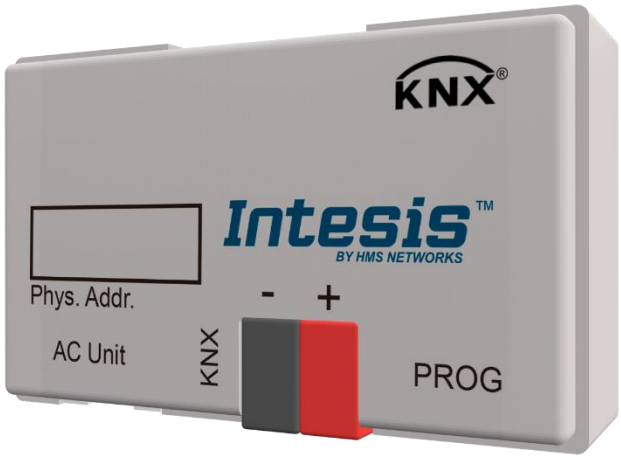
Gateway for integration of Mitsubishi Electric air conditioners into KNX TP-1 (EIB) control systems

Compatible with Domestic, Mr. Slim and City Multi lines commercialized by Mitsubishi Electric

Application's Program Version: 1.0

USER MANUAL

Issue date: 12/2025 r17.2 ENGLISH



Important User Information

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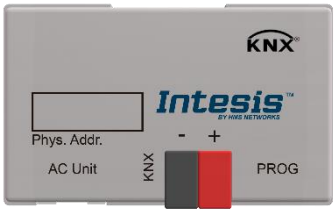
ORDER CODE	LEGACY ORDER CODE
INKNXMIT001I000	ME-AC-KNX-1-V2

INDEX

1. Presentation



INKNXMIT001I000 allows a complete and natural integration of MITSUBISHI ELECTRIC air conditioners with KNX control systems.

Compatible with all Domestic and Mr. Slim models commercialized by MITSUBISHI ELECTRIC.

Main features:

- Reduced dimensions, quick installation.
- Multiple objects for control and status (bit, byte, characters…) with KNX standard datapoint types.
- Available status objects for every control.
- 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 IR 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 simple switching.

2. Connection

The interface comes with a cable for direct connection to the internal control board of the AC indoor unit.

- Connection of the interface to the AC indoor unit:

Disconnect mains power from the AC unit. Open the front cover of the indoor unit in order to have access to the internal control board. In the control board locate the socket connector marked as:

CN92 in Mr. Slim models.
or
CN105 in rest of models.

Using the cable that comes with the interface, insert one of its connectors, the one installed in the shortest uncovered part, into the socket of the INKNXMIT001I000 marked as **AC Unit**, and the other connector, the one in the largest uncovered part, into the socket **CN92** or **CN105** of the AC unit's control board. Fix the INKNXMIT001I000 inside or outside the AC indoor unit depending on your needs, remember that INKNXMIT001I000 must be also connected to the KNX bus. Close the AC indoor unit's front cover again.

⚠ ***Important***: The cable supplied with the interface is 1.5 m (4.9 ft) long. Do not modify its length since it may affect the correct interface's operation. Keep the cable away from power and ground wires and never bundle them together.

- Connection of the interface to the KNX bus:

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

- Connections diagram:

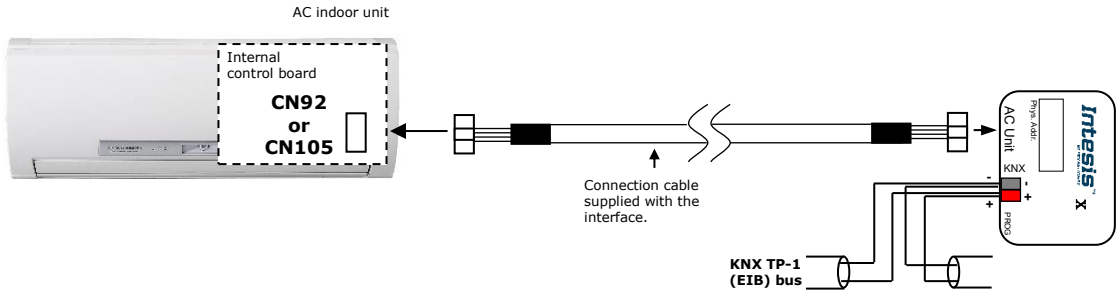


Figure 2.2 Connection diagram

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:

https://hmsnetworks.blob.core.windows.net/nlw/docs/default-source/products/intesis/configuration-files/ets-database/intesis_inknxmit001i000_ets-database.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 INKNXMIT001I000. 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:

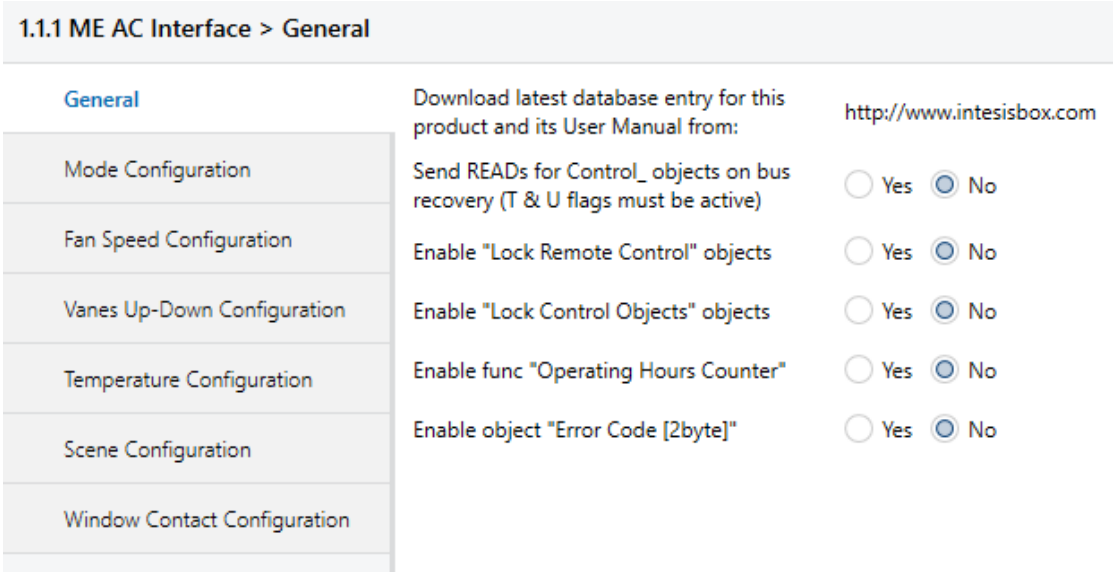


Figure 4.1 Default parameter configuration

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. Additional *Status_ AC Return Temp* and *Status_ Error/Alarm* objects are also shown.

