IntesisBox® KNX

Mitsubishi Electric air conditioners
(Domestic & Mr.Slim lines)

Release **V.0.2**

User Manual

Interface for integration of Mitsubishi Electric air conditioners (Domestic and Mr.Slim lines) into KNX TP-1 (EIB) control systems.

Order Code: **ME-AC-KNX-1-V2**

INDEX

1. Presentation

ME-AC-KNX-1-V2 allows a complete and natural integration of Mitsubishi Electric air conditioners with KNX control systems.

Compatible with all models of Domestic and Mr.Slim lines of air conditioners.

Main features:

• Reduced dimensions. Installation even inside the A.C. indoor unit.

• Quick and non visible installation.

• External power not required.

• Direct connection to the KNX EIB bus.

• Direct connection to the AC indoor unit.

• Fully KNX interoperable, certified by KNX, configuration from ETS.

• Multiple objects for control (of different types: bit, byte, characters…).

• 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.

• 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.

• AC unit can be controlled simultaneously by the IR remote control of the AC unit and by KNX.

• Up to 5 scenes can be saved and executed from KNX, fixing the desired combination of Operation Mode, Set Temperature, Fan Speed, and Vane Position in any moment by using a simple switching.
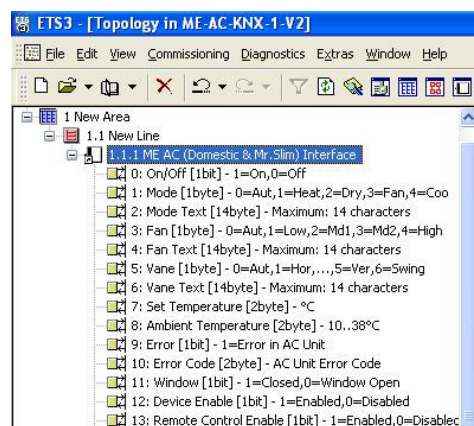
2. Connection

The interface comes with a cable (3 meters long) 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 the 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 ME-AC-KNX-1-V2 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 ME-AC-KNX-1-V2 inside or outside the AC indoor unit depending on your needs, remember that ME-AC-KNX-1-V2 must be also connected to the KNX bus. Close the AC indoor unit's front cover again.

IMPORTANT: Do not modify the length of the cable supplied with the interface, it may affect to the correct operation of the interface.

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:
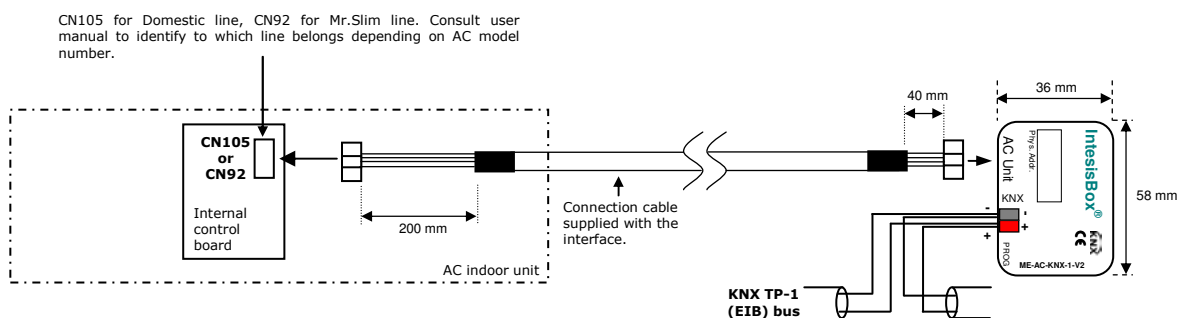
3. Configuration and setup

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 donwloaded from:

IMPORTANT: Do not forget to select the correct model of AC indoor unit connected to the interface, this is in "Parameters" of the device in ETS.

4. KNX communication objects

Main Objects.

