 100% |
| Status_ | 25% | 50% | 75% | 100% |

▲ **Important:** Read the documentation of your indoor unit to check how many fan speeds are available.

4.4.3 Enable use of the +/- object for Fan Speed

This parameter shows/hides the *Control_ Fan Speed* +/- communication object which allows to increase or decrease the indoor unit fan speed by using two different datapoint types.

■2 18 Control_ Fan Speed -/+ [DPT_1.007 - 1bit] - 0-Decrease;1-Increase

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Control_ Fan Speed +/- object and a new parameter will appear.



| Enable use of +/- object for Fan Speed | Yes |
|---|-------------------------------------|
| > DPT type for +/- Fan Speed object | 0-Decrease / 1-Increase [DPT_1.007] |
| > Does +/- sequence include fan speed AUTO? | No |
| Rollover Speed at upper/lower limit (when controlling with +/- obj) | Yes 🔻 |

Figure 4.17 Parameter detail

DPT type for +/- Fan Speed Object

This parameter allows you to select between the datapoints **0-Up / 1-Down** [DPT_1.008] and **0-Decrease / 1-Increase** [DPT_1.007] for the *Control_ Fan Speed* +/- object.

Does +/- sequence include fan speed AUTO?

This parameter includes or excludes the auto mode for the fan speed in the list of available speeds.

Rollover Speed at upper/lower limit

This parameter allows you to select if rollover will be enabled (**"Yes"**) or disabled (**"No"**) for the *Control_ Fan Speed* +/- object.



4.4.4 Enable "Fan Speed Man/Auto" objects (for Control and Status)

This parameter shows/hides the bit-type *Control_ Fan Speed* Man/Auto and the *Status_ Fan Speed* Man/Auto objects.

■2 13 Control_ Fan Speed Man/Auto [DPT_1.002 - 1bit] - 0-Manual; 1-Auto
 ■2 75 Status_ Fan Speed Man/Auto [DPT_1.002 - 1bit] - 0-Manual;1-Auto

4.4.5 Enable use of bit-type Fan Speed objects (for Control)

This parameter shows/hides the bit-type Control_ Fan Speed objects.

* Only available if the AC unit has 4 fan speeds.



- If set to **"No"** the objects will not be shown.
- If set to **"Yes"** the *Control_ Fan Speed* objects for Speed 1, Speed 2 and Speed 3 will appear. To activate a Fan Speed by using these objects a **"1"** value has to be sent.

4.4.6 Enable use of bit-type Fan Speed objects (for Status)

This parameter shows/hides the bit-type *Status_ Fan Speed* objects.

i 76 Status_ Fan Speed 1 [DPT_1.002 - 1bit] - 1-Fan in Speed 1

 i 77 Status_ Fan Speed 2 [DPT_1.002 - 1bit] - 1-Fan in Speed 2

 i 78 Status_ Fan Speed 3 [DPT_1.002 - 1bit] - 1-Fan in Speed 3

 i 79 Status_ Fan Speed 4 [DPT_1.002 - 1bit] - 1-Fan in Speed 4*

- * Only available if the AC unit has 4 fan speeds.
- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Status_ Fan Speed objects for Speed 1, Speed 2, Speed 3 and Speed 4 (if available) will appear. When a Fan Speed is enabled, a "1" value is returned through its bit-type object.

4.4.7 Enable use of Text object for Fan Speed

This parameter shows/hides the *Status_ Fan Speed Text* communication object.

#2 80 Status_ Fan Speed Text [DPT_16.001 - 14byte] - ASCII String

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Status_ Fan Speed Text object will appear. Also, in the parameters, will be shown five text fields, one for each Fan Speed, that will let modify the text string displayed by the Status_ Fan Speed Text when changing a fan speed.

| << 14-byte string values >> |
|-----------------------------|
| AUTO |
| SPEED 1 |
| SPEED 2 |
| SPEED 3 |
| SPEED 4 |
| |





4.5 Vanes Up-Down Configuration dialog

| Device: 15.15 FJ RC interface, 4 binary | inputs | |
|---|--|----------------|
| General | Indoor unit has U-D Vanes | Yes |
| Mode Configuration | (see docum. for your indoor unit) | |
| Special Modes Configuration | | |
| Fan Speed Configuration | Type of Vanes Control | Position 👻 |
| Vanes Up-Down Configuration | | |
| Vanes Left-Right Configuration | Available U-D positions in Indoor Unit (see docum for your indoor unit) | 0 (only swing) |
| Temperature Configuration | (see docaminor your motor anny | |
| Scene Configuration | Enable "Vanes U-D Swing" objects | Yes 👻 |
| Switch-Off Timeouts Configuratior | (for Control and Status) | |
| Binary Input 1 Configuration | | |
| Binary Input 2 Configuration | | |
| Binary Input 3 Configuration | | |
| Binary Input 4 Configuration | | |

Figure 4.19 Vanes Up-Down Configuration dialog

All the parameters in this section are related to the Vanes Up-Down properties and communication objects.

4.5.1 Indoor unit has U-D Vanes

This parameter allows you to select if the unit has Up-Down Vanes available or not.

| Indoor unit has U-D Vanes | Yes 🔹 |
|-----------------------------------|-------|
| (see docum. for your indoor unit) | |

Figure 4.20 Parameter detail

- If set to **"No"** all the parameters and communication objects for the Up-Down Vanes will not be shown.
- If set to **"Yes"** all the parameters and communication objects (if enabled in the parameters dialog) for the Up-Down Vanes will be shown.
- ▲ **Important:** Read the documentation of your indoor unit to check if Up-Down Vanes are available.

4.5.2 Type of Vanes Control

This parameter allows you to select if the unit uses a step control no the vanes position or directly a position indication.

Type of Vanes Control Step

Figure 4.21 Parameter detail

• If set to "Step" only the communication objects only for SWING and STEP will be shown.

Z4: Control_ Vanes U-D Swing [DPT_1.002 - 1bit] - 0-Off;1-Swing
 Z6: Control_ Vanes U-D Move Pos [DPT_1.017 - 1bit] - 0,1-Move Position



• If set to **"Position"** all the parameters and communication objects for the 4 Vanes positions and Swing will be shown.

| Indoor unit has U-D Vanes (see docum, for your indoor unit) | Yes 🔹 |
|---|---------------------|
| Type of Vanes Control | Position |
| Available U-D positions in Indoor Unit (see docum. for your indoor unit) | 4 |
| DPT object type for Vanes Up-Down | Scaling [DPT_5.001] |
| Enable use of +/- object for Vanes U-D | No |
| Enable use of bit-type Vanes U-D objects (for Control) | No • |
| Enable use of bit-type Vanes U-D objects (for Status) | No |
| Enable "Vanes U-D Swing" objects (for Control and Status) | Yes 🔹 |
| Enable use of Text object for Vanes U-D | No |

Figure 4.22 Parameter detail

4.5.3 Available U-D positions in Indoor Unit

This parameter lets you choose between "0 (Only Swing)" and "4".

• If set to **"O (Only Swing)"** all the parameters and communication objects (if enabled in the parameters dialog) for the swing positions will be shown.

■2 24 Control_ Vanes U-D Swing [DPT_1.002 - 1bit] - 0-Off;1-Swing

■2 86 Status_ Vanes U-D Swing [DPT_1.002 - 1bit] - 0-Off;1-Swing

| Type of Vanes Control | Position |
|---|-----------------------------|
| Available U-D positions in Indoor Unit (see docum. for your indoor unit) | 0 (only Swing) |
| Enable "Vanes U-D Swing" objects (for Control and Status) | Yes 🔹 |
| Enable use of Text object for Vanes U-D | Yes 🔹 |
| ASCII strings shown in comm object "Status_ Vanes U-D Text" | << 14-byte string values >> |
| > String when vanes U-D in POS 1 (if available) | U-D POS 1 |
| > String when vanes U-D in POS 2 (if available) | U-D POS 2 |
| > String when vanes U-D in POS 3 (if available) | U-D POS 3 |
| > String when vanes U-D in POS 4 (if available) | U-D POS 4 |
| > String when vanes U-D in SWING | U-D SWING |



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URL https://www.intesis.com

• If set to **"4"** all the parameters and communication objects (if enabled in the parameters dialog) for the 4 Vanes positions will be shown.

Important: Read the documentation of your indoor unit to check if Up-Down Vanes positions are available.

4.5.4 DPT object type for Vanes Up-Down

With this parameter is possible to change de DPT for the *Control_ Vanes U-D* and *Status_ Vanes U-D* byte-type communication objects. Datapoints Scaling (DPT_5.001) and Enumerated (DPT_5.010) can be selected.

- ▲ **Important:** The communication objects shown in this section may be different depending on the number of vanes position available, although they all share the same communication object number.
- When **"Enumerated [DPT 5.010]"** is selected, *Control_ Vanes U-D* and *Status_ Vanes U-D* communication objects for this DPT will appear.

■2 19 Control_ Vanes U-D / 4 Pos [DPT_5.010 - 1byte] - Position values: 1,2,3,4
 ■2 81 Status_ Vanes U-D / 4 Pos [DPT_5.010 - 1byte] - Position values: 1,2,3,4

To choose a vanes position, values from " $\mathbf{1}''$ to " $\mathbf{4}''$ can be sent to the *Control*_ object. Each value will correspond to the position (i.e. Value " $\mathbf{3}'' =$ Position 3).

The *Status*_ object will always return the value for the vane position selected.

- ▲ Important: If a "O" value is sent to the Control_ object, the Position 1 will be selected. If a value bigger than "4" is sent to the Control_ object, then the higher Position will be selected.
- When **"Scaling [DPT 5.001]"** is selected, *Control_ Vane Up-Down* and *Status_ Vane Up-Down* communication objects for this DPT will appear.

■之 19 Control_ Vanes U-D / 4 Pos [DPT_5.001 - 1byte] - Thresholds: 38, 63 and 88%
 ■之 81 Status_ Vanes U-D / 4 Pos [DPT_5.001 - 1byte] - 25, 50, 75 and 100%

The next table shows the range of values that can be sent through the *Control_* object and the value returned by the *Status_* object.

| | Vanes Pos.1 | Vanes Pos.2 | Vanes Pos.3 | Vanes Pos.4 |
|----------|-------------|-------------|-------------|-------------|
| Control_ | 0% - 37% | 38% - 62% | 63% - 87% | 88% - 100% |
| Status_ | 25% | 50% | 75% | 100% |



4.5.5 Enable use of +/- object for Vanes U-D

This parameter shows/hides the *Control_ Vane Up-Down* +/- communication object which lets change the indoor unit vane position by using two different datapoint types.

■2 25 Control_ Vanes U-D -/+ [DPT_1.007 - 1bit] - 0-Decrease;1-Increase

- If set to "No" the object will not be shown.
- If set to **"Yes"** the *Control_ Vanes U-D* +/- object and a new parameter will appear.

| Enable use of +/- object for Vanes U-D | Yes 🔹 |
|--|-------------------------------------|
| > DPT type for +/- Vanes U-D object | 0-Decrease / 1-Increase [DPT_1.007] |
| > Does +/- sequence include SWING vanes Up-Down? | Υes ▼ |
| > Rollover Vanes at upper/lower limit (when controlling with +/- obj) | Yes 🔹 |

Figure 4.24 Parameter detail

DPT type for +/- Vane Up-Down obj

This parameter allows you to select between the datapoints **0-Up / 1-Down** [DPT_1.008] and **0-Decrease / 1-Increase** [DPT_1.007] for the *Control_ Vanes U-D* +/- object.

Does +/- sequence include SWING vanes Up-Down?

This parameter allows you to select if SWING function is included (**"Yes"**) or not (**"No"**) in the sequence when using *Control_ Vanes U-D* +/- object as shown in the discontinuous segment at the picture below.

Roll over Vanes at upper/lower limit

This parameter allows you to select if roll-over will be enabled (**"Yes"**) or disabled (**"No"**) for the *Control_ Vanes U-D* +/- object.





4.5.6 Enable use of bit-type Vane U-D objects (for Control)

This parameter shows/hides the bit-type *Control_ Vanes U-D* objects.

20 Control_ Vanes U-D Pos 1 [DPT_1.002 - 1bit] - 1-Set Position 1
 21 Control_ Vanes U-D Pos 2 [DPT_1.002 - 1bit] - 1-Set Position 2
 22 Control_ Vanes U-D Pos 3 [DPT_1.002 - 1bit] - 1-Set Position 3
 23 Control_ Vanes U-D Pos 4 [DPT_1.002 - 1bit] - 1-Set Position 4

- If set to "**No**" the objects will not be shown.
- If set to "Yes" the Control_ Vanes U-D objects for each Position will appear. To activate a Vanes Position by using these objects, a "1" value has to be sent.

