

# **IntesisBox<sup>®</sup>**

## FJ-RC-KNX-1i v1.1

### User's Manual

Issue Date: 05/2015  
r1.3 eng

## © Intesis Software S.L. 2015 All Rights Reserved.

Information in this document is subject to change without notice. The software described in this document is furnished under a license agreement or Nondisclosure agreement. The software may be used only in accordance with the terms of those agreements. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or any means electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of Intesis Software S.L.

Intesis Software S.L.  
Milà I Fontanals, 1 bis  
08700 Igualada  
Spain

### TRADEMARKS

All trademarks and trade names used in this document are acknowledged to be the copyright of their respective holders.

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

Application's Program Version: 1.1

Order Code: **FJ-RC-KNX-1i**

**INDEX**

|       |                                                                    |    |
|-------|--------------------------------------------------------------------|----|
| 1     | Presentation .....                                                 | 6  |
| 2     | Connection .....                                                   | 7  |
| 2.1   | FJ-RC-KNX-1i with FGL Remote Controller .....                      | 7  |
| 3     | Configuration and setup .....                                      | 7  |
| 4     | ETS Parameters .....                                               | 8  |
| 4.1   | General dialog .....                                               | 9  |
| 4.1.1 | Address in Fujitsu bus (3 wire) .....                              | 9  |
| 4.1.2 | Fujitsu Error Type .....                                           | 9  |
| 4.1.3 | Send READs for Control_ objects on bus recovery .....              | 9  |
| 4.1.4 | Scene to load on bus recovery / startup .....                      | 10 |
| 4.1.5 | Disallow control from remote controller .....                      | 10 |
| 4.1.6 | Enable func "Control_ Lock Control Obj" .....                      | 11 |
| 4.1.7 | Enable func "Operating Hours Counter" .....                        | 11 |
| 4.1.8 | Enable object "Error Code [2byte]" .....                           | 12 |
| 4.1.9 | Enable object "Error Text Code [14byte]" .....                     | 12 |
| 4.2   | Mode Configuration dialog .....                                    | 13 |
| 4.2.1 | Enable "Mode Cool/Heat" objects .....                              | 13 |
| 4.2.2 | Enable PID-Compat. Scaling Mode Objects (for Control) .....        | 13 |
| 4.2.3 | Enable use of + / - object for Mode .....                          | 14 |
| 4.2.4 | Enable use of bit-type Mode objects (for control) .....            | 15 |
| 4.2.5 | Enable use of bit-type Mode objects (for status) .....             | 15 |
| 4.2.6 | Enable use of Text object for Mode .....                           | 16 |
| 4.3   | Special Modes Configuration dialog .....                           | 16 |
| 4.3.1 | Enable use of ECONOMY mode (AC feature) .....                      | 17 |
| 4.3.2 | Enable use of POWER mode .....                                     | 17 |
| 4.3.3 | Enable use of ECONOMY mode .....                                   | 18 |
| 4.3.4 | Enable use of ADDITIONAL HEATING mode .....                        | 19 |
| 4.3.5 | Enable use of ADDITIONAL COOLING mode .....                        | 20 |
| 4.4   | Fan Speed Configuration dialog .....                               | 21 |
| 4.4.1 | Available fanspeeds in Indoor Unit .....                           | 21 |
| 4.4.2 | DPT object type for fanspeed .....                                 | 21 |
| 4.4.3 | Enable use of +/- object for Fan Speed .....                       | 23 |
| 4.4.4 | Enable "Fan Speed Man/Auto" objects (for Control and Status) ..... | 24 |
| 4.4.5 | Enable use of bit-type Fan Speed objects (for Control) .....       | 24 |
| 4.4.6 | Enable use of bit-type Fan Speed objects (for Status) .....        | 24 |
| 4.4.7 | Enable use of Text object for Fan Speed .....                      | 24 |
| 4.5   | Vanes Up-Down Configuration dialog .....                           | 25 |
| 4.5.1 | Indoor unit has U-D Vanes .....                                    | 25 |
| 4.5.2 | Type of Vanes Control .....                                        | 26 |
| 4.5.3 | Available U-D positions in Indoor Unit .....                       | 26 |
| 4.5.4 | DPT object type for Vanes Up-Down .....                            | 27 |
| 4.5.5 | Enable use of +/- object for Vanes U-D .....                       | 28 |
| 4.5.6 | Enable use of bit-type Vane U-D objects (for Control) .....        | 29 |
| 4.5.7 | Enable use of bit-type Vane U-D objects (for Status) .....         | 29 |
| 4.5.8 | Enable "Vanes U-D Swing" objects (for control and status) .....    | 30 |
| 4.5.9 | Enable use of Text object for Vane U-D .....                       | 30 |
| 4.6   | Vanes Left-Right Configuration dialog .....                        | 31 |
| 4.6.1 | Indoor unit has L-R Vanes .....                                    | 31 |
| 4.6.2 | Type of Vanes Control .....                                        | 31 |
| 4.6.3 | Available L-R positions in Indoor Unit .....                       | 32 |
| 4.6.4 | DPT object type for Vanes Left-Right .....                         | 33 |
| 4.6.5 | Enable use of +/- object for Vanes L-R .....                       | 34 |
| 4.6.6 | Enable use of bit-type Vane L-R objects (for Control) .....        | 35 |
| 4.6.7 | Enable use of bit-type Vane L-R objects (for Status) .....         | 35 |
| 4.6.8 | Enable "Vanes L-R Swing" objects (for control and status) .....    | 36 |

|        |                                                               |    |
|--------|---------------------------------------------------------------|----|
| 4.6.9  | Enable use of Text object for Vane L-R.....                   | 36 |
| 4.7    | Temperature Configuration dialog.....                         | 37 |
| 4.7.1  | Periodic sending of "Status_ AC Setp".....                    | 37 |
| 4.7.2  | Transmission of "Status_ AC Ambient Ref Temp".....            | 37 |
| 4.7.3  | Enable use of +/- object for Setpoint Temp .....              | 38 |
| 4.7.4  | Enable limits on Control_ Setpoint obj .....                  | 38 |
| 4.7.5  | Ambient temp. ref. is provided from KNX .....                 | 39 |
| 4.8    | Scene Configuration dialog .....                              | 39 |
| 4.8.1  | Enable use of scenes .....                                    | 40 |
| 4.8.2  | Scenes can be stored from KNX bus .....                       | 40 |
| 4.8.3  | Enable use of bit objects for scene execution .....           | 41 |
| 4.8.4  | Scene "x" preset .....                                        | 41 |
| 4.9    | Switch-Off Timeouts Configuration dialog .....                | 43 |
| 4.9.1  | Enable use of Open Window / Switch off timeout function ..... | 43 |
| 4.9.2  | Enable use of Occupancy function .....                        | 45 |
| 4.9.3  | Enable use of SLEEP timeout .....                             | 47 |
| 4.10   | Binary Input "x" Configuration dialog .....                   | 48 |
| 4.10.1 | Enable use of Input "x" .....                                 | 48 |
| 4.10.2 | Contact type.....                                             | 48 |
| 4.10.3 | Debounce time .....                                           | 49 |
| 4.10.4 | Disabling function.....                                       | 49 |
| 4.10.5 | Function.....                                                 | 49 |
| 5      | Specifications .....                                          | 57 |
| 6      | AC Unit Types compatibility .....                             | 58 |
| 7      | Error Codes .....                                             | 59 |
| 7.1    | RAC and VRF J-II / V-II / VR-II series .....                  | 59 |
| 7.2    | VRF V / S / J series.....                                     | 61 |
| 8      | Appendix A – Communication Objects Table .....                | 62 |

# 1 Presentation



FJ-RC-KNX-1i 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 own AC unit, or in 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

## 2 Connection

### Connection of the FJ-RC-KNX-1i to the AC indoor unit

The FJ-RC-KNX-1i can be connected directly to the BWR (123) bus of the indoor unit (No FGL remote controller -RC from Now on- connected in the BWR bus) or with the FGL RC. See connection diagram below.

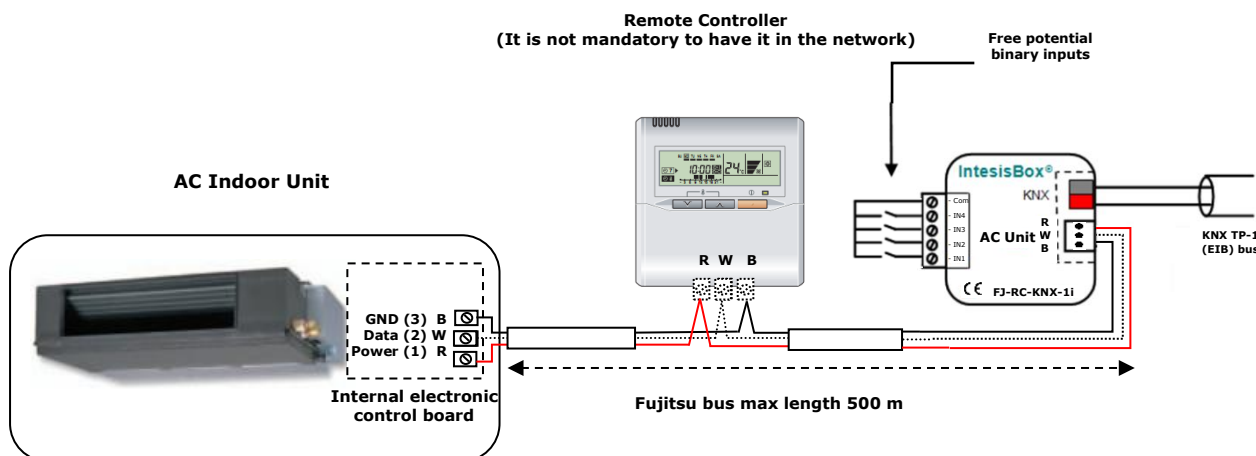


Figure 2.1 FJ-RC-KNX-1i connection diagrams

### 2.1 FJ-RC-KNX-1i with FGL Remote Controller

#### Connection of the FJ-RC-KNX-1i to the KNX bus:

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

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

**⚠ Important:** Please, connect first the IntesisBox on the KNX bus and then to the AC unit. Afterwards, power the AC unit and wait 30 seconds for the unit and the IntesisBox 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.