Object #	0
Name	**On/Off [1bit]**
Function	1-On, 0-Off
Description	This object is used to Start (On) and Stop (Off) the AC unit
Access type	Read/Write
Data type ID	1.001

Object #	1
Name	**Mode [1byte]**
Function	0=Aut, 1=Heat, 2=Dry, 3=Fan, 4=Cool
Description	This object is used to monitor the Operation Mode in the AC unit
Access type	Read-only
Data type ID	5

Object #	2
Name	**Mode Text [14 bytes]**
Function	14 characters maximum
Description	This object is a text description of the selected Operation Mode
Access type	Read-only
Data type ID	16.001

Object #	3
Name	**Fan [1byte]**
Function	0=Aut, 1=Low, 2=Md1, 3=Md2, 4=High
Description	This object is used to monitor the Fan speed in the AC unit
Access type	Read-only
Data type ID	5

Object #	4
Name	**Fan Text [14 bytes]**
Function	14 characters maximum
Description	This object is a text description of the selected Fan speed
Access type	Read-only
Data type ID	16.001

Object #	5
Name	**Vane [1byte]**
Function	0=Aut, 1=Hor, 2=Pos2, 3=Pos3, 4=Pos4, 5=Ver, 6=Swing
Description	This object is used to monitor the Vane position in the AC unit
Access type	Read-only
Data type ID	5

Object #	6
Name	**Vane Text [14 bytes]**
Function	14 characters maximum
Description	This object is a text description of the selected Vane position
Access type	Read-only
Data type ID	16.001

Object #	7
Name	***Set Temperature [2bytes]***
Function	31..16ºC or 30..19ºC or 28..17ºC depending on AC unit type, see below
Description	This object controls the temperature setpoint of the AC unit. Value is meant to be written only when "Virtual Temperature Control" parameter is inactive (set to "No").
Access type	Read/Write
Data type ID	9.001

Object #	8
Name	***Ambient Temperature [2bytes]***
Function	10..38ºC
Description	This object indicates the current ambient temperature measured by the AC indoor unit
Access type	Read-only
Data type ID	9.001

Object #	9
Name	***Error [1bit]***
Function	1=Operation Error
Description	This object, when set to 1, indicates either an error in the AC unit or communication failure between AC unit and ME-AC-KNX-1-V2.
Access type	Read-only
Data type ID	1.001

Object #	10
Name	***Error Code [2bytes]***
Function	AC Unit Error Code
Description	This object indicates the Error Code of the AC unit. Note that a value of 8000h means no error; 8001h means communication error between ME-AC-KNX-1-V2 and the AC Unit. Consult further error codes in the list below.
Access type	Read-only
Data type ID	7

Object #	14
Name	***Save/Execute Scene [1byte]***
Function	For Save: 128=Scene1, 129=Scene2, 130=Scene3, 131=Scene4, 132=Scene5 For Execute: 0=Scene1, 1=Scene2, 2=Scene3, 3=Scene4, 4=Scene5
Description	This object is used to store/execute a scene (a scene is a given combination of set values for Operation Mode, Setpoint Temperature, Fan speed, and Vane position in the AC unit). The current combination of these values are stored in ME-AC-KNX-1-V2's eeprom when saving, and retrieved from memory and set in the AC unit when executing.
Access type	Write-only
Data type ID	5

Object #	15
Name	**Current Scene [1byte]**
Function	0=Scene1, 1=Scene2, 2=Scene3, 3=Scene4, 4=Scene5
Description	This object is used to monitor the active scene (a scene a is given combination of set values for Operation Mode, Setpoint Temperature, Fan speed, and Vane position in the AC unit).
Access type	Read-only
Data type ID	5

Object #	16
Name	**Time Counter [2byte]**
Function	0.. 65535 hours
Description	This object indicates the AC indoor unit's operation time (in hours). Value is stored in ME-AC-KNX-1-V2's eeprom. This value can be used for maintenance control of AC indoor unit's filter, as well as for monitoring AC unit's operation time. Set to 0 for clearing its value after filter maintenance.
Access type	Read/Write
Data type ID	7.001

