



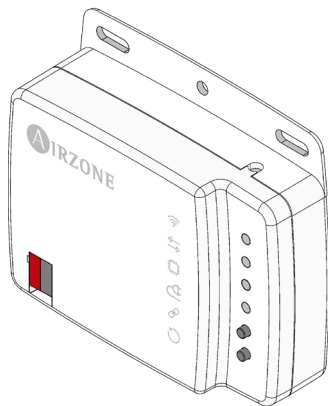
EN

Integration manual

Aidoo KNX

Panasonic

For PAW-AZAC-KNX-1 and PAW-AZRC-KNX-1
[For AZAI6KNXPNO and AZAI6KNXPNI]



AIRZONE

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Precautions and environmental policy

PRECAUTIONS

- For your security, and to protect the devices, follow these instructions:
- Do not manipulate the system with wet or damp hands.
- Disconnect the power supply before making any connections.
- Take care not to cause a short circuit in any of the system connections.

ENVIRONMENTAL POLICY

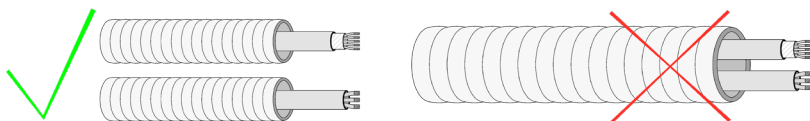


- Do not dispose of this equipment in the household waste. Electrical and electronic equipment contain substances that may damage the environment if they are not handled appropriately. The symbol of a crossed-out waste bin indicates that electrical equipment should be collected separately from other urban waste. For correct environmental management, it must be taken to the collection centers provided for this purpose, at the end of its useful life.
- The equipment components may be recycled. Act in accordance with current regulations on environmental protection.
- If you replace it with other equipment, you must return it to the distributor or take it to a specialized collection center.
- Those breaking the law or by-laws will be subject to such fines and measures as are laid down in environmental protection legislation.

General requirements

Strictly follow the directions outlined in this manual:

- This system must be installed by a qualified technician.
- Verify that the units to be controlled have been installed according to the manufacturer's requirements and operate correctly before installing the Airzone System.
- Locate and connect all the devices of the installation in accordance with the electronic regulations in force.
- Verify that the air conditioning installation to be controlled is in accordance with the regulations in force.
- Perform all the connections with total absence of power supply.
- Do not place the system bus close to lines of force, fluorescent lights, LED lamps, motors, etc. It might cause interference on the communications.



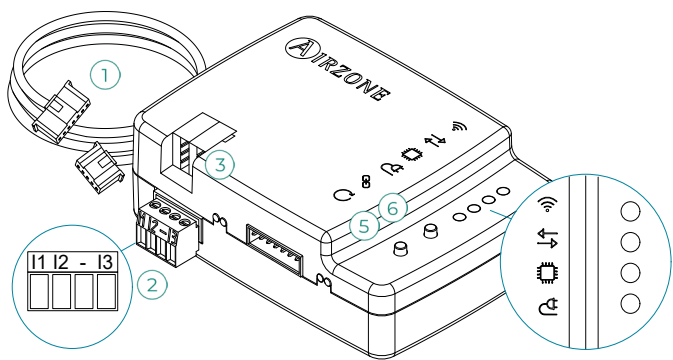
- Respect the connection polarity of each device. A wrong connection may seriously damage the product.

Introduction

Device to manage and integrate HVAC units in KNX TP-1 control systems. Externally powered by the indoor unit.

Functionalities:

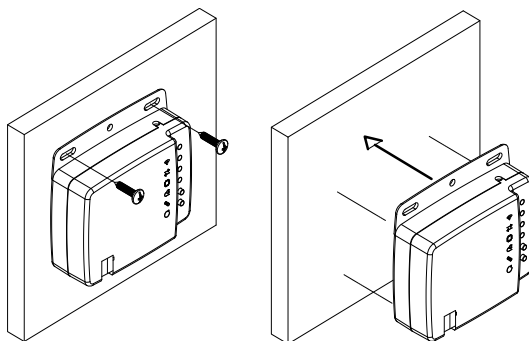
- Control of the parameters of the unit.
- KNX Control.
- KNX standard data.
- 3 digital inputs.
- Easily configurable from ETS.
- Communication errors detection.



Meaning	
①	Indoor unit wire
②	I1 Digital input 1
	I2 Digital input 2
	- Common input
	I3 Digital input 3
③	KNX Connection
④	Indoor unit port
⑤	Device reboot
⑥	Enable KNX programming

ASSEMBLY

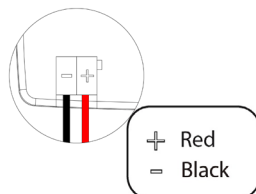
The device can be mounted using screws or double-sided adhesive tape (included with the product).



CONNECTION

To connect the device to the AC unit, follow the instructions on the technical data sheet that comes with the Aidoo.

It has a standard KNX connector for connecting to the KNX bus. Connect the Aidoo to the KNX TP-1 bus, following the color code.



CONFIGURATION

This device is totally compatible with KNX, so you can configure it and set it up through ETS tool.

To do this, download the product database at:

http://doc.airzone.es/producto/Gama_AZ6/Airzone/Aidoo/BBDD_AZAI6KNX.zip

The installation of the database in the ETS tool is carried out following the usual procedure for importing new products.

KNX communication objects

The Aidoo KNX device has a series of communication objects available for configuration by default (see the [Default communication objects](#) section). If you wish to use all the communication objects contained in this device, go to the Parameters tab in order to enable them (see the [Configuration Parameters](#) section for more information).

IMPORTANT: The number of functionalities that can be controlled by the different communication objects offered by the Aidoo KNX device will depend on the particular AC unit being controlled.

To view all the communication objects available on the Aidoo KNX device, please go to [Annexes – Index - Communication Objects](#) for more information.

DEFAULT COMMUNICATION OBJECTS

The default communication objects available in ETS for the Aidoo KNX device are:

Object number	1: Control on / off	
Description	This allows you to switch the AC unit on or off	
Values	0 → Off	1 → On
Type of access to the Bus	Write	
Data point identification	1.001 (DPT_Switch)	
Object number	2: Control mode	
Description	This allows you to change the AC unit's operating mode. Changing the value of the object will change the mode	
Values	0 → Auto 1 → Heat 3 → Cool	9 → Fan 14 → Dry
Type of access to the Bus	Write	
Data point identification	20.105 (DPT_HVACContrMode)	
Object number	12: Control fan speed / 3 speeds	
Description	This allows you to change the AC unit's ventilation speed. Changing the value of the object will change the ventilation speed	
Values	0 ... 49% → Speed 1 50 ... 82% → Speed 2 83 ... 100% → Speed 3	1 → Speed 1 2 → Speed 2 3 → Speed 3
Type of access to the Bus	Write	
Data point identification	5.001 (DPT_Scalling)	5.010 (DPT_Enumerated)

Note: You can configure the object type in the Fan Configuration section, under the Parameters tab in ETS. By default it is configured as Datapoint 5.001 (percentage control). See the [Configuration Parameters – Fan Configuration](#) section for more information.

Object number	18: Control vanes U-D / 5 positions	
Description	This allows you to change the position of the slats in the AC unit. Changing the value of the object will change the position of the slats	
Values	0% ... 29% → Position 1 30% ... 49% → Position 2 50% ... 69% → Position 3 70% ... 89% → Position 4 90% ... 100% → Position 5	1 → Position 1 2 → Position 2 3 → Position 3 4 → Position 4 5 → Position 5
Type of access to the Bus	Write	
Data point identification	5.001 (DPT_Scalling)	5.010 (DPT_Enumerated)

Note: Configure the object type in the Vanes Up-Down configuration section, under the Parameters tab in ETS. By default it is configured as Datapoint 5.001 (percentage control). See the [Configuration Parameters – Vanes Up-Down configuration](#) section for more information.

Object number	27: Control set point temperature	
Description	This allows you to select the AC unit's set point temperature in increments of 1 °C	
Values	Varies depending on manufacturer and type of AC unit	
Type of access to the Bus	Write	
Data point identification	9.001 (DPT_Value_Temp)	

Object number	51: Status on / off	
Description	This displays the status of the AC unit on or off	
Valores disponibles	0 → Off	1 → On
Tipo de acceso al bus	Reading	
Identificación Datapoint	1.001 (DPT_Switch)	

Object number	52: Status mode	
Description	This displays the operating mode of the AC unit	
Values	0 → Auto 1 → Heat 3 → Cool	9 → Fan 14 → Dry
Type of access to the Bus	Reading	
Data point identification	20.105 (DPT_Hvaccontrmode)	

Object number	60: Status fan speed / 3 speeds	
Description	This displays the AC unit's ventilation speed	
Values	33% → Speed 1 67% → Speed 2 100% → Speed 3	1 → Speed 1 2 → Speed 2 3 → Speed 3
Type of access to the Bus	Reading	
Data point identification	5.001 (DPT_Scalling)	5.010 (DPT_Enumerated)

Note: You can configure the object type in the Fan Configuration section, under the Parameters tab in ETS. By default it is configured as Datapoint 5.001 (percentage control). See the [Configuration Parameters – Fan Configuration](#) section for more information.