4.5.7 Enable use of bit-type Vane U-D objects (for Status)

This parameter shows/hides the bit-type *Status_ Vanes U-D* objects.

2 Status_ Vanes U-D Pos 1 [DPT_1.002 - 1bit] - 1-Vanes in Position 1
 83 Status_ Vanes U-D Pos 2 [DPT_1.002 - 1bit] - 1-Vanes in Position 2
 84 Status_ Vanes U-D Pos 3 [DPT_1.002 - 1bit] - 1-Vanes in Position 3
 85 Status_ Vanes U-D Pos 4 [DPT_1.002 - 1bit] - 1-Vanes in Position 4

- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Status_ Vanes U-D objects for each Position will appear. When a Vanes Position is enabled, a "1" value is returned through its bit-type object.

4.5.8 Enable "Vanes U-D Swing" objects (for control and status)

This parameter will only be shown if the value "Position" is selected on the 4.5.2 section. It will show/hide *Control_ Vanes U-D SWING* y *Status_ Vanes U-D SWING* communication objects.

24 Control_ Vanes U-D Swing [DPT_1.002 - 1bit] - 0-Off;1-Swing
 ■2 86 Status_ Vanes U-D Swing [DPT_1.002 - 1bit] - 0-Off;1-Swing

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Control_ Vanes U-D Swing y Status_ Vanes U-D Swing objects will appear.
 - When a **"1**" value is sent to the *Control*_ communication object, Vanes Up-Down will be in Auto mode and the *Status*_ object will return this value.
 - When a "O" value is sent to the *Control* communication object, Vanes Up-Down will be in Manual mode and the *Status* object will return this value.
 - ▲ **Important:** When activating Auto Mode in the indoor unit, this one will choose the best position available for the Vanes Up-Down. This position will not be shown either in the KNX bus or in the remote controller.
 - ▲ **Important:** Read the documentation of your indoor unit to check how many vanes modes are available.



4.5.9 Enable use of Text object for Vane U-D

This parameter shows/hides the *Status_ Vanes U-D Text* communication object.

■2 87 Status_ Vanes U-D Text [DPT_16.001 - 14byte] - ASCII String

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Status_ Vanes U-D Text object will appear. Also, in the parameters will be shown seven text fields, five for the Vane Position and one for the Swing function, that will let modify the text string displayed by the Status_ Vanes U-D Text when changing a vane position.

| > String when vanes U-D in POS 1 | U-D POS 1 |
|--|-----------|
| (if available) | |
| > String when vanes U-D in POS 2 | U-D POS 2 |
| (if available) | |
| > String when vanes U-D in POS 3 (if available) | U-D POS 3 |
| | |
| > String when vanes U-D in POS 4 | U-D POS 4 |
| (if available) | |
| > String when vanes U-D in SWING | U-D SWING |
| - | |

Figure 4.25 Parameter detail



4.6 Vanes Left-Right Configuration dialog

| Device: 15.15 FJ RC interface, 4 binary | inputs | |
|---|--|---|
| General Mode Configuration Special Modes Configuration Fan Speed Configuration Vanes Up-Down Configuration Vanes Left-Right Configuration Temperature Configuration Scene Configuration Switch-Off Timeouts Configuration Binary Input 1 Configuration Binary Input 2 Configuration Binary Input 3 Configuration Binary Input 4 Configuration | Indoor unit has L-R Vanes (see docum. for your indoor unit) Type of Vanes Control Available L-R positions in Indoor Unit (see docum. for your indoor unit) Enable "Vanes L-R Swing" objects (for Control and Status) | Yes • Position • 0 (only Swing) • Yes • |
| | | |

Figure 4.26 Vanes Left-Right Configuration dialog

All the parameters in this section are related to the Vanes Left-Right properties and communication objects.

4.6.1 Indoor unit has L-R Vanes

This parameter allows you to select if the unit has Left-Right Vanes available or not.



Figure 4.27 Parameter detail

- If set to **"No"** all the parameters and communication objects for the Left-Right Vanes will not be shown.
- If set to **"Yes"** all the parameters and communication objects (if enabled in the parameters dialog) for the Left-Right Vanes will be shown.
- ▲ **Important:** Read the documentation of your indoor unit to check if Left-Right Vanes are available.

4.6.2 Type of Vanes Control

This parameter allows you to select if the unit uses a step control no the vanes position or directly a position indication.

| Type of Vanes Control | Step 🔹 | |
|-----------------------|--------|--|
| | | |

Figure 4.28 Parameter detail



• If set to "Step" only the communication objects only for SWING and STEP will be shown.

■2 33 Control_ Vanes L-R Swing [DPT_1.002 - 1bit] - 0-Off;1-Swing
 ■2 35 Control_ Vanes L-R Move Pos [DPT_1.017 - 1bit] - 0,1-Move Position

• If set to **"Position"** all the parameters and communication objects for the 4 Vanes positions and Swing will be shown.

| Indoor unit has L-R Vanes (see docum. for your indoor unit) | Yes 🔹 |
|---|---------------------|
| Type of Vanes Control | Position |
| Available L-R positions in Indoor Unit (see docum. for your indoor unit) | 5 🔹 |
| DPT object type for Vanes Left-Right | Scaling [DPT_5.001] |
| Enable use of +/- object for Vanes L-R | No |
| Enable use of bit-type Vanes L-R objects (for Control) | No |
| Enable use of bit-type Vanes L-R objects (for Status) | No |
| Enable "Vanes L-R Swing" objects (for Control and Status) | No |
| Enable use of Text object for Vanes L-R | No |

Figure 4.29 Parameter detail

4.6.3 Available L-R positions in Indoor Unit

This parameter lets you choose between "0 (Only Swing)" and "5".

• If set to **"O (Only Swing)"** all the parameters and communication objects (if enabled in the parameters dialog) for the swing positions will be shown.

| Indoor unit has L-R Vanes (see docum. for your indoor unit) | Yes 🔹 |
|---|----------------|
| Type of Vanes Control | Position |
| Available L-R positions in Indoor Unit (see docum. for your indoor unit) | 0 (only Swing) |
| Enable "Vanes L-R Swing" objects (for Control and Status) | No |





• If set to **"5"** all the parameters and communication objects (if enabled in the parameters dialog) for the 5 Vanes positions will be shown.

| Indoor unit has L-R Vanes (see docum, for your indoor unit) | Yes 🔹 |
|---|---------------------|
| Type of Vanes Control | Position |
| Available L-R positions in Indoor Unit (see docum. for your indoor unit) | 5 |
| DPT object type for Vanes Left-Right | Scaling [DPT_5.001] |
| Enable use of +/- object for Vanes L-R | No |
| Enable use of bit-type Vanes L-R objects (for Control) | No |
| Enable use of bit-type Vanes L-R objects (for Status) | No |
| Enable "Vanes L-R Swing" objects (for Control and Status) | No |
| Enable use of Text object for Vanes L-R | No |

Figure 4.31 Parameter and objects detail

Important: Read the documentation of your indoor unit to check if Left-Right Vanes positions are available.

4.6.4 DPT object type for Vanes Left-Right

With this parameter is possible to change de DPT for the *Control_ Vanes L-R* and *Status_ Vanes L-R* byte-type communication objects. Datapoints Scaling (DPT_5.001) and Enumerated (DPT_5.010) can be selected.

- ▲ **Important:** The communication objects shown in this section may be different depending on the number of vanes position available, although they all share the same communication object number.
- When **"Enumerated [DPT 5.010]"** is selected, *Control_ Vanes L-R* and *Status_ Vanes L-R* communication objects for this DPT will appear.
 - 27: Control_ Vanes L-R / 5 Pos [DPT_5.010 1byte] Position values: 1,2,3,4,5
 - 88: Status_ Vanes L-R / 5 Pos [DPT_5.010 1byte] Position values: 1,2,3,4,5

To choose a vanes position, values from **"1"** to **"5"** can be sent to the *Control_* object. Each value will correspond to the position (i.e. Value **"3"** = Position 3).

The *Status*_ object will always return the value for the vane position selected.

▲ **Important:** If a "**0**" value is sent to the Control_ object, the Position 1 will be selected. If a value bigger than "**5**" is sent to the Control_ object, then the higher Position will be selected.



• When **"Scaling [DPT 5.001]"** is selected, *Control_ Vane* L-R and *Status_ Vane* L-R communication objects for this DPT will appear.

 ■27 Control_ Vanes L-R / 5 Pos [DPT_5.001 - 1byte] - Thresholds: 30, 50, 70 and 90%

 ■2 88 Status_ Vanes L-R / 5 Pos [DPT_5.001 - 1byte] - 20, 40, 60, 80 and 100%

The next table shows the range of values that can be sent through the *Control_* object and the value returned by the *Status_* object.

| | Vanes Pos.1 | Vanes Pos.2 | Vanes Pos.3 | Vanes Pos.4 | Vanes Pos.5 |
|----------|-------------|-------------|-------------|-------------|-------------|
| Control_ | 0% - 29% | 30% - 49% | 50% - 69% | 70% - 89% | 90% - 100% |
| Status_ | 20% | 40% | 60% | 80% | 100% |

4.6.5 Enable use of +/- object for Vanes L-R

This parameter shows/hides the *Control_ Vane L-R* +/- communication object which lets change the indoor unit vane position by using two different datapoint types. It is only present when **"5**" is selected on the "*Available L-R position Indoor Unit*" dropdown menu.

24 : Control_ Vanes L-R -/+ [DPT_1.007 - 1bit] - 0-Decrease;1-Increase

- If set to **"No"** the object will not be shown.
- If set to **"Yes"** the *Control_ Vanes L-R* +/- object and a new parameter will appear.

| En | able use of +/- object for Vanes L-R | Yes 🔹 |
|----|--|-------------------------------------|
| 3 | > DPT type for +/- Vanes L-R object | 0-Decrease / 1-Increase [DPT_1.007] |
| 3 | > Does +/- sequence include SWING vanes Left-Right? | Yes 🔹 |
| 3 | > Rollover Vanes at upper/lower limit (when controlling with +/- obj) | Yes 🔹 |

Figure 4.32 Parameter detail

DPT type for +/- Vane L-R obj

This parameter allows you to select between the datapoints **0-Up / 1-Down [DPT_1.008]** and **0-Decrease / 1-Increase [DPT_1.007]** for the *Control_ Vanes L-R* +/- object.

Does +/- sequence include SWING vanes Left-Right?

This parameter allows you to select if SWING function is included ("Yes") or not ("No") in the sequence when using *Control_ Vanes L-R* +/- object as shown in the discontinuous segment at the picture below.



Roll over Vanes at upper/lower limit

This parameter allows you to select if roll-over will be enabled (**"Yes"**) or disabled (**"No"**) for the *Control_ Vanes L-R* +/- object.



4.6.6 Enable use of bit-type Vane L-R objects (for Control)

This parameter shows/hides the bit-type *Control_ Vanes L-R* objects.

■ 28 Control_ Vanes L-R Pos 1 [DPT_1.002 - 1bit] - 1-Set Position 1
 ■ 29 Control_ Vanes L-R Pos 2 [DPT_1.002 - 1bit] - 1-Set Position 2
 ■ 2 30 Control_ Vanes L-R Pos 3 [DPT_1.002 - 1bit] - 1-Set Position 3
 ■ 2 31 Control_ Vanes L-R Pos 4 [DPT_1.002 - 1bit] - 1-Set Position 4
 ■ 2 32 Control_ Vanes L-R Pos 5 [DPT_1.002 - 1bit] - 1-Set Position 5

- If set to **"No"** the objects will not be shown.
- If set to "Yes" the Control_ Vanes L-R objects for each Position will appear. To activate a Vanes Position by using these objects, a "1" value has to be sent.

4.6.7 Enable use of bit-type Vane L-R objects (for Status)

This parameter shows/hides the bit-type *Status_ Vanes L-R* objects.

89 Status_ Vanes L-R Pos 1 [DPT_1.002 - 1bit] - 1-Vanes in Position 1
90 Status_ Vanes L-R Pos 2 [DPT_1.002 - 1bit] - 1-Vanes in Position 2
91 Status_ Vanes L-R Pos 3 [DPT_1.002 - 1bit] - 1-Vanes in Position 3
92 Status_ Vanes L-R Pos 4 [DPT_1.002 - 1bit] - 1-Vanes in Position 4
93 Status_ Vanes L-R Pos 5 [DPT_1.002 - 1bit] - 1-Vanes in Position 5

- If set to "No" the objects will not be shown.
- If set to "Yes" the Status_ Vanes L-R objects for each Position will appear. When a Vanes Position is enabled, a "1" value is returned through its bit-type object.



4.6.8 Enable "Vanes L-R Swing" objects (for control and status)

This parameter will only be present if parameter on 4.6.2 is set to **"Position"**. It will show/hide *Control_ Vanes L-R SWING* y *Status_ Vanes L-R SWING* communication objects.