Object #	17
Name	**Virtual Set Temperature [2bytes]**
Function	31..16ºC or 30..19ºC or 28..17ºC depending on AC unit type, see below
Description	This object is used to set the temperature setpoint from a external KNX control (thermostat). It is meant to be used only when ambient temperature is read from an external KNX sensor. Value is used by ME-AC-KNX-1-V2 only when "Virtual Temperature Control" parameter is active (set to "Yes"). See "Virtual Ambient Temperature" communication object and "Virtual Temperature Control" parameter. Object's value is read from bus on startup.
Access type	Write-only
Data type ID	9.001

Object #	18
Name	**Virtual Ambient Temperature [2bytes]**
Function	10..38ºC
Description	This object is used to indicate to the AC unit the present ambient temperature measured by an external KNX sensor. Value is used by ME-AC-KNX-1-V2 only when "Virtual Temperature Control" parameter is active (set to "Yes"). See "Virtual Set Temperature" communication object and "Virtual Temperature Control" parameter. Object's value is read from bus on startup.
Access type	Write-only
Data type ID	9.001

Accessory Objects.

Object #	11
Name	***Window [1bit]***
Function	0=Open, 1=Close
Description	Indicates to the AC unit the status of the room's window. If opened, after the minutes indicated in the parameter "Minutes Window", the AC unit will be switched off automatically. The AC unit will remain OFF while the window is open. If "Minutes Window" is 0, the AC unit will be switched off immediately. Object's value is read from bus on startup.
Access type	Write-only
Data type ID	1.009

Object #	12
Name	***Device enable [1bit]***
Function	0=Disabled,1= Enabled
Description	This object indicates wheter the ME-AC-KNX-1-V2 is enabled or disable. Value is stored in ME-AC-KNX-1-V2's eeprom. If disabled, the only active object of ME-AC-KNX-1-V2 will be this one, the rest of objects will not be operative. To enable again ME-AC-KNX-1-V2, just set this object to 1. Factory value for this object is "1-Enabled".
Access type	Read/Write
Data type ID	1.003

Object #	13
Name	***Remote control enable [1bit]***
Function	0=Disabled, 1=Enabled
Description	This object is used to disable/enable the AC indoor unit's remote control. Value is stored in ME-AC-KNX-1-V2's eeprom. If enabled, the AC unit can be controlled simultaneously by both, the AC unit's remote control and KNX. Factory value for this object is "1-Enabled".
Access type	Read/Write
Data type ID	1.003

Bit Objects for selection of Operation Mode. Only one from the five objects will be active in any moment. If 1 is written in any of them, the rest will be forced to zero. If the AC unit changes of Operation Mode, the corresponding object will be activated (1) and the rest will be forced to zero.

Object #	19
Name	**Mode Auto [1bit]**
Function	1=Mode Auto Activated
Description	Indicates or activates this Operation Mode with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	20
Name	**Mode Heat [1bit]**
Function	1=Mode Heat Activated
Description	Indicates or activates this Operation Mode with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	21
Name	**Mode Dry [1bit]**
Function	1=Mode Dry Activated
Description	Indicates or activates this Operation Mode with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	22
Name	**Mode Fan [1bit]**
Function	1=Mode Ventilation Activated
Description	Indicates or activates this Operation Mode with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	23
Name	**Mode Cool [1bit]**
Function	1=Mode Cold Activated
Description	Indicates or activates this Operation Mode with a value of 1.
Access type	Read/Write
Data type ID	1.001

Bit Object for Increase/Decrease of Fan Speed.

Object #	24
Name	***Fan [+/-][1bit]***
Function	1=Decrease, 0=Increase
Description	With every write of 1, the fan speed decreases in one step. Writing 0 increases the speed in one step. When the maximum speed is reached, it changes to automatic.
Access type	Write-only
Data type ID	1.008

Bit Objects for Selection of Fan Speed. Only one from the five objects will be active in any moment. If 1 is written in any of them, the rest will be forced to zero. If the AC unit changes of Fan Speed, the corresponding object will be activated (1) and the rest will be forced to zero.