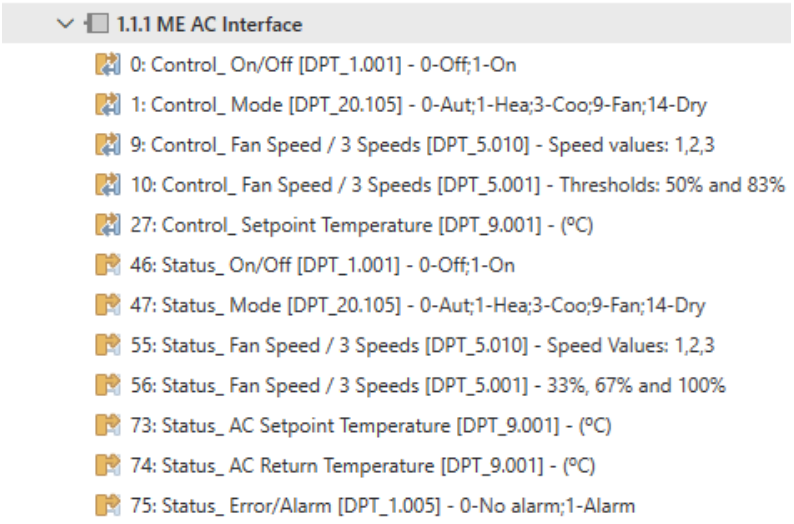


Figure 4.2 Default communication objects

4.1 General dialog

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

The first field shows the URL where to download the database and the user manual for the product.

4.1.1 Send READs for Control_ objects on bus recovery

When this parameter is enabled, INKNXMIT001I000 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.

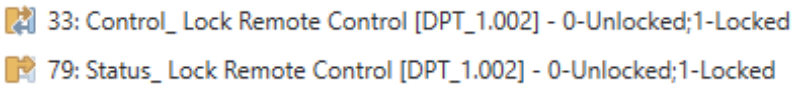
➢ Delay before sending READs (sec):

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 enough time to other KNX devices on the bus to start up before sending the READs.

4.1.2 Enable "Lock Remote Control" objects:

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

If set to **"yes"**, the *Control_ Lock Remote Control* object will appear.

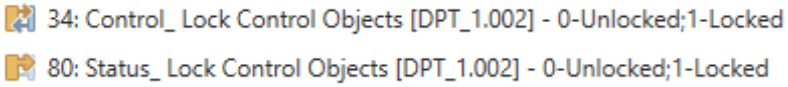


- When a **"1"** value is sent to this communication object, the remote controller is locked. To be unlocked, a **"0"** value must be sent. The gateway remembers the last value received even if a KNX bus reset or failure happens.

  ⚠ ***Important:*** *If an initial scene is enabled and it has (unchanged) or unlocked as the Value for Remote Lock, this would unlock the remote controller because the initial scene has priority over the Control_ Lock Remote Control communication object.*

4.1.3 Enable “Lock Control Objects” objects

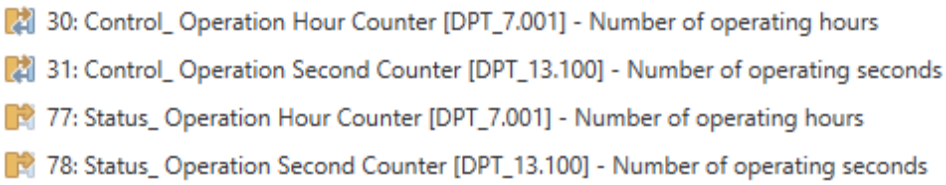
This parameter shows/hides the *Control_ Lock Control Objects* communication object which, depending on the sent value, locks or unlocks ALL the *Control_* communication objects except itself.



- 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 them, a **“0”** value must be sent. The gateway remembers the last value received even if a KNX bus reset or failure happens.

4.1.4 Enable func “Operating Hours Counter”

This parameter shows/hides the *Control_/Status_ Operation Hour Counter* and the *Control_/Status_ Operation Second Counter* communication objects, which count the number of operating hours and seconds for the INKNXMIT001I000.



- If set to **“no”**, the objects will not be shown.
- If set to **“yes”**, the *Control_/Status_ Operation Hour Counter* objects and the *Control_/Status_ Operation Second Counter* objects will appear.

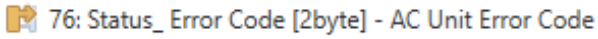
The status objects can be read, and they send their status every time an hour or second, respectively, is counted. The gateway keeps that count in memory and the status is also sent after a KNX bus reset or failure. To update the counter when needed, use the Control_ objects. To reset any of the counters, write a **“0”** value.

⚠ ***Important:*** *This object will return its status every time a value is written, but only if it’s different from the existing one.*

⚠ ***Important:*** *The gateway will not send the status to KNX if the stored value is zero.*

4.1.5 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.



- 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 it also sends the indoor unit error, if occurred, in a numeric format. A **“0”** value means no error.

4.2 Mode Configuration dialog

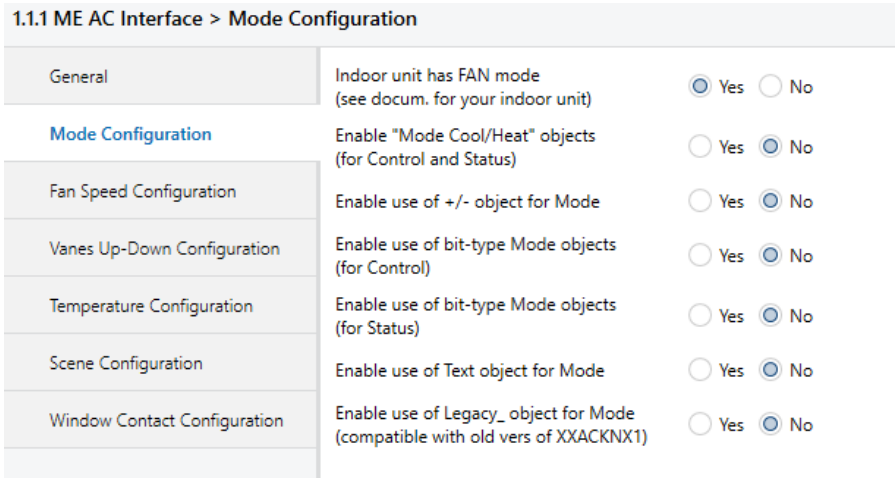
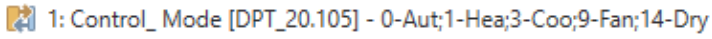


Figure 4.4 Default Mode Configuration dialog

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



The byte-type communication object for Mode works with the DPT_20.105. Auto mode will be enabled with a **“0”** value, Heat mode with a **“1”** value, Cool mode with a **“3”** value, Fan mode with a **“9”** value, and Dry mode with a **“14”** value.

4.2.1 Indoor unit has FAN mode

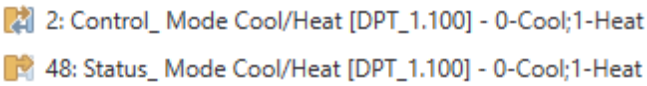
This parameter is used to indicate if the indoor unit has the *fan mode* available.

- Set it to **“no”** when the indoor unit does not have the *fan mode* available.
- Set it to **“yes”** when the indoor unit has the *fan mode* available.

⚠ ***Important:*** *To check if your indoor unit has a FAN mode available, refer to the indoor unit documentation.*

4.2.2 Enable "Mode Cool/Heat" objects (for Control and Status)

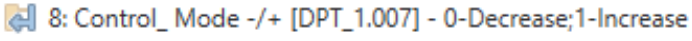
This parameter shows/hides the *Control_* and *Status_ Mode Cool/Heat* communication objects.