Object number	66: Status vanes U-D / 5 positions	
Description	This displays the position of the AC unit's slats	
Values	20% → Position 1 40% → Position 2 60 % → Position 3 80% → Position 4 100% → Position 5	1 → Position 1 2 → Position 2 3 → Position 3 4 → Position 4 5 → Position 5
Type of access to the Bus	Reading	
Data point identification	5.001 (DPT_Scalling)	5.010 (DPT_Enumerated)

Note: Configure the object type in the Vanes Up-Down configuration section, under the Parameters tab in ETS. By default it is configured as Datapoint 5.001 (percentage control). See the [Configuration Parameters – Vanes Up-Down configuration](#) section for more information.

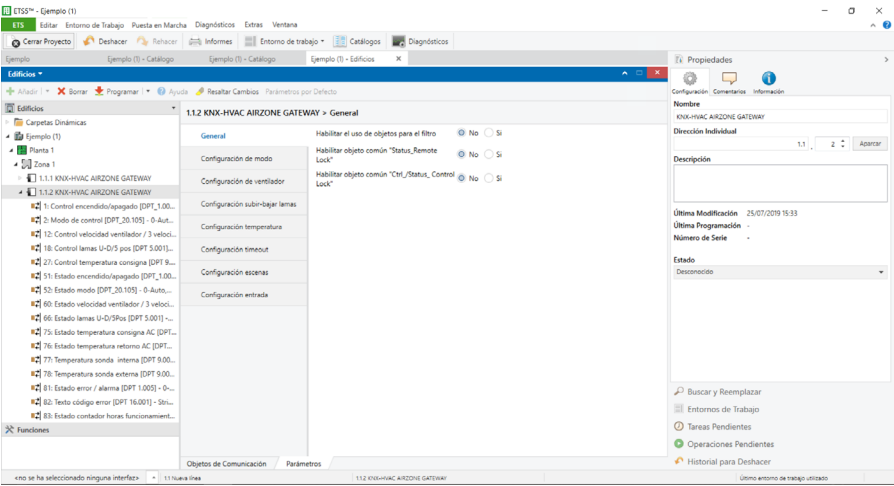
Object number	75: Status set point temperature	
Description	This displays the set point temperature selected for the AC unit (°C)	
Values	Varies depending on manufacturer and type of AC unit	
Type of access to the Bus	Reading	
Data point identification	9.001 (DPT_Value_Temp)	

Object number	76: Status return temperature	
Description	This displays the AC unit's return temperature (°C)	
Values	Varies depending on manufacturer and type of AC unit	
Type of access to the Bus	Reading	
Data point identification	9.001 (DPT_Value_Temp)	

Object number	77: Internal probe temperature	
Description	This displays the temperature measured by the AC unit's internal probe (°C)	
Values	Varies depending on manufacturer and type of AC unit	
Type of access to the Bus	Reading	
Data point identification	9.001 (DPT_Value_Temp)	
Object number	78: External probe temperature	
Description	This displays the temperature measured by the AC unit's external probe (°C)	
Values	Varies depending on manufacturer and type of AC unit	
Type of access to the Bus	Reading	
Data point identification	9.001 (DPT_Value_Temp)	
Object number	81: Status error / alarm	
Description	This shows whether or not an error has occurred in the AC unit	
Values	0 → No error / alarm	1 → An error / alarm has occurred
Type of access to the Bus	Reading	
Data point identification	1.005 (DPT_Alarm)	
Object number	82: Error text code	
Description	This displays the text of the error that has occurred in the AC unit	
Values	Varies depending on manufacturer and type of AC unit	
Type of access to the Bus	Reading	
Data point identification	16.001 (DTP_String_8859_1)	
Object number	83: Status operation hour counter	
Description	This displays the AC unit's number of operating hours	
Values	Number of operating hours	
Type of access to the Bus	Reading	
Data point identification	13.100 (DPT_Value_2_Ucount)	

CONFIGURATION PARAMETERS

The Aidoo KNX device has a series of communication objects that can be enabled for use via the Parameters tab in ETS.



General

- Enable use of objects for filter

Object number	31: Control reset filter	
Description	This resets the filter cleaning warning counter on the AC unit	
Values	1 → Reset	
Type of access to the Bus	Write	
Data point identification	1.015 (DPT_Reset)	
Object number	79: Status reset filter	
Description	This shows whether or not there has been a warning from the AC unit regarding filter cleaning	
Values	0 → No alarm	1 → Alarm
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	

- Enable comm obj “Status_Remote Lock”

Object number	84: Status lock remote control	
Description	This allows you to lock control from the AC unit's controller	
Values	0 → Unlocked	1 → Locked
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	

- Enable comm obj “Ctrl_/Status_Control Lock”

Object number	36: Control lock control objects	
Description	This allows you to lock control from KNX communication objects	
Values	0 → Unlocked	1 → Locked
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	

Object number	85: Status lock control objects	
Description	This shows whether control has been locked from KNX communication objects	
Values	0 → Unlocked	1 → Locked
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	

Mode configuration

- Enable “Mode cool / heat” objects

Object number	3: Control mode cool / heat	
Description	This allows you to select the AC unit's operating mode (cooling or heating) by changing the value of the object	
Values	0 → Cool	1 → Heat
Type of access to the Bus	Write	
Data point identification	1.100 (DPT_Heat/Cool)	

Object number	53: Status mode cool / heat	
Description	This displays the operating mode (cooling or heating) currently selected for the AC unit	
Values	0 → Cool	1 → Heat
Type of access to the Bus	Reading	
Data point identification	1.100 (DPT_Heat/Cool)	

- Enable “PID-Compat scaling mode” objects

Object number	4: Control mode cool & on	
Description	This allows you to switch the AC unit on or off, with the selected operating mode being cooling	
Values	0 → Off	1 ... 100% → On + Cool
Type of access to the Bus	Write	
Data point identification	5.001 (DPT_Scaling)	

Object number	5: Control mode heat & on	
Description	This allows you to switch the AC unit on or off, with the selected operating mode being heating	
Values	0 → Off	1 ... 100% → On + Heat
Type of access to the Bus	Write	
Data point identification	5.001 (DPT_Scaling)	

- Enable use of bit-type mode objects

Object number	6: Control mode auto	
Description	This allows you to select the auto mode as the AC unit's operating mode	
Values	1 → Mode auto	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	

Object number	7: Control mode heat	
Description	This allows you to select the heating mode as the AC unit's operating mode	
Values	1 → Mode heat	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	

Object number	8: Control mode cool	
Description	This allows you to select the cooling mode as the AC unit's operating mode	
Values	1 → Mode cool	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	

Object number	9: Control mode fan
Description	This allows you to select the ventilation mode as the AC unit's operating mode
Values	1 → Mode fan
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	10: Control mode dry
Description	This allows you to select the dry mode as the AC unit's operating mode
Values	1 → Mode dry
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	54: Status mode auto
Description	This shows that the operating mode currently selected for the AC unit is auto mode
Values	1 → Mode auto
Type of access to the Bus	Reading
Data point identification	1.002 (DPT_Bool)
Object number	55: Status mode heat
Description	This shows that the operating mode currently selected for the AC unit is heating mode
Values	1 → Mode heat
Type of access to the Bus	Reading
Data point identification	1.002 (DPT_Bool)
Object number	56: Status mode cool
Description	This shows that the operating mode currently selected for the AC unit is cooling mode
Values	1 → Mode cool
Type of access to the Bus	Reading
Data point identification	1.002 (DPT_Bool)

Object number	57: Status mode fan
Description	This shows that the operating mode currently selected for the AC unit is ventilation mode
Values	1 → Mode fan
Type of access to the Bus	Reading
Data point identification	1.002 (DPT_Bool)

Object number	58: Status mode dry
Description	This shows that the operating mode currently selected for the AC unit is dry mode
Values	1 → Mode dry
Type of access to the Bus	Reading
Data point identification	1.002 (DPT_Bool)

- Enable use of +/- object for mode

Select whether you want to use Datapoint DPT 1.007 (0 = Decrease) or DTP 1.008 (0 = Increase).