Object #	25
Name	***Fan Auto [1bit]***
Function	1=Fan in Auto
Description	Indicates or activates this Fan speed with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	26
Name	***Fan Low [1bit]***
Function	1=Fan Low
Description	Indicates or activates this Fan speed with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	27
Name	***Fan Mid1 [1bit]***
Function	1=Fan Middle1
Description	Indicates or activates this Fan speed with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	28
Name	***Fan Mid2 [1bit]***
Function	1=Fan Middle2
Description	Indicates or activates this Fan speed with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	29
Name	***Fan High [1bit]***
Function	1=Fan High
Description	Indicates or activates this Fan speed with a value of 1.
Access type	Read/Write
Data type ID	1.001

Bit Object for Change of Vane Position in steps.

Object #	30
Name	***Vane [+/-][1bit]***
Function	1=To Horizontal, 0=To Vertical
Description	With every write of 0, the vane position increases (goes one step to vertical position). Every write of 1 decreases the vane position (goes one step to horizontal position). Logical sequence is: 0-Auto; 1-Horizontal; 2-Pos1; 3-Pos2; 4-Pos3; 5-Vertical; 6-Swing. When going to vertical, after Vertical position, it goes to Swing and then goes round to Auto again. When going to horizontal, after Horizontal position, it goes to Auto and then goes round to Swing again.
Access type	Write-only
Data type ID	1.008

Bit Objects for Selection of Vane Position. Only one from the seven objects will be active in any moment. If 1 is written in any of them, the rest will be forced to 0. If the AC unit changes of Vane Position, the corresponding object will be activated (1) and the rest will be forced to zero.

Object #	31
Name	***Vane Horizontal [1bit]***
Function	1=Vane Horizontal
Description	Indicates or activates this Vane Position with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	32
Name	***Vane Pos1 [1bit]***
Function	1=Vane in Pos1
Description	Indicates or activates this Vane Position with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	33
Name	***Vane Pos2 [1bit]***
Function	1=Vane in Pos2
Description	Indicates or activates this Vane Position with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	34
Name	***Vane Pos3 [1bit]***
Function	1=Vane in Pos3
Description	Indicates or activates this Vane Position with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	35
Name	***Vane Vertical [1bit]***
Function	1=Vane Vertical
Description	Indicates or activates this Vane Position with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	36
Name	***Vane Swing [1bit]***
Function	1=Vane in Swing
Description	Indicates or activates this Vane Position with a value of 1.
Access type	Read/Write
Data type ID	1.001

Object #	37
Name	***Vane Auto [1bit]***
Function	1=Vane en Auto
Description	Indicates or activates this Vane Position with a value of 1.
Access type	Read/Write
Data type ID	1.001

Bit Object to Change the Setpoint Temperature.

Object #	38
Name	***Set Temperature [+/-][1bit]***
Function	0=Increase, 1= Decrease
Description	With every write of 1, the temperature setpoint decreases in one degree. Every write of 0 increases one degree. When the maximum or minimum permitted is reached it stops increasing or decreasing. Value is meant to be written only when "Virtual Temperature Control" parameter is inactive (set to "No").
Access type	Write-only
Data type ID	1.008

Bit Object to save scenes.

Object #	39
Name	**Save Scene1 [1bit]**
Function	1=Save Scene 1
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to store in eeprom memory the current set values of Operation Mode, Setpoint Temperature, Fan speed and Vane position for scene 1.
Access type	Write-only
Data type ID	1.001

Object #	40
Name	**Save Scene2 [1bit]**
Function	1=Save Scene 2
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to store in eeprom memory the current set values of Operation Mode, Setpoint Temperature, Fan speed and Vane position for scene 2.
Access type	Write-only
Data type ID	1.001

Object #	41
Name	**Save Scene3 [1bit]**
Function	1=Save Scene 3
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to store in eeprom memory the current setup values of Operation Mode, Setpoint Temperature, Fan speed and Vane position for scene 3.
Access type	Write-only
Data type ID	1.001

Object #	42
Name	**Save Scene4 [1bit]**
Function	1=Save Scene 4
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to store in eeprom memory the current setup values of Operation Mode, Setpoint Temperature, Fan speed and Vane position for scene 4.
Access type	Write-only
Data type ID	1.001

Object #	43
Name	**Save Scene5 [1bit]**
Function	1=Save Scene 5
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to store in eeprom memory the current setup values of Operation Mode, Setpoint Temperature, Fan speed and Vane position for scene 5.
Access type	Write-only
Data type ID	1.001

Bit Object to execute scenes.