- 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 its 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 its value.

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.



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

➢ DPT type for +/- Mode Object

This parameter lets assign the datapoint type **0-Decrease / 1-Increase [DPT_1.007]** or **0-Up / 1-Down [DPT_1.008]** for the *Control_ Mode +/-* object.

The sequence followed when using this object is shown below:

- Up / Increase
- Down / Decrease

⚠ ***Important:*** *To check if your indoor unit has a FAN mode available, refer to the indoor unit documentation.*

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

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

- 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, send a **"1"** value.

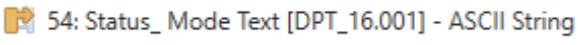
4.2.5 Enable use of bit-type Mode objects (for status)

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

- 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 a mode is enabled, its corresponding object will return a **"1"**.

4.2.6 Enable use of Text object for Mode

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



- If set to **"no"**, the object will not be shown.
- If set to **"yes"**, the *Status_ Mode Text* object will appear, and five text fields will be shown in the parameters section, one for each mode. Use these text fields to modify the text string that will be displayed by the *Status_ Mode Text* for each mode.

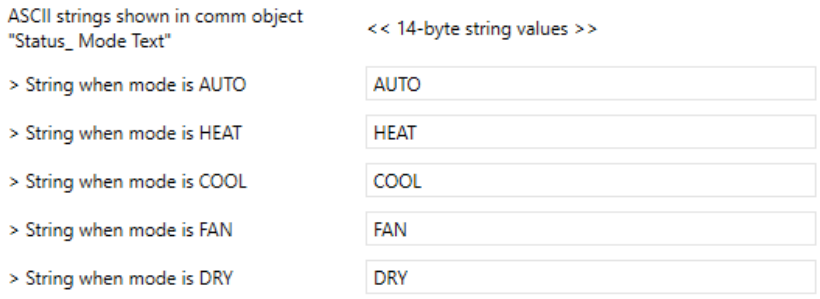
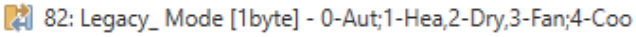


Figure 4.6 Parameter detail

4.2.7 Enable use of Legacy_ object for Mode

This parameter shows/hides the *Legacy_ Mode* communication object



- If set to **"no"**, the communication object will not be shown.
- If set to **"yes"**, the *Legacy_ Mode* communication object will appear. This object is used to change the indoor unit mode using a different datapoint type. It is used to maintain compatibility with certain older indoor unit models.

4.3 Fan Speed Configuration dialog

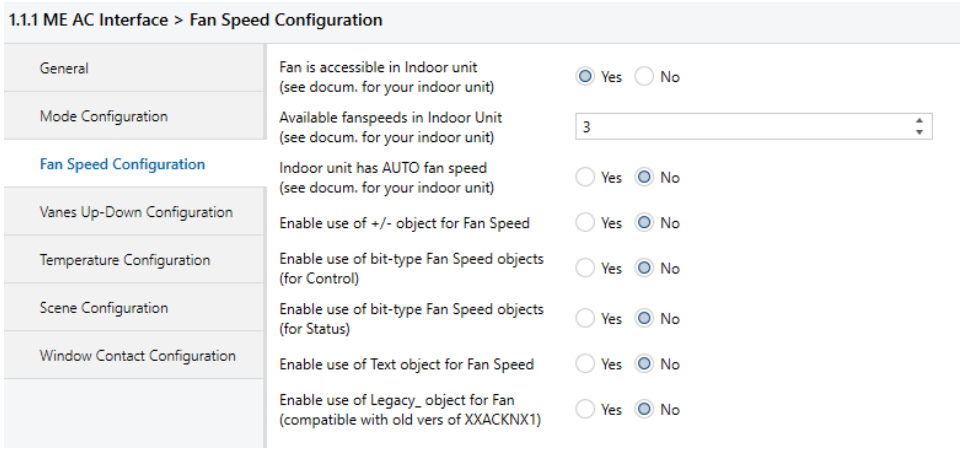
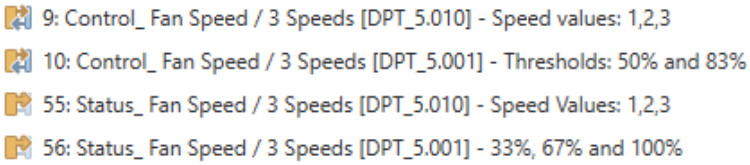


Figure 4.7 Default Fan Speed Configuration dialog

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

4.3.1 Fan is accessible in Indoor unit

Use this parameter to define whether the unit has a Fan Speed control available or not.

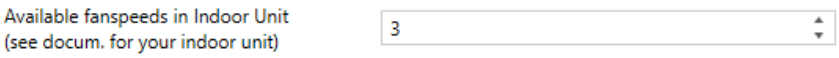


- If set to **"no"**, all the parameters and communication objects for the Fan Speed will not be shown.
- If set to **"yes"**, all the fan speed-related parameters and communication objects enabled in the parameters dialog will be shown.

⚠ ***Important:*** *To check if your indoor unit has fan speeds available, refer to the indoor unit documentation.*

4.3.2 Available fanspeeds in Indoor Unit

Use this parameter to define how many fan speeds are available in the indoor unit.

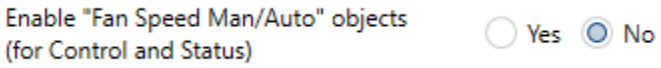


⚠ ***Important:*** *To check how many fan speeds are available in your indoor unit, refer to the indoor unit documentation.*

4.3.3 Indoor unit has AUTO fan speed

Use this parameter to define whether the indoor unit has Auto Fan Speed available or not.

- If set to **"no"**, the parameter and the communication objects for the Auto Fan Speed will not be shown.
- If set to **"yes"**, a new parameter will appear. Find more information on section *Enable "Fan Speed Manual/Auto" objects* on the next page.



⚠ ***Important:*** *To check if your indoor unit has auto fan speed available, refer to the indoor unit documentation.*

4.3.4 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.

- 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.

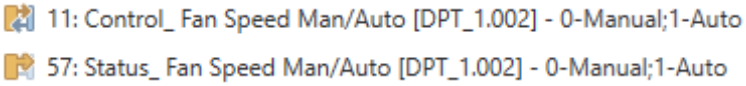
➢ DPT type for +/- Fan Speed Object

Use this parameter to choose between the **0-Up / 1-Down [DPT_1.008]** and **0-Decrease / 1-Increase [DPT_1.007]** DPTs for the *Control_ Fan Speed +/-* object.

4.3.5 Enable "Fan Speed Man/Auto"

This parameter appears when previous *Indoor Unit has AUTO fan speed* parameter is set to **"yes"**.

- If set to **"no"**, objects will not be shown.
- If set to **"yes"**, the *Control_* and *Status_ Fan Speed Man/Auto* objects will appear.



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

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

- If set to **"no"**, the objects will not be shown.
- If set to **"yes"**, the *Control_ Fan Speed* objects for Speed 1, Speed 2, Speed 3 (if available), and Speed 4 (if available) will appear. To activate a Fan Speed by using these objects, send a **"1"** value.