23 Control_ Vanes L-R Swing [DPT_1.002 - 1bit] - 0-Off;1-Swing
 34 Status_ Vanes L-R Swing [DPT_1.002 - 1bit] - 0-Off;1-Swing

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Control_ Vanes L-R Swing y Status_ Vanes L-R Swing objects will appear.
 - When a **"1**" value is sent to the *Control*_ communication object, Vanes Left-Right will be in Auto mode and the *Status*_ object will return this value.
 - When a "O" value is sent to the *Control_* communication object, Vanes Left-Right will be in Manual mode and the *Status_* object will return this value.
 - ▲ **Important:** When activating Auto Mode in the indoor unit, this one will choose the best position available for the Vanes Left-Right. This position will not be shown either in the KNX bus or in the remote controller.
 - ▲ **Important:** Read the documentation of your indoor unit to check how many vanes modes are available.

4.6.9 Enable use of Text object for Vane L-R

This parameter shows/hides the *Status_ Vanes L-R Text* communication object.

95 Status_ Vanes L-R Text [DPT_16.001 - 14byte] - ASCII String

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Status_ Vanes L-R Text object will appear. Also, in the parameters will be shown seven text fields, five for the Vane Position and one for the Swing function, that will let modify the text string displayed by the Status_ Vanes L-R Text when changing a vane position.

| ASCII strings shown in comm object "Status_ Vanes L-R Text" | << 14-byte string values >> |
|--|-----------------------------|
| > String when vanes L-R in POS 1 (if available) | L-R POS 1 |
| > String when vanes L-R in POS 2 (if available) | L-R POS 2 |
| > String when vanes L-R in POS 3 (if available) | L-R POS 3 |
| > String when vanes L-R in POS 4 (if available) | L-R POS 4 |
| > String when vanes L-R in POS 5 (if available) | L-R POS 5 |
| > String when vanes L-R in SWING | L-R SWING |

Figure 4.33 Parameter detail



4.7 Temperature Configuration dialog

|)e | evice: 15.15 FJ RC interface, 4 binary inputs | | | | | |
|----|---|--|------------------|--|--|--|
| | General | | | | | |
| | Mode Configuration | (in seconds:0-No periodic sending) | 0 | | | |
| | Special Modes Configuration | (in seconds, s=rio periodic scharing) | | | | |
| | Fan Speed Configuration | Transmission of "Status_ AC Return Temp" | Only on change 🔹 | | | |
| | Vanes Up-Down Configuration | | | | | |
| | Vanes Left-Right Configuration | Enable use of +/- obj for Setpoint Temp | No | | | |
| | Temperature Configuration | Enable limits on Control Setucint obj | No | | | |
| | Scene Configuration | Enable mints on control_ setpoint obj | | | | |
| | Switch-Off Timeouts Configuratior | Ambient temp. ref. is provided from KNX | No | | | |
| | Binary Input 1 Configuration | (carefully read User Guide if enabled) | | | | |
| | Binary Input 2 Configuration | | | | | |
| | Binary Input 3 Configuration | | | | | |
| | Binary Input 4 Configuration | | | | | |
| | | | | | | |

Figure 4.34 Default Temperature Configuration dialog

All the parameters in this section are related to the Temperature properties and communication objects.

4.7.1 Periodic sending of "Status_ AC Setp"

This parameter lets change the interval of time (in seconds, from 0 to 255) at the end of which the AC setpoint temperature is sent to the KNX bus. For a "O" value, the AC setpoint temperature will ONLY be sent on change. The AC setpoint temperature is sent through the communication object Status_ AC Setpoint Temp.

| ■之 96 Status_ AC Setpoint Temp [DPT_9.001 - 2byte] - (°C) | | |
|---|---|---|
| Periodic sending of "Status_ AC Setp" (in seconds;0=No periodic sending) | 0 | • |

Figure 4.35 Communication object and parameter detail

△ **Important:** In case the ambient temperature is provided from KNX, the setpoint temperature returned from this object will be the one resulting from the formula shown in the section "4.7.5 Ambient temp. ref. is provided from KNX" below.

4.7.2 Transmission of "Status AC Ambient Ref Temp"

This parameter lets you choose if the AC ambient temperature will be sent "only cyclically", "only on change" or "cyclically and on change". The AC ambient temperature is sent through the communication object Status_ AC Ambient Ref Temp.

97: Status_AC Ambient Ref Temp [DPT_9.001 - 2byte] - °C

| Transmission of "Status_ AC Ambient Ref Temp" | Cyclically and on change | • |
|--|--------------------------|-----------------------|
| "Status_ AC Ambient Ref Temp" periodic sending time (in sec) | 180 | T |

Figure 4.36 Parameter detail



<u>"Status AC Ambient Ref Temp" periodic sending time (in sec)</u>

This parameter will only be available for the **"only cyclically"** and **"cyclically and on change"** options, and lets you change the interval of time (in seconds, from 1 to 255) at the end of which the AC ambient temperature is sent to the KNX bus.

4.7.3 Enable use of +/- object for Setpoint Temp

This parameter shows/hides the *Control_ Setpoint Temp* +/- communication object which lets change the indoor unit setpoint temperature by using two different datapoint types.

■2 37 Control_ Setpoint Temp -/+ [DPT_1.007 - 1bit] - 0-Decrease;1-Increase

- If set to **"No"** the object will not be shown.
- If set to **"Yes"** the *Control_ Setpoint Temp* +/- object and a new parameter will appear.

| Enable use of +/- obj for Setp Temp | yes 🔹 | |
|-------------------------------------|---------------------------|--|
| > DPT type for +/- Setp Temp object | 0-Up / 1-Down [DPT_1.008] | |

Figure 4.37 Parameter detail

> DPT type for +/- Setp Temp object

This parameter allows you to select between the datapoints **0-Up / 1-Down** [DPT_1.008] and **0-Decrease / 1-Increase** [DPT_1.007] for the *Control_ Setpoint Temp +/-* object.



4.7.4 Enable limits on Control_ Setpoint obj

This parameter enables to define temperature limits for the *Control_ Setpoint Temperature* object.

| Enable limits on Control_ Setpoint obj | Yes 🔹 |
|--|---------|
| > Lower limit (°C) | 18 °C 🔹 |
| > Upper limit (ºC) | 30 °C 🔹 |

Figure 4.38 Parameter detail

- If set to **"No"** the setpoint temperature limits for the *Control_ Setpoint Temperature* object will be the default: 16°C for the lower limit and 31°C for the upper limit.
- If set to **"Yes"** it is possible to define temperature limits for the *Control_ Setpoint Temperature* object.



Control Set Temp Lower limit (°C)

This parameter lets to define the lower limit for the setpoint temperature.

Control Set Temp Upper limit (°C)

This parameter lets to define the upper limit for the setpoint temperature.

- ▲ **Important:** If a setpoint temperature above the upper defined limit (or below the lower defined limit) is sent through the Control_ Setpoint Temperature object, it will be ALWAYS applied the limit defined.
- ▲ **Important:** When limits are enabled, any setpoint temperature sent to the AC (even through scenes, special modes, etc.) will be limited.

4.7.5 Ambient temp. ref. is provided from KNX

This parameter enables or disables the *Control_ Ambient Temperature* communication object, which allows the use of an ambient temperature reference provided by a KNX device.

- If set to **"No"**, the object will not be shown and the ambient temperature will never be sent to the AC unit.
- If set to "Yes", the Control_ Ambient Temp object will appear:

■2 38 Control_Ambient Temp [DPT_9.001 - 2byte] - °C

This object is meant to be enabled when you want the temperature provided by a KNX sensor to be the reference ambient temperature for the air conditioner. In that case, the following formula applies to calculate the real *Control_Setpoint Temperature* sent to the AC unit:

"AC Setp. Temp" = "AC Amb. Temp" - ("KNX Amb. Temp." - "KNX Setp. Temp")

AC indoor unit setpoint temperature = AC indoor unit Ambient temperature – (Ambient temperature provided from KNX – Setpoint temperature provided from KNX)

▲ **Important:** Ambient temperature features require a wired remote controller equipped with a thermo sensor present in the bus. Make sure to set the wired remote controller as the ambient temperature source when using this function. Detailed information on how to set up the wired remote controller can be found in the figure below, which is taken from the Fujitsu wired remote controller manual.

| Room temperature sensor selection | |
|--|--|
| ECONOMY | Indoor unit |
| When the 🗐 thermo sensor display appears, the room temperature is detected at the remote controller. | |
| I NOTES | |
| This function is locked at the factory. If this function is locked, the location where the room temperature is detec when the ECONOMY button is pushed for 2 seconds or more. In order authorized service personnel when using this function. | ted cannot be changed and the orn mark flashes r to detect the room temperature correctly, consult |



As an example, consider the following situation:

The user wants: **19°C** ("KNX Setp. Temp.") The user sensor (a KNX sensor) reads: **21°C** ("KNX Amb. Temp.") The ambient temperature read by the Fujitsu system is: **24°C** ("AC Amb. Temp.")

In this example, the final setpoint temperature that the gateway will send to the indoor unit (shown in "Setp. Temp.") will be **22°C**, since 24°C - (21°C - 19°C) = 22°C. This is the setpoint that will be requested to the Fujitsu unit. This formula will be applied as soon as the *Control_ Setpoint Temperature* and the *Control_ Ambient Temperature* objects are written at least once from the KNX installation. After that, they are always kept consistent.

Note that this formula will always drive the AC indoor unit demand in the *right* direction, regardless of the operation mode (Heat, Cool, or Auto).

4.8 Scene Configuration dialog

| evice: 15.15 FJ RC interface, 4 binary inputs | | | | |
|---|--|-------|--|--|
| General Mode Configuration | Enable use of scenes | Yes 🔹 | | |
| Special Modes Configuration Fan Speed Configuration | Scenes can be stored from KNX bus | No | | |
| Vanes Up-Down Configuration Vanes Left-Right Configuration | Enable use of bit objects for scene execution | No | | |
| Temperature Configuration Scene Configuration | Scene 1 preset | No | | |
| Switch-Off Timeouts Configuration Binary Input 1 Configuration | Scene 2 preset | No | | |
| Binary Input 2 Configuration | Scene 3 preset | No | | |
| Binary Input 3 Configuration Binary Input 4 Configuration | Scene 4 preset | No | | |
| | Scene 5 preset | No | | |

Figure 4.39 Parameter detail

All the parameters in this section are related to the Scene properties and communication objects. A scene contains values of: On/Off, Mode, Fan speed, Vane position, Setpoint Temperature, and Remote Controller Disablement.

4.8.1 Enable use of scenes

This parameter shows/hides the scene configuration parameters and communication objects.

■ズ 48 Control_ Execute Scene [DPT_18.001 - 1byte] - 0..4-Execute Scene 1-5

| Enable use of scenes | yes 🔹 |
|----------------------|-------|
|----------------------|-------|

Figure 4.40 Parameter detail

- If set to **"No"** the scene parameters and communication objects will not be shown.
- If set to "Yes" the scene parameters and communication objects will be shown. To execute a scene through the byte-type object, a value from "O" to "4" has to be sent, correponding each one to a different scene (i.e. "0" = Scene 1;... "4" = Scene 5).



4.8.2 Scenes can be stored from KNX bus

This parameter shows/hides the *Control_ Save/Exec Scene* and all the *Control_ Store Scene* (if enabled) communication objects.

■2 48 Control_ Save/Exec Scene [DPT_18.001 - 1byte] - 0..4-Exec1-5;128..132-Save1-5

- If set to **"No"** the communication objects will not be shown.
- If set to "Yes" the communication objects and a new parameter will appear. To store a scene through the byte-type object, a value from "128" to "132" has to be sent to the object, correponding each one to a different scene (i.e. "128" = Scene 1;... "132" = Scene 5).

| Scenes can be stored from KNX bus | yes 🔹 |
|---|-------|
| Enable use of bit objects for storing scenes (from bus) | yes 🔹 |

Figure 4.41 Parameter detail

> Enable use of bit objects for storing scenes (from bus)

If set to "No" the objects will not be shown.

If set to **"Yes"** the *Control_ Store Scene* objects for storing scenes will appear. To store a scene by using these objects, a **"1"** value has to be sent to the scene's object we want to store (i.e. to store scene 4, a "1" has to be sent to the *Control_ Store Scene 4* object).

 #4 49 Control_Store Scene 1 [DPT_1.002 - 1bit] - 1-Store Scene 1

 #50 Control_Store Scene 2 [DPT_1.002 - 1bit] - 1-Store Scene 2

 #51 Control_Store Scene 3 [DPT_1.002 - 1bit] - 1-Store Scene 3

 #52 Control_Store Scene 4 [DPT_1.002 - 1bit] - 1-Store Scene 4

 #53 Control_Store Scene 5 [DPT_1.002 - 1bit] - 1-Store Scene 5

4.8.3 Enable use of bit objects for scene execution

This parameter shows/hides the *Control_ Execute Scene* bit-type communication objects.