ETS database for this device can be downloaded from:

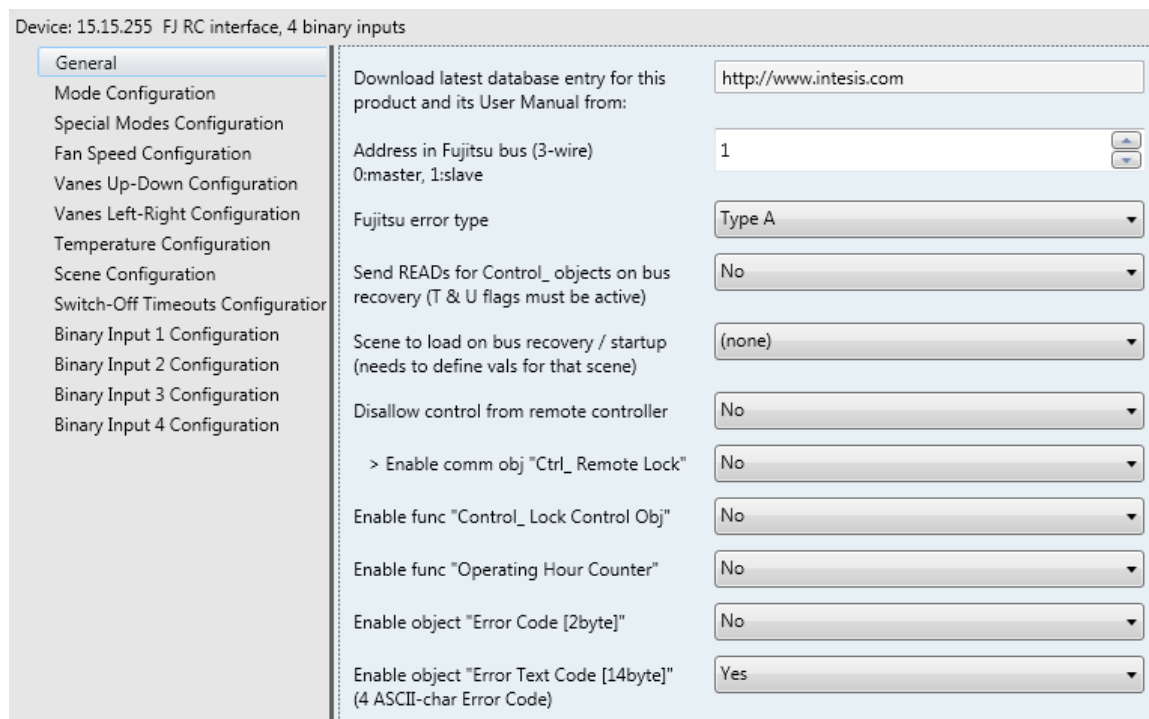
<http://www.intesis.com/download/eib/FJ-RC-KNX-1i.zip>

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 FJ-RC-KNX-1i. 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:

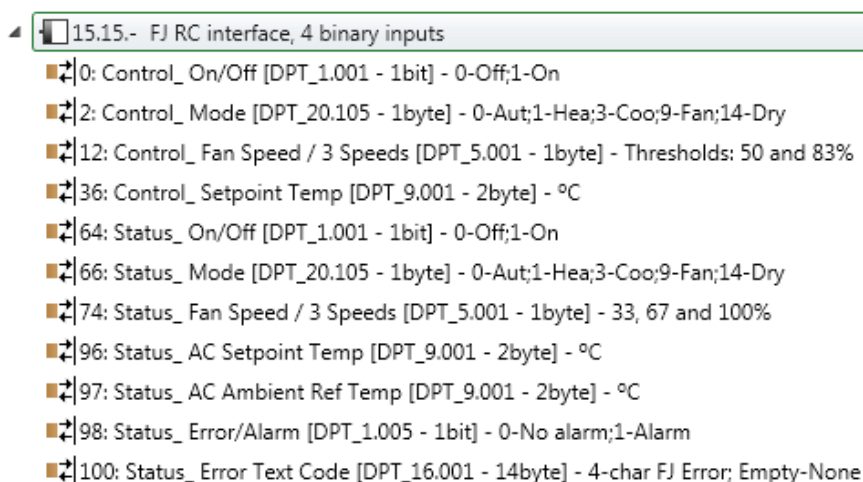


Device: 15.15.255 FJ RC interface, 4 binary inputs

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

**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.

- 
- 15.15.- FJ RC interface, 4 binary inputs
    - 0: Control\_ On/Off [DPT\_1.001 - 1bit] - 0-Off;1-On
    - 2: Control\_ Mode [DPT\_20.105 - 1byte] - 0-Aut;1-Hea;3-Coo;9-Fan;14-Dry
    - 12: Control\_ Fan Speed / 3 Speeds [DPT\_5.001 - 1byte] - Thresholds: 50 and 83%
    - 36: Control\_ Setpoint Temp [DPT\_9.001 - 2byte] - °C
    - 64: Status\_ On/Off [DPT\_1.001 - 1bit] - 0-Off;1-On
    - 66: Status\_ Mode [DPT\_20.105 - 1byte] - 0-Aut;1-Hea;3-Coo;9-Fan;14-Dry
    - 74: Status\_ Fan Speed / 3 Speeds [DPT\_5.001 - 1byte] - 33, 67 and 100%
    - 96: Status\_ AC Setpoint Temp [DPT\_9.001 - 2byte] - °C
    - 97: Status\_ AC Ambient Ref Temp [DPT\_9.001 - 2byte] - °C
    - 98: Status\_ Error/Alarm [DPT\_1.005 - 1bit] - 0-No alarm;1-Alarm
    - 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.

### 4.1.1 Address in Fujitsu bus (3 wire)

This parameter is used to select the address our gateway will have in the FGL bus.

- If set to **"0"** the gateway will act as a master in the FGL bus.
- If set to **"1"** the gateway will act as a slave in the FGL bus.

**Figure 4.3** Parameter detail

### 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.

**Figure 4.4** Parameter detail

| AC System Type                                          | Error Type |
|---------------------------------------------------------|------------|
| RAC Non inverter models<br>RAC inverter models          | Type A     |
| VRF V / S / J                                           | Type A     |
| RAC inverter model G* series<br>VRF J-II / V-II / VR-II | Type B     |

**Table 4.1** Parameter detail

### 4.1.3 Send READs for Control\_ objects on bus recovery

When this parameter is enabled, FJ-RC-KNX-1i 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 (needs to define vals for that scene) scene 2

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.
- 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-Unlocked;1-Locked

Disallow control from remote controller no

> Enable comm obj "Ctrl\_ Remote Lock" yes

Figure 4.7 Communication Object and parameter detail

➤ Enable comm obj "Ctrl Remote Lock":

If set to **"No"** the object will not be shown.

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*.

➡ 43 Control\_ Lock Control Objects [DPT\_1.002 - 1bit] - 0-Unlocked;1-Locked  
➡ 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 FJ-RC-KNX-1i.

➡ 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.

📡 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 **"0"** value is shown that means No error.

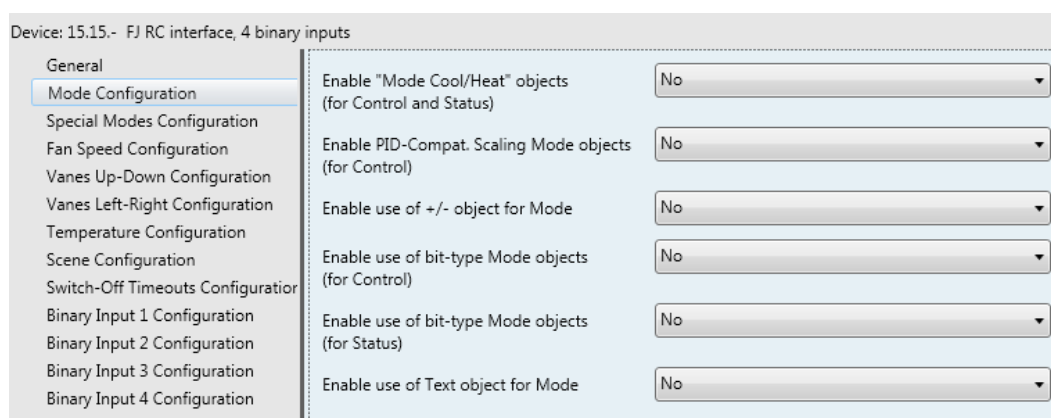
#### 4.1.9 Enable object "Error Text Code [14byte]"

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



**Figure 4.8** Default Mode Configuration dialog

All the parameters in this section are related with 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  
 67 *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 **“0”** 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.

 4 *Control\_ Mode Cool & On* [DPT\_5.001 - 1byte] - 0%-Off;0.1%-100%-On+Cool  
 5 *Control\_ Mode Heat & On* [DPT\_5.001 - 1byte] - 0%-Off;0.1%-100%-On+Heat

- 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.
    - FJ-RC-KNX-1i 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.

■ 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 lets choose 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:



- Up / Increase
- Down / Decrease

⚠ **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.

- 🔧 6 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
- 🔧 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.

- 🔧 68 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.

73 Status\_ Mode Text [DPT\_16.001 - 14byte] - ASCII String

- 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 (if available) | HEAT |
| > String when mode is COOL                | COOL |
| > String when mode is FAN                 | FAN  |
| > String when mode is DRY                 | DRY  |

Figure 4.10 Parameter detail

## 4.3 Special Modes Configuration dialog

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

|                                   |                                           |    |
|-----------------------------------|-------------------------------------------|----|
| General                           | Enable use of "ECONOMY" mode (AC feature) | No |
| Mode Configuration                | Enable use of POWER mode                  | No |
| Special Modes Configuration       | Enable use of ECONOMY mode                | No |
| Fan Speed Configuration           | Enable use of ADDITIONAL HEATING mode     | No |
| Vanes Up-Down Configuration       | Enable use of ADDITIONAL COOLING mode     | No |
| 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      |                                           |    |

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.

➡ 1 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 **"0"** 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.

➡ 44 Control\_ Power Mode [DPT\_1.010 - 1bit] - 0-Stop;1-Start  
➡ 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 "0" 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.

➡ 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 "0" 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.