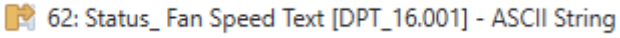
4.3.7 Enable use of bit-type Fan Speed objects (for Status)

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

- 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 (if available), and Speed 4 (if available) will appear. When a fan speed is enabled, its corresponding object will return a **"1"**.

4.3.8 Enable use of Text object for Fan Speed

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



- 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, five text fields will be shown, one for each Fan Speed. Use these fields to modify the text string that will be displayed by the *Status_ Fan Speed Text* for each fan speed.

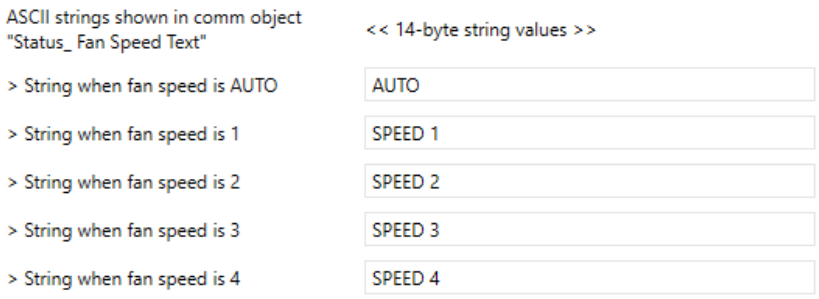


Figure 4.13 Parameter detail

4.3.9 Enable use of Legacy_ object for Fan Speed

This parameter shows/hides the *Legacy_ Fan Speed* communication object

- If set to **"no"**, the communication object will not be shown.
- If set to **"yes"**, the *Legacy_ Fan Speed* communication object will appear. This object is used to change the indoor unit fan speed, but using a different data type. It is used to maintain compatibility with older indoor unit models.

4.4 Vanes Up-Down Configuration dialog

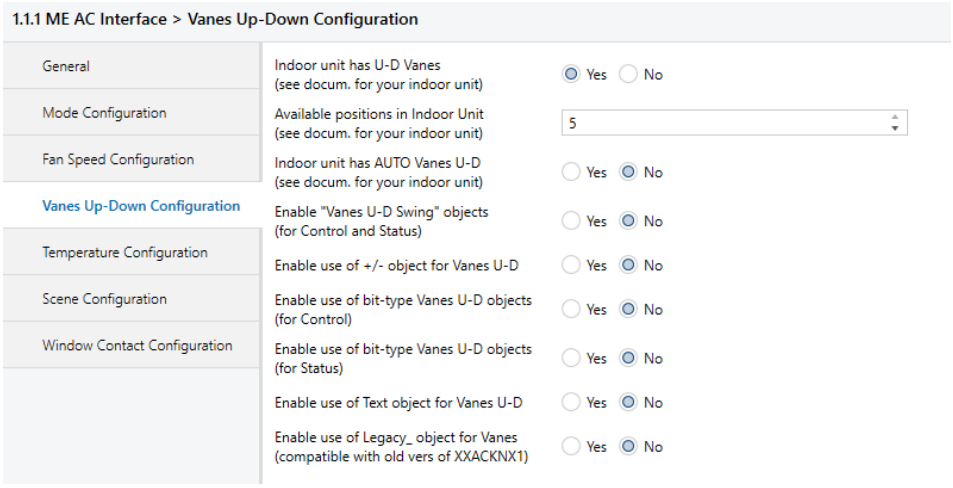
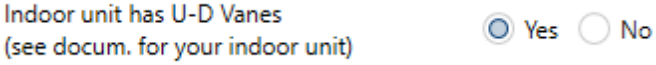


Figure 4.14 Vanes Up-Down Configuration dialog

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

4.4.1 Indoor unit has U-D Vanes

Use this parameter to define whether the unit has Up-Down Vanes available or not.



- If set to **"no"**, the parameters and communication objects for the Up-Down Vanes will not be shown.
- If set to **"yes"**, the parameters and communication objects enabled in their corresponding parameters for the Up-Down Vanes will be shown.

⚠ ***Important:*** *To check if your indoor unit has Up-Down Vanes available, refer to the indoor unit documentation.*

4.4.2 Available positions in Indoor Unit

Use this parameter to select how many vane positions are available in the indoor unit.

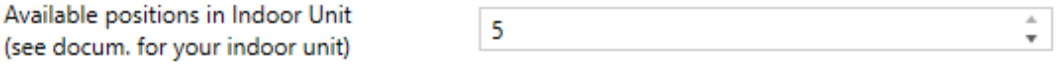


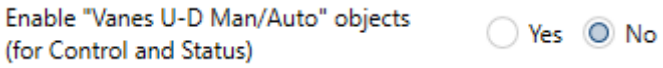
Figure 4.16 Parameter detail

⚠ ***Important:*** *To check how many vane positions are available, read the indoor unit documentation.*

4.4.3 Indoor unit has AUTO Vanes U-D

Use this parameter to define whether the indoor unit has Auto Vanes U-D available or not.

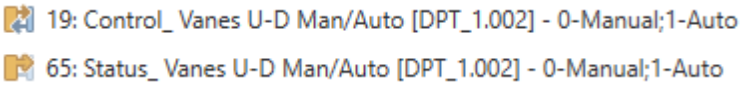
- If set to **"no"**, all the parameters and communication objects for the Auto Vanes U-D will not be shown.
- If set to **"yes"**, a new parameter will appear. Find more information about this parameter on the next section.



⚠ ***Important:*** *To check if Auto Vane Position is available, read the indoor unit documentation.*

4.4.4 Enable "Vanes U-D Man/Auto" objects (for Control and Status)

This parameter shows/hides the *Control_* and *Status_ Vanes U-D Man/Auto* communication objects.

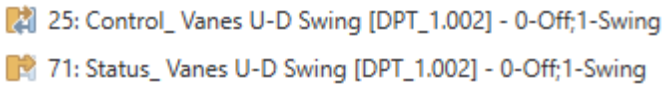


- If set to **"no"**, the objects will not be shown.
- If set to **"yes"**, the *Control_ Vanes U-D Man/Auto* and *Status_ Vanes U-D Man/Auto* objects will appear.
  - When a **"1"** value is sent to the *Control_* communication object, Vanes Up-Down will be in Auto mode, and the *Status_* object will return this value.
  - When a **"0"** value is sent to the *Control_* communication object, Vanes Up-Down will be in Manual mode, and the first position will be enabled. The *Status_* object will return this value.

⚠ ***Important:*** *When in Auto Mode, the indoor unit will choose the most appropriate vane up-down position, but the position value will not be shown neither in KNX nor in the remote controller.*

4.4.5 Enable “Vanes U-D Swing” objects (for Control and Status)

This parameter shows/hides the *Control_* and *Status_ Vanes U-D Swing* communication objects.



- If set to **“no”**, the objects will not be shown.
- If set to **“yes”**, the *Control_* and *Status_ Vanes U-D Swing* objects will appear.
  - When a **“1”** value is sent to the *Control_* communication object, Vanes Up-Down Swing will be enabled, and the *Status_* object will return this same value.
  - When a **“0”** value is sent to the *Control_* communication object, Vanes Up-Down Swing will be disabled. The *Status_* object will return this same value.