Enable use of bit objects yes
ves

Figure 4.42 Parameter detail

- If set to **"No"** the communication objects will not be shown.
- If set to "Yes" the communication objects will appear. To execute a scene by using these objects, a "1" value has to be sent to the scene's object we want to execute (i.e. to execute scene 4, a "1" has to be sent to the *Control_ Execute Scene 4* object).

Image: Second Science 1 [DPT_1.002 - 1bit] - 1-Execute Science 1
 So Control_Execute Science 2 [DPT_1.002 - 1bit] - 1-Execute Science 2
 So Control_Execute Science 3 [DPT_1.002 - 1bit] - 1-Execute Science 3
 So Control_Execute Science 4 [DPT_1.002 - 1bit] - 1-Execute Science 4
 So Control_Execute Science 5 [DPT_1.002 - 1bit] - 1-Execute Science 5



4.8.4 Scene "x" preset

This parameter lets define a preset for a scene (the following description is valid for all the scenes).

| Scene 1 preset | ves (scene will NOT be modifiable from KNX bus) | |
|----------------|---|--|
| scene i preset | yes (scene will not be mounable nom kivk bus) | |

Figure 4.43 Parameter detail

- If set to **"No"**, the preset for the scene "x" will be disabled.
- If set to **"Yes"**, the preset will be enabled. When a scene is executed, the values configured in the preset will be aplied.
- ▲ **Important:** If a scene's preset is enabled, it will not be possible to modify (store) the scene from the KNX bus.

| > Scene 1 / Value for On-Off | (| ON • |
|---|----------|-------------------------------|
| > Scene 1 / Value for Mode | (| COOL 🔹 |
| > Scene 1 / Value for Fan Spe | ed (| FAN SPEED AUTO |
| > Scene 1 / Value for Vanes U (if available) | -D (| (unchanged) |
| > Scene 1 / Value for Setpoint | t Temp 🛛 | 18.0 °C 🔹 |
| > Scene 1 / Value for Remote | Lock | Locked (remote not allowed) - |

Figure 4.44 Parameter detail

Scene "x" / Value for On-Off

This parameter allows you to select the power of the indoor unit when the scene is executed. The following options are available: "ON", "OFF", or "(unchanged)".

Scene "x" / Value for Mode

This parameter allows you to select the mode of the indoor unit when the scene is executed. The following options are available: "AUTO", "HEAT", "COOL", "FAN", "DRY", or "(unchanged)".

Scene "x" / Value for Fan Speed

This parameter allows you to select the fan speed of the indoor unit when the scene is executed. The following options are available: **"FAN SPEED AUTO"**, **"FAN SPEED 1"**, **"FAN SPEED 2"**, **"FAN SPEED 3"**, **"FAN SPEED 4 (if available)"** or **"(unchanged)"**.

Scene "x" / Value for Vane U-D (if available)

This parameter allows you to select the vane position of the indoor unit when the scene is executed. The following options are available: "VANES U-D OFF", "VANES U-D POS 1(if available)", "VANES U-D POS 2(if available)", "VANES U-D POS 3(if available)", "VANES U-D POS 4(if available)", "VANES U-D SWING" or "(unchanged)".



Scene "x" / Value for Vane L-R (if available)

This parameter allows you to select the vane position of the indoor unit when the scene is executed. The following options are available: "VANES L-R OFF", "VANES L-R POS 1(if available)", "VANES L-R POS 2(if available)", "VANES L-R POS 3(if available)", "VANES L-R POS 4(if available)", "VANES L-R POS 5(if available)", "VANES L-R SWING", or "(unchanged)".

Scene "x" / Value for Setpoint Temp (°C)

This parameter allows you to select the setpoint temperature of the indoor unit when the scene is executed. The following options are available: from **"18°C"** to **"30°C"** (both included) or **"(unchanged)"**.

Scene "x" / Value for Remote Lock

This parameter allows you to select the remote controller status of the indoor unit when the scene is executed. The following options are available: **"Locked (remote not allowed)"**, **"unlocked (remote allowed)"**, or **"(unchanged)"**.

- ▲ **Important:** If any preset value is configured as "(unchanged)", the execution of this scene will not change current status of this feature in the AC unit.
- ▲ Important: When a scene is executed, Status_ Current Scene object shows the number of this scene. Any change in previous items does Status_ Current Scene show "No Scene". Only changes on items marked as "(unchanged)" will not disable current scene.



4.9 Switch-Off Timeouts Configuration dialog

| Device: 15.15 FJ RC interface, 4 binary | inputs | |
|---|--|-------------------------------------|
| General Mode Configuration Special Modes Configuration Fan Speed Configuration Vanes Up-Down Configuration | Enable use of Open Window / Switch off timeout function Enable use of Occupancy function Enable use of Sleep function | No • No • |
| Varias Leit-Night Configuration Temperature Configuration Scene Configuration Binary Input 1 Configuration Binary Input 2 Configuration Binary Input 3 Configuration | | |
| onary inpact configuration | | |

Figure 4.45 Default Switch-Off Timeouts Configuration dialog

All the parameters in this section are related to the timeout properties and communication objects.

4.9.1 Enable use of Open Window / Switch off timeout function

This parameter shows/hides the *Control_ Switch Off Timeout* communication object which lets Start/Stop a timeout to switch off the indoor unit.

■2 39 Control_ Switch Off Timeout [DPT_1.010 - 1bit] - 0-Stop;1-Start
 ■2 39 Control_ Window Contact Status [DPT_1.009 - 1bit] - 0-Open;1-Closed

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Control_ Switch Off Timeout object and new parameters will appear.
 If a "1" value is sent to this object, and the indoor unit is already turned on, the switch-off timeout will begin. If a "0" value is sent to this object, the switch-off timeout will stop.

| Enable use of Open Window / Switch off timeout function | Ves 🔹 |
|--|--------------------------------------|
| > AC switch-off timeout (min) | 10 |
| > DPT for Window / Switch-off timeout | 0-Stop / 1-Start Timeout [DPT_1.010] |
| Disallow On/Off operation while timeout is elapsed | No |
| > Reload last On/Off val once timeout is stopped | No |

Figure 4.46 Parameter detail

AC switch-off timeout (min)

This parameter lets select how much time (in minutes) to wait before switching off the indoor unit.



> DPT for Window / Switch-off timeout

This parameter allows you to select between the datapoints **0-Open / 1-Closed Window [DPT_1.009]** and **0-Stop / 1-Start Timeout [DPT_1.010]** for the *Control_ Switch Off Timeout*.

Disallow On/Off operation while window is Open

If set to "No", On/Off commands while the window is open will be accepted.

- If a "1" value is sent to the *Control_ Switch Off Timeout* object the switch-off timeout period will begin again.
- If a "O" value is sent to the Control_ Switch Off Timeout object, No action will be performed.

If set to **"Yes"**, On/Off commands, while the window is open, will be saved (but not applied). These commands will be used in the next parameter if set to **"Yes"**.

Reload last On/Off val once window is closed?

If set to **"No"**, once the switch-off timeout is stopped, any value will be reloaded.

If set to **"Yes"**, once the switch-off timeout is stopped, the last On/Off value sent will be reloaded.

- If a "1" value is sent to the *Control_ Switch Off Timeout* object after the timeout period, the indoor unit will **turn on**.
- If a "**0**" value is sent to the *Control_ Switch Off Timeout* after the timeout period, No action will be performed.

4.9.2 Enable use of Occupancy function

This parameter shows/hides the *Control_ Occupancy* communication object which lets apply different parameters to the indoor unit depending on the presence/No presence in the room.

■ 40 Control_ Occupancy [DPT_1.018 - 1bit] - 0-Not Occupied;1-Occupied

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Control_ Occupancy object and new parameters will appear. If a "1" value is sent to this object (No room occupancy), the timeout will begin. If a "0" value is sent to this object, the timeout will stop.



| Enable use of Occupancy function | Yes 🔻 |
|---|---------------|
| > Timeout to apply action (minutes) | 20 |
| > Action after timeout elapsed | Switch-Off AC |
| > Disallow On/Off operation while not Occupied | No |
| > Reload last On/Off value when Occupied | No |

Figure 4.47 Parameter detail

Timeout to apply action (minutes)

This parameter allows you to select how much time to wait (in minutes) before executing the action specified in the next parameter ("Action after timeout elapsed").

Action after timeout elapsed

When **Switch-Off** is selected, once the timeout has elapsed, the indoor unit will be turned off.

When **Apply Preset Delta** is selected, once the timeout has elapsed, a delta temperature will be applied to save energy (decreasing the setpoint when in Heat mode or increasing the setpoint when in Cool mode). Also new parameters will appear.

| Temp delta decrease (HEAT) or increase (COOL) (°C) | 2.0°C • |
|--|---------|
| > Enable secondary timeout | yes 🔹 |

Figure 4.48 Parameter detail

> Temp delta decrease (HEAT) or increase (COOL) (°C)

This parameter lets configure the delta temperature (increase or decrease) that will be applied when the timeout has elapsed.

▲ Important: When there is occupancy again after the application of a delta, the same delta will be applied inversely. (i.e. In a room with AC in cool mode and 25°C setpoint temperature, a +2°C delta is applied after the occupancy timeout, setting the setpoint at 27°C because there is no occupancy in the room. If the setpoint is raised to 29°C during that period, when the room is occupied again, a -2°C delta will be applied and the final setpoint temperature will then be 27°C).



Enable secondary timeout

If set to **"No"** nothing will be applied.

If set to "Yes", a new timeout will be enabled and two new parameters will appear.

| > Timeout to apply action (min) | 2 | × |
|---|--------------------|---|
| > Action after timeout elapsed | Apply Preset Delta | • |
| > Temp delta dec (HEAT) / or inc (COOL) (°C) | [2.0°C | • |

Figure 4.49 Parameter detail

Timeout to apply action (minutes)

This parameter allows you to select how much time to wait (in minutes) before executing the action specified in the next parameter ("Action after timeout elapsed"). This time is considered as a part of the occupancy.

> Action after timeout elapsed

When **Switch-Off** is selected, once the timeout has elapsed, the indoor unit will turn off.

When **Apply Preset Delta** is selected, once the timeout configured is extinguished, a delta temperature will be applied (decreasing the setpoint when in Heat mode, or increasing the setpoint when in Cool mode). Also new parameters will appear.

Temp delta decrease (HEAT) or increase (COOL) (°C)

This parameter lets configure the delta temperature that will be applied when the timeout is extinguished.

- ▲ **Important:** When there is occupancy again after the application of a delta, the same delta will be applied inversely as explained above.
 - Disallow On/Off operation while not Occupied

If set to "No", On/Off commands while the window is open will be accepted.

If set to "**yes**", once **Switch-Off** action has been executed, On/Off commands will be saved (but not applied). These commands will be used in the next parameter if set to "**yes**".

| Reload last On/Off value when Occupied | yes 🔻 | |
|---|-------|--|
| > Disallow On/Off operation while not Occupied | yes 🗸 | |

Figure 4.50 Parameter detail



Reload last On/Off value when Occupied

If set to **"No"**, once the switch-off timeout has elapsed, any value will be reloaded.

If set to $``{\bf Yes''},$ once the switch-off timeout has elapsed, the last On/Off value will be reloaded.

- If a "1" value is sent to the *Control_ Occupancy* object after the timeout period, the indoor unit will **turn on**.
- If a "O" value is sent to the *Control_ Occupancy* after the timeout period No action will be performed.

4.9.3 Enable use of SLEEP timeout

This parameter shows/hides the *Control_ Sleep Timeout* communication object which lets start a timeout to automatically turn off the indoor unit.

■2 41 Control_ Sleep Timeout [DPT_1.010 - 1bit] - 0-Stop;1-Start

- If set to **"No"** the object will not be shown.
- If set to "Yes" the Control_ Sleep Timeout object and a new parameter will appear. If a "1" value is sent to this object the switch-off timeout will begin. If a "0" value is sent to this object, the switch-off timeout will stop.

| Enable use of SLEEP timeout | yes 🗸 | ļ |
|--|-------|---|
| > Sleep function switch-off timeout (minutes) | 1 | |

Figure 4.51 Parameter detail

Timeout to apply action (minutes)

This parameter lets select how much time (in minutes) to wait before switching off the AC unit.