Object number	11: Control mode +/-	
Description	This allows you to modify the system's operating mode	
Values	0 → Decrease	0 → Increase
	1 → Increase	1 → Decrease
Type of access to the Bus	Write	
Data point identification	1.007 (DPT_Step)	1.008 (DPT_UpDown)

- Enable use of text object for mode

Object number	59: Status mode text
Description	This displays the AC unit's operating mode
Values	ASCII String
Type of access to the Bus	Reading
Data point identification	16.001 (DPT_String_8859_1)

Fan configuration

- DPT object type for fan speed

Select whether you want to use Datapoint DPT 5.001 (percentage control) or DTP 5.010 (number control) for controlling and reading the AC unit's ventilation speed status:

5.001 (DPT_Scalling)	5.010 (DPT_Enumerated)
0 ... 49% → Speed 1	1 → Speed 1
50 ... 82% → Speed 2	2 → Speed 2
83 ... 100% → Speed 3	3 → Speed 3

- Enable use of bit-type fan speed objects

Object number	13: Control fan speed manual / auto
Description	This allows you to switch the AC unit's ventilation mode between manual and auto by changing the value of the object
Values	1 → Auto
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	14: Control fan speed 1
Description	This allows you to activate the ventilation speed 1 in the AC unit
Values	1 → Activated
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	15: Control fan speed 2
Description	This allows you to activate the ventilation speed 2 in the AC unit
Values	1 → Activated
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	16: Control fan speed 3
Description	This allows you to activate the ventilation speed 3 in the AC unit
Values	1 → Activated
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)

Object number	61: Status fan speed manual / auto	
Description	This shows whether the AC unit's ventilation speed is set to manual or auto	
Values	0 → Manual	1 → Auto
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	
Object number	62: Status fan speed 1	
Description	This shows whether the AC unit's ventilation speed is set to speed 1	
Values	1 → Speed 1	
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	
Object number	63: Status fan speed 2	
Description	This shows whether the AC unit's ventilation speed is set to speed 2	
Values	1 → Speed 2	
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	
Object number	64: Status fan speed 3	
Description	This shows whether the AC unit's ventilation speed is set to speed 3	
Values	1 → Speed 3	
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	

- Enable use of +/- object for fan speed

Select whether you want to use Datapoint DPT 1.007 (0 = Decrease) or DTP 1.008 (0 = Increase).

Object number	17: Control fan speed +/-	
Description	This allows you to control the AC unit's ventilation speed	
Values	0 → Decrease 1 → Increase	0 → Increase 1 → Decrease
Type of access to the Bus	Write	
Data point identification	1.007 (DPT_Step)	1.008 (DPT_UpDown)

- Enable use of text object for fan speed

Object number	65: Status fan speed text
Description	This displays the AC unit's ventilation speed
Values	ASCII String
Type of access to the Bus	Reading
Data point identification	16.001 (DPT_String_8859_1)

Vanes Up-Down configuration

- DPT object types for vanes up-down

Select whether you want to use Datapoint DPT 5.001 (percentage control) or DTP 5.010 (number control) for controlling and reading the status of the AC unit's slats:

5.001 (DPT_Scalling)	5.010 (DPT_Enumerated)
0% ... 29% → Position 1	1 → Position 1
30% ... 49% → Position 2	2 → Position 2
50% ... 69% → Position 3	3 → Position 3
70% ... 89% → Position 4	4 → Position 4
90% ... 100% → Position 5	5 → Position 5

- Enable use of bit-type Vanes up-down objects

Object number	19: Control vanes U-D standby	
Description	This allows you to activate the standby function for the AC unit's slats	
Values	0 → Deactivated	1 → Activated
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	

Object number	20: Control vanes U-D position 1	
Description	This allows you activate position 1 for the AC unit's slats	
Values	1 → Activated	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	

Object number	21: Control vanes U-D position 2	
Description	This allows you activate position 2 for the AC unit's slats	
Values	1 → Activated	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	

Object number	22: Control vanes U-D position 3	
Description	This allows you activate position 3 for the AC unit's slats	
Values	1 → Activated	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	
Object number	23: Control vanes U-D position 4	
Description	This allows you activate position 4 for the AC unit's slats	
Values	1 → Activated	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	
Object number	24: Control vanes U-D position 5	
Description	This allows you activate position 5 for the AC unit's slats	
Values	1 → Activated	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	
Object number	25: Control vanes U-D swing	
Description	This allows you activate the swing function for the AC unit's slats	
Values	0 → Deactivated	1 → Activated
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	
Object number	67: Status vanes U-D standby	
Description	This shows whether the standby function is activated for the AC unit's slats	
Values	0 → Deactivated	1 → Activated
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	
Object number	68: Status vanes U-D position 1	
Description	This shows whether the AC unit's slats are in position 1	
Values	1 → Position 1	
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	

Object number	69: Status vanes U-D position 2	
Description	This shows whether the AC unit's slats are in position 2	
Values	1 → Position 2	
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	
Object number	70: Status vanes U-D position 3	
Description	This shows whether the AC unit's slats are in position 3	
Values	1 → Position 3	
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	
Object number	71: Status vanes U-D position 4	
Description	This shows whether the AC unit's slats are in position 4	
Values	1 → Position 4	
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	
Object number	72: Status vanes U-D position 5	
Description	This shows whether the AC unit's slats are in position 5	
Values	1 → Position 5	
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	
Object number	73: Status vanes U-D swing	
Description	This shows whether the swing function is activated for the AC unit's slats	
Values	0 → Deactivated	1 → Activated
Type of access to the Bus	Reading	
Data point identification	1.002 (DPT_Bool)	

- Enable use of +/- object for vanes up-down

Select whether you want to use Datapoint DPT 1.007 (0 = Decrease) or DTP 1.008 (0 = Increase).

Object number	26: Control vanes U-D +/-	
Description	This allows you to control the AC unit's slats.	
Values	0 → Decrease 1 → Increase	0 → Increase 1 → Decrease
Type of access to the Bus	Write	
Data point identification	1.007 (DPT_Step)	1.008 (DPT_UpDown)

- Enable use of text object for vanes up-down

Object number	74: Status vanes U-D text	
Description	This displays the position of the AC unit's slats	
Values	ASCII String	
Type of access to the Bus	Reading	
Data point identification	16.001 (DPT_String_8859_1)	

Temperature configuration

- Periodic sending of "Status_AC Set point" (in seconds, 0 = No periodic sending)

Indicate how often you want the set point temperature status to be sent to the AC unit (in seconds).

- Enable use of +/-object for set point

Select whether you want to use Datapoint DPT 1.007 (0 = Decrease) or DTP 1.008 (0 = Increase).

Object number	28: Control set point temperature +/-	
Description	This allows you to raise or lower the set point temperature of the AC unit in increments of 1 °C	
Values	0 → Decrease 1 → Increase	0 → Increase 1 → Decrease
Type of access to the Bus	Write	
Data point identification	1.007 (DPT_Step)	1.008 (DPT_UpDown)

- Enable limits on "Control_Setpoint obj"

Select the minimum and maximum set point temperature that can be set for the AC unit (in increments of 1 °C).

Object number	30: Control set point limitation	
Description	This allows you to enable the function to limit the AC unit's set point temperature	
Values	0 → Disabled	1 → Enabled
Type of access to the Bus	Write	
Data point identification	1.001 (DTP_Switch)	

Note: The set point limitation only affects changes made from KNX. This limitation does not apply to the manufacturer's thermostat.

Object number	80: Status set point limitation	
Description	This shows whether the function to limit the AC unit's set point temperature is enabled	
Values	0 → Disabled	1 → Enabled
Type of access to the Bus	Reading	
Data point identification	1.001 (DTP_Switch)	

- Ambient temperature is provided from KNK

This enables / disables ambient temperature reading from a KNX device.

Object number	29: Control ambient temperature	
Description	This sends the ambient temperature measured from a KNX device to the indoor unit	
Values	(°C)	
Type of access to the Bus	Write	
Data point identification	9.001 (DTP_Value_Temp)	

Timeouts configuration

- Enable use of "Open window". If you select Yes, object 32 will be enabled
 - ◇ AC window Timeout (min). Select the time after which the AC unit will turn off, following the receipt of an open window warning (0) (from 0 to 255 minutes). If the window closes (1) during this time, the timer will be canceled.
 - ◇ Disallow on / off operation when timeout is elapsed. Select whether you want to allow the AC unit to be switched on / off when the selected timeout has elapsed.

Object number	32: Control window contact status	
Description	This displays the window contact status	
Values	0 → Open	1 → Closed
Type of access to the Bus	Write	
Data point identification	1.009 (DPT_OpenClose)	

- Enable use of “Switch off timeout” function. If you select Yes, object 33 will be enabled
 - ◇ AC switch-off timeout (min). Select the time after which the AC unit will turn off, following the receipt of a warning that the switch has been activated (1) (from 0 to 255 minutes). If the switch is deactivated (0) during this time, the timer will be canceled.
 - ◇ Disallow on / off operation when timeout is elapsed. Select whether you want to allow the AC unit to be switched on / off when the selected timeout has elapsed.