4.4.6 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.

- 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.

➢ DPT type for +/- Vanes U-D obj

Use this parameter to choose between the **0-Decrease / 1-Increase [DPT_1.007]** and **0-Up / 1-Down [DPT_1.008]** DPTs for the *Control_ Vanes U-D +/-* object.

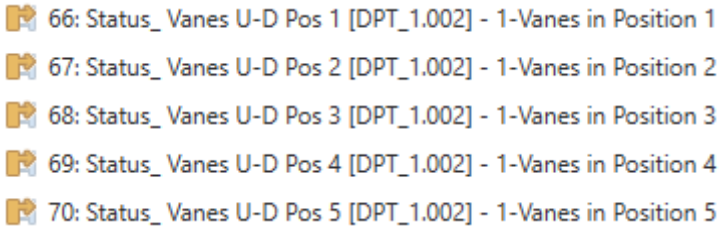
4.4.7 Enable use of bit-type Vanes U-D objects (for Control)

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

- If set to **"no"**, the objects will not be shown.
- If set to **"yes"**, the *Control_ Vanes U-D Pos* objects for each position will appear. To activate a Vanes Position through these objects, send a **"1"** value.

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

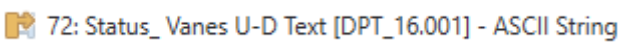
This parameter shows/hides the bit-type *Status_ Vanes U-D Pos* objects.



- 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, its corresponding object will return a **"1"**.

4.4.9 Enable use of Text object for Vane U-D

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



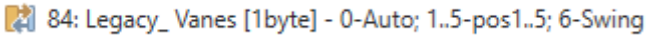
- If set to **"no"**, the object will not be shown.
- If set to **"yes"**, the *Status_ Vanes U-D Text* object will appear. Then, seven text fields will be shown in the parameters section: one for the Auto function, five for the different vanes positions, and one for the Swing function. Use these fields to modify the text string that will be displayed by the *Status_ Vanes U-D Text* for each possible value.

ASCII strings shown in comm object "Status_ Vanes U-D Text"	<< 14-byte string values >>
> String when vanes U-D in AUTO	U-D AUTO
> String when vanes U-D in POS 1	U-D POS 1
> String when vanes U-D in POS 2	U-D POS 2
> String when vanes U-D in POS 3	U-D POS 3
> String when vanes U-D in POS 4	U-D POS 4
> String when vanes U-D in POS 5	U-D POS 5
> String when vanes U-D in SWING	U-D SWING

Figure 4.20 Parameter detail

4.4.10 Enable use of Legacy_ object for Vanes

This parameter shows/hides the *Legacy_ Vanes* communication object



- If set to **"no"**, the communication object will not be shown.
- If set to **"yes"**, the communication object will appear. This object is used to change the indoor unit vanes behavior but it uses a different data type. It is used to maintain compatibility with older indoor unit models.

4.5 Temperature Configuration dialog

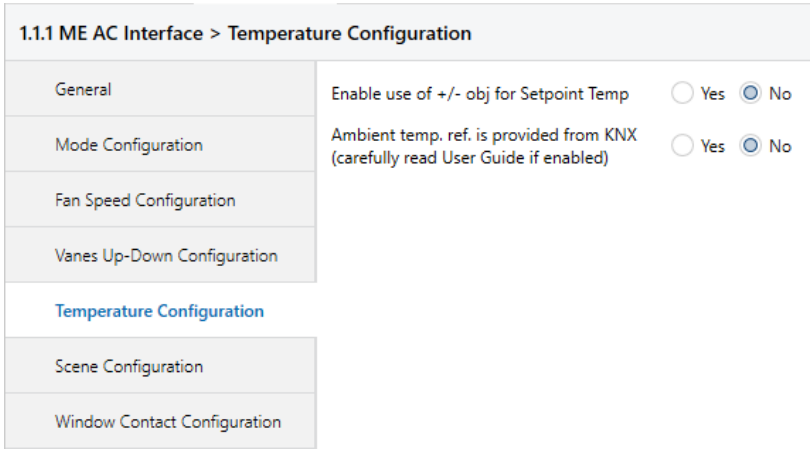
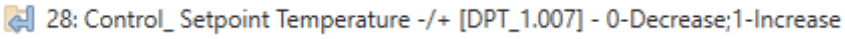


Figure 4.21 Default Temperature Configuration dialog

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

4.5.1 Enable use of +/- obj for Setpoint Temp

This parameter shows/hides the *Control_ Setpoint Temperature -/+* communication object, which is used to change the indoor unit setpoint temperature by using two different datapoint types.



- If set to **"no"**, the object will not be shown.
- If set to **"yes"**, the *Control_ Setpoint Temperature -/+* object and a new parameter will appear.

Figure 4.22 Parameter detail

➢ DPT type for +/- Setp Temp object

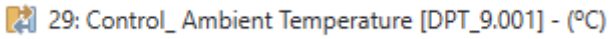
Use this parameter to choose between the **0-Decrease / 1-Increase [DPT_1.007]** and **0-Up / 1-Down [DPT_1.008]** DPTs for the *Control_ Setpoint Temperature -/+* object.

(Lower limit) **19°C** ⇄ 20°C ⇄ … ⇄ 27°C ⇄ **28°C** (Upper limit)

- Up / Increase
- Down / Decrease

4.5.2 Ambient temp. ref. is provided from KNX

This parameter shows/hides the *Control_ Ambient Temperature* communication object which is used to contain an ambient temperature reference provided by a KNX device.



- If set to **"no"**, the object will not be shown.
- If set to **"yes"**, the *Control_ Ambient Temperature* object will appear. This object is meant to be enabled when you want the temperature provided by a KNX sensor to be the reference ambient temperature for the air conditioner. In that case, the following formula applies for calculation of the real *Control_ Setpoint Temperature* sent to the AC unit:

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

- AC Setp. Temp: AC indoor unit setpoint temperature
- AC Ret. Temp: AC indoor unit return temperature
- KNX Amb. Temp: Ambient temperature provided from KNX
- KNX Setp. Temp: Setpoint temperature provided from KNX

Consider the following situation, as an example:

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

In this example, the final setpoint temperature that ME-AC-KNX-1 will send out to the indoor unit (shown in "Setp. Temp") will become 24°C – (21°C – 19°C) = **22°C**. This is the setpoint that will actually be requested to the Mitsubishi Electric unit.

This formula will be applied as soon as the *Control_ Setpoint Temperature* and *Control_ Ambient Temperature* objects are written at least once from the KNX installation. After that, they are kept always consistent.