4.10 Binary Input "x" Configuration dialog

| Device: FJ RC interface, 4 binary inp | outs | | |
|--|--|-------------------|---|
| General Mode Configuration | Enable use of Input 1 | Yes | • |
| Special Modes Configuration Fan Speed Configuration | > Contact type | NO: Normally Open | • |
| Vanes Up-Down Configuration | > Debounce time | 50 ms | • |
| Vanes Left-Right Configuration Temperature Configuration | > Disabling function | No | • |
| Scene Configuration Switch-Off Timeouts Configuration | > Function | Switching | • |
| Binary Input 1 Configuration Binary Input 2 Configuration | > Send telegram after bus recovery | No action | • |
| Binary Input 3 Configuration Binary Input 4 Configuration | > Value on raising edge (contact activated) | No action | T |
| | > Value on falling edge (contact deactivated) | No action | • |
| | > Cyclical sending | Never | • |
| | | | |

Figure 4.52 Parameter detail

All the parameters in this section are related to the binary inputs properties and communication objects.

4.10.1 Enable use of Input "x"

This parameter enables the use of the Input "x'' and shows/hides the *Status_ Inx* communication object(s) which will act as configured in the "Function" parameter.

- If set to **"No"** the objects will not be shown.
- If set to "Yes" the *Status_ Inx* object(s) and new parameters will appear.

4.10.2 Contact type

This parameter allows you to select the behavior that will have the binary input depending on if the contact is Normally open or Normally closed.

• There are two possible options to configure the contact type: **"NO: Normally Open"** and **"NC: Normally Closed"**.

4.10.3 Debounce time

This parameter allows you to select a debounce time (in milliseconds) that will be applied to the contact.



4.10.4 Disabling function

This parameter shows/hides the *Control_ Disable Input x* communication object which will let disable/enable the input x.

■2 59 Control_ Disable Input 1 [DPT_1.003 - 1bit] - 0-Disable;1-Enable;

- ■\$ 59 Control_ Disable Input 1 [DPT_1.002 1bit] 0-False;1-True
- If set to **"No"** any object will be shown.
- When **"DPT 1.003: 0-Disable; 1-Enable"** is selected, the input can be disabled using the value **"0"** and enabled using the value **"1"**.
- When **"DPT 1.002: 1-True (Disable); 0-False (Enable)"** is selected, the input can be disabled using the value **"1"** and enabled using the value **"0"**.

4.10.5 Function

This parameter allows you to select the function that will have the binary input. There are 7 different functions available: Switching, Dimming, Shutter/Blind, Value, Execute Scene (internal), Occupancy (internal) and Window Contact (internal).

• When **"Switching"** is selected the communication object and new parameters for the Input "x" will appear as shown below.

| > Function | Switching |
|--|-----------------|
| > Send telegram after bus recovery | No action 🔹 |
| > Value on raising edge (contact activated) | Toggle (On/Off) |
| > Value on falling edge (contact deactivated) | No action 🔹 |
| > Cyclical sending | Never |

■2 109 Status_In1 - Switching [DPT_1.001 - 1bit] - 0-Off;1-On

Figure 4.53 Parameter detail

> <u>Send telegram after bus recovery</u>

This parameter lets select if the Binary Input "x'' will send a telegram, or not, after a bus recovery and the type of telegram sent (if enabled).

- When "No action" is selected, No telegram will be sent after a bus recovery.
- When "Current status" is selected, the binary input will send a telegram with its current status after a bus recovery. Also a new parameter will appear (see below).



- When "**On**" is selected, the binary input will send a telegram with a "**1**" value after a bus recovery. Also a new parameter will appear (see below).
- When **"Off"** is selected, the binary input will send a telegram with a **"0"** value after a bus recovery. Also a new parameter will appear (see below).

| > Sending delay after | 10 | ^ |
|------------------------|----|----------|
| bus recovery (seconds) | | |
| | | |

Figure 4.54 Parameter detail

Sending delay after a bus recovery (seconds)

This parameter lets configure a delay (in seconds) that will be applied after a bus recovery and, after which, a telegram will be sent.

Value on rising edge

This parameter lets select the value that the Binary Input "x'' will send on a rising edge (contact activated).

- When "On" is selected, the binary input will always send telegrams with a "1" value.
- When "Off" is selected, the binary input will always send telegrams with a "O" value.
- When "Toggle (On/Off)" is selected, the binary input will send a "1" value after a "0" value and viceversa.
- When "No action" is selected, the binary input will not perform any action.
- Value on falling edge

This parameter lets select the value that the Binary Input "x'' will send on a falling edge (contact deactivated).

- When "On" is selected, the binary input will always send telegrams with a "1" value.
- When "Off" is selected, the binary input will always send telegrams with a "O" value.
- When "Toggle (On/Off)" is selected, the binary input will send a "1" value after a "0" value and viceversa.
- When "No action" is selected, the binary input will not perform any action.



Cyclical sending

This parameter lets enable/disable cyclical sending when a determined condition is met.

- When **"When output value is On"** is selected, everytime a **"1"** value is sent, it will be sent cyclically. Also a new parameter will appear (see below).
- When **"When output value is Off"** is selected, everytime a **"0"** value is sent, it will be sent cyclically. Also a new parameter will appear (see below).
- When "Always" is selected, the binary input will send any value cyclically. Also a new parameter will appear (see below).
- When "Never" is selected, cyclical sending will be disabled.
- Period for cyclical sending (seconds)

This parameter lets configure a time (in seconds) for the cyclical sending.

| > Period for cyclical sending | 2 | |
|-------------------------------|---|--|
| (seconds) | | |
| | | |

Figure 4.55 Parameter detail

 $\circ~$ When "Dimming" is selected the communication objects and new parameters for the Input "x" will appear as shown below.

■2 109 Status_In1 - Dimming - On/Off [DPT_1.001 - 1bit] - 0-Off;1-On
 ■2 110 Status_In1 - Dimming - Step(%) [DPT_3.007 - 4bit] - Dimming step

| > Function | Dimming |
|--|------------------------------------|
| > Send telegram after bus recovery | No action 🔹 |
| > Mode for short (long) operation | Toggle: On/Off (increase/decrease) |
| > Increasing step | + 100 % |
| > Decreasing step | - 100 % |
| > Short/long operation limit (x100ms) | 10 |
| Cyclical sending period (x100ms) (0-No cyclical sending) | 0 |

Figure 4.56 Parameter detail



Send telegram after bus recovery

This parameter lets select if the Binary Input "x'' will send a telegram, or not, after a bus recovery and the type of telegram sent (if enabled).

- When "No action" is selected, No telegram will be sent after a bus recovery.
- When "**On**" is selected, the binary input will send a telegram with a "**1**" value after a bus recovery. Also a new parameter will appear (see below).
- When **"Off"** is selected, the binary input will send a telegram with a **"0"** value after a bus recovery. Also a new parameter will appear (see below).

| > Sending delay after | 10 | |
|------------------------|----|--|
| bus recovery (seconds) | | |

Figure 4.57 Parameter detail

Sending delay after a bus recovery (seconds)

This parameter lets configure a delay (in seconds) that will be applied after a bus recovery and, after which, a telegram will be sent.

Mode for short (long) operation

This parameter lets select the value that the Binary Input "x'' will send on a rising edge (contact activated), for a short and a long operation.

- When "On (increase)" is selected, the binary input will always send telegrams with a "1" value for a short operation, and an "increase step" for a long operation.
- When "Off (decrease)" is selected, the binary input will always send telegrams with a "O" value for a short operation, and an "decrease step" for a long operation.
- When "Toggle: On/Off (increase/decrease)" is selected:
 - For the short operation the binary input will send a "1" value after a "0" value and viceversa.
 - For the long operation the binary input will send an **"increase step"** after a **"decrease step"** and viceversa.
- Important: note that the first long operation in toggle depends on the last short operation, meaning that after a "1" value will be sent a "decrease step" and after a "0" value will be sent an "increase step".
- ▲ **Important:** The time period between a short and a long operation is defined in the parameter "Short/long operation limit (x100ms)".



Increasing step

This parameter lets select the increasing step value (in %) that will be sent for a long operation.

Decreasing step

This parameter lets select the decreasing step value (in %) that will be sent for a long operation.

Short/long operation limit (x100ms)

This parameter lets introduce the time period difference for the short and the long operation.

> Cycl. send. period in long oper. (x100ms)

This parameter lets configure a time (in seconds) for the cyclical sending of a long operation.

 $\circ~$ When "Shutter/Blind" is selected the communication objects and new parameters for the Input "x" will appear as shown below.

■↓ 109 Status_In1 - Shut/Blind - Step [DPT_1.007 - 1bit] - 0-Step Up;1-Step Down
 ■↓ 110 Status_In1 - Shut/Blind - Move [DPT_1.008 - 1bit] - 0-Move Up;1-Move Down

| > Function | Shutter/Blind | • |
|--|------------------|--------|
| Send telegram after bus recovery | No action | • |
| > Operation | Toggle (Up/Down) | • |
| > Method | Step-Move-Step | • |
| > Short/long operation limit (x100ms) | 10 | * * |
| Vanes adjustment time (x100ms) | 10 | |

Figure 4.58 Parameter detail



Send telegram after bus recovery

This parameter lets select if the Binary Input "x'' will send a telegram, or not, after a bus recovery and the type of telegram sent (if enabled).

- When "No action" is selected, No telegram will be sent after a bus recovery.
- When "Move Up" is selected, the binary input will send a telegram with a "O" value after a bus recovery. Also a new parameter will appear (see below).
- When "Move Down" is selected, the binary input will send a telegram with a "1" value after a bus recovery. Also a new parameter will appear (see below).

| > Sending delay after | 10 | |
|------------------------|----|--|
| bus recovery (seconds) | | |

Figure 4.44 Parameter detail

Sending delay after a bus recovery (seconds)

This parameter lets configure a delay (in seconds) that will be applied after a bus recovery and, after which, a telegram will be sent.

> Operation

This parameter lets select the value that the Binary Input "x'' will send on a rising edge (contact activated).

- When "Up" is selected, the binary input will always send telegrams with a "O".
- When "Down" is selected, the binary input will always send telegrams with a "1" value.
- When "Toggle (Up/Down)" is selected the binary input will send a "0" value after a "1" value and viceversa.

Method

This parameter lets select the working method for the shutter/blind.

• When "Step-Move-Step" is selected: On a rising edge (contact activated) a step/stop telegram will be sent and will begin a time called **T1**. If a falling edge occurs (contact deactivated) during the **T1**, No action will be performed.

If the rising edge is maintained longer than **T1**, a move telegram will be sent and will start a time called **T2**. If a falling edge occurs during the **T2**, a step/stop telegram will be sent. If a falling edge occurs after **T2** No action will be performed.

• When "Move-Step" is selected: On a rising edge a move telegram will be sent and will begin the T2 time. If a falling edge occurs during the T2, a step/stop telegram will be sent. If a falling edge occurs after T2 No action will be performed.



- ▲ **Important:** The **T1** time have to be defined in the "Short/long operation limit (x100ms)" parameter. Also the **T2** time have to be defined in the "Vanes adjustment time (x100ms)" parameter.
- Short/long operation limit (x100ms)

This parameter lets introduce the time period difference for the short and the long operation (T1 time).

Vanes adjustment time (x100ms)

This parameter lets introduce the time period for the vanes adjustment/blind movement (T2 time).

 When "Value" is selected the communication objects and new parameters for the Input "x" will appear as shown below.

■2 110 Status_In1 - Value [DPT_5.010 - 1byte] - 1-byte unsigned value

| > Function | Value | • |
|--|-------------------|--------------------------------|
| Send telegram after bus recovery | Fixed value | · |
| Sending delay after bus recovery (seconds) | 10 | |
| > DPT to be sent | DPT 5.010 (1byte) | • |
| Value on raising edge (when contact activated) | 234 | |

Figure 4.59 Parameter detail

Send telegram after bus recovery

This parameter lets select if the Binary Input "x'' will send a telegram, or not, after a bus recovery and the type of telegram sent (if enabled).

- When "No action" is selected, No telegram will be sent after a bus recovery.
- When "Fixed value" is selected, the binary input will send a telegram with the same value configured in the "Value on rising edge" parameter. Also a new parameter will appear (see below).

| > Sending delay after | 10 | |
|------------------------|----|--|
| bus recovery (seconds) | | |
| | | |



Sending delay after a bus recovery (seconds)

This parameter lets configure a delay (in seconds) that will be applied after a bus recovery and, after which, a telegram will be sent.



DPT to be sent

This parameter lets select the DPT type for the value that will be defined in the next parameter. This value will be sent on a rising edge (contact activated).

| > DPT to be sent DPT | 12.001 (4byte) 🔹 |
|----------------------|------------------|
|----------------------|------------------|

Figure 4.61 Parameter detail

> Value on rising edge (when contact activated)

This parameter lets define a value for the DTP type configured in the "DPT to be sent" parameter. This value will be sent on a rising edge (contact activated).