Object number	33: Control switch off timeout	
Description	This allows you to activate a timer for switching off the AC unit	
Values	0 → Stop	1 → Start
Type of access to the Bus	Write	
Data point identification	1.010 (DPT_Start)	

- Enable use of “Occupancy window”. If you select Yes, object 34 will be enabled
 - ◇ Timeout to applied actions (min). Select the time after which the AC unit will carry out the selected action, following the receipt of a warning that the contact has been activated (1) (from 0 to 255 minutes). If the contact is deactivated (0) during this time, the timer will be canceled.
 - ◇ Action after timeout elapsed. Select the action to be carried out after the timeout has elapsed: Switch off the AC unit or put it into unoccupied mode (the set point temperature will change by 1 °C for each time interval set, up to a total of 3 °C, after which the unit will be switched off).
 - ◇ Disallow on / off operation when not occupied. Select whether you want to allow the AC unit to be switched on / off when the selected timeout has elapsed

Object number	34: Control occupancy	
Description	This allows you to activate the unoccupied function in order to switch the AC unit off or put it into unoccupied mode	
Values	0 → Not occupied	1 → Occupied
Type of access to the Bus	Write	
Data point identification	1.018 (DPT_Occupancy)	

- Enable use of “Sleep” function. If you select Yes, object 35 will be enabled
 - ◊ Sleep function switch-off timeout (min). Select the time after which the AC unit will turn off, following the receipt of a warning that the switch has been activated (0) (from 0 to 255 minutes). If the switch is deactivated (1) during this time, the timer will be canceled.

Object number	35: Control timeout sleep	
Description	This allows you to activate a timer for switching off the AC unit	
Values	0 → Stop	1 → Start
Type of access to the Bus	Write	
Data point identification	1.010 (DPT_Start)	

Scenes configuration

- Enable use of scenes

Object number	37: Control save / scene	
Description	This allows you to save or execute scenes. Changing the value of the object will change the function and scene number	
Values	0 ... 4 → Execute scene 1 to 5	128 ... 132 → Save scene 1 to 5
Type of access to the Bus	Write	
Data point identification	18.001 (DPT_SceneControl)	

Object number	86: Status current scene	
Description	This displays the current scene being executed	
Values	0 ... 4 → Scene 1 to 5	63 → No scene
Type of access to the Bus	Reading	
Data point identification	17.001 (DPT_SceneNumber)	

- Enable use of bit object for storing scenes (you must have the “Enable use of scenes” parameter enabled)

Object number	38: Control save scene 1	
Description	This saves the AC unit’s settings as scene 1	
Values	1 → Store scene 1	
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	

Object number	39: Control save scene 2
Description	This saves the AC unit's settings as scene 2
Values	1 → Store scene 2
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	40: Control save scene 3
Description	This saves the AC unit's settings as scene 3
Values	1 → Store scene 3
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	41: Control save scene 4
Description	This saves the AC unit's settings as scene 4
Values	1 → Store scene 4
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	42: Control save scene 5
Description	This saves the AC unit's settings as scene 5
Values	1 → Store scene 5
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
• Enable use of bit object for scene execution (you must have the "Enable" use of scenes" parameter enabled)	
Object number	43: Control execute scene 1
Description	This executes scene 1
Values	1 → Execute scene 1
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	44: Control execute scene 2
Description	This executes scene 2
Values	1 → Execute scene 2
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)

Object number	45: Control execute scene 3
Description	This executes scene 3
Values	1 → Execute scene 3
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	46: Control execute scene 4
Description	This executes scene 4
Values	1 → Execute scene 4
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)
Object number	47: Control execute scene 5
Description	This executes scene 5
Values	1 → Execute scene 5
Type of access to the Bus	Write
Data point identification	1.002 (DPT_Bool)

Scene 1 / 2 / 3 / 4 (you must have the “Enable use of scenes” parameter enabled).

Select the scene ID (values available from 0 to 63). If you wish to configure each scene from ETS, activate the “System preset” parameter and configure the values of each parameter for the desired AC unit:

- Value for on-off: select if you want to turn the AC unit on / off, or if you do not want to carry out any action.
- Value for mode: select if you want to change the AC unit's operating mode, or if you do not want to carry out any action.
- Value for fan speed: select if you want to change the AC unit's ventilation speed, or if you do not want to carry out any action.
- Value vanes U-D: select if you want to modify the position of the AC unit's slats, or if you do not want to carry out any action.
- Value for Set point: select if you want to change the AC unit's set point temperature (16 – 30 °C), or if you do not want to carry out any action.

Inputs configuration

Enable the use of the Aidoo KNX digital inputs:

- Digital input I1: communication objects 87 and 88.
- Digital input I2: communication objects 89 and 90.
- Digital input I3: communication objects 91 and 92.

The objects will behave differently depending on the configuration of each input.

Parameters available for configuring each digital input:

- Contact type. Defines the contact logic as "Normally open or closed".
- Debounce time. Select the debounce time (in milliseconds) required for the system to recognize there has been a change in the contact.
- Disabling input object. Select whether or not you want to enable the object that allows the input to be disabled if necessary (communication objects 48, 49 and 50). If yes, select whether you want to use Datapoint DPT 1.002 (0 = False) or DTP 1.003 (0 = Disable).
- Function. Select the digital input function of the Aidoo KNX:

◊ Switching

- » Send telegram after bus recovery. Select the action to be performed on this digital input after bus recovery (after a power failure): no action, off (0), on (1) or current status.
 - Sending delay after bus recovery. If an action is selected, indicate the time delay for sending the telegram (in seconds).
- » Value on raising edge (contact activated). Select the action to be sent to the associated communication object, if it produces a rising edge (activated input): no action, off (0), on (1) or toggle.
- » Value on falling edge (contact deactivated). Select the action to be sent to the associated communication object, if it produces a falling edge (deactivated input): no action, off (0), on (1) or toggle.
- » Cyclical sending. Select if you want cyclical sending to occur depending on the status of the digital input: never, always, when the output value is "Off", or when the output value is "On".
 - Period for cyclical sending (s). If cyclical sending is selected, indicate the time period (in seconds) for this cycle.

◆ Dimming

- » Send telegram after bus recovery. Select the action to be performed on this digital input after bus recovery (after a power failure): no action, off (0) or on (1).
 - Sending delay after bus recovery. If an action is selected, indicate the time delay for sending the telegram (in seconds).
- » Mode for short (long) operation. Select the action for a short operation to be sent on a rising edge (activated input): toggle, off / decrease (0) or on / increase (1). A press and hold will result in either an increasing step or a decreasing step.
- » Increasing step. Select the percentage of the increasing step that will be sent for a long operation.
- » Decreasing step. Select the percentage of the decreasing step that will be sent for a long operation.
- » Short / long operation limit (ms). Defines the time that must elapse for the object to interpret that a long operation has occurred (in milliseconds).
 - Cyclical sending period in long operation (0 – No cyclical sending) (ms). Defines the time (in seconds) during which the long operation must be executed.

◆ Shutter / blind

- » Send telegram after bus recovery. Select the action to be performed on this digital input after bus recovery (after a power failure): no action, increase (0) or decrease (1).
 - Sending delay after bus recovery. If an action is selected, indicate the time delay for sending the telegram (in seconds).
- » Operation. Select the action to be sent on a rising edge (activated input): increase (0), decrease (1) or toggle.
- » Method. Select the operating method for the shutter/blind: step-move-step or move-step.
 - Step-move-step. On a rising edge (activated input) a step telegram will be sent and the counter defined in "Short / long operation limit (ms)" (counter 1) will start. **Note:** No action will be taken if a falling edge (deactivated input) occurs during this time. If the rising edge is maintained for longer than the time defined in counter 1, a move telegram will be sent and a second counter, defined in "Vanes adjustment time (ms)" (counter 2), will start. If a falling edge (deactivated input) occurs during the time specified in this second counter, a step telegram will be sent. **Note:** No action will be taken if a falling edge (deactivated input) occurs after this time.
 - Move-step. On a rising edge (activated input), a move telegram will be sent and counter 2 will start (Vanes adjustment time (ms)). If a falling edge (deactivated input) occurs during this time, a stop telegram will be sent. **Note:** No action will be taken if a falling edge (deactivated input) occurs after this time.

- » Shot / long operation limit (ms). Defines the time that must elapse (counter 1) between a short operation and a long operation (in milliseconds).
- » Vanes adjustment time (ms). Defines the time that must elapse (counter 2) before adjusting the slats or moving the shutter / blind (in milliseconds).