➤ Action time for this mode (minutes):

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.

 46 *Control\_ Additional Heat [DPT\_1.010 - 1bit] - 0-Stop;1-Start*  
 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 "0" 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.

➡ 47 Control\_ Additional Cool [DPT\_1.010 - 1bit] - 0-Stop;1-Start  
➡ 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 "0" 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

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

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

**Figure 4.15** Default Fan Speed Configuration dialog

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

##### 4.4.1 Available fanspeeds in Indoor Unit

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

**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
  
- ➡ 12 Control\_ Fan Speed / 4 Speeds [DPT\_5.010 - 1byte] - Speed values: 1,2,3,4
- ➡ 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 bigger than **"4"** is sent to the *Control\_* object, then the maximum fan speed will be selected.

- When **"Scaling [DPT 5.001]"** is selected, *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%
- ➡ 74 Status\_ Fan Speed / 3 Speeds [DPT\_5.001 - 1byte] - 33, 67 and 100%
  
- ➡ 12 Control\_ Fan Speed / 4 Speeds [DPT\_5.001 - 1byte] - Thresholds: 38, 63 and 88%
- ➡ 74 Status\_ Fan Speed / 4 Speeds [DPT\_5.001 - 1byte] - 25, 50, 75 and 100%

Table next shows 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 +/- object for Fan Speed

This parameter shows/hides the *Control\_ Fan Speed +/-* communication object which lets increase/decrease the indoor unit fan speed by using two different datapoint types.

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

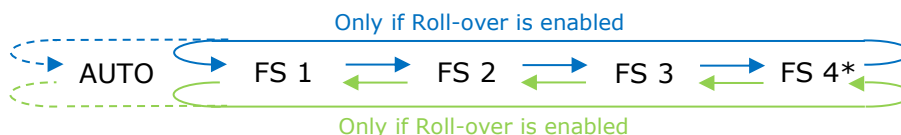
This parameter lets choose between the datapoints **0-Up / 1-Down [DPT\_1.008]** and **0-Decrease / 1-Increase [DPT\_1.007]** for the *Control\_ Fan Speed +/-* object.

➤ Does +/- sequence include fan speed Auto?

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

➤ Roll-over Speed at upper/lower limit

This parameter lets choose if roll-over will be enabled (**"Yes"**) or disabled (**"No"**) for the *Control\_ Fan Speed +/-* object.



- Up / Increase
- Down / Decrease
- \* If available

#### 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.

- 13 *Control\_ Fan Speed* Man/Auto [DPT\_1.002 - 1bit] - 0-Manual; 1-Auto
- 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.

- 14 *Control\_ Fan Speed* 1 [DPT\_1.002 - 1bit] - 1-Set Fan Speed 1
- 15 *Control\_ Fan Speed* 2 [DPT\_1.002 - 1bit] - 1-Set Fan Speed 2
- 16 *Control\_ Fan Speed* 3 [DPT\_1.002 - 1bit] - 1-Set Fan Speed 3
- 17 *Control\_ Fan Speed* 4 [DPT\_1.002 - 1bit] - 1-Set Fan 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 *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.

- 76 *Status\_ Fan Speed* 1 [DPT\_1.002 - 1bit] - 1-Fan in Speed 1
- 77 *Status\_ Fan Speed* 2 [DPT\_1.002 - 1bit] - 1-Fan in Speed 2
- 78 *Status\_ Fan Speed* 3 [DPT\_1.002 - 1bit] - 1-Fan in Speed 3
- 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.

- 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.

|                                                                |                             |
|----------------------------------------------------------------|-----------------------------|
| ASCII strings shown in comm object<br>"Status_ Fan Speed Text" | << 14-byte string values >> |
| > String when fan speed is AUTO                                | AUTO                        |
| > String when fan speed is 1                                   | SPEED 1                     |
| > String when fan speed is 2                                   | SPEED 2                     |
| > String when fan speed is 3                                   | SPEED 3                     |
| > String when fan speed is 4<br>(if available)                 | SPEED 4                     |

Figure 4.18 Parameter detail

## 4.5 Vanes Up-Down Configuration dialog

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

|                                   |                                                                             |                |
|-----------------------------------|-----------------------------------------------------------------------------|----------------|
| General                           | Indoor unit has U-D Vanes<br>(see docum. for your indoor unit)              | Yes            |
| Mode Configuration                | Type of Vanes Control                                                       | Position       |
| Special Modes Configuration       | Available U-D positions in Indoor Unit<br>(see docum. for your indoor unit) | 0 (only Swing) |
| Fan Speed Configuration           | Enable "Vanes U-D Swing" objects<br>(for Control and Status)                | Yes            |
| 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      |                                                                             |                |

Figure 4.19 Vanes Up-Down Configuration dialog

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

### 4.5.1 Indoor unit has U-D Vanes

This parameter lets choose if the unit has Up-Down Vanes available or not.

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

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 lets choose if the unit uses a step control no the vanes position or directly a position indication.



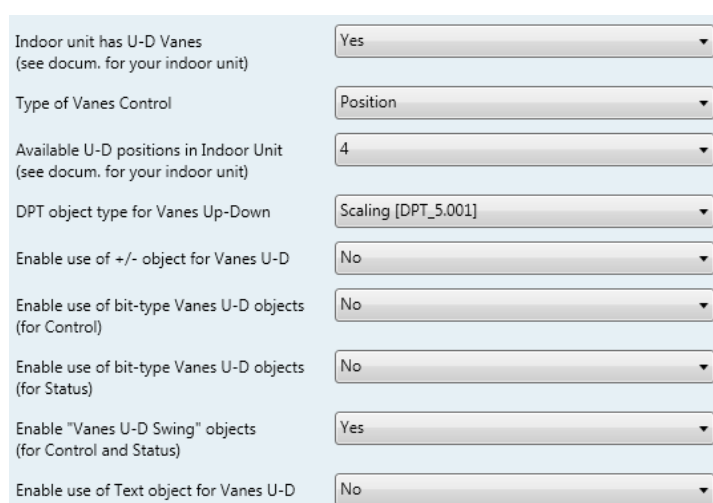
|                       |      |
|-----------------------|------|
| Type of Vanes Control | Step |
|-----------------------|------|

**Figure 4.21** Parameter detail

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

■ 24: Control\_ Vanes U-D Swing [DPT\_1.002 - 1bit] - 0-Off;1-Swing  
 ■ 26: 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<br>(see docum. for your indoor unit)              | Yes                 |
| Type of Vanes Control                                                       | Position            |
| Available U-D positions in Indoor Unit<br>(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<br>(for Control)                   | No                  |
| Enable use of bit-type Vanes U-D objects<br>(for Status)                    | No                  |
| Enable "Vanes U-D Swing" objects<br>(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 **"0 (Only Swing)"** all the parameters and communication objects (if enabled in the parameters dialog) for the swing positions will be shown.

- 24 Control\_Vanes U-D Swing [DPT\_1.002 - 1bit] - 0-Off;1-Swing
- 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<br>(see docum. for your indoor unit) | 0 (only Swing)                |
| Enable "Vanes U-D Swing" objects<br>(for Control and Status)                | Yes                           |
| Enable use of Text object for Vanes U-D                                     | Yes                           |
| ASCII strings shown in comm object<br>"Status_Vanes U-D Text"               | < < 14-byte string values > > |
| > String when vanes U-D in POS 1<br>(if available)                          | U-D POS 1                     |
| > String when vanes U-D in POS 2<br>(if available)                          | U-D POS 2                     |
| > String when vanes U-D in POS 3<br>(if available)                          | U-D POS 3                     |
| > String when vanes U-D in POS 4<br>(if available)                          | U-D POS 4                     |
| > String when vanes U-D in SWING                                            | U-D SWING                     |

**Figure 4.23** Communication Object and parameter details

- 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 the 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.

- 19 Control\_Vanes U-D / 4 Pos [DPT\_5.010 - 1byte] - Position values: 1,2,3,4
- 81 Status\_Vanes U-D / 4 Pos [DPT\_5.010 - 1byte] - Position values: 1,2,3,4

To choose a vanes position, values from **"1"** to **"4"** 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 "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.

➡ 19 *Control\_ Vanes U-D / 4 Pos [DPT\_5.001 - 1byte]* - Thresholds: 38, 63 and 88%

➡ 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 |
|-----------------|-------------|-------------|-------------|-------------|
| <i>Control_</i> | 0% - 37%    | 38% - 62%   | 63% - 87%   | 88% - 100%  |
| <i>Status_</i>  | 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.

➡ 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?                      | Yes                                 |
| > Rollover Vanes at upper/lower limit (when controlling with +/- obj) | Yes                                 |

**Figure 4.24** Parameter detail

#### ➤ DPT type for +/- Vane Up-Down obj

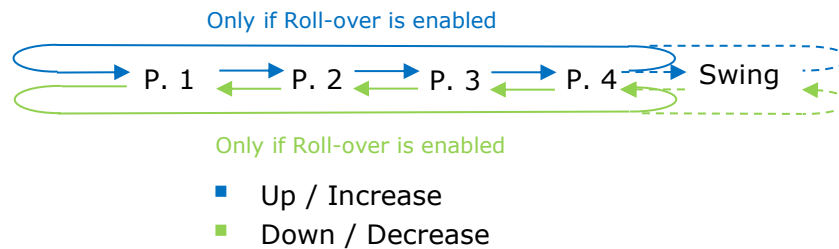
This parameter lets choose between the datapoints **0-Up / 1-Down [DPT\_1.008]** and **0-Decrease / 1-Increase [DPT\_1.007]** for the *Control\_ Vanes U-D +/-* object.

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

This parameter lets choose 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 lets choose 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.

- 82 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  
 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 **"0"** 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.