• When **"Execute Scene (internal)**" is selected, the binary input "x" will activate the scene defined in the next parameter, on a rising edge (contact activated).

| > Function | Execute Scene (internal) |
|---|--------------------------|
| Scene when contact is activated (needs to be defined) | Scene 1 🔹 |

Figure 4.62 Parameter detail

> <u>Scene when contact is activated</u>

This parameter allows you to select the scene that will be activated on a rising edge. This scene MUST be defined in the "Scene Configuration" dialog as a preset.

 When "Occupancy (internal)" is selected, the binary input "x" will have the same behavior as configured in the parameter "Enable use of Occupancy function" inside the "Switch-Off Timeouts Configuration" dialog.

| > Function | Occupancy (internal) |
|------------|----------------------|
| | |

Figure 4.63 Parameter detail

 When "Window Contact (internal)" is selected, the binary input "x" will have the same behavior as configured in the parameter "Enable use of Open Window / Switch off timeout function" inside the "Switch-Off Timeouts Configuration" dialog.

| > Function Window Contact (internal) | • |
|--------------------------------------|---|
|--------------------------------------|---|

Figure 4.64 Parameter detail



5 Specifications

| Housing | Plastic, type ABS (UL 94 V-0). 2,5 mm thickness | | |
|--------------------------|---|--|--|
| Housing | White RAL 9010 | | |
| Dimensions | 71 × 71 × 27 mm | | |
| Weight | 70 g | | |
| Color | Ivory white | | |
| Power supply | 29 V DC, 7 mA | | |
| | Supplied through KNX bus | | |
| AC Indoor Unit Bus | Voltage: 13-18 V | | |
| | Current: 80 mA | | |
| LED indicators | 1 × KNX programming | | |
| Push buttons | 1 × KNX programming | | |
| | 4 × Potential-free binary inputs | | |
| | Signal cable length: 5 m unshielded, may be extended up to 20 m with twisted. | | |
| Binary inputs | Compliant with the following standards: | | |
| | IEC61000-4-2: level 4 – 15 kV (air discharge) – 8 kV (contact discharge) | | |
| Ocution | MIL STD 883E-Method 3015-7: Class3B | | |
| Configuration | Configuration with ETS | | |
| Operating Temperature | From -25°C to 60°C | | |
| Storage Temperature | From -40°C to 45°C | | |
| Isolation Voltage | 2500 V | | |
| RoHS conformity | Compliant with RoHS directive (2002/95/CE) | | |
| | CE conformity to EMC directive (2004/108/EC) and Low-voltage directive | | |
| | (2006/95/EC) | | |
| | | | |
| | • EN 61000-6-2 | | |
| | • EN 61000-0-3 | | |
| Certifications | EN 50/91-3 | | |
| | • EN 50090-2-2 | | |
| | • EN 50428 | | |
| | • EN 60669-1 | | |
| | • EN 60669-2-1 | | |
| | | | |





6 AC Unit Types compatibility

A list of FGL indoor unit model references compatible with INKNXFGL001R000 and their available features can be found in the following links:

- <u>Fujitsu</u>
- <u>General</u>
- Fuji Electric
- <u>Hiyasu</u>



7 Error Codes

In order to get the right values regarding AC error codes, remember that you have to select the proper AC system type. Please visit section 4.1.2 for more information on the AC system type selection.

| AC System Type | Error Type | Error section |
|---|------------|---------------|
| RAC Non-inverter models RAC inverter models | Туре А | 7.1 |
| VRF V / S / J | Туре А | 7.2 |
| RAC inverter model G* series VRF J-II / V-II / VR-II | Туре В | 7.1 |

* G series stands for units that include a 'G' just before the power number in its reference. E.g.: ASY $\mathbf{G}09LTCA$

7.1 RAC and VRF J-II / V-II / VR-II series

| Error in KNX | Error in Remote Controller | Error Description | AC System Type | | | | | |
|-----------------|-------------------------------|--|----------------|--|--|--|--|--|
| -1 | NA | Communication Error (Hex:FFFF, Dec:65535) | | | | | | |
| 0 | 00 | Wired remote controller error | | | | | | |
| 1 | 01 | Indoor signal error | | | | | | |
| 2 | 02 | 02 Indoor room temperature sensor error | | | | | | |
| 3 | 03 | 03 Indoor room temperature sensor error | | | | | | |
| 4 | 04 | Indoor heat exchanger temperature sensor (middle) error | | | | | | |
| 5 | 05 | Indoor heat exchanger temperature sensor (middle) error | | | | | | |
| 6 | 06 | Outdoor heat exchanger temperature sensor (outlet) error | | | | | | |
| 7 | 07 | Outdoor heat exchanger temperature sensor (outlet) error | | | | | | |
| 8 | 08 | Power voltage error | | | | | | |
| 9 | 09 | Float switch operated | | | | | | |
| 10 | 0A | Outdoor temperature sensor error | | | | | | |
| 11 | 0b | Outdoor temperature sensor error | | | | | | |
| 12 | 0C | Outdoor discharge pipe temperature sensor error | | | | | | |
| 13 | 0d | Outdoor discharge pipe temperature sensor error | | | | | | |
| 14 | 0E | Heat sink thermistor (Inverter) error | | | | | | |
| 15 | 0F | Discharge temperature error | | | | | | |
| 17 | 11 | Indoor unit EEPROM error | | | | | | |
| 18 | 12 | Indoor fan error | | | | | | |
| 19 | 13 | Indoor signal error | | | | | | |
| 20 | 14 | Outdoor EEPROM error | | | | | | |
| 21 | 15 | Compressor temperature sensor error | | | | | | |
| 22 | 16 | Pressure switch abnormal, Pressure sensor error | | | | | | |
| 23 | 17 | IPM protection | | | | | | |
| 24 | 18 | CT error | | | | | | |
| 25 | 19 | Active filter error | RAC | | | | | |
| | | INV voltage protection | | | | | | |
| 26 | 1A | Compressor location error | Inverter and | | | | | |
| 27 | 10 | Outdoor fan erfor | Non-inverter | | | | | |
| 28 | 10 | | | | | | | |
| 29 | 10 | 2-way valve temperature sensor error | | | | | | |
| 30 | 1E 45 | 3-way valve temperature sensor error | | | | | | |
| 31 | 115 | | | | | | | |
| 32 | 20 | | | | | | | |
| 33 | 21 | VDD permanent step protection | | | | | | |
| 34 | 22 | VDD permanent stop protection | | | | | | |
| 30 | 24 | P.E.C. circuit orror | | | | | | |
| 37 | 25 | Indeer signal error | | | | | | |
| 30 | 20 | | | | | | | |
| 40 | 21 | Indoor best exchanger temperature sensor (inlet) error | | | | | | |
| 40 | 20 | Outdoor beat exchanger temperature sensor (middle) error | | | | | | |
| 41 | 25 | Power supply frequency detection error | | | | | | |
| 43 | 2A 2h | Compressor temperature error | | | | | | |
| 43 | 20 | 4-way valve error | | | | | | |
| 45 | 2d | Heat sink thermistor P.F.C. error | | | | | | |
| | | Indoor unit damper error | | | | | | |
| 46 | 2E | Inverter error | | | | | | |
| 47 | 2F | 2F Low pressure error | | | | | | |
| 48 | 30 | Refrigerant circuit address set-up error | | | | | | |
| 49 | 31 | Master unit, Slave unit set-up error | | | | | | |
| 50 | 32 | Connected the indoor number set-up error | | | | | | |
| 51 | 33 | P.F.C. printed circuit board error | | | | | | |
| 52 | 34 | Indoor fan 2 error | 1 | | | | | |



| 53 | 35 | Control box thermistor error | |
|--------------|----|--|---------------------|
| 54 | 36 | Indoor unit CT error | |
| 55 | 37 | Indoor fan motor 1 driving circuit error | |
| 56 | 38 | Indoor fan motor 2 driving circuit error | |
| 117 | 11 | Serial communication error between indoor/outdoor units | |
| 118 | 12 | Remote controller communication error | - |
| 110 | 12 | | - |
| 119 | 13 | | - |
| 120 | 14 | Network communication error | |
| 121 | 15 | Scan error | |
| 122 | 16 | Peripheral unit communication error | |
| 123 | 17 | Electricity charge apportionment error | |
| 133 | 21 | Indoor unit initial setting error | |
| 134 | 22 | Indoor unit capacity abnormal | - |
| 125 | 22 | Incompatible series connection error | - |
| 135 | 23 | | - |
| 130 | 24 | | - |
| 137 | 25 | Connection pipe length error | _ |
| 138 | 26 | Indoor unit address setting error | |
| 139 | 27 | Master/slave unit setting error | |
| 140 | 28 | Other setting error | |
| 141 | 29 | Connection unit number error in wired remote controller system | |
| 149 | 31 | Indoor unit power supply abnormal | |
| 150 | 32 | Indoor unit main PCB error | |
| 151 | 33 | Indoor unit display PCB error | - |
| 152 | 34 | Power relay error | - |
| 152 | 34 | Indeer unit manual auto switch error | - |
| 103 | 30 | Hostor rolov error | - |
| 154 | 36 | neater relay error | 4 |
| 155 | 37 | Indoor unit transmission PCB error | 4 |
| 156 | 38 | Network convertor PCB error | 4 |
| 157 | 39 | Indoor unit power supply circuit error | |
| 158 | 3A | Indoor unit communication circuit (wired remote controller) error | |
| 165 | 41 | Indoor unit room temp. thermistor error | |
| 166 | 42 | Indoor unit heat ex. temp. thermistor error | |
| 167 | 43 | Humidity sensor error | |
| 168 | 44 | Light sensor error | - |
| 160 | 45 | Gas sensor error | - |
| 103 | 45 | | - |
| 170 | 40 | | - |
| 171 | 4/ | | - |
| 172 | 48 | Warm water flow rate sensor error | |
| 173 | 49 | Heater sensor error | RAC |
| 181 | 51 | Indoor unit fan motor 1 error | Inverter models G |
| 182 | 52 | Indoor unit coil (expansion valve) error | series |
| 183 | 53 | Indoor unit water drain abnormal | |
| 184 | 54 | Air cleaning function error | VRF |
| 185 | 55 | Filter cleaning function error | J-II / V-II / VR-II |
| 186 | 56 | Water circulation nump error | Series |
| 100 | 57 | Indeer unit demost error | |
| 107 | 57 | | - |
| 188 | 58 | Indoor unit intake grille position error | _ |
| 189 | 59 | Indoor unit fan motor 2 error | |
| 195 | 50 | Indoor unit miscellaneous error | |
| 197 | 61 | Outdoor unit power supply abnormal | |
| 198 | 62 | Outdoor unit main PCB error | |
| 199 | 63 | Outdoor unit inverter PCB error | |
| 200 | 64 | Outdoor unit active filter/PFC circuit error | |
| 201 | 65 | Outdoor unit IPM error | |
| 202 | 66 | Convertor distinction error | |
| 203 | 67 | Outdoor unit power short interruption error (protective operation) | 1 |
| 204 | 23 | Outdoor unit magnetic relay error | 1 |
| 204 | 03 | Outdoor unit transmission PCB error | - |
| 203 | 40 | | - |
| 200 | 74 | Outdoor unit discharge temp, thermister error | - |
| 213 | 71 | | - |
| 214 | /2 | Outdoor unit compressor temp. thermistor error | 4 |
| 215 | 73 | Outdoor unit neat ex. temp. thermistor error | 4 |
| 216 | 74 | Outside air temp. thermistor error | 4 |
| 217 | 75 | Outdoor unit suction gas temp. thermistor error | 4 |
| 218 | 76 | Outdoor unit operating valve thermistor error | |
| 219 | 77 | Outdoor unit heat sink temp. thermistor error | |
| 220 | 78 | Expansion valve temperature sensor error | |
| 229 | 81 | Receiver liquid level detection sensor error | 7 |
| 230 | 82 | Outdoor unit sub-cool heat ex, gas temp, thermistor error | 1 |
| 231 | 83 | Outdoor unit liquid pipe temp, thermistor error | 1 |
| 232 | 84 | | 1 |
| 202 | 05 | Fon motor current conser error | - |
| 200 | 00 | | - |
| 234 | 86 | Outdoor unit pressure sensor error | - |
| 235 | 87 | Oil sensor error | 4 |
| 245 | 91 | Outdoor unit compressor 1 error | 4 |
| 246 | 92 | Outdoor unit compressor 2 error | 4 |
| 247 | 93 | Outdoor unit compressor start up error | |
| 248 | 94 | Outdoor unit trip detection | |
| 249 | 95 | Outdoor unit compressor motor control error | 7 |
| 250 | 96 | Open loop error(Field-weakening relevant) | RAC |
| 251 | 97 | Outdoor unit fan motor 1 error | Inverter models G |
| 252 | 08 | Outdoor unit fan motor 2 error | spripe |
| - ZJZ | | | 35053 |