◆ Value

- » Send telegram after bus recovery. Select if you want to send an action (fixed value) on this digital input after bus recovery (after a power failure) or if you do not want to send any action.
 - Sending delay after bus recovery. If an action is selected, indicate the time delay for sending this telegram (in seconds).
- » DTP to be sent. Select the type of DTP to be sent:
 - DTP 5.010 (1 byte unsigned). Values: 0 ... 255
 - DTP 7.001 (2 bytes unsigned). Values: 0 ... 65535
 - DTP 8.001 (2 bytes signed). Values: - 32768 ... 32767
 - DTP 9.001 (temperature). Values: 0 ... 255
 - DTP 12.001 (4 bytes unsigned). Values: 0 ... 4294967295
- » Value on raising edge (when contact activated). Defines the value to be sent when the contact is activated.

◆ Scene (internal)

- » Activates a scene by activating the configured digital input.
 - Scene when contact is activated. Select the scene that will be activated when the digital input is activated.

◆ Occupancy (internal)

- » Switches to "Occupied" mode when the configured digital input is activated.

◆ Window (internal)

- » Activates the "Window contact" timer when this digital input is activated.

Communication objects

- Digital input status

Digital input I1

87: Status input I1			
Object number	Switching	Dimming on / off	Blind step
Description	Displays the status of digital input I1 of the Aidoo KNX		
Values	0 → Off 1 → On	0 → Off 1 → On	0 → Up 1 → Down
Type of access to the Bus	Reading		
Data point identification	1.001 (DTP_Switch)	1.001 (DTP_Switch)	1.008 (DTP_UpDown)

88: Status input I1			
Object number	Value	Dimming step	Blind move
Description	Shows the value generated according to the behavior of the defined input		
Values	0 ... 255 0 ... 655335 - 32768 ... 32767 0 ... 255 0 ... 4294967295	Regulation step	0 → Up 1 → Down
Type of access to the Bus	Reading		
Data point identification	5.010 (DTP_Value_1_Ucount) 7.001 (DTP_Value_2_Ucount) 8.001 (DTP_Value_2_Count) 9.001 (DTP_Value_Temp) 12.001 (DTP_Value_4_Ucount)	3.007 (DTP_Control_Dimm.)	1.008 (DTP_UpDown)

Digital input I2

89: Status input I2			
Object number	Switching	Dimming on / off	Blind step
Description	Displays the status of digital input I2 of the Aidoo KNX		
Values	0 → Off 1 → On	0 → Off 1 → On	0 → Up 1 → Down
Type of access to the Bus	Reading		
Data point identification	1.001 (DTP_Switch)	1.001 (DTP_Switch)	1.008 (DTP_UpDown)

Object number 90: Status input I2			
	Value	Dimming step	Blind move
Description	Shows the value generated according to the behavior of the defined input		
Values	0 ... 255 0 ... 655335 - 32768 ... 32767 0 ... 255 0 ... 4294967295	Regulation step	0 → Up 1 → Down
Type of access to the Bus	Reading		
Data point identification	5.010 (DTP_Value_1_Ucount) 7.001 (DTP_Value_2_Ucount) 8.001 (DTP_Value_2_Count) 9.001 (DTP_Value_Temp) 12.001 (DTP_Value_4_Ucount)	3.007 (DTP_Control_Dimm.)	1.008 (DTP_UpDown)

Digital input I3

Object number 91: Status input I3			
	Switching	Dimming on / off	Blind step
Description	Displays the status of digital input I3 of the Aidoo KNX		
Values	0 → Off 1 → On	0 → Off 1 → On	0 → Up 1 → Down
Type of access to the Bus	Reading		
Data point identification	1.001 (DTP_Switch)	1.001 (DTP_Switch)	1.008 (DTP_UpDown)

Object number 92: Status input I3			
	Value	Dimming step	Blind move
Description	Shows the value generated according to the behavior of the defined input		
Values	0 ... 255 0 ... 655335 - 32768 ... 32767 0 ... 255 0 ... 4294967295	Regulation step	0 → Up 1 → Down
Type of access to the Bus	Reading		
Data point identification	5.010 (DTP_Value_1_Ucount) 7.001 (DTP_Value_2_Ucount) 8.001 (DTP_Value_2_Count) 9.001 (DTP_Value_Temp) 12.001 (DTP_Value_4_Ucount)	3.007 (DTP_Control_Dimm.)	1.008 (DTP_UpDown)

- Disable digital input

Object number	48: Control disable Input I1	
Description	This allows the use of input I1 of the Aidoo KNX to be disabled	
Values	0 → False 1 → True	0 → Disabled 1 → Enabled
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	1.003 (DTP_Enable)
Object number	49: Control disable Input I2	
Description	This allows the use of input I2 of the Aidoo KNX to be disabled	
Values	0 → False 1 → True	0 → Disabled 1 → Enabled
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	1.003 (DTP_Enable)
Object number	50: Control disable Input I3	
Description	This allows the use of input I3 of the Aidoo KNX to be disabled	
Values	0 → False 1 → True	0 → Disabled 1 → Enabled
Type of access to the Bus	Write	
Data point identification	1.002 (DPT_Bool)	1.003 (DTP_Enable)

KNX parameters

AIDOO KNX PANASONIC RAC DOMESTIC (PAW-AZAC-KNX-1 [AZAI6KNXPNO])

Object number	Description	Values	Read (R) Write (W)	Datapoint	
1	Control On / Off	0 → Off 1 → On	W	DPT_Switch	1.001
2	Control Mode	0 → Auto 1 → Heat 3 → Cool 14 → Dry	W	DPT_HVACContrMode	20.105
3	Control Mode Cool / Heat	0 → Cool 1 → Heat	W	DPT_Heat/Cool	1.100
4	Control Mode Cool & On	0% → Off 0.1% – 100% → On + Cool	W	DPT_Scaling	5.001
5	Control Mode Heat & On	0% → Off 0.1% – 100% → On + Heat	W	DPT_Scaling	5.001
6	Control Mode Auto	1 → Auto	W	DPT_Bool	1.002
7	Control Mode Heat	1 → Heat	W	DPT_Bool	1.002
8	Control Mode Cool	1 → Cool	W	DPT_Bool	1.002
10	Control Mode Dry	1 → Dry	W	DPT_Bool	1.002
11	Control Mode + / -	0 → Decrease 1 → Increase	W	DPT_Step	1.007
		0 → Increase 1 → Decrease	W	DPT_UpDown	1.008
12	Control Fan Speed / 3 Speeds ⁽¹⁾	0% – 49% → Speed 1 50% – 82% → Speed 2 83% – 100% → Speed 3	W	DPT_Scaling	5.001
		1 → Speed 1 2 → Speed 2 3 → Speed 3	W	DPT_Enumerated	5.010
13	Control Fan Speed Man / Auto	1 → Auto	W	DPT_Bool	1.002
14	Control Fan Speed 1 ⁽²⁾	1 → Activated	W	DPT_Bool	1.002
15	Control Fan Speed 2 ⁽³⁾	1 → Activated	W	DPT_Bool	1.002

(1) Only 3 speeds of the unit can be controlled. For 5 speed units the control will be on speeds 1-3-5.

(2) Low speed.

(3) Medium speed.

Object number	Description	Values	Read (R) Write (W)	Datapoint	
16	Control Fan Speed 3 ⁽⁴⁾	1 → Activated	W	DPT_Bool	1.002
17	Control Fan Speed + / -	0 → Decrease 1 → Increase	W	DPT_Step	1.007
		0 → Increase 1 → Decrease	W	DPT_UpDown	1.008
18	Control Vanes U-D / 5 Pos	0% – 29% → Position 1 30% – 49% → Position 2 50% – 69% → Position 3 70% – 89% → Position 4 90% – 100% → Position 5	W	DPT_Scalling	5.001
		1 → Position 1 2 → Position 2 3 → Position 3 4 → Position 4 5 → Position 5	W	DPT_Enumerated	5.010
19	Control Vanes U-D Standby ⁽⁵⁾	0 → Deactivated 1 → Activated	W	DPT_Bool	1.002
20	Control Vanes U-D Pos 1	1 → Activated	W	DPT_Bool	1.002
21	Control Vanes U-D Pos 2	1 → Activated	W	DPT_Bool	1.002
22	Control Vanes U-D Pos 3	1 → Activated	W	DPT_Bool	1.002
23	Control Vanes U-D Pos 4	1 → Activated	W	DPT_Bool	1.002
24	Control Vanes U-D Pos 5	1 → Activated	W	DPT_Bool	1.002
26	Control Vanes U-D + / -	0 → Decrease 1 → Increase	W	DPT_Step	1.007
		0 → Increase 1 → Decrease	W	DPT_UpDown	1.008
27	Control Setpoint Temperature	Varies depending on manufacturer and type of AC unit	W	DPT_Value_Temp	9.001
28	Control Setpoint Temp + / -	0 → Decrease 1 → Increase	W	DPT_Step	1.007
		0 → Increase 1 → Decrease	W	DPT_UpDown	1.008
30	Control Setpoint limitation ⁽⁶⁾	0 → Disabled 1 → Enabled	W	DPT_Switch	1.001

(4) High speed.