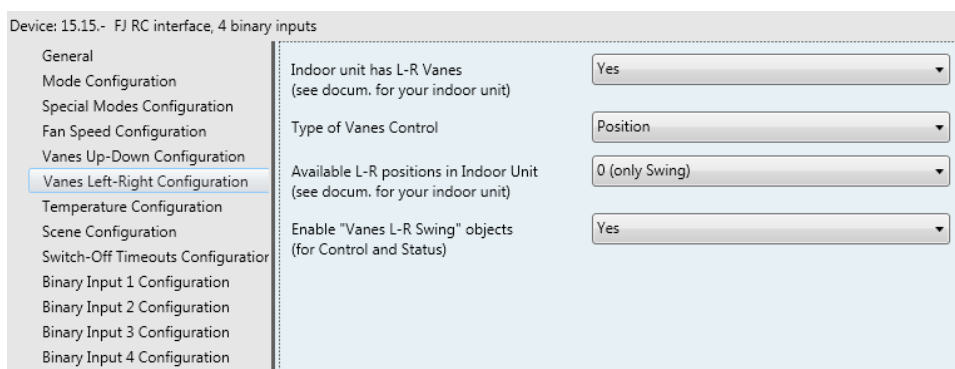
 87 *Status\_ Vanes U-D Text* [DPT\_16.001 - 14byte] - ASCII String

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

Figure 4.25 Parameter detail

## 4.6 Vanes Left-Right Configuration dialog

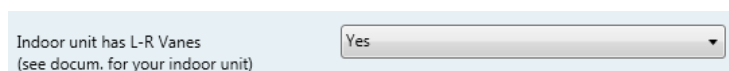


**Figure 4.26** Vanes Left-Right Configuration dialog

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

### 4.6.1 Indoor unit has L-R Vanes

This parameter lets choose 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 lets choose if the unit uses a step control no the vanes position or directly a position indication.



**Figure 4.28** Parameter detail

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

- 33 Control\_Vanes L-R Swing [DPT\_1.002 - 1bit] - 0-Off;1-Swing
- 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<br>(see docum. for your indoor unit)              | Yes                 |
| Type of Vanes Control                                                       | Position            |
| Available L-R positions in Indoor Unit<br>(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<br>(for Control)                   | No                  |
| Enable use of bit-type Vanes L-R objects<br>(for Status)                    | No                  |
| Enable "Vanes L-R Swing" objects<br>(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 **"0 (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<br>(see docum. for your indoor unit)              | Yes            |
| Type of Vanes Control                                                       | Position       |
| Available L-R positions in Indoor Unit<br>(see docum. for your indoor unit) | 0 (only Swing) |
| Enable "Vanes L-R Swing" objects<br>(for Control and Status)                | No             |

Figure 4.30 Parameter and objects detail

- 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<br>(see docum. for your indoor unit)              | Yes                 |
| Type of Vanes Control                                                       | Position            |
| Available L-R positions in Indoor Unit<br>(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<br>(for Control)                   | No                  |
| Enable use of bit-type Vanes L-R objects<br>(for Status)                    | No                  |
| Enable "Vanes L-R Swing" objects<br>(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 the 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  
 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%
- 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.

|                 | <i>Vanes Pos.1</i> | <i>Vanes Pos.2</i> | <i>Vanes Pos.3</i> | <i>Vanes Pos.4</i> | <i>Vanes Pos.5</i> |
|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <i>Control_</i> | 0% - 29%           | 30% - 49%          | 50% - 69%          | 70% - 89%          | 90% - 100%         |
| <i>Status_</i>  | 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.

- 34 : *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.

**Figure 4.32** Parameter detail

##### ➤ DPT type for +/- Vane L-R obj

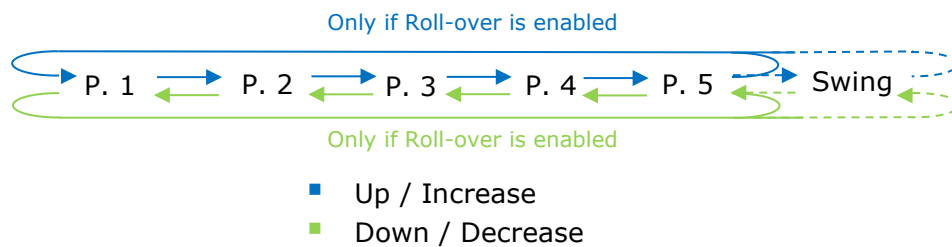
This parameter lets choose between the datapoints **0-Up / 1-Down [DPT\_1.008]** and **0-Decrease / 1-Increase [DPT\_1.007]** for the *Control\_ Vanes L-R +/-* object.

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

This parameter lets choose 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 lets choose 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
- 30 Control\_ Vanes L-R Pos 3 [DPT\_1.002 - 1bit] - 1-Set Position 3
- 31 Control\_ Vanes L-R Pos 4 [DPT\_1.002 - 1bit] - 1-Set Position 4
- 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.

- 33 Control\_ Vanes L-R Swing [DPT\_1.002 - 1bit] - 0-Off;1-Swing
- 94 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 **"0"** 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

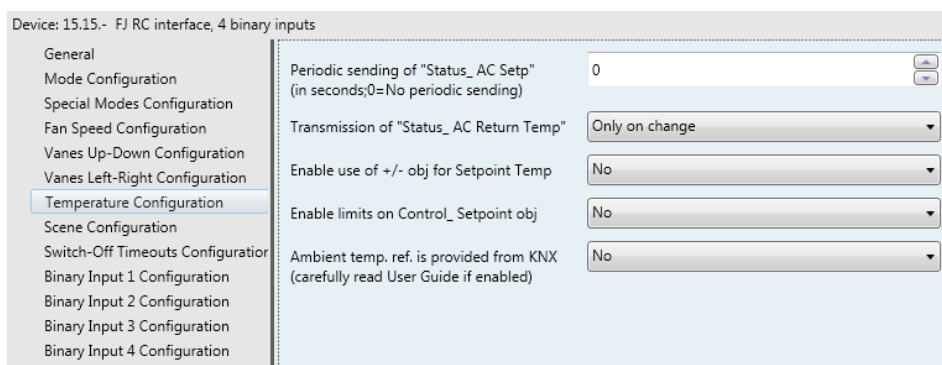


Figure 4.34 Default Temperature Configuration dialog

All the parameters in this section are related with 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 "0" 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*.

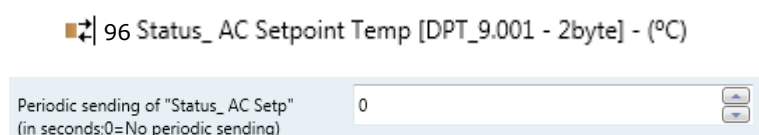


Figure 4.35 Communication object and parameter detail

**⚠ 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 "4.6.4 Ambient temp. ref. is provided from KNX".

### 4.7.2 Transmission of "Status\_ AC Ambient Ref Temp"

This parameter lets to you choose if the AC return temperature will be sent **"only cyclically"**, **"only on change"** or **"cyclically and on change"**. The AC return temperature is sent through the communication object *Status\_ AC Ambient Ref Temp*.

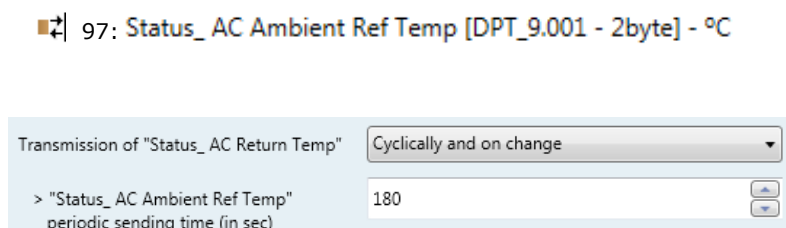


Figure 4.36 Parameter detail

➤ "Status AC Ambient Ref Temp" periodic sending time (in sec)

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 return 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.

■ 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 lets choose between the datapoints **0-Up / 1-Down [DPT\_1.008]** and **0-Decrease / 1-Increase [DPT\_1.007]** for the *Control\_ Setpoint Temp +/-* object.

(Lower limit) **18°C**  19°C  ...  29°C  **30°C** (Upper limit)

- Up / Increase
- Down / Decrease

### 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 (°C)                     | 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 shows/hides the *Control\_ Ambient Temperature* communication object which lets use an ambient temperature reference provided by a KNX device.

🔗 38 Control\_ Ambient Temp [DPT\_9.001 - 2byte] - °C

- If set to **"No"** the object will not be shown and the ambient temperature will never be send to the AC unit.
- If set to **"Yes"** the *Control\_ Ambient Temp* object will appear. Meant to be enabled when you want the temperature provided by a KNX sensor to be the reference ambient temperature for the air conditioner.

#### 4.8 Scene Configuration dialog

Device: 15.15- FJ RC interface, 4 binary inputs

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

Figure 4.39 Parameter detail

All the parameters in this section are related with 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.

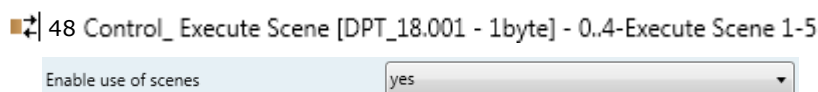


Figure 4.40 Parameter detail

- 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 **"0"** to **"4"** has to be sent, corresponding 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.



Figure 4.41 Parameter detail

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

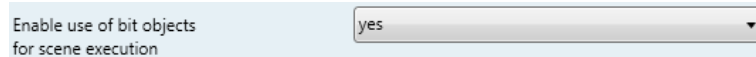
If set to **"No"** the objects will not be shown.

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).

- 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.



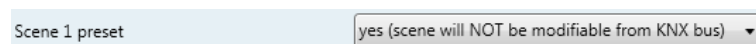
**Figure 4.42** Parameter detail

- 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).

- 54 Control\_ Execute Scene 1 [DPT\_1.002 - 1bit] - 1-Execute Scene 1
- 55 Control\_ Execute Scene 2 [DPT\_1.002 - 1bit] - 1-Execute Scene 2
- 56 Control\_ Execute Scene 3 [DPT\_1.002 - 1bit] - 1-Execute Scene 3
- 57 Control\_ Execute Scene 4 [DPT\_1.002 - 1bit] - 1-Execute Scene 4
- 58 Control\_ Execute Scene 5 [DPT\_1.002 - 1bit] - 1-Execute Scene 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).



**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 applied.

**⚠ Important:** If a scene's preset is enabled, 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 Speed                   | FAN SPEED AUTO              |
| > Scene 1 / Value for Vanes U-D<br>(if available) | (unchanged)                 |
| > Scene 1 / Value for Setpoint 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 lets choose 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 lets choose 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 lets choose 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 lets choose 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 lets choose 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 lets choose 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)"**.