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

4.6 Scene Configuration dialog

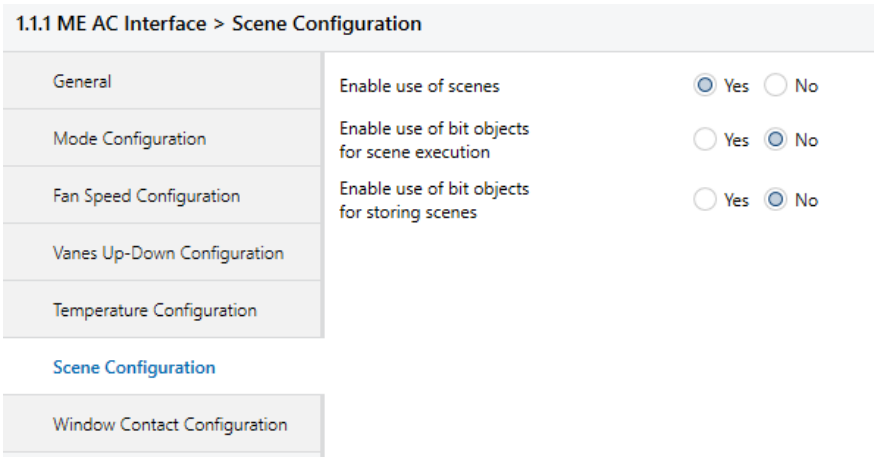
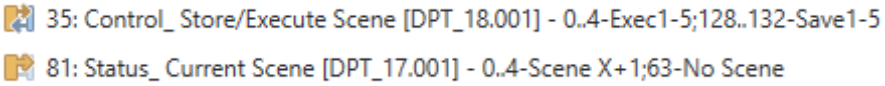


Figure 4.23 Parameter detail

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

4.6.1 Enable use of scenes

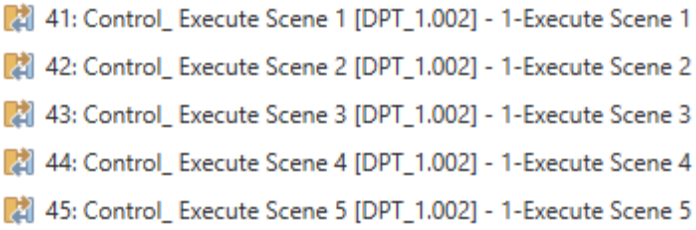
This parameter shows/hides the scene configuration parameters and communication objects.



- 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, each one corresponding to a different scene (i.e. "0" for Scene 1, "1" for Scene 2, and so on up to "4" for Scene 5).

4.6.2 Enable use of bit objects for scene execution

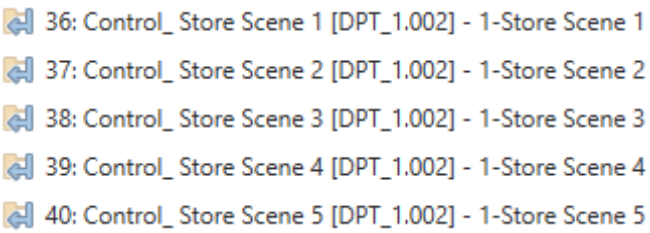
This parameter shows/hides the *Control_ Execute Scene* bit-type communication objects.



- 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, send a **"1"** value to the scene's object we want to execute (i.e., to execute scene 4, send a "1" to the *Control_ Execute Scene 4* object).

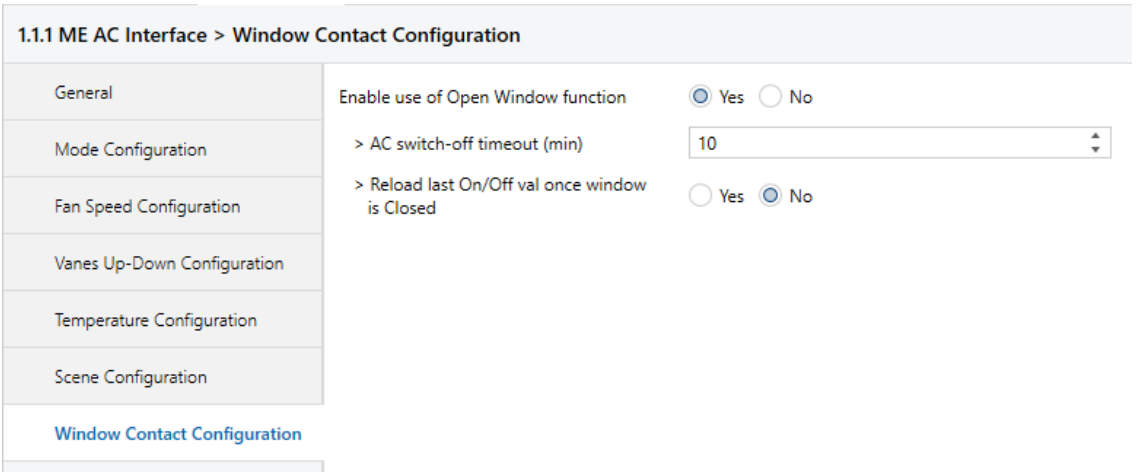
4.6.3 Enable use of bit objects for storing scenes

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



- 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, send a "1" value to the corresponding scene's object (i.e., to store scene 4, send a "1" to the Control_ Store Scene 4 object).

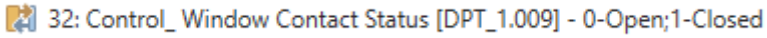
4.7 Window Contact Configuration dialog



This parameter shows/hides the *Control_ Window Contact Status* communication object, which is used to report when a window is opened or closed to start/stop a timeout to switch off the indoor unit.

4.7.1 Enable use of Open Window function

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



- If set to **"no"**, the object will not be shown.
- If set to **"yes"**, the *Control_ Window Contact Status* object and two additional parameters will appear. When this object receives a value of **"0"**, it indicates that the window is open. If the indoor unit is currently on, the switch-off timeout will start. When the object receives a value of **"1"**, it indicates that the window is closed, and the switch-off timeout will be canceled.

4.7.2 AC switch-off timeout (min)

Use this parameter to specify how long it takes, in minutes, before switching off the indoor unit.

4.7.3 Reload last On/Off val once window is closed?

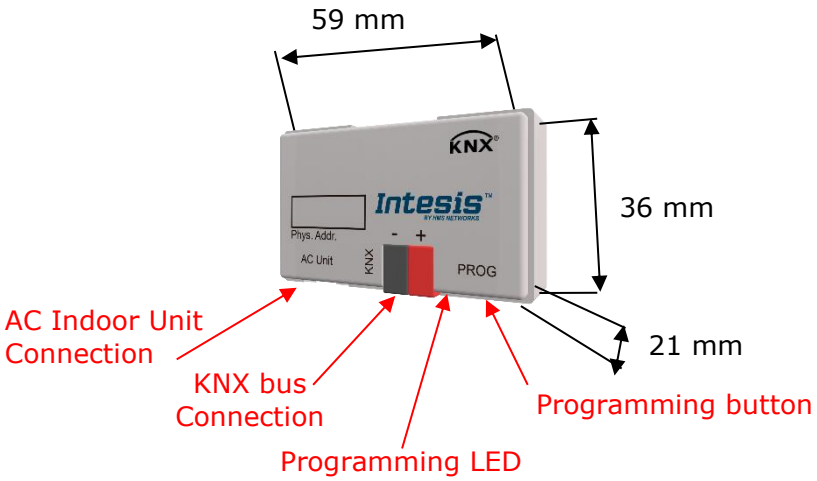
If set to **"no"**, once the switch-off timeout is stopped, any value will be reloaded.

If set to **"yes"**, once the window is closed, 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.