(5) Standby mode of the vanes is equivalent to Auto mode of the unit vanes.

(6) The set point limitation only affects changes made from KNX. This limitation does not apply to the manufacturer's thermostat.

Object number	Description	Values	Read (R) Write (W)	Datapoint	
33	Control Switch Off Timeout	0 → Stop 1 → Start	W	DPT_Start	1.010
35	Control Sleep Timeout	0 → Stop 1 → Start	W	DPT_Start	1.010
51	Status On / Off	0 → Off 1 → On	R	DPT_Switch	1.001
52	Status Mode	0 → Auto 1 → Heat 3 → Cool 14 → Dry	R	DPT_HVACContrMode	20.105
53	Status Mode Cool / Heat	0 → Cool 1 → Heat	R	DPT_Heat/Cool	1.100
54	Status Mode Auto	1 → Auto	R	DPT_Bool	1.002
55	Status Mode Heat	1 → Heat	R	DPT_Bool	1.002
56	Status Mode Cool	1 → Cool	R	DPT_Bool	1.002
58	Status Mode Dry	1 → Dry	R	DPT_Bool	1.002
59	Status Mode Text	ASCII String	R	DPT_String_8859_1	16.001
60	Status Fan Speed / 3 Speeds	33% → Speed 1 67% → Speed 2 100% → Speed 3	R	DPT_Scaling	5.001
		1 → Speed 1 2 → Speed 2 3 → Speed 3	R	DPT_Enumerated	5.010
61	Status Fan Speed Manual / Auto	0 → Manual 1 → Auto	R	DPT_Bool	1.002
62	Status Fan Speed 1	1 → Speed 1	R	DPT_Bool	1.002
63	Status Fan Speed 2	1 → Speed 2	R	DPT_Bool	1.002
64	Status Fan Speed 3	1 → Speed 3	R	DPT_Bool	1.002
65	Status Fan Speed Text	ASCII String	R	DPT_String_8859_1	16.001
66	Status Vanes U-D / 5 Pos	20% → Position 1 40% → Position 2 60% → Position 3 80% → Position 4 100% → Position 5	R	DPT_Scaling	5.001
		1 → Position 1 2 → Position 2 3 → Position 3 4 → Position 4 5 → Position 5	R	DPT_Enumerated	5.010

Object number	Description	Values	Read (R) Write (W)	Datapoint	
67	Status Vanes U-D Standby	0 → Deactivated 1 → Activated	R	DPT_Bool	1.002
68	Status Vanes U-D Pos 1	1 → Position 1	R	DPT_Bool	1.002
69	Status Vanes U-D Pos 2	1 → Position 2	R	DPT_Bool	1.002
70	Status Vanes U-D Pos 3	1 → Position 3	R	DPT_Bool	1.002
71	Status Vanes U-D Pos 4	1 → Position 4	R	DPT_Bool	1.002
72	Status Vanes U-D Pos 5	1 → Position 5	R	DPT_Bool	1.002
74	Status Vanes U-D text	ASCII String	R	DPT_String_8859_1	16.001
75	Status AC Setpoint Temperature	Varies depending on manufacturer and type of AC unit	R	DPT_Value_Temp	9.001
76	Status AC Return Temperature	Varies depending on manufacturer and type of AC unit	R	DPT_Value_Temp	9.001
77	Internal probe temperature	Varies depending on manufacturer and type of AC unit	R	DPT_Value_Temp	9.001
78	External probe temperature	Varies depending on manufacturer and type of AC unit	R	DPT_Value_Temp	9.001
80	Status Setpoint limitation	0 → Disabled 1 → Enabled	R	DPT_Switch	1.001
81	Status Error / Alarm	0 → No error / alarm 1 → An error / alarm has occurred	R	DPT_Alarm	1.005
82	Error text code	Varies depending on manufacturer and type of AC unit	R	DPT_String_8859_1	16.001
87	Status In1 – Switching	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In1 – Dimming On / Off	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In1 – Blind Step	0 → Up 1 → Down	R	DPT_UpDown	1.008

Object number	Description	Values	Read (R) Write (W)	Datapoint	
88	Status In1 – Value	1 byte unsigned	R	DPT_Value_1_Ucount	5.010
	Status In1 – Value	2 byte unsigned	R	DPT_Value_2_Ucount	7.001
	Status In1 – Value	2 byte signed	R	DPT_Value_2_Count	8.001
	Status In1 – Value	Temperature (°C)	R	DPT_Value_Temp	9.001
	Status In1 – Value	4 byte unsigned	R	DPT_Value_4_Ucount	12.001
	Status In1 – Dimming Step	Dimming step	R	DPT_Control_Dimm.	3.007
	Status In1 – Blind Move	0 → Up 1 → Down	R	DPT_UpDown	1.008
89	Status In2 – Switching	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In2 – Dimming On / Off	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In2 – Blind Step	0 → Up 1 → Down	R	DPT_UpDown	1.008
90	Status In2 – Value	1 byte unsigned	R	DPT_Value_1_Ucount	5.010
	Status In2 – Value	2 byte unsigned	R	DPT_Value_2_Ucount	7.001
	Status In2 – Value	2 byte signed	R	DPT_Value_2_Count	8.001
	Status In2 – Value	Temperature (°C)	R	DPT_Value_Temp	9.001
	Status In2 – Value	4 byte unsigned	R	DPT_Value_4_Ucount	12.001
	Status In2 – Dimming Step	Dimming step	R	DPT_Control_Dimm.	3.007
	Status In2 – Blind Move	0 → Up 1 → Down	R	DPT_UpDown	1.008
91	Status In3 – Switching	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In3 – Dimming On / Off	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In3 – Blind Step	0 → Up 1 → Down	R	DPT_UpDown	1.008

Object number	Description	Values	Read (R) Write (W)	Datapoint	
92	Status In3 – Value	1 byte unsigned	R	DPT_Value_1_Ucount	5.010
	Status In3 – Value	2 byte unsigned	R	DPT_Value_2_Ucount	7.001
	Status In3 – Value	2 byte signed	R	DPT_Value_2_Count	8.001
	Status In3 – Value	Temperature (°C)	R	DPT_Value_Temp	9.001
	Status In3 – Value	4 byte unsigned	R	DPT_Value_4_Ucount	12.001
	Status In3 – Dimming Step	Dimming step	R	DPT_Control_Dimm.	3.007
	Status In3 – Blind Move	0 → Up 1 → Down	R	DPT_UpDown	1.008

AIDOO KNX PANASONIC PACI (PAW-AZRC-KNX-1 [AZAI6KNXPNI])

Object number	Description	Values	Read (R) Write (W)	Datapoint	
1	Control On / Off	0 → Off 1 → On	W	DPT_Switch	1.001
2	Control Mode	0 → Auto 1 → Heat 3 → Cool 9 → Fan 14 → Dry	W	DPT_HVACContrMode	20.105
3	Control Mode Cool / Heat	0 → Cool 1 → Heat	W	DPT_Heat/Cool	1.100
4	Control Mode Cool & On	0% → Off 0.1% – 100% → On + Cool	W	DPT_Scaling	5.001
5	Control Mode Heat & On	0% → Off 0.1% – 100% → On + Heat	W	DPT_Scaling	5.001
6	Control Mode Auto	1 → Auto	W	DPT_Bool	1.002
7	Control Mode Heat	1 → Heat	W	DPT_Bool	1.002
8	Control Mode Cool	1 → Cool	W	DPT_Bool	1.002
9	Control Mode Fan	1 → Fan	W	DPT_Bool	1.002
10	Control Mode Dry	1 → Dry	W	DPT_Bool	1.002
11	Control Mode + / -	0 → Decrease 1 → Increase	W	DPT_Step	1.007
		0 → Increase 1 → Decrease	W	DPT_UpDown	1.008
12	Control Fan Speed / 3 Speeds	0% – 49% → Speed 1 50% – 82% → Speed 2 83% – 100% → Speed 3	W	DPT_Scaling	5.001
		1 → Speed 1 2 → Speed 2 3 → Speed 3	W	DPT_Enumerated	5.010
13	Control Fan Speed Man / Auto	1 → Auto	W	DPT_Bool	1.002
14	Control Fan Speed 1	1 → Activated	W	DPT_Bool	1.002
15	Control Fan Speed 2	1 → Activated	W	DPT_Bool	1.002
16	Control Fan Speed 3	1 → Activated	W	DPT_Bool	1.002
17	Control Fan Speed + / -	0 → Decrease 1 → Increase	W	DPT_Step	1.007
		0 → Increase 1 → Decrease	W	DPT_UpDown	1.008