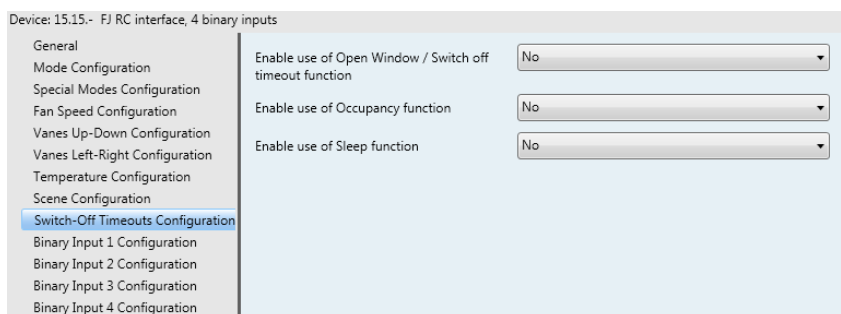
### ➤ Scene "x" / Value for Remote Lock

This parameter lets choose 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



**Figure 4.45** Default Switch-Off Timeouts Configuration dialog

All the parameters in this section are related with 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.

- 39 Control\_ Switch Off Timeout [DPT\_1.010 - 1bit] - 0-Stop;1-Start
- 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 | Yes                                  |
| > 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 lets choose 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 **"0"** 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 lets choose 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 in order 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)

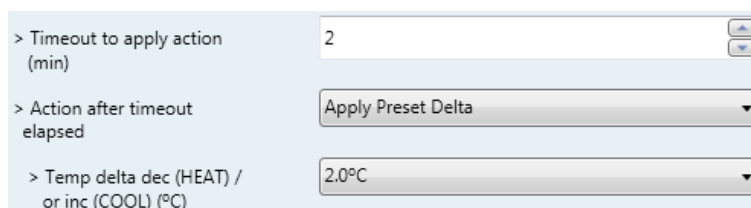
This parameter lets configure the delta temperature (increase or decrease) that will be applied when the timeout has elapsed.

- ⚠ **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 lets choose 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 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.

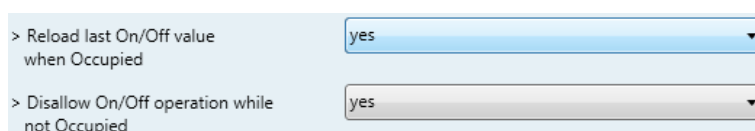
- ⚠ **Important:** When there is occupancy again after the application of a delta, the same delta will be applied inversely as explained above.

➤ Disallow On/Off operation while not Occupied

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

- If a **"1"** value is sent to the *Control\_ Occupancy* object the switch-off timeout period will begin again.
- If a **"0"** value is sent to the *Control\_ Occupancy* object, No action will be performed.

If set to **"Yes"**, On/Off commands while not occupied 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 **"Yes"**, once the switch-off timeout has elapsed, the last On/Off value will be reloaded.

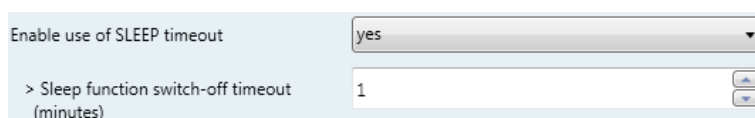
- If a **"1"** value is sent to the *Control\_ Occupancy* object after the timeout period, the indoor unit will **turn on**.
- If a **"0"** value is sent to the *Control\_ Occupancy* after the timeout period No action will be performed.

### 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.

■ 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  
 > 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 inputs

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

Figure 4.52 Parameter detail

All the parameters in this section are related with 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.

109 Status\_ In1 - Switching [DPT\_1.001 - 1bit] - 0-Off;1-On  
 110 Status\_ In2 - Switching [DPT\_1.001 - 1bit] - 0-Off;1-On  
 111 Status\_ In3 - Switching [DPT\_1.001 - 1bit] - 0-Off;1-On  
 112 Status\_ In4 - Switching [DPT\_1.001 - 1bit] - 0-Off;1-On

- 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 lets choose 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 lets choose 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.

■ 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 lets choose 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.

■ 109 Status\_In1 - Switching [DPT\_1.001 - 1bit] - 0-Off;1-On

|                                               |                 |
|-----------------------------------------------|-----------------|
| > 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           |

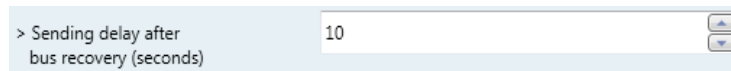
Figure 4.53 Parameter detail

#### ➤ 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 **"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).



**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 **"0"** 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 **"0"** 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.

**Figure 4.55** Parameter detail

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

 109 Status\_In1 - Dimming - On/Off [DPT\_1.001 - 1bit] - 0-Off;1-On  
 110 Status\_In1 - Dimming - Step(%) [DPT\_3.007 - 4bit] - Dimming step

**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).

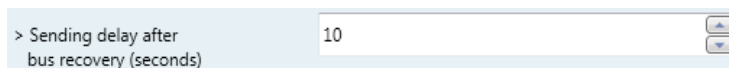


Figure 4.57 Parameter detail

➤ 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 **"0"** 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.

- 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

The screenshot shows a configuration window with the following parameters and values:

|                                       |                  |
|---------------------------------------|------------------|
| > 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 **"0"** 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).

The screenshot shows a configuration window with the following parameter and value:

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

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 **"0"**.
- 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.

➡ 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 bus recovery (seconds) | 10 |
|----------------------------------------------|----|

Figure 4.60 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.

➤ 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).

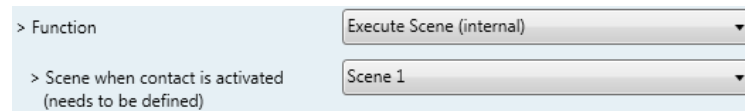
|                  |                    |
|------------------|--------------------|
| > DPT to be sent | DPT 12.001 (4byte) |
|------------------|--------------------|

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).

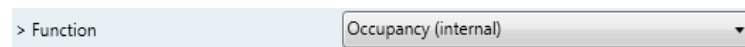
- When **“Execute Scene (internal)”** is selected, the binary input “x” will activate the scene defined in the next parameter, on a rising edge (contact activated).

**Figure 4.62** Parameter detail

➤ Scene when contact is activated

This parameter lets choose 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.

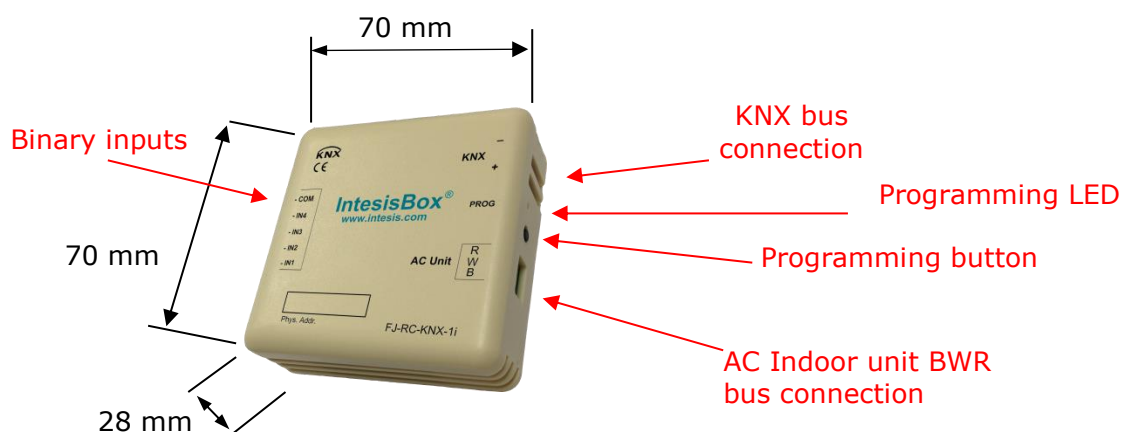
**Figure 4.63** Parameter detail

- 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.

**Figure 4.64** Parameter detail

## 5 Specifications

|                              |                                                                                                                                                                                                                                                                                                                           |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Envelope</b>              | ABS (UL 94 HB). 2,5 mm thickness                                                                                                                                                                                                                                                                                          |
| <b>Dimensions</b>            | 70 X 70 X 28 mm                                                                                                                                                                                                                                                                                                           |
| <b>Weight</b>                | 70g                                                                                                                                                                                                                                                                                                                       |
| <b>Colour</b>                | Ivory white                                                                                                                                                                                                                                                                                                               |
| <b>Power supply</b>          | 29V DC, 7mA<br>Supplied through KNX bus.                                                                                                                                                                                                                                                                                  |
| <b>AC Indoor Unit Bus</b>    | Voltage: 13-18V<br>Current: 80mA                                                                                                                                                                                                                                                                                          |
| <b>LED indicators</b>        | 1 x KNX programming.                                                                                                                                                                                                                                                                                                      |
| <b>Push buttons</b>          | 1 x KNX programming.                                                                                                                                                                                                                                                                                                      |
| <b>Binary inputs</b>         | 4 x Potential-free binary inputs.<br>Signal cable length: 5m unshielded, may be extended up to 20m with twisted.<br>Compliant with the following standards:<br>IEC61000-4-2 : level 4 - 15kV (air discharge) - 8kV (contact discharge)<br>MIL STD 883E-Method 3015-7 : class3B                                            |
| <b>Configuration</b>         | Configuration with ETS.                                                                                                                                                                                                                                                                                                   |
| <b>Operating Temperature</b> | From -25°C to 85°C                                                                                                                                                                                                                                                                                                        |
| <b>Storage Temperature</b>   | From - 40°C to 45°C                                                                                                                                                                                                                                                                                                       |
| <b>Isolation Voltage</b>     | 2500V                                                                                                                                                                                                                                                                                                                     |
| <b>RoHS conformity</b>       | Compliant with RoHS directive (2002/95/CE).                                                                                                                                                                                                                                                                               |
| <b>Certifications</b>        | CE conformity to EMC directive (2004/108/EC) and Low-voltage directive (2006/95/EC)<br><br><ul style="list-style-type: none"> <li>• EN 61000-6-2</li> <li>• EN 61000-6-3</li> <li>• EN 60950-1</li> <li>• EN 50491-3</li> <li>• EN 50090-2-2</li> <li>• EN 50428</li> <li>• EN 60669-1</li> <li>• EN 60669-2-1</li> </ul> |