Object #	44
Name	***Execute Scene1 [1bit]***
Function	1=Execute scene 1
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to retrieve from eeprom the values for scene 1 and to setup Operation Mode, Setpoint Temperature, Fan speed and Vane position in the AC unit accordingly. These values should have been saved previously using object *Save Scene1*.
Access type	Write-only
Data type ID	1.001

Object #	45
Name	***Execute Scene2 [1bit]***
Function	1= Execute scene 2
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to retrieve from eeprom the values for scene 2 and to setup Operation Mode, Setpoint Temperature, Fan speed and Vane position in the AC unit accordingly. These values should have been saved previously using object *Save Scene2*.
Access type	Write-only
Data type ID	1.001

Object #	46
Name	***Execute Scene3 [1bit]***
Function	1= Execute scene 3
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to retrieve from eeprom the values for scene 3 and to setup Operation Mode, Setpoint Temperature, Fan speed and Vane position in the AC unit accordingly. These values should have been saved previously using object *Save Scene3*.
Access type	Write-only
Data type ID	1.001

Object #	47
Name	***Execute Scene4 [1bit]***
Function	1= Execute scene 4
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to retrieve from eeprom the values for scene 4 and to setup Operation Mode, Setpoint Temperature, Fan speed and Vane position in the AC unit accordingly. These values should have been saved previously using object *Save Scene4*.
Access type	Write-only
Data type ID	1.001

Object #	48
Name	***Execute Scene5 [1bit]***
Function	1= Execute scene 5
Description	Setting this object to 1 forces ME-AC-KNX-1-V2 to retrieve from eeprom the values for scene 5 and to setup Operation Mode, Setpoint Temperature, Fan speed and Vane position in the AC unit accordingly. These values should have been saved previously using object *Save Scene5*.
Access type	Write-only
Data type ID	1.001

5. Parameters.

Name	**AC Unit type**
Description	Indicates the type of AC indoor unit. Select the model of your AC indoor unit from the list of models available. Factory value is type MSZ-FA.
Data type	Enum (8bits); MSZ-FA…

Name	**Window minutes**
Description	Minutes to wait before switching the AC unit OFF after receiving the indication of window open. If 0, the AC unit will be switched off immediately. While in OFF, and with window open, if it receives an order to switch ON, the timer will be initialised and the AC unit will be switched OFF after the configured minutes. (0..30 minutes). Factory value is 0.
Data type	Unsigned (8bits); 0..30

Name	**Send object values to KNX on startup**
Description	Indicates if ME-AC-KNX-1-V2 will send to KNX the object values indicating AC Unit status at power-up (when KNX bus is plugged to ME-AC-KNX-1-V2). Objects indicating AC Unit status are: "Mode", "Fan Speed", "Vane Position", and "Set Temperature".
Data type	Enum (8bits); Yes/No

Name	**When window closes go to last state**
Description	Defines behaviour of AC unit once window is closed, after AC unit has been switched OFF as a result of an open window timeout: • If this parameter is set to "Yes", last value that was written from KNX to object "On/Off" will be sent to the AC unit. • If it is set to "No", the AC unit will be left in OFF state until a new ON request is received from KNX.
Data type	Enum (8bits); Yes/No