Object number	Description	Values	Read (R) Write (W)	Datapoint	
18	Control Vanes U-D / 5 Pos	0% – 29% → Position 1 30% – 49% → Position 2 50% – 69% → Position 3 70% – 89% → Position 4 90% – 100% → Position 5	W	DPT_Scalling	5.001
		1 → Position 1 2 → Position 2 3 → Position 3 4 → Position 4 5 → Position 5	W	DPT_Enumerated	5.010
19	Control Vanes U-D Standby	0 → Deactivated 1 → Activated	W	DPT_Bool	1.002
20	Control Vanes U-D Pos 1	1 → Activated	W	DPT_Bool	1.002
21	Control Vanes U-D Pos 2	1 → Activated	W	DPT_Bool	1.002
22	Control Vanes U-D Pos 3	1 → Activated	W	DPT_Bool	1.002
23	Control Vanes U-D Pos 4	1 → Activated	W	DPT_Bool	1.002
24	Control Vanes U-D Pos 5	1 → Activated	W	DPT_Bool	1.002
25	Control Vanes U-D Swing	0 → Deactivated 1 → Activated	W	DPT_Bool	1.002
26	Control Vanes U-D + / -	0 → Decrease 1 → Increase	W	DPT_Step	1.007
		0 → Increase 1 → Decrease	W	DPT_UpDown	1.008
27	Control Setpoint Temperature	Varies depending on manufacturer and type of AC unit	W	DPT_Value_Temp	9.001
28	Control Setpoint Temp + / -	0 → Decrease 1 → Increase	W	DPT_Step	1.007
		0 → Increase 1 → Decrease	W	DPT_UpDown	1.008
29	Control Ambient Temperature	(°C)	W	DPT_Value_Temp	9.001
30	Control Setpoint limitation ⁽¹⁾	0 → Disabled 1 → Enabled	W	DPT_Switch	1.001
33	Control Switch Off Timeout	0 → Stop 1 → Start	W	DPT_Start	1.010

(1) The set point limitation only affects changes made from KNX. This limitation does not apply to the manufacturer's thermostat.

Object number	Description	Values	Read (R) Write (W)	Datapoint	
35	Control Sleep Timeout	0 → Stop 1 → Start	W	DPT_Start	1.010
51	Status On / Off	0 → Off 1 → On	R	DPT_Switch	1.001
52	Status Mode	0 → Auto 1 → Heat 3 → Cool 9 → Fan 14 → Dry	R	DPT_ HVACContrMode	20.105
53	Status Mode Cool / Heat	0 → Cool 1 → Heat	R	DPT_Heat/Cool	1.100
54	Status Mode Auto	1 → Auto	R	DPT_Bool	1.002
55	Status Mode Heat	1 → Heat	R	DPT_Bool	1.002
56	Status Mode Cool	1 → Cool	R	DPT_Bool	1.002
57	Status Mode Fan	1 → Fan	R	DPT_Bool	1.002
58	Status Mode Dry	1 → Dry	R	DPT_Bool	1.002
59	Status Mode Text	ASCII String	R	DPT_ String_8859_1	16.001
60	Status Fan Speed / 3 Speeds	33% → Speed 1 67% → Speed 2 100% → Speed 3	R	DPT_Scaling	5.001
		1 → Speed 1 2 → Speed 2 3 → Speed 3	R	DPT_Enumerated	5.010
61	Status Fan Speed Manual / Auto	0 → Manual 1 → Auto	R	DPT_Bool	1.002
62	Status Fan Speed 1	1 → Speed 1	R	DPT_Bool	1.002
63	Status Fan Speed 2	1 → Speed 2	R	DPT_Bool	1.002
64	Status Fan Speed 3	1 → Speed 3	R	DPT_Bool	1.002
65	Status Fan Speed Text	ASCII String	R	DPT_ String_8859_1	16.001
66	Status Vanes U-D / 5 Pos	20% → Position 1 40% → Position 2 60% → Position 3 80% → Position 4 100% → Position 5	R	DPT_Scalling	5.001
		1 → Position 1 2 → Position 2 3 → Position 3 4 → Position 4 5 → Position 5	R	DPT_Enumerated	5.010

Object number	Description	Values	Read (R) Write (W)	Datapoint	
67	Status Vanes U-D Standby	0 → Deactivated 1 → Activated	R	DPT_Bool	1.002
68	Status Vanes U-D Pos 1	1 → Position 1	R	DPT_Bool	1.002
69	Status Vanes U-D Pos 2	1 → Position 2	R	DPT_Bool	1.002
70	Status Vanes U-D Pos 3	1 → Position 3	R	DPT_Bool	1.002
71	Status Vanes U-D Pos 4	1 → Position 4	R	DPT_Bool	1.002
72	Status Vanes U-D Pos 5	1 → Position 5	R	DPT_Bool	1.002
73	Status Vanes U-D Swing	0 → Deactivated 1 → Activated	R	DPT_Bool	1.002
74	Status Vanes U-D text	ASCII String	R	DPT_String_8859_1	16.001
75	Status AC Setpoint Temperature	Varies depending on manufacturer and type of AC unit	R	DPT_Value_Temp	9.001
76	Status AC Return Temperature	Varies depending on manufacturer and type of AC unit	R	DPT_Value_Temp	9.001
77	Internal probe temperature	Varies depending on manufacturer and type of AC unit	R	DPT_Value_Temp	9.001
80	Status Setpoint limitation	0 → Disabled 1 → Enabled	R	DPT_Switch	1.001
81	Status Error / Alarm	0 → No error / alarm 1 → An error / alarm has occurred	R	DPT_Alarm	1.005
87	Status In1 – Switching	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In1 – Dimming On / Off	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In1 – Blind Step	0 → Up 1 → Down	R	DPT_UpDown	1.008

Object number	Description	Values	Read (R) Write (W)	Datapoint	
88	Status In1 – Value	1 byte unsigned	R	DPT_Value_1_Ucount	5.010
	Status In1 – Value	2 byte unsigned	R	DPT_Value_2_Ucount	7.001
	Status In1 – Value	2 byte signed	R	DPT_Value_2_Count	8.001
	Status In1 – Value	Temperature (°C)	R	DPT_Value_Temp	9.001
	Status In1 – Value	4 byte unsigned	R	DPT_Value_4_Ucount	12.001
	Status In1 – Dimming Step	Dimming step	R	DPT_Control_Dimm.	3.007
	Status In1 – Blind Move	0 → Up 1 → Down	R	DPT_UpDown	1.008
89	Status In2 – Switching	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In2 – Dimming On / Off	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In2 – Blind Step	0 → Up 1 → Down	R	DPT_UpDown	1.008
90	Status In2 – Value	1 byte unsigned	R	DPT_Value_1_Ucount	5.010
	Status In2 – Value	2 byte unsigned	R	DPT_Value_2_Ucount	7.001
	Status In2 – Value	2 byte signed	R	DPT_Value_2_Count	8.001
	Status In2 – Value	Temperature (°C)	R	DPT_Value_Temp	9.001
	Status In2 – Value	4 byte unsigned	R	DPT_Value_4_Ucount	12.001
	Status In2 – Dimming Step	Dimming step	R	DPT_Control_Dimm.	3.007
	Status In2 – Blind Move	0 → Up 1 → Down	R	DPT_UpDown	1.008
91	Status In3 – Switching	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In3 – Dimming On / Off	0 → Off 1 → On	R	DPT_Switch	1.001
	Status In3 – Blind Step	0 → Up 1 → Down	R	DPT_UpDown	1.008

Object number	Description	Values	Read (R) Write (W)	Datapoint	
92	Status In3 – Value	1 byte unsigned	R	DPT_Value_1_Ucount	5.010
	Status In3 – Value	2 byte unsigned	R	DPT_Value_2_Ucount	7.001
	Status In3 – Value	2 byte signed	R	DPT_Value_2_Count	8.001
	Status In3 – Value	Temperature (°C)	R	DPT_Value_Temp	9.001
	Status In3 – Value	4 byte unsigned	R	DPT_Value_4_Ucount	12.001
	Status In3 – Dimming Step	Dimming step	R	DPT_Control_Dimm.	3.007
	Status In3 – Blind Move	0 → Up 1 → Down	R	DPT_UpDown	1.008

Error codes

AIDOO KNX PANASONIC RAC DOMESTIC (PAW-AZAC-KNX-1 [AZAI6KNXPNO])