5. Specifications

Enclosure	ABS (UL 94 HB), 2,5 mm thick Net dimensions (dxwxh): 59 x 36 x 21 mm / 4" x 2.8" x 1.2" Color: Light White	Operation Temperature	-25°C to 60°C
Weight	42 g	Stock Temperature	-40°C to 85°C
Power supply	29V DC, 5mA Supplied through KNX bus	Operational Humidity	<90% RH, non-condensing
Terminal Wiring (for low-voltage signals)	For terminal: solid wires or stranded wires (twisted or with ferrule) One core: 0.5mm²… 2.5mm² Two cores: 0.5mm²… 1.5mm² Three cores: Not permitted	Stock Humidity	<90% RH, non-condensing
KNX port	1 x KNX TP1 (EIB) port opto-isolated. Plug-in terminal block (2 poles). TNV-1	Isolation voltage	4000 V
AC unit port	1 x Specific connector Specific cable included	Protection	IP20 (IEC60529)
Configuration	Configuration with ETS	Buttons	1 x KNX programming
LED indicators	1 x KNX programming		
RoHS conformity	Compliant with RoHS directive (2002/95/CE).		
Certifications	CE conformity to EMC directive (2004/108/EC) and Low-voltage directive (2006/95/EC) EN 61000-6-3; 61000-6-1; EN 60950-1; EN 50491-3;		



6. AC Unit Types compatibility.

Use the compatibility tool to search for the Mitsubishi Electric indoor unit model references that are compatible with the INKNXMIT001I000 gateway:

https://compatibility.intesis.com/

7. Error Codes

Error Code	Description
-1	Communication error between the INKNXMIT001I000 gateway and the AC unit
0	No active error
0001	Communication error with the AC unit
1102	Discharge Temperature high
1108	Internal thermostat detector working (49C)
1110	Outdoor unit fail
1300	Pressure low
1302	Pressure high (High pressure probe working 63H)
1503	Protection against freeze or battery high temperature
1504	Protection against freeze or battery high temperature
1504	Overheating protection
1509	High pressure error (ball valve closed)
1520	Super heating anomaly due to low temp. of discharge. (TH4)
2500	Erroneous operation of drain pump
2502	Erroneous operation of drain pump
2503	Drain sensor anomaly (DS)
4030	Serial transmission error
4100	Compressor pause due to excess of current (initial block)
4101	Compressor pause due to excess of current (overload)
4102	Phase detection opened
4103	Anti-phase detection
4108	Phase opened in phase L2 or connector 51CM opened
4118	Error in the anti-phase detector (electronic board)
4124	Connector 49L opened
4210	Cut due to over-current of compressor
4220	Voltage anomaly
4230	Radiator panel temperature anomaly (TH8)
5101	Ambient temperature probe anomaly (TH1), indoor unit
5102	Liquid probe anomaly (TH2)
5103	Cond/Evap probe anomaly (TH5)
5104	Error detection in discharge temperature
5105	Outdoor probe error TH3
5106	Outdoor probe errorTH7
5107	Outdoor probe errorTH6
5110	Outdoor probe errorTH8
5202	Connector 63L opened
5300	Current probe error
6600	MNET duplicated address definition
6602	MNET Line transmission hardware error
6603	MNET BUS busy
6606	MNET Line transmission error
6607	MNET transmission error
6607	MNET without ack
6608	MNET transmission error
6608	MNET without response
6831	IR remote control transmission error (reception error)
6832	IR remote control transmission error (transmission error)
6840	Transmission error with the indoor/outdoor unit (reception error)
6841	Transmission error with the indoor/outdoor unit (transmission error)
6844	Error in inter-connection cable in the indoor/outdoor unit, indoor unit number deactivated (5 min or more)
6845	Error in inter-connection cable in the indoor/outdoor unit (cabling error, disconnection)
6846	Initial timer deactivated

In case you detect an error code not listed, contact your nearest Mitsubishi Electric technical support service for more information on the error meaning.

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
Mode	**1**	Control_ Mode	1 byte	DPT_HVACContrMode	20.105		W	T		0 - Auto; 1 - Heat; 3 - Cool; 9 - Fan; 14 - Dry
	2	Control_ Mode Cool/Heat	1 bit	DPT_Heat/Cool	1.100		W	T		0 - Cool; 1 - Heat;
	3	Control_ Mode Auto	1 bit	DPT_Bool	1.002		W	T		1 - Auto
	4	Control_ Mode Heat	1 bit	DPT_Bool	1.002		W	T		1 - Heat
	5	Control_ Mode Cool	1 bit	DPT_Bool	1.002		W	T		1 - Cool
	6	Control_ Mode Fan	1 bit	DPT_Bool	1.002		W	T		1 - Fan
	7	Control_ Mode Dry	1 bit	DPT_Bool	1.002		W	T		1 - Dry
	8	Control_ Mode -/+ / Control_ Mode +/-	1 bit	DPT_Step / DPT_UpDown	1.007 / 1.008		W			0 - Decrease; 1 – Increase / 0 - Up; 1 - Down
Fan Speed	**9**	Control_ Fan Speed / 2 (3)(4) Speeds	1 byte	DPT_Enumerated	5.010		W	T		1 - Speed 1; 2 - Speed 2; (3 Speed 3; 4 - Speed 4)
	10	Control_ Fan Speed Manual/Auto	1 bit	DPT_Bool	1.002		W	T		0 - Manual; 1 - Auto
	11	Control_ Fan Speed 1	1 bit	DPT_Bool	1.002		W	T		1 – Set Fan Speed 1
	12	Control_ Fan Speed 2	1 bit	DPT_Bool	1.002		W	T		1 – Set Fan Speed 2
	13	Control_ Fan Speed 3	1 bit	DPT_Bool	1.002		W	T		1 – Set Fan Speed 3
	14	Control_ Fan Speed 4	1 bit	DPT_Bool	1.002		W	T		1 – Set Fan Speed 4
	15	Control_ Fan Speed -/+ / Control_ Fan Speed +/-	1 bit	DPT_Step / DPT_UpDown	1.007 / 1.008		W			0 - Decrease; 1 – Increase / 0 - Up; 1 - Down
Vanes Up-Down	**16**	Control_ Vanes U-D / 5 pos	1 byte	DPT_Enumerated	5.010		W	T		1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4; 5 - Pos5
	17	Control_ Vanes U-D Man/Auto	1 bit	DPT_Bool	1.002		W	T		0 – Manual; 1 - Auto
	18	Control_ Vanes U-D Pos1	1 bit	DPT_Bool	1.002		W	T		1 – Set Position 1
	19	Control_ Vanes U-D Pos2	1 bit	DPT_Bool	1.002		W	T		1 – Set Position 2
	20	Control_ Vanes U-D Pos3	1 bit	DPT_Bool	1.002		W	T		1 – Set Position 3
	21	Control_ Vanes U-D Pos4	1 bit	DPT_Bool	1.002		W	T		1 – Set Position 4
	22	Control_ Vanes U-D Pos5	1 bit	DPT_Bool	1.002		W	T		1 – Set Position 5
	23	Control_ Vanes U-D Swing	1 bit	DPT_Bool	1.002		W	T		0 – Off; 1 – Swing