## 6 AC Unit Types compatibility

A list of FGL indoor unit model references compatible with FJ-RC-KNX-1i and their available features can be found in:

Fujitsu:

[http://www.intesis.com/pdf/IntesisBox\\_FJ-RC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_FJ-RC-xxx-1_AC_Compatibility.pdf)

General:

[http://www.intesis.com/pdf/IntesisBox\\_GE-RC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_GE-RC-xxx-1_AC_Compatibility.pdf)

Fuji Electric:

[http://www.intesis.com/pdf/IntesisBox\\_FE-RC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_FE-RC-xxx-1_AC_Compatibility.pdf)

Hiyasu:

[http://www.intesis.com/pdf/IntesisBox\\_HY-RC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_HY-RC-xxx-1_AC_Compatibility.pdf)

## 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<br>RAC inverter models          | Type A     | 7.1           |
| VRF V / S / J                                           | Type A     | 7.2           |
| RAC inverter model G* series<br>VRF J-II / V-II / VR-II | Type B     | 7.1           |

\* G series stands for units that include a 'G' just before the power number in its reference.  
E.g.: ASYG09LTCA

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

| Error in KNX | Error in Remote Controller | Error Description                                        | AC System Type                       |
|--------------|----------------------------|----------------------------------------------------------|--------------------------------------|
| 0            | 00                         | Wired remote controller error                            | RAC<br><br>Inverter and Non Inverter |
| 1            | 01                         | Indoor signal error                                      |                                      |
| 2            | 02                         | Indoor room temperature sensor error                     |                                      |
| 3            | 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                                      |                                      |
| 26           | 1A                         | INV voltage protection                                   |                                      |
| 27           | 1b                         | Compressor location error                                |                                      |
| 28           | 1C                         | Outdoor fan error                                        |                                      |
| 29           | 1d                         | Outdoor unit computer communication error                |                                      |
| 30           | 1E                         | 2-way valve temperature sensor error                     |                                      |
| 31           | 1F                         | 3-way valve temperature sensor error                     |                                      |
| 32           | 20                         | Connected indoor unit error                              |                                      |
| 33           | 21                         | Indoor MANUAL AUTO switch error                          |                                      |
| 34           | 22                         | reverse VDD permanent stop protection                    |                                      |
| 36           | 24                         | VDD permanent stop protection                            |                                      |
| 37           | 25                         | Excessive high pressure protection on cooling            |                                      |
| 38           | 26                         | P.F.C. circuit error                                     |                                      |
| 39           | 27                         | Indoor signal error                                      |                                      |
| 40           | 28                         | Indoor heat exchanger temperature sensor (inlet) error   |                                      |
| 41           | 29                         | Indoor heat exchanger temperature sensor (middle) error  |                                      |
| 42           | 2A                         | Outdoor heat exchanger temperature sensor (middle) error |                                      |
| 43           | 2b                         | Power supply frequency detection error                   |                                      |
| 44           | 2C                         | Compressor temperature error                             |                                      |
| 45           | 2d                         | 4-way valve error                                        |                                      |
| 46           | 2E                         | Heat sink thermistor P.F.C. error                        |                                      |
| 47           | 2F                         | Indoor unit damper error                                 |                                      |
| 48           | 30                         | Inverter error                                           |                                      |
| 49           | 31                         | Low pressure error                                       |                                      |
| 50           | 32                         | Refrigerant circuit address set-up error                 |                                      |
|              |                            | Master unit, Slave unit set-up error                     |                                      |
|              |                            | Connected the indoor number set-up error                 |                                      |

|     |    |                                                                    |  |
|-----|----|--------------------------------------------------------------------|--|
| 51  | 33 | P.F.C. printed circuit board error                                 |  |
| 52  | 34 | Indoor fan 2 error                                                 |  |
| 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                              |  |
| 119 | 13 | Communication error between outdoor units                          |  |
| 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                                      |  |
| 135 | 23 | Incompatible series connection error                               |  |
| 136 | 24 | Connection unit number error                                       |  |
| 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                                                  |  |
| 153 | 35 | Indoor unit manual auto switch error                               |  |
| 154 | 36 | Heater relay error                                                 |  |
| 155 | 37 | Indoor unit transmission PCB error                                 |  |
| 156 | 38 | Network convertor PCB error                                        |  |
| 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                                                 |  |
| 169 | 45 | Gas sensor error                                                   |  |
| 170 | 46 | Float sensor error                                                 |  |
| 171 | 47 | Water temperature sensor error                                     |  |
| 172 | 48 | Warm water flow rate sensor error                                  |  |
| 173 | 49 | Heater sensor error                                                |  |
| 181 | 51 | Indoor unit fan motor 1 error                                      |  |
| 182 | 52 | Indoor unit coil (expansion valve) error                           |  |
| 183 | 53 | Indoor unit water drain abnormal                                   |  |
| 184 | 54 | Air cleaning function error                                        |  |
| 185 | 55 | Filter cleaning function error                                     |  |
| 186 | 56 | Water circulation pump error                                       |  |
| 187 | 57 | Indoor unit damper error                                           |  |
| 188 | 58 | Indoor unit intake grille position error                           |  |
| 189 | 59 | Indoor unit fan motor 2 error                                      |  |
| 195 | 5U | 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) |  |
| 204 | 68 | Outdoor unit magnetic relay error                                  |  |
| 205 | 69 | Outdoor unit transmission PCB error                                |  |
| 206 | 6A | Outdoor unit display PCB error                                     |  |
| 213 | 71 | Outdoor unit discharge temp. thermistor error                      |  |
| 214 | 72 | Outdoor unit compressor temp. thermistor error                     |  |
| 215 | 73 | Outdoor unit heat ex. temp. thermistor error                       |  |
| 216 | 74 | Outside air temp. thermistor error                                 |  |
| 217 | 75 | Outdoor unit suction gas temp. thermistor error                    |  |
| 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                       |  |
| 230 | 82 | Outdoor unit sub-cool heat ex. gas temp. thermistor error          |  |
| 231 | 83 | Outdoor unit liquid pipe temp. thermistor error                    |  |
| 232 | 84 | Outdoor unit current sensor error                                  |  |
| 233 | 85 | Fan motor current sensor error                                     |  |
| 234 | 86 | Outdoor unit pressure sensor error                                 |  |
| 235 | 87 | Oil sensor error                                                   |  |
| 245 | 91 | Outdoor unit compressor 1 error                                    |  |
| 246 | 92 | Outdoor unit compressor 2 error                                    |  |
| 247 | 93 | Outdoor unit compressor start up error                             |  |
| 248 | 94 | Outdoor unit trip detection                                        |  |
| 249 | 95 | Outdoor unit compressor motor control error                        |  |

**RAC**  
Inverter models G  
series

**VRF**  
J-II / V-II / VR-II  
Series

|     |    |                                                       |                                                                                        |
|-----|----|-------------------------------------------------------|----------------------------------------------------------------------------------------|
| 250 | 96 | Open loop error(Field-weakening relevant)             | <b>RAC</b><br>Inverter models G series<br><br><b>VRF</b><br>J-II / V-II / VR-II Series |
| 251 | 97 | Outdoor unit fan motor 1 error                        |                                                                                        |
| 252 | 98 | Outdoor unit fan motor 2 error                        |                                                                                        |
| 253 | 99 | Outdoor unit 4-way valve error                        |                                                                                        |
| 254 | 9A | Outdoor unit coil (expansion valve) error             |                                                                                        |
| 259 | 9U | Outdoor unit miscellaneous error                      |                                                                                        |
| 261 | A1 | Outdoor unit discharge temperature 1 error            |                                                                                        |
| 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                                       | <b>VRF</b><br>V / S / J series |
|--------------|----------------------------|---------------------------------------------------------|--------------------------------|
| 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                            |                                |
| 11           | 0b                         | Heat Ex. Inlet sensor Error                             |                                |
| 12           | 0C                         | Heat Ex. Outlet sensor Error                            |                                |
| 13           | 0d                         | Blower temperature thermistor Error                     |                                |
| 17           | 11                         | Drain Error                                             |                                |
| 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                             |                                |
| 32           | 20                         | Node setting error                                      |                                |
| 33           | 21                         | Communication Error between Main PCB & Transmission PCB |                                |
| 34           | 32                         | Outdoor unit Error                                      |                                |

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

| TOPIC     | OBJECT NUMBER | NAME                          | LENGTH | DATAPOINT TYPE    |        | FLAGS |   |   |   | FUNCTION                                                                   |
|-----------|---------------|-------------------------------|--------|-------------------|--------|-------|---|---|---|----------------------------------------------------------------------------|
|           |               |                               |        | DPT_NAME          | DPT_ID | R     | W | T | U |                                                                            |
| On/Off    | 0             | Control_ On/Off               | 1 bit  | DPT_Switch        | 1.001  |       | W | T |   | 0 - Off; 1-On                                                              |
|           | 1             | Control_ Economy              | 1 bit  | DPT_Bool          | 1.002  |       | W | T |   | 1 - Set ECONOMY                                                            |
| Mode      | 2             | Control_ Mode                 | 1 byte | DPT_HVACContrMode | 20.105 |       | W | T |   | 0 - Auto; 1 - Heat; 3 - Cool; 9 - Fan; 14 - Dry                            |
|           | 3             | Control_ Mode Cool/Heat       | 1 bit  | DPT_Heat/Cool     | 1.100  |       | W | T |   | 0 - Cool; 1 - Heat;                                                        |
|           | 4             | Control_ Mode Cool & On       | 1 byte | DPT_Scaling       | 5.001  |       | W | T |   | 0% - Off; 0.1%-100% - On + Cool                                            |
|           | 5             | Control_ Mode Heat & On       | 1 byte | DPT_Scaling       | 5.001  |       | W | T |   | 0% - Off; 0.1%-100% - On + Heat                                            |
|           | 6             | Control_ Mode Auto            | 1 bit  | DPT_Bool          | 1.002  |       | W | T |   | 1 - Auto                                                                   |
|           | 7             | Control_ Mode Heat            | 1 bit  | DPT_Bool          | 1.002  |       | W | T |   | 1 - Heat                                                                   |
|           | 8             | Control_ Mode Cool            | 1 bit  | DPT_Bool          | 1.002  |       | W | T |   | 1 - Cool                                                                   |
|           | 9             | Control_ Mode Fan             | 1 bit  | DPT_Bool          | 1.002  |       | W | T |   | 1 - Fan                                                                    |
|           | 10            | Control_ Mode Dry             | 1 bit  | DPT_Bool          | 1.002  |       | W | T |   | 1 - Dry                                                                    |
|           | 11            | 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                                                           |
| Fan Speed | 12            | Control_ Fan Speed / 3 Speeds | 1 byte | DPT_Scaling       | 5.001  |       | W | T |   | 0%-49% - Speed 1; 50%-82% - Speed 2; 83%-100% - Speed 3                    |
|           |               | Control_ Fan Speed / 3 Speeds | 1 byte | DPT_Enumerated    | 5.010  |       | W | T |   | 1 - Speed 1; 2 - Speed 2; 3 Speed 3                                        |
|           |               | Control_ Fan Speed / 4 Speeds | 1 byte | DPT_Scaling       | 5.001  |       | W | T |   | 0%-37% - Speed 1; 38%-62% - Speed 2; 63%-87% - Speed 3; 88%-100% - Speed 4 |