Name	**Virtual Temperature Control**
Description	Meant to be enabled when communication objects "Virtual Set Temperature" and "Virtual Ambient Temperature" are used. When enabled, the following formula applies for calculation of Set Temperature sent to the AC unit: "Set Temperature"= "Ambient Temperature" - ("Virtual Ambient Temperature" - "Virtual Set Temperature") When enabled, "Set Temperature" object is meant not to be written, and "Ambient Temperature" object is not present. When disabled, "Virtual Set Temperature" and "Virtual Ambient Temperature" objects are not present.
Data type	Enum (8bits); Yes/No

Name	**Show Scene bits**
Description	Show/Hide Scene bit objects
Data type	Enum (8bits); Yes/No

Name	**Show Increase/Decrease bits**
Description	Show/Hide Increase/Decrease bit objects
Data type	Enum (8bits); Yes/No

Name	**Enable Mode/Fan/Vane strings**
Description	Show/Hide text type objects for Mode, Fan and Vane
Data type	Enum (8bits); Yes/No

Name	**Mode Auto text**
Description	Text description of Auto Mode, to be shown in "Mode Text" communication object.
Data type	String (14bytes)

Name	**Mode Heat text**
Description	Text description of Heat Mode, to be shown in "Mode Text" communication object.
Data type	String (14bytes)

Name	**Mode Dry text**
Description	Text description of Dry Mode, to be shown in "Mode Text" communication object.
Data type	String (14bytes)

Name	**Mode Fan text**
Description	Text description of Fan Mode, to be shown in "Mode Text" communication object.
Data type	String (14bytes)

Name	**Mode Cool text**
Description	Text description of Cool Mode, to be shown in "Mode Text" communication object.
Data type	String (14bytes)

Name	**Fan Auto text**
Description	Text description of Fan Speed Auto, to be shown in "Fan Text" communication object.
Data type	String (14bytes)

Name	**Fan Low text**
Description	Text description of Fan Speed Low, to be shown in "Fan Text" communication object.
Data type	String (14bytes)

Name	**Fan Mid-1 text**
Description	Text description of Fan Speed Mid-1, to be shown in "Fan Text" communication object.
Data type	String (14bytes)

Name	**Fan Mid-2 text**
Description	Text description of Fan Speed Mid-2, to be shown in "Fan Text" communication object.
Data type	String (14bytes)

Name	*Fan High text*
Description	Text description of Fan Speed High, to be shown in "Fan Text" communication object.
Data type	String (14bytes)

Name	*Vane Horizontal text*
Description	Text description of Vane Horizontal position, to be shown in "Vane Text" communication object.
Data type	String (14bytes)

Name	*Vane Position-1 text*
Description	Text description of Vane Position-1, to be shown in "Vane Text" communication object.
Data type	String (14bytes)

Name	*Vane Position-2 text*
Description	Text description of Vane Position-2, to be shown in "Vane Text" communication object.
Data type	String (14bytes)

Name	*Vane Position-3 text*
Description	Text description of Vane Position-3, to be shown in "Vane Text" communication object.
Data type	String (14bytes)

Name	*Vane Vertical text*
Description	Text description of Vane Vertical Position, to be shown in "Vane Text" communication object.
Data type	String (14bytes)

Name	*Vane Swing text*
Description	Text description of Vane in Swing, to be shown in "Vane Text" communication object.
Data type	String (14bytes)

Name	*Vane Auto text*
Description	Text description of Vane in Auto, to be shown in "Vane Text" communication object.
Data type	String (14bytes)

6. Specifications

Dimensions:	59 X 36 X 21 mm
Weight:	42 g
EIB current consumption:	5 mA
Operating Temperature:	-25 . . . 85ºC
Stock Temperature:	-40 . . . 85ºC
Isolation voltage:	4000 V

7. AC Unit Types compatibility.

The column *Type* shows the value to enter in parameter "AC Unit Type" of the device, depending on the model number of the AC indoor unit to connect to.