	24	Control_ Vanes U-D -/+ / Control_ Vanes U-D +/-	1 bit	DPT_Step / DPT_UpDown	1.007 / 1.008		W	T		0 - Decrease; 1 – Increase / 0 - Up; 1 - Down
Temperature	**25**	Control_ Setpoint Temperature	2 byte	DPT_Value_Temp	9.001		W	T		(°C)
	26	Control_ Setpoint Temp -/+ / Control_ Setpoint Temp +/-	1 bit	DPT_Step / DPT_UpDown	1.007 / 1.008		W			0 - Decrease; 1 – Increase / 0 - Up; 1 - Down
	27	Control_ Ambient Temperature	2 byte	DPT_Value_Temp	9.001		W	T		(°C)
Counter	**28**	Control_ Operation Hour Counter	2 byte	DPT_Value_2_Ucount	7.001		W	T		Number of operating hours
Window	**29**	Control_ Window Contact Status	1 bit	DPT_OpenClose	1.009		W	T		0 - Open; 1 - Closed
Locking	**30**	Control_ Lock Remote Control	1 bit	DPT_Bool	1.002		W	T		0 - Unlocked; 1 - Locked
	31	Control_ Lock Control Objects	1 bit	DPT_Bool	1.002		W	T		0 - Unlocked; 1 - Locked
Scenes	**32**	Control_ Store/Exec Scene	1 byte	DPT_SceneControl	18.001		W	T		0..4-Exec1-5;128..132-Save1-5
	33	Control_ Store Scene1	1 bit	DPT_Bool	1.002		W			1 - Store Scene
	34	Control_ Store Scene2	1 bit	DPT_Bool	1.002		W			1 - Store Scene
	35	Control_ Store Scene3	1 bit	DPT_Bool	1.002		W			1 - Store Scene
	36	Control_ Store Scene4	1 bit	DPT_Bool	1.002		W			1 - Store Scene
	37	Control_ Store Scene5	1 bit	DPT_Bool	1.002		W			1 - Store Scene
	38	Control_ Execute Scene1	1 bit	DPT_Bool	1.002		W	T		1 - Execute Scene
	39	Control_ Execute Scene2	1 bit	DPT_Bool	1.002		W	T		1 - Execute Scene
	40	Control_ Execute Scene3	1 bit	DPT_Bool	1.002		W	T		1 - Execute Scene
	41	Control_ Execute Scene4	1 bit	DPT_Bool	1.002		W	T		1 - Execute Scene
	42	Control_ Execute Scene5	1 bit	DPT_Bool	1.002		W	T		1 - Execute Scene
ON/OFF	**43**	Status_ On/Off	1 bit	DPT_Switch	1.001	R		T		0 - Off; 1-On
Mode	**44**	Status_ Mode	1 byte	DPT_HVACContrMode	20.105	R		T		0 - Auto; 1 - Heat; 3 - Cool; 9 - Fan; 14 - Dry
	45	Status_ Mode Cool/Heat	1 bit	DPT_Heat/Cool	1.100	R		T		0 - Cool; 1 - Heat
	46	Status_ Mode Auto	1 bit	DPT_Bool	1.002	R		T		1 - Auto
	47	Status_ Mode Heat	1 bit	DPT_Bool	1.002	R		T		1 - Heat
	48	Status_ Mode Cool	1 bit	DPT_Bool	1.002	R		T		1 - Cool
	49	Status_ Mode Fan	1 bit	DPT_Bool	1.002	R		T		1 - Fan
	50	Status_ Mode Dry	1 bit	DPT_Bool	1.002	R		T		1 - Dry
	51	Status_ Mode Text	14 byte	DPT_String_8859_1	16.001	R		T		ASCII String
Fan	**52**	Status_ Fan Speed / 2 (3)(4) Speeds	1 byte	DPT_Enumerated	5.010		W	T		1 - Speed 1; 2 - Speed 2; (3 Speed 3; 4 - Speed 4)

Fan	**53**	Status_ Fan Speed Manual/Auto	1 bit	DPT_Bool	1.002	R		T		0 – Manual; 1 - Auto
	54	Status_ Fan Speed 1	1 bit	DPT_Bool	1.002	R		T		1 – Fan is in speed 1
	55	Status_ Fan Speed 2	1 bit	DPT_Bool	1.002	R		T		1 – Fan is in speed 2
	56	Status_ Fan Speed 3	1 bit	DPT_Bool	1.002	R		T		1 - Fan is in speed 3
	57	Status_ Fan Speed 4	1 bit	DPT_Bool	1.002	R		T		1 - Fan is in speed 4
	58	Status_ Fan Speed Text	14 byte	DPT_String_8859_1	16.001	R		T		ASCII String
Vanes Up-Down	**59**	Status_ Vanes U-D / 4 (5) pos	1 byte	DPT_Enumerated	5.010	R		T		1 - Pos1; 2 - Pos2; 3 - Pos3; 4 - Pos4; (5 - Pos5)
	60	Status_ Vanes U-D Man/Auto	1 bit	DPT_Bool	1.002	R		T		0 – Manual; 1 - Auto
	61	Status_ Vanes U-D Pos1	1 bit	DPT_Bool	1.002	R		T		1 - Position 1
	62	Status_ Vanes U-D Pos2	1 bit	DPT_Bool	1.002	R		T		1 - Position 2
	63	Status_ Vanes U-D Pos3	1 bit	DPT_Bool	1.002	R		T		1 - Position 3
	64	Status_ Vanes U-D Pos4	1 bit	DPT_Bool	1.002	R		T		1 - Position 4
	65	Status_ Vanes U-D Pos5	1 bit	DPT_Bool	1.002	R		T		1 - Position 5
	66	Status_ Vanes U-D Swing	1 bit	DPT_Bool	1.002	R		T		0 – Off; 1 – Swing
	67	Status_ Vanes U-D Text	14 byte	DPT_String_8859_1	16.001	R		T		ASCII String
Temperature	**68**	Status_ AC Setpoint Temp	2 byte	DPT_Value_Temp	9.001	R		T		(°C)
	69	Status_ AC Return Temperature	2 byte	DPT_Value_Temp	9.001	R		T		(°C)
Error	**70**	Status_ Error/Alarm	1 bit	DTP_Alarm	1.005	R		T		0 - No Alarm; 1 - Alarm
	71	Status_ Error Code	2 byte	Enumerated		R		T		0 - No Error; Any other see user manual
Counter	**72**	Status_ Operation Hour Counter	2 byte	DPT_Value_2_Ucount	7.001	R		T		Number of operating hours
Locking	**73**	Status_ Lock Remote Control	1 bit	DPT_Bool	1.002	R		T		0 - Unlocked; 1 – Locked
	74	Status_ Lock Control Objects	1 bit	DPT_Bool	1.002	R		T		0 - Unlocked; 1 – Locked
Scene	**75**	Status_ Current Scene	1 byte	DPT_SceneNumber	17.001	R		T		0 to 4 - Scene 1 to 5; 63 - No Scene
Legacy	**76**	Legacy_ Mode	1 byte	Enumerated		R		T		0 - Auto; 1 - Heat; 2 - Dry; 3 - Fan; 4 - Cool
	77	Legacy_ Fan Speed	1 byte	Enumerated		R		T		0 – Auto; 1..4 – Speed 1..4
	78	Legacy_ Vanes	1 byte	Enumerated		R		T		0 – Auto; 1..5 – Pos 1..5; 6 - Swing