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| 253 | 99 | Outdoor unit 4-way valve error | |
|-----|----|---|---------------------|
| 254 | 9A | Outdoor unit coil (expansion valve) error | VRF |
| 259 | 9U | Outdoor unit miscellaneous error | J-II / V-II / VR-II |
| 261 | A1 | Outdoor unit discharge temperature 1 error | Series |
| 262 | A2 | Outdoor unit discharge temperature 2 error | |
| 263 | A3 | Outdoor unit compressor temperature error | |
| 264 | A4 | Outdoor unit pressure error 1 | |
| 265 | A5 | Outdoor unit pressure error 2 | |
| 266 | A6 | Outdoor unit heat exchanger temperature error | |
| 267 | A7 | Suction temperature abnormal | |
| 268 | A8 | Poor refrigerant circulation | |
| 269 | A9 | Current overload error | |
| 270 | AA | Outdoor unit special operation error | |
| 271 | AC | Ambient temperature error | |
| 272 | AF | Out of the possible operation range | |
| 273 | AJ | Freeze protection operated | |
| 277 | C1 | Peripheral unit main PCB error | |
| 278 | C2 | Peripheral unit transmission PCB error | |
| 279 | C3 | Peripheral unit PCB 1 error | |
| 280 | C4 | PCB 2 error | |
| 281 | C5 | PCB 3 error | |
| 282 | C6 | PCB 4 error | |
| 283 | C7 | PCB 5 error | |
| 284 | C8 | Peripheral unit input device error | |
| 285 | C9 | Display device error | |
| 286 | CA | EEPROM error | |
| 287 | CC | Peripheral unit sensor error | |
| 288 | CF | Peripheral unit external connector error (USB memory) | |
| 289 | CJ | Other parts error | |
| 293 | F1 | System tool software error | |
| 294 | F2 | System tool adaptor error | |
| 295 | F3 | System tool interface error | |
| 296 | F4 | System tool environment error | |
| 309 | J1 | RB unit error | |
| 310 | J2 | Branch boxes error | |
| 311 | J3 | Total heat exchanging, ventilation unit error | |
| 312 | J4 | Domestic hot water unit error | |
| 313 | J5 | Zone control interface error | |

7.2 VRF V/S/J series

| Error in KNX | Error in Remote Controller | Error Description | | | | | | |
|-----------------|---|---|--------------|--|--|--|--|--|
| -1 | NA | Communication Error (Hex:FFFF, Dec:65535) | | | | | | |
| 0 | 00 | No Error | | | | | | |
| 2 | 02 | Model information Error | | | | | | |
| 4 | 04 | Power frequency Error | | | | | | |
| 6 | 06 | EEPROM access Error | | | | | | |
| 7 | 07 | EEPROM deletion Error | | | | | | |
| 9 | 09 | Room sensor Error | | | | | | |
| 10 | 0A | Heat Ex. Middle Sensor Error | VRF V/S/J | | | | | |
| 11 | 0b | Heat Ex. Inlet sensor Error | | | | | | |
| 12 | 0C | Heat Ex. Outlet sensor Error | | | | | | |
| 13 | 0d | Blower temperature thermistor Error | | | | | | |
| 17 | 11 | Drain Error | Selles | | | | | |
| 18 | 12 | Room temperature Error | | | | | | |
| 19 | 13 | Indoor fan motor Error | | | | | | |
| 20 | 18 | Standard wired remote Error Standard wired token Error | | | | | | |
| 31 | 1F | Network communication Error | 1 | | | | | |
| 32 | 20 | Node setting error | 1 | | | | | |
| 33 | 33 21 Communication Error between Main PCB & Transmission PCB | | | | | | | |
| 34 | 32 | Outdoor unit Error | 7 | | | | | |

In case you detect an error code not listed in any of the different tables above, please contact your nearest FGL technical support service.



8 Appendix A – Communication Objects Table

| ΤΟΡΙϹ | OBJECT | NAME | LENGTH | DATAPOINT TY | YPE | | FLA | ٩GS | | FUNCTION | |
|-----------|--------|-------------------------------|--------|-------------------|--------|---|-----|-----|------------|---|--|
| | NUMBER | | | DPT_NAME | DPT_ID | R | W | Т | U | | |
| On/Off | 0 | Control_ On/Off | 1 bit | DPT_Switch | 1.001 | | W | т | 0 - | - Off; 1-On | |
| | 1 | Control_ Economy | 1 bit | DPT_Bool | 1.002 | | W | т | 1 · | – Set ECONOMY | |
| | 2 | Control_ Mode | 1 byte | DPT_HVACContrMode | 20.105 | | W | Т | 0 · 14 | - Auto; 1 - Heat; 3 - Cool; 9 - Fan; 4 - Dry | |
| | 3 | Control_ Mode Cool/Heat | 1 bit | DPT_Heat/Cool | 1.100 | | W | Т | 0 · | - Cool; 1 - Heat; | |
| | 4 | Control_ Mode Cool & On | 1 byte | DPT_Scaling | 5.001 | | W | Т | 0% | % - Off; 0.1%-100% - On + Cool | |
| | 5 | Control_ Mode Heat & On | 1 byte | DPT_Scaling | 5.001 | | W | Т | 0% | % - Off; 0.1%-100% - On + Heat | |
| Mada | 6 | Control_ Mode Auto | 1 bit | DPT_Bool | 1.002 | | W | т | 1 · | - Auto | |
| Mode | 7 | Control_ Mode Heat | 1 bit | DPT_Bool | 1.002 | | W | Т | 1 · | - Heat | |
| | 8 | Control_ Mode Cool | 1 bit | DPT_Bool | 1.002 | | W | т | 1 · | - Cool | |
| | 9 | Control_ Mode Fan | 1 bit | DPT_Bool | 1.002 | | W | т | 1 · | - Fan | |
| | 10 | Control_ Mode Dry | 1 bit | DPT_Bool | 1.002 | | W | Т | 1 · | - Dry | |
| | | Control_Mode +/- | 1 bit | DPT_Step | 1.007 | | W | | 0 · | - Decrease; 1 - Increase | |
| | | Control_ Mode +/- | 1 bit | DPT_UpDown | 1.008 | | W | | 0 · | - Up; 1 - Down | |
| | | Control_ Fan Speed / 3 Speeds | 1 byte | DPT_Scaling | 5.001 | | w | т | 0% 83 | - %-49% - Speed 1; 50%-82% - Speed 2; 3%-100% - Speed 3 | |
| Fan Speed | 12 | Control_ Fan Speed / 3 Speeds | 1 byte | DPT_Enumerated | 5.010 | | W | т | 1 - | - Speed 1; 2 - Speed 2; 3 Speed 3 | |
| | | Control_ Fan Speed / 4 Speeds | 1 byte | DPT_Scaling | 5.001 | | W | Т | 0% 63 | %-37% - Speed 1; 38%-62% - Speed 2; 3%-87% - Speed 3; 88%-100% - Speed 4 | |
| | | Control_ Fan Speed / 4 Speeds | 1 byte | DPT_Enumerated | 5.010 | | W | Т | 1 · 4 · | - Speed 1; 2 - Speed 2; 3 Speed 3; - Speed 4 | |
| | 13 | Control_ Fan Speed Man/Auto | 1 bit | DPT_Bool | 1.002 | | W | Т | 0 - | – Manual; 1 - Auto | |



| | 14 | Control_ Fan Speed 1 | 1 bit | DPT_Bool | 1.002 | w | т | 1 – Set Fan Speed 1 |
|------------|----|-----------------------------|--------|----------------|-------|---|---|--|
| Fan Speed | 15 | Control_ Fan Speed 2 | 1 bit | DPT_Bool | 1.002 | w | Т | 1 – Set Fan Speed 2 |
| - | 16 | Control_ Fan Speed 3 | 1 bit | DPT_Bool | 1.002 | W | Т | 1 – Set Fan Speed 3 |
| | 17 | Control_ Fan Speed 4 | 1 bit | DPT_Bool | 1.002 | w | Т | 1 – Set Fan Speed 4 |
| | 18 | Control_ Fan Speed +/- | 1 bit | DPT_Step | 1.007 | w | | 0 - Decrease; 1 - Increase |
| | | Control_ Fan Speed +/- | 1 bit | DPT_UpDown | 1.008 | w | | 0 - Up; 1 - Down |
| | 19 | Control_ Vanes U-D / 4 pos | 1 byte | DPT_Scaling | 5.001 | w | т | 0%-37% - Pos1; 38%-62% - Pos2; 63%-87% Pos3; 88%-100% - Pos4 |
| | _ | Control_ Vanes U-D / 4 pos | 1 byte | DPT_Enumerated | 5.010 | w | т | 1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4 |
| | 20 | Control_ Vanes U-D Pos1 | 1 bit | DPT_Bool | 1.002 | w | Т | 1 – Set Position 1 |
| | 21 | Control_ Vanes U-D Pos2 | 1 bit | DPT_Bool | 1.002 | w | Т | 1 – Set Position 2 |
| Vanes | 22 | Control_ Vanes U-D Pos3 | 1 bit | DPT_Bool | 1.002 | w | Т | 1 – Set Position 3 |
| UD-DOWN | 23 | Control_ Vanes U-D Pos4 | 1 bit | DPT_Bool | 1.002 | w | Т | 1 – Set Position 4 |
| | 24 | Control_ Vanes U-D Swing | 1 bit | DPT_Bool | 1.002 | w | Т | 0 - Off; 1 - Swing |
| | 25 | Control_ Vanes U-D +/- | 1 bit | DPT_Step | 1.007 | w | | 0 - Decrease; 1 - Increase |
| | 25 | Control_ Vanes U-D +/- | 1 bit | DPT_UpDown | 1.008 | w | | 0 - Up; 1 - Down |
| | 26 | Control_ Vanes U-D Move Pos | 1 bit | DPT_Step | 1.017 | w | | 0 - Move position; 1 - Move position |
| | 27 | Control_ Vanes L-R / 5 pos | 1 byte | DPT_Scaling | 5.001 | w | т | 0%-29% - Pos1; 30%-49% - Pos2; 50%-69% Pos3; 70%-89% - Pos4; 90%-100% - Pos5 |
| Manaa | | Control_ Vanes L-R / 5 pos | 1 byte | DPT_Enumerated | 5.010 | w | Т | 1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4; 5 - Pos5 |
| Left-Right | 28 | Control_ Vanes L-R Pos1 | 1 bit | DPT_Bool | 1.002 | W | т | 1 – Set Position 1 |
| | 29 | Control_ Vanes L-R Pos2 | 1 bit | DPT_Bool | 1.002 | w | Т | 1 – Set Position 2 |
| | 30 | Control_ Vanes L-R Pos3 | 1 bit | DPT_Bool | 1.002 | w | Т | 1 – Set Position 3 |



| | 31 | Control_ Vanes L-R Pos4 | 1 bit | DPT_Bool | 1.002 | W | т | 1 – Set Position 4 |
|-------------|----|-------------------------------------|---------|------------------|--------|---|---|---|
| - | 32 | Control_ Vanes L-R Pos5 | 1 bit | DPT_Bool | 1.002 | W | т | 1 – Set Position 5 |
| - | 33 | Control_ Vanes L-R Swing | 1 bit | DPT_Bool | 1.002 | W | т | 0 - Off; 1 - Swing |
| - | 24 | Control_ Vanes L-R +/- | 1 bit | DPT_Step | 1.007 | W | | 0 - Decrease; 1 - Increase |
| | 34 | Control_ Vanes L-R +/- | 1 bit | DPT_UpDown | 1.008 | W | | 0 - Up; 1 - Down |
| - | 35 | Control_ Vanes L-R Move Pos | 1 bit | DPT_Step | 1.007 | W | | 0 – Move position; 1 – Move position |
| | 36 | Control_ Setpoint Temperature | 2 bytes | DPT_Value_Temp | 9.001 | W | т | (°C) |
| Temperature | 37 | Control_ Setpoint Temp +/- | 1 bit | DPT_Step | 1.007 | W | | 0 - Decrease; 1 - Increase |
| | | Control_ Setpoint Temp +/- | 1 bit | DPT_UpDown | 1.008 | W | | 0 - Up; 1 - Down |
| | 38 | Control_ Ambient Temp | 2 bytes | DPT_Value_Temp | 9.001 | W | т | (°C) |
| | 39 | Control_ Window Contact Status | 1 bit | DPT_OpenClose | 1.009 | W | т | 0 - Open; 1 - Closed |
| | | Control_ Switch Off Timeout | 1 bit | DPT_Start | 1.010 | W | т | 0 - Stop; 1 - Start |
| rimeout | 40 | Control_ Occupancy | 1 bit | DPT_Occupancy | 1.018 | W | т | 0 - Not Occupied; 1 - Occupied |
| | 41 | Control_ Sleep Timeout | 1 bit | DPT_Start | 1.010 | W | т | 0 - Stop; 1 - Start |
| Locking | 42 | Control_ Lock Remote Control | 1 bit | DPT_Bool | 1.002 | W | т | 0 - Unlocked; 1 - Locked |
| Locking | 43 | Control_ Lock Control Objects | 1 bit | DPT_Bool | 1.002 | W | т | 0 - Unlocked; 1 - Locked |
| | 44 | Control_ Power Mode | 1 bit | DPT_Start | 1.010 | W | т | 0 - Stop; 1 - Start |
| Special | 45 | Control_ Econo Mode | 1 bit | DPT_Start | 1.010 | W | т | 0 - Stop; 1 - Start |
| Modes | 46 | Control_ Additional Heat | 1 bit | DPT_Start | 1.010 | W | Т | 0 - Stop; 1 - Start |
| | 47 | Control_ Additional Cool | 1 bit | DPT_Start | 1.010 | W | т | 0 - Stop; 1 - Start |
| Scenes | 48 | Control_ Save / Control_ Exec Scene | 1 byte | DPT_SceneControl | 18.001 | W | т | 128 to 132 - Save Scene 1 to 5; 0 to 4 - Exec. Scene 1 to 5; |
| Scenes | 49 | Control_ Store Scene1 | 1 bit | DPT_Bool | 1.002 | w | | 1 - Store Scene |