Type	Prefix (first part) of the AC indoor unit model number	Line to which belongs
MSZ-FA	MSZ-FA.., MSZ-FD..,	Domestic
MSZ-GA (22,25,35)	MSZ-GA22.., MSZ-GA25.., MSZ-GA35…	Domestic
MSZ-GA (50,60,71)	MSZ-GA50.., MSZ-GA60.., MSZ-GA71…	Domestic
MSZ-GB	MSZ-GB…	Domestic
MSZ-GC	MSZ-GC…	Domestic
MFZ-KA	MFZ-KA…	Domestic
SEZ	SEZ…	Mr.Slim
PLA	PLA…	Mr.Slim
PCA	PCA…	Mr.Slim
PEAD	PEAD…	Mr.Slim
PSA	PSA…	Mr.Slim
PKA	PKA…	Mr.Slim
SLZ	SLZ…	Mr.Slim
PEA-RP200-250	PEA-RP200…, PEA-RP250…	Mr.Slim
PEA-RP400-500	PEA-RP400…, PEA-RP500…	Mr.Slim
MLZ-KA	MLZ-KA…	Domestic
MSZ-FD	MSZ-FD…	Domestic
PEAD-JA	PEAD-JA…	Mr.Slim

Any AC indoor unit with a model number not specified in this list, please contact us for compatibility check.

Note that the model numbers specified are those of <u>indoor units</u> only.

Options available for some communications objects depending on AC Type.

Type:1	MSZ-FA…, MSZ-FD		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, AUTO	AUTO, LOW, MID1,MID2	0,1,2,3,4,5,6	31..16	31..16		31..16

Type:2	MSZ-GA22, MSZ-GA25, MSZ-GA35		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, AUTO	AUTO, LOW, MID1,MID2	0,1,2,3,4,5,6	31..16	31..16		31..16

Type:3	MSZ-GA50, MSZ-GA60, MSZ-GA71		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, AUTO	AUTO, LOW, MID1,MID2	0,1,2,3,4,5,6	31..16	31..16		31..16

Type:4	MSZ-GB…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, AUTO	AUTO, LOW, MID1,MID2	0,1,2,3,4,6	31..16	31..16		31..16

Type:5	MSZ-GC…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, AUTO	AUTO, LOW, MID1,MID2	0,1,2,3,4,6	31..16	31..16		31..16

Type:6	MFZ-KA…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, AUTO	AUTO, LOW, MID1,MID2, HIGH	0,1,2,3,4,5,6	31..16	31..16		31..16

Type:7	SEZ…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO	LOW, MID2		28..17	30..19	30..19	28..19

Type:8	PLA…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO	LOW, MID1, MID2	1,3,4,5,6	28..17	30..19	30..19	28..19

Type:9	PCA…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO	LOW, MID1, MID2	1,3,4,5,6	28..17	30..19	30..19	28..19

Type:10	PEAD…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO	LOW, MID2		28..17	30..19	30..19	28..19

Type:11	PSA…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO	LOW, MID2		28..17	30..19	30..19	28..19

Type:12	PKA…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO	LOW, MID2	1,3,4,5,6	28..17	30..19	30..19	28..19

Type:13	SLZ…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO	LOW, MID1, MID2	1,3,4,5,6	28..17	30..19	30..19	28..19

Type:14	PEA-RP200…, PEA-RP250…		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO	LOW, MID2, MID2		28..17	30..19	30..19	28..18

Type:15	**PEA-RP400…, PEA-RP500…**		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, VENT, AUTO			28..17	30..19	30..19	28..18

Type:16	**MLZ-KA…**		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, AUTO	AUTO, LOW, MID1,MID2	0,1,2,3,4,5,6	31..16	31..16		31..16

Type:17	**MSZ-FD…**		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL, AUTO	AUTO, LOW, MID1,MID2, HIGH	0,1,2,3,4,5,6	31..16	31..16	31..16	31..16

Type:18	**PEAD-JA…**		Temperature Set Point			
Mode	Fan	Vane	Heat	Cool	Dry	Auto
HEAT, DRY, COOL,	AUTO, LOW, MID1,MID2	0,1,2,3,4,5,6	31..16	31..16		31..16

8. Error Codes

Code (In Hexadecimal)	Description
8000	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	Over heating 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)
5102	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.