|                  |    |                               |        |                |       |  |   |   |                                                                              |
|------------------|----|-------------------------------|--------|----------------|-------|--|---|---|------------------------------------------------------------------------------|
| Fan Speed        |    | Control_ Fan Speed / 4 Speeds | 1 byte | DPT_Enumerated | 5.010 |  | W | T | 1 - Speed 1; 2 - Speed 2; 3 Speed 3; 4 Speed 4                               |
|                  | 13 | Control_ Fan Speed Man/Auto   | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 0 - Manual; 1 - Auto                                                         |
|                  | 14 | Control_ Fan Speed 1          | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 1 - Set Fan Speed 1                                                          |
|                  | 15 | Control_ Fan Speed 2          | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 1 - Set Fan Speed 2                                                          |
|                  | 16 | Control_ Fan Speed 3          | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 1 - Set Fan Speed 3                                                          |
|                  | 17 | Control_ Fan Speed 4          | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 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                                                             |
| Vanes Up-Down    | 19 | Control_ Vanes U-D / 4 pos    | 1 byte | DPT_Scaling    | 5.001 |  | W | T | 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 | T | 1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4                                       |
|                  | 20 | Control_ Vanes U-D Pos1       | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 1 - Set Position 1                                                           |
|                  | 21 | Control_ Vanes U-D Pos2       | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 1 - Set Position 2                                                           |
|                  | 22 | Control_ Vanes U-D Pos3       | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 1 - Set Position 3                                                           |
|                  | 23 | Control_ Vanes U-D Pos4       | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 1 - Set Position 4                                                           |
|                  | 24 | Control_ Vanes U-D Swing      | 1 bit  | DPT_Bool       | 1.002 |  | W | T | 0 - Off; 1 - Swing                                                           |
|                  | 25 | Control_ Vanes U-D +/-        | 1 bit  | DPT_Step       | 1.007 |  | W |   | 0 - Decrease; 1 - Increase                                                   |
|                  |    | 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                                         |
| Vanes Left-Right | 27 | Control_ Vanes L-R / 5 pos    | 1 byte | DPT_Scaling    | 5.001 |  | W | T | 0%-29% - Pos1; 30%-49% - Pos2; 50%-69% Pos3; 70%-89% - Pos4; 90%-100% - Pos5 |
|                  |    | Control_ Vanes L-R / 5 pos    | 1 byte | DPT_Enumerated | 5.010 |  | W | T | 1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4; 5 - Pos5                             |

|               |           |                                |        |                |       |  |   |   |  |                                      |
|---------------|-----------|--------------------------------|--------|----------------|-------|--|---|---|--|--------------------------------------|
|               | <b>28</b> | Control_ Vanes L-R Pos1        | 1 bit  | DPT_Bool       | 1.002 |  | W | T |  | 1 – Set Position 1                   |
|               | <b>29</b> | Control_ Vanes L-R Pos2        | 1 bit  | DPT_Bool       | 1.002 |  | W | T |  | 1 – Set Position 2                   |
|               | <b>30</b> | Control_ Vanes L-R Pos3        | 1 bit  | DPT_Bool       | 1.002 |  | W | T |  | 1 – Set Position 3                   |
|               | <b>31</b> | Control_ Vanes L-R Pos4        | 1 bit  | DPT_Bool       | 1.002 |  | W | T |  | 1 – Set Position 4                   |
|               | <b>32</b> | Control_ Vanes L-R Pos5        | 1 bit  | DPT_Bool       | 1.002 |  | W | T |  | 1 – Set Position 5                   |
|               | <b>33</b> | Control_ Vanes L-R Swing       | 1 bit  | DPT_Bool       | 1.002 |  | W | T |  | 0 - Off; 1 - Swing                   |
|               | <b>34</b> | Control_ Vanes L-R +/-         | 1 bit  | DPT_Step       | 1.007 |  | W |   |  | 0 - Decrease; 1 - Increase           |
|               |           | Control_ Vanes L-R +/-         | 1 bit  | DPT_UpDown     | 1.008 |  | W |   |  | 0 - Up; 1 - Down                     |
|               | <b>35</b> | Control_ Vanes L-R Move Pos    | 1 bit  | DPT_Step       | 1.007 |  | W |   |  | 0 – Move position; 1 – Move position |
| Temperature   | <b>36</b> | Control_ Setpoint Temperature  | 2 byte | DPT_Value_Temp | 9.001 |  | W | T |  | (°C)                                 |
|               | <b>37</b> | 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                     |
|               | <b>38</b> | Control_ Ambient Temp          | 2 byte | DPT_Value_Temp | 9.001 |  | W | T |  | (°C)                                 |
| Timeout       | <b>39</b> | Control_ Window Contact Status | 1 bit  | DPT_OpenClose  | 1.009 |  | W | T |  | 0 - Open; 1 - Closed                 |
|               |           | Control_ Switch Off Timeout    | 1 bit  | DPT_Start      | 1.010 |  | W | T |  | 0 - Stop; 1 - Start                  |
|               | <b>40</b> | Control_ Occupancy             | 1 bit  | DPT_Occupancy  | 1.018 |  | W | T |  | 0 - Not Occupied; 1 - Occupied       |
|               | <b>41</b> | Control_ Sleep Timeout         | 1 bit  | DPT_Start      | 1.010 |  | W | T |  | 0 - Stop; 1 - Start                  |
| Locking       | <b>42</b> | Control_ Lock Remote Control   | 1 bit  | DPT_Bool       | 1.002 |  | W | T |  | 0 - Unlocked; 1 - Locked             |
|               | <b>43</b> | Control_ Lock Control Objects  | 1 bit  | DPT_Bool       | 1.002 |  | W | T |  | 0 - Unlocked; 1 - Locked             |
| Special Modes | <b>44</b> | Control_ Power Mode            | 1 bit  | DPT_Start      | 1.010 |  | W | T |  | 0 - Stop; 1 - Start                  |
|               | <b>45</b> | Control_ Econo Mode            | 1 bit  | DPT_Start      | 1.010 |  | W | T |  | 0 - Stop; 1 - Start                  |

|           |           |                          |        |                  |        |  |   |   |                                |
|-----------|-----------|--------------------------|--------|------------------|--------|--|---|---|--------------------------------|
|           | <b>46</b> | Control_ Additional Heat | 1 bit  | DPT_Start        | 1.010  |  | W | T | 0 - Stop; 1 - Start            |
|           | <b>47</b> | Control_ Additional Cool | 1 bit  | DPT_Start        | 1.010  |  | W | T | 0 - Stop; 1 - Start            |
| Scenes    | <b>48</b> | Control_ Save            | 1 byte | DPT_SceneControl | 18.001 |  | W | T | 128 to 132 - Save Scene 1 to 5 |
|           |           | Control_ Exec Scene      | 1 byte | DPT_SceneControl | 18.001 |  | W | T | 0 to 4 - Exec. Scene 1 to 5;   |
|           | <b>49</b> | Control_ Store Scene1    | 1 bit  | DPT_Bool         | 1.002  |  | W |   | 1 - Store Scene                |
|           | <b>50</b> | Control_ Store Scene2    | 1 bit  | DPT_Bool         | 1.002  |  | W |   | 1 - Store Scene                |
|           | <b>51</b> | Control_ Store Scene3    | 1 bit  | DPT_Bool         | 1.002  |  | W |   | 1 - Store Scene                |
|           | <b>52</b> | Control_ Store Scene4    | 1 bit  | DPT_Bool         | 1.002  |  | W |   | 1 - Store Scene                |
|           | <b>53</b> | Control_ Store Scene5    | 1 bit  | DPT_Bool         | 1.002  |  | W |   | 1 - Store Scene                |
|           | <b>54</b> | Control_ Execute Scene1  | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 1 - Execute Scene              |
|           | <b>55</b> | Control_ Execute Scene2  | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 1 - Execute Scene              |
|           | <b>56</b> | Control_ Execute Scene3  | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 1 - Execute Scene              |
|           | <b>57</b> | Control_ Execute Scene4  | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 1 - Execute Scene              |
|           | <b>58</b> | Control_ Execute Scene5  | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 1 - Execute Scene              |
| Disabling | <b>59</b> | Control_ Disable Input 1 | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 0 - False; 1 - True            |
|           |           | Control_ Disable Input 1 | 1 bit  | DPT_Enable       | 1.003  |  | W | T | 0 - Disable; 1 - Enable        |
|           | <b>60</b> | Control_ Disable Input 2 | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 0 - False; 1 - True            |
|           |           | Control_ Disable Input 2 | 1 bit  | DPT_Enable       | 1.003  |  | W | T | 0 - Disable; 1 - Enable        |
|           | <b>61</b> | Control_ Disable Input 3 | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 0 - False; 1 - True            |
|           |           | Control_ Disable Input 3 | 1 bit  | DPT_Enable       | 1.003  |  | W | T | 0 - Disable; 1 - Enable        |
|           | <b>62</b> | Control_ Disable Input 4 | 1 bit  | DPT_Bool         | 1.002  |  | W | T | 0 - False; 1 - True            |
|           |           | Control_ Disable Input 4 | 1 bit  | DPT_Enable       | 1.003  |  | W | T | 0 - Disable; 1 - Enable        |