| | 50 | Control_ Store Scene2 | 1 bit | DPT_Bool | 1.002 | | W | | 1 - Store Scene |
|------------|----|--------------------------|--------|-------------------|--------|---|---|---|--|
| - | 51 | Control_ Store Scene3 | 1 bit | DPT_Bool | 1.002 | | W | | 1 - Store Scene |
| | 52 | Control_ Store Scene4 | 1 bit | DPT_Bool | 1.002 | | W | | 1 - Store Scene |
| | 53 | Control_ Store Scene5 | 1 bit | DPT_Bool | 1.002 | | W | | 1 - Store Scene |
| | 54 | Control_ Execute Scene1 | 1 bit | DPT_Bool | 1.002 | | W | Т | 1 - Execute Scene |
| | 55 | Control_ Execute Scene2 | 1 bit | DPT_Bool | 1.002 | | W | Т | 1 - Execute Scene |
| | 56 | Control_ Execute Scene3 | 1 bit | DPT_Bool | 1.002 | | W | т | 1 - Execute Scene |
| | 57 | Control_ Execute Scene4 | 1 bit | DPT_Bool | 1.002 | | W | Т | 1 - Execute Scene |
| | 58 | Control_ Execute Scene5 | 1 bit | DPT_Bool | 1.002 | | W | Т | 1 - Execute Scene |
| Dischling | E0 | Control_ Disable Input 1 | 1 bit | DPT_Bool | 1.002 | | W | Т | 0 - False; 1 - True |
| | 39 | Control_ Disable Input 1 | 1 bit | DPT_Enable | 1.003 | | W | т | 0 - Disable; 1 - Enable |
| | 60 | Control_ Disable Input 2 | 1 bit | DPT_Bool | 1.002 | | W | Т | 0 - False; 1 - True |
| | 00 | Control_ Disable Input 2 | 1 bit | DPT_Enable | 1.003 | | W | Т | 0 - Disable; 1 - Enable |
| Disability | 61 | Control_ Disable Input 3 | 1 bit | DPT_Bool | 1.002 | | W | Т | 0 - False; 1 - True |
| | 01 | Control_ Disable Input 3 | 1 bit | DPT_Enable | 1.003 | | W | Т | 0 - Disable; 1 - Enable |
| | 67 | Control_ Disable Input 4 | 1 bit | DPT_Bool | 1.002 | | W | Т | 0 - False; 1 - True |
| | 02 | Control_ Disable Input 4 | 1 bit | DPT_Enable | 1.003 | | W | Т | 0 - Disable; 1 - Enable |
| On/Off | 64 | Status_ On/Off | 1 bit | DPT_Switch | 1.001 | R | | т | 0 - Off; 1-On |
| | 65 | Status_ Economy | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 -Economy is active |
| | 66 | Status_ Mode | 1 byte | DPT_HVACContrMode | 20.105 | R | | Т | 0 - Auto; 1 - Heat; 3 - Cool; 9 - Fan; 14 - Dry |
| Mode | 67 | Status_ Mode Cool/Heat | 1 bit | DPT_Heat/Cool | 1.100 | R | | Т | 0 - Cool; 1 - Heat |
| | 68 | Status_ Mode Auto | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Auto |
| | 69 | Status_ Mode Heat | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Heat |



| | | 1 | 1 | | 1 | I I | I | I. | 1 |
|-----------|----|-------------------------------|----------|-------------------|--------|-----|---|----|--|
| | 70 | Status_ Mode Cool | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Cool |
| | 71 | Status_ Mode Fan | 1 bit | DPT_Bool | 1.002 | R | | т | 1 - Fan |
| | 72 | Status_ Mode Dry | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Dry |
| | 73 | Status_ Mode Text | 14 bytes | DPT_String_8859_1 | 16.001 | R | | т | ASCII String |
| | | Status_ Fan Speed / 3 Speeds | 1 byte | DPT_Scaling | 5.001 | | w | т | 33% - Speed 1; 67% - Speed 2; 100% - Speed 3; |
| | 74 | Status_ Fan Speed / 3 Speeds | 1 byte | DPT_Enumerated | 5.010 | | w | Т | 1 - Speed 1; 2 - Speed 2; 3 Speed 3; |
| | | Status_ Fan Speed / 4 Speeds | 1 byte | DPT_Scaling | 5.001 | | w | т | 25% - Speed 1; 50% - Speed 2; 75% - Speed 3; 100% - Speed 4 |
| | | Status_ Fan Speed / 4 Speeds | 1 byte | DPT_Enumerated | 5.010 | | w | т | 1 - Speed 1; 2 - Speed 2; 3 Speed 3; 4 Speed 4 |
| Ean Speed | 75 | Status_ Fan Speed Manual/Auto | 1 bit | DPT_Bool | 1.002 | R | | т | 0 – Manual; 1 - Auto |
| ran Speed | 76 | Status_ Fan Speed 1 | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 – Fan is in speed 1 |
| | 77 | Status_ Fan Speed 2 | 1 bit | DPT_Bool | 1.002 | R | | т | 1 – Fan is in speed 2 |
| | 78 | Status_ Fan Speed 3 | 1 bit | DPT_Bool | 1.002 | R | | т | 1 - Fan is in Speed 3 |
| | 79 | Status_ Fan Speed 4 | 1 bit | DPT_Bool | 1.002 | R | | т | 1 - Fan is in Speed 4 |
| | 80 | Status_ Fan Speed Text | 14 bytes | DPT_String_8859_1 | 16.001 | R | | т | ASCII String |
| | 91 | Status_ Vanes U-D / 4 pos | 1 byte | DPT_Scaling | 5.001 | R | | т | 25% - Pos1; 50% - Pos2; 75% - Pos3; 100% - Pos4 |
| | 01 | Status_ Vanes U-D / 4 pos | 1 byte | DPT_Enumerated | 5.010 | R | | т | 1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4 |
| | 82 | Status_ Vanes U-D Pos1 | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Position 1 |
| Vanes | 83 | Status_ Vanes U-D Pos2 | 1 bit | DPT_Bool | 1.002 | R | | т | 1 - Position 2 |
| UP-Down | 84 | Status_ Vanes U-D Pos3 | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Position 3 |
| | 85 | Status_ Vanes U-D Pos4 | 1 bit | DPT_Bool | 1.002 | R | | т | 1 - Position 4 |
| - | 86 | Status_ Vanes U-D Swing | 1 bit | DPT_Bool | 1.002 | R | | т | 0 – Off; 1 - Swing |
| | 87 | Status_ Vanes U-D Text | 14 bytes | DPT_String_8859_1 | 16.001 | R | | Т | ASCII String |



| | | Status_ Vanes L-R / 5 pos | 1 byte | DPT_Scaling | 5.001 | R | | т | 20% - Pos1; 40% - Pos2; 60% - Pos3; 80% - Pos4; 100% - Pos5 |
|------------------|-----|-------------------------------------|----------|-------------------|--------|---|---|---|--|
| | 88 | Status_ Vanes L-R / 5 pos | 1 byte | DPT_Enumerated | 5.010 | R | | Т | 1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4; 5 - Pos5 |
| | 89 | Status_ Vanes L-R Pos1 | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Position 1 |
| | 90 | Status_ Vanes L-R Pos2 | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Position 2 |
| Vanes | 91 | Status_ Vanes L-R Pos3 | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Position 3 |
| Left-Right | 92 | Status_ Vanes L-R Pos4 | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Position 4 |
| | 93 | Status_ Vanes L-R Pos5 | 1 bit | DPT_Bool | 1.002 | R | | Т | 1 - Position 5 |
| | 94 | Status_ Vanes L-R Swing | 1 bit | DPT_Bool | 1.002 | R | | Т | 0 – Off; 1 - Swing |
| | 95 | Status_ Vanes L-R Text | 14 bytes | DPT_String_8859_1 | 16.001 | R | | Т | ASCII String |
| Tomporature | 96 | Status_ AC Setpoint Temp | 2 bytes | DPT_Value_Temp | 9.001 | R | | Т | (°C) |
| remperature | 97 | Status_ AC Ambient Ref Temp | 2 bytes | DPT_Value_Temp | 9.001 | R | | т | (°C) |
| | 98 | Status_ Error/Alarm | 1 bit | DTP_Alarm | 1.005 | R | | т | 0 - No Alarm; 1 - Alarm |
| Error | 99 | Status_ Error Code | 2 bytes | Enumerated | | R | | Т | 0 - No Error; Any other see user's manual |
| | 100 | Status_ Error Text code | 14 bytes | DPT_String_8859_1 | 16.001 | R | | Т | 4 char FJ Error; Empty - None |
| | 101 | Status_ Lock Remote Control | 1 bit | DPT_Bool | 1.002 | | w | Т | 0 - Unlocked; 1 - Locked |
| LOCKING | 102 | Status_ Lock Remote Control Objects | 1 bit | DPT_Bool | 1.002 | | w | Т | 0 - Unlocked; 1 - Locked |
| | 103 | Status_ Power Mode | 1 bit | DPT_Switch | 1.001 | R | | Т | 0 - Off; 1-On |
| | 104 | Status_ Econo Mode | 1 bit | DPT_Switch | 1.001 | R | | Т | 0 - Off; 1-On |
| Special Modes | 105 | Status_ Additional Heat | 1 bit | DPT_Switch | 1.001 | R | | т | 0 - Off; 1-On |
| | 106 | Status_ Additional Cool | 1 bit | DPT_Switch | 1.001 | R | | Т | 0 - Off; 1-On |



| Counter | 107 | Status_ Operation Hour Counter | 2 bytes | DPT_Value_2_Ucount | 7.007 | R | т | Number of operating hours |
|---------|------------|---------------------------------|---------|--------------------|--------|---|---|--------------------------------------|
| Scene | 108 | Status_ Current Scene | 1 byte | DPT_SceneNumber | 17.001 | R | Т | 0 to 4 - Scene 1 to 5; 63 - No Scene |
| | 109 | Status_ Inx - Switching | 1 bit | DPT_Switch | 1.001 | R | Т | 0 - Off; 1-On |
| | 111 113 | Status_ Inx - Dimming - On/Off | 1 bit | DPT_Switch | 1.001 | R | Т | 0 - Off; 1 - On |
| | 115 | Status_ Inx - Shut/Blind - Step | 1 bit | DPT_ShutterBlinds | 1.023 | R | т | 0 – Step Up; 1 – Step Down |
| | | Status_ Inx - Value | 1 byte | DPT_Value_1_Ucount | 5.010 | R | Т | 1 byte unsigned value |
| Binary | | Status_ Inx - Value | 2 bytes | DPT_Value_2_Ucount | 7.001 | R | т | 2 byte unsigned value |
| Inputs | 110 | Status_ Inx - Value | 2 bytes | DPT_Value_2_Count | 8.001 | R | т | 2 byte signed value |
| | 112 | Status_ Inx - Value | 2 bytes | DPT_Value_Temp | 9.001 | R | т | Temperature (°C) |
| | 114 | Status_ Inx - Value | 4 bytes | DPT_Value_4_Ucount | 12.001 | R | т | 4 byte unsigned value |
| | 116 | Status_ Inx - Dimming - Step(%) | 1 bit | DPT_Control_Dimm. | 3.007 | R | т | Dimming step |
| | | Status_ Inx - Shut/Blind -Move | 1 bit | DPT_ShutterBlinds | 1.023 | R | Т | 0 – Move Up; 1 – Move Down |



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