Diagnosis display	Abnormality / Protection control	Abnormality judgement	Protection operation	Problem	Check location
H00	No memory of failure	-	Normal operation	-	-
H11	Indoor / Outdoor abnormal communication	After operation for 1 minute	Indoor fan only operation can start by entering into force cooling operation	Indoor / Outdoor communication not establish	- Indoor / Outdoor wire terminal - Indoor / Outdoor PCB - Indoor / Outdoor connection wire
H12	Indoor unit capacity unmatched	90s after power supply	-	Total indoor capability more than maximum limit or less than minimum limit, or number of indoor unit less than two	- Indoor / Outdoor connection wire - Indoor / Outdoor PCB - Specification and combination table in catalogue
H14	Indoor intake air temperature sensor abnormality	Continuous for 5s	-	Indoor intake air temperature sensor open or short circuit	Indoor intake air temperature sensor lead wire and connector
H15	Compressor temperature sensor abnormality	Continuous for 5s	-	Compressor temperature sensor open or short circuit	Compressor temperature sensor lead wire and connector
H16	Outdoor current transformer (CT) abnormality	-	-	Current transformer faulty or compressor faulty	Outdoor PCB faulty or compressor faulty
H19	Indoor fan motor mechanism lock	Continuous happen for 7 times	-	Indoor fan motor lock or feedback abnormal	- Fan motor lead wire and connector - Fan motor lock or block
H23	Indoor heat exchanger temperature sensor abnormality	Continuous for 5s	-	Indoor heat exchanger temperature sensor open or short circuit	Indoor heat exchanger temperature sensor lead wire and connector
H24	Indoor heat exchanger temperature sensor 2 abnormality	Continuous for 5s	-	Indoor heat exchanger temperature sensor 2 open or short circuit	Indoor heat exchanger temperature sensor 2 lead wire and connector
H25	Indoor ion device abnormality	Port is ON for 10s during ion device off	-	-	Ion device PCB
H27	Outdoor air temperature sensor abnormality	Continuous for 5s	-	Outdoor air temperature sensor open or short circuit	Outdoor air temperature sensor lead wire and connector

Diagnosis display	Abnormality / Protection control	Abnormality judgement	Protection operation	Problem	Check location
H28	Outdoor heat exchanger temperature sensor 1 abnormality	Continuous for 5s	-	Outdoor heat exchanger temperature sensor 1 open or short circuit	· Outdoor heat exchanger temperature sensor 1 lead wire and connector
H30	Outdoor discharge pipe temperature sensor abnormality	Continuous for 5s	-	Outdoor discharge pipe temperature sensor open or short circuit	· Outdoor discharge pipe temperature sensor lead wire and connector
H32	Outdoor heat exchanger temperature sensor 2 abnormality	Continuous for 5s	-	Outdoor heat exchanger temperature sensor 2 open or short circuit	· Outdoor heat exchanger temperature sensor 2 lead wire and connector
H33	Indoor / Outdoor misconnection abnormality	-	-	Indoor and outdoor rated voltage different	· Indoor and outdoor units check
H34	Outdoor heat sink temperature sensor abnormality	Continuous for 2s	-	Outdoor heat sink temperature sensor open or short circuit	· Outdoor heat sink sensor
H36	Outdoor gas pipe temperature sensor abnormality	Continuous for 5s	Heating protection operation only	Outdoor gas pipe temperature sensor open or short circuit	· Outdoor gas pipe temperature sensor lead wire and connector
H37	Outdoor liquid pipe temperature sensor abnormality	Continuous for 5s	Cooling protection operation only	Outdoor liquid pipe temperature sensor open or short circuit	· Outdoor liquid pipe temperature sensor lead wire and connector
H38	Indoor / Outdoor mismatch (brand code)	-	-	Brand code not match	· Check indoor unit and outdoor unit
H39	Abnormal indoor operating unit or standby units	3 times happen within 40 minutes	-	Wrong wiring and connection pipe, expansion valve abnormality, indoor heat exchanger sensor open circuit	· Check indoor / outdoor connection wire and connection pipe · Indoor heat exchanger sensor lead wire and connector · Expansion valve and lead wire and connector
H41	Abnormal wiring or piping connection	-	-	Wrong wiring and connecting pipe, expansion valve abnormality	· Check indoor / outdoor connection wire and connection pipe · Expansion valve and lead wire and connector
H59	ECONAVI sensor abnormality	Continuous for 25s	-	ECONAVI sensor open or short circuit	· ECONAVI sensor (defective or disconnected) · ECONAVI PCB
H64	Outdoor high pressure sensor abnormality	Continuous for 1 minute	-	High pressure sensor open circuit during compressor stop	· High pressure sensor · Lead wire and connector

Diagnosis display	Abnormality / Protection control	Abnormality judgement	Protection operation	Problem	Check location
H67	Nanoe abnormality	Nanoe stop for 5 minutes for 3 times	-	Nanoe faulty	· PCB · Nanoe system · High voltage
H70	Light sensor abnormality	Continuous for 24 hours, 15 days	-	Light sensor open or short circuit	· Light sensor (defective or disconnected)
H85	Abnormal communication between indoor & wireless LAN module	Communication error for 10 minutes for 3 times	-	Wireless LAN LED Off or timer LED blinking	· Network adaptor · Router · Network coverage
H97	Outdoor fan motor mechanism lock	2 times happen within 30 minutes	-	Outdoor fan motor lock or feedback abnormal	· Outdoor fan motor lead wire and connector · Fan motor lock or block
H98	Indoor high pressure protection	-	-	Indoor high pressure protection (Heating)	· Check indoor heat exchanger · Air filter dirty · Air circulation short circuit
H99	Indoor operating unit freeze protection	-	-	Indoor freeze protection (Cooling)	· Check indoor heat exchanger · Air filter dirty · Air circulation short circuit
F11	4-way valve switching abnormality	4 times happen within 30 minutes	-	4-way valve switching abnormal	· 4-way valve · Lead wire and connector
F17	Indoor standby units freezing abnormality	3 times happen within 40 minutes	-	Wrong wiring and connecting pipe, expansion valve leakage, indoor heat exchanger sensor open circuit	· Checker indoor / outdoor connection wire and pipe · Indoor heat exchanger sensor lead wire and connector · Expansion valve lead wire and connector
F90	Power factor correction (PFC) circuit protection	4 times happen within 10 minutes	-	Power factor correction circuit abnormal	· Outdoor PCB faulty
F91	Refrigeration cycle abnormality	2 times happen within 20 minutes	-	Refrigeration cycle abnormal	· Insufficient refrigerant or valve close
F93	Compressor abnormal revolution	4 times happen within 20 minutes	-	Compressor abnormal revolution	· Power transistor module faulty or compressor lock
F94	Compressor discharge overshoot protection	4 times happen within 30 minutes	-	Compressor discharge pressure overshoot	· Check refrigeration system
F95	Outdoor cooling high pressure protection	4 times happen within 20 minutes	-	Cooling high pressure protection	· Check refrigeration system · Outdoor air circuit

Diagnosis display	Abnormality / Protection control	Abnormality judgement	Protection operation	Problem	Check location
F96	Power transistor module overheating protection	4 times happen within 30 minutes	-	Power transistor module overheat	· PCB faulty · Outdoor air circuit (fan motor)
F97	Compressor overheating protection	3 times happen within 30 minutes	-	Compressor overheat	· Insufficient refrigerant
F98	Total running current protection	3 times happen within 20 minutes	-	Total current protection	· Check refrigeration system · Power source or compressor lock
F99	Outdoor direct current (DC) peak detection	Continuous happen for 7 times	-	Power transistor module current protection	· Power transistor module faulty or compressor lock

AIDOO KNX PANASONIC PACI (PAW-AZRC-KNX-1 [AZAI6KNXPN1])

ECO G units

Diagnosis display	Abnormality / Protection control	Problem
A01	Engine oil pressure error	-
A02	Engine oil error	-
A03	Engine high-revolution error	-
A04	Engine low-revolution error	-
A05	Ignition source error	-
A06	Engine start failure	-
A07	Fuel gas valve error	-
A08	Engine stall	-
A10	Exhaust gas temperature high	-
A12	Throttle	Stepping motor failure
A14	Engine oil pressure switch	-
A15	Start power source output short circuit	-
A16	Starter lock	-
A17	CT error	Starter current detection failure
A19	Low coolant temperature	-
A20	High coolant temperature	-
A21	Coolant level error	-
A22	Coolant pump error	-
A23	Crankshaft angle sensor	-
A24	Camshaft angle sensor error	-
A25	Clutch error	-
A26	Flameout error	-
A27	Catalyst temperature error	-
A30	Low fuel gas pressure error	-
E01	Remote controller receive failure	-
E02	Remote controller transmission failure	-
E03	Indoor unit receive failure from remote controller (central)	-
E04	Indoor unit receive failure from outdoor unit	-
E05	Indoor unit transmission failure to outdoor unit	-
E06	Outdoor unit receive failure from indoor unit	-
E07	Outdoor unit transmission failure to indoor unit	-
E08	Duplicated indoor unit address setting	-
E09	Multiple main remote controller units set	-
E11	Indoor unit receive failure from signal output board	-

Diagnosis display