|                              |           |                               |                              |                   |             |       |   |   |                                                             |
|------------------------------|-----------|-------------------------------|------------------------------|-------------------|-------------|-------|---|---|-------------------------------------------------------------|
| On/Off                       | 64        | Status_ On/Off                | 1 bit                        | DPT_Switch        | 1.001       | R     |   | T | 0 - Off; 1-On                                               |
| Mode                         | 65        | Status_ Economy               | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 –Economy is active                                        |
|                              | 66        | Status_ Mode                  | 1 byte                       | DPT_HVACContrMode | 20.105      | R     |   | T | 0 - Auto; 1 - Heat; 3 - Cool; 9 - Fan; 14 - Dry             |
|                              | 67        | Status_ Mode Cool/Heat        | 1 bit                        | DPT_Heat/Cool     | 1.100       | R     |   | T | 0 - Cool; 1 - Heat                                          |
|                              | 68        | Status_ Mode Auto             | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 - Auto                                                    |
|                              | 69        | Status_ Mode Heat             | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 - Heat                                                    |
|                              | 70        | Status_ Mode Cool             | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 - Cool                                                    |
|                              | 71        | Status_ Mode Fan              | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 - Fan                                                     |
|                              | 72        | Status_ Mode Dry              | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 - Dry                                                     |
|                              | 73        | Status_ Mode Text             | 14 byte                      | DPT_String_8859_1 | 16.001      | R     |   | T | ASCII String                                                |
|                              | Fan Speed | 74                            | Status_ Fan Speed / 3 Speeds | 1 byte            | DPT_Scaling | 5.001 |   | W | T                                                           |
| Status_ Fan Speed / 3 Speeds |           |                               | 1 byte                       | DPT_Enumerated    | 5.010       |       | W | T | 1 - Speed 1; 2 - Speed 2; 3 Speed 3;                        |
| Status_ Fan Speed / 4 Speeds |           |                               | 1 byte                       | DPT_Scaling       | 5.001       |       | W | T | 25% - Speed 1; 50% - Speed 2; 75% - Speed 3; 100% - Speed 4 |
| Status_ Fan Speed / 4 Speeds |           |                               | 1 byte                       | DPT_Enumerated    | 5.010       |       | W | T | 1 - Speed 1; 2 - Speed 2; 3 Speed 3; 4 Speed 4              |
| 75                           |           | Status_ Fan Speed Manual/Auto | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 0 – Manual; 1 - Auto                                        |
| 76                           |           | Status_ Fan Speed 1           | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 – Fan is in speed 1                                       |
| 77                           |           | Status_ Fan Speed 2           | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 – Fan is in speed 2                                       |
| 78                           |           | Status_ Fan Speed 3           | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 - Fan is in Speed 3                                       |
| 79                           |           | Status_ Fan Speed 4           | 1 bit                        | DPT_Bool          | 1.002       | R     |   | T | 1 - Fan is in Speed 4                                       |
| 80                           |           | Status_ Fan Speed Text        | 14 byte                      | DPT_String_8859_1 | 16.001      | R     |   | T | ASCII String                                                |
| Vanes UP-Down                | 81        | Status_ Vanes U-D / 4 pos     | 1 byte                       | DPT_Scaling       | 5.001       | R     |   | T | 25% - Pos1; 50% - Pos2; 75% - Pos3; 100% - Pos4             |

|                             |           |                             |         |                   |        |   |  |   |                                                                |
|-----------------------------|-----------|-----------------------------|---------|-------------------|--------|---|--|---|----------------------------------------------------------------|
|                             |           | Status_ Vanes U-D / 4 pos   | 1 byte  | DPT_Enumerated    | 5.010  | R |  | T | 1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4                         |
|                             | <b>82</b> | Status_ Vanes U-D Pos1      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 1                                                 |
|                             | <b>83</b> | Status_ Vanes U-D Pos2      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 2                                                 |
|                             | <b>84</b> | Status_ Vanes U-D Pos3      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 3                                                 |
|                             | <b>85</b> | Status_ Vanes U-D Pos4      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 4                                                 |
|                             | <b>86</b> | Status_ Vanes U-D Swing     | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 0 - Off; 1 - Swing                                             |
|                             | <b>87</b> | Status_ Vanes U-D Text      | 14 byte | DPT_String_8859_1 | 16.001 | R |  | T | ASCII String                                                   |
| <b>Vanes<br/>Left-Right</b> | <b>88</b> | Status_ Vanes L-R / 5 pos   | 1 byte  | DPT_Scaling       | 5.001  | R |  | T | 20% - Pos1; 40% - Pos2; 60% - Pos3;<br>80% - Pos4; 100% - Pos5 |
|                             |           | Status_ Vanes L-R / 5 pos   | 1 byte  | DPT_Enumerated    | 5.010  | R |  | T | 1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4; 5 - Pos5               |
|                             | <b>89</b> | Status_ Vanes L-R Pos1      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 1                                                 |
|                             | <b>90</b> | Status_ Vanes L-R Pos2      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 2                                                 |
|                             | <b>91</b> | Status_ Vanes L-R Pos3      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 3                                                 |
|                             | <b>92</b> | Status_ Vanes L-R Pos4      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 4                                                 |
|                             | <b>93</b> | Status_ Vanes L-R Pos5      | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 1 - Position 5                                                 |
|                             | <b>94</b> | Status_ Vanes L-R Swing     | 1 bit   | DPT_Bool          | 1.002  | R |  | T | 0 - Off; 1 - Swing                                             |
|                             | <b>95</b> | Status_ Vanes L-R Text      | 14 byte | DPT_String_8859_1 | 16.001 | R |  | T | ASCII String                                                   |
| <b>Temperature</b>          | <b>96</b> | Status_ AC Setpoint Temp    | 2 byte  | DPT_Value_Temp    | 9.001  | R |  | T | (°C)                                                           |
|                             | <b>97</b> | Status_ AC Ambient Ref Temp | 2 byte  | DPT_Value_Temp    | 9.001  | R |  | T | (°C)                                                           |
| <b>Error</b>                | <b>98</b> | Status_ Error/Alarm         | 1 bit   | DTP_Alarm         | 1.005  | R |  | T | 0 - No Alarm; 1 - Alarm                                        |

|                      |            |                                     |         |                    |        |   |   |   |                                           |
|----------------------|------------|-------------------------------------|---------|--------------------|--------|---|---|---|-------------------------------------------|
|                      | <b>99</b>  | Status_ Error Code                  | 2 byte  | Enumerated         |        | R |   | T | 0 - No Error; Any other see user's manual |
|                      | <b>100</b> | Status_ Error Text code             | 14 byte | DPT_String_8859_1  | 16.001 | R |   | T | 4 char FJ Error; Empty - None             |
| <b>Locking</b>       | <b>101</b> | Status_ Lock Remote Control         | 1 bit   | DPT_Bool           | 1.002  |   | W | T | 0 - Unlocked; 1 - Locked                  |
|                      | <b>102</b> | Status_ Lock Remote Control Objects | 1 bit   | DPT_Bool           | 1.002  |   | W | T | 0 - Unlocked; 1 - Locked                  |
| <b>Special Modes</b> | <b>103</b> | Status_ Power Mode                  | 1 bit   | DPT_Switch         | 1.001  | R |   | T | 0 - Off; 1-On                             |
|                      | <b>104</b> | Status_ Econo Mode                  | 1 bit   | DPT_Switch         | 1.001  | R |   | T | 0 - Off; 1-On                             |
|                      | <b>105</b> | Status_ Additional Heat             | 1 bit   | DPT_Switch         | 1.001  | R |   | T | 0 - Off; 1-On                             |
|                      | <b>106</b> | Status_ Additional Cool             | 1 bit   | DPT_Switch         | 1.001  | R |   | T | 0 - Off; 1-On                             |
| <b>Counter</b>       | <b>107</b> | Status_ Operation Hour Counter      | 2 byte  | DPT_Value_2_Ucount | 7.007  | R |   | T | Number of operating hours                 |
| <b>Scene</b>         | <b>108</b> | Status_ Current Scene               | 1 byte  | DPT_SceneNumber    | 17.001 | R |   | T | 0 to 4 - Scene 1 to 5; 63 - No Scene      |
| <b>Binary Inputs</b> | <b>109</b> | Status_ Inx - Switching             | 1 bit   | DPT_Switch         | 1.001  | R |   | T | 0 - Off; 1-On                             |
|                      | <b>111</b> | Status_ Inx - Dimming - On/Off      | 1 bit   | DPT_Switch         | 1.001  | R |   | T | 0 - Off; 1 - On                           |
|                      | <b>113</b> | Status_ Inx - Shut/Blind - Step     | 1 bit   | DPT_ShutterBlinds  | 1.023  | R |   | T | 0 - Step Up; 1 - Step Down                |
|                      | <b>110</b> | Status_ Inx - Value                 | 1 byte  | DPT_Value_1_Ucount | 5.010  | R |   | T | 1 byte unsigned value                     |
|                      |            | Status_ Inx - Value                 | 2 byte  | DPT_Value_2_Ucount | 7.001  | R |   | T | 2 byte unsigned value                     |
|                      |            | Status_ Inx - Value                 | 2 byte  | DPT_Value_2_Count  | 8.001  | R |   | T | 2 byte signed value                       |
|                      |            | Status_ Inx - Value                 | 2 byte  | DPT_Value_Temp     | 9.001  | R |   | T | Temperature (°C)                          |
|                      |            | Status_ Inx - Value                 | 4 byte  | DPT_Value_4_Ucount | 12.001 | R |   | T | 4 byte unsigned value                     |
|                      |            | Status_ Inx - Dimming - Step(%)     | 1 bit   | DPT_Control_Dimm.  | 3.007  | R |   | T | Dimming step                              |
|                      |            | Status_ Inx - Shut/Blind -Move      | 1 bit   | DPT_ShutterBlinds  | 1.023  | R |   | T | 0 - Move Up; 1 - Move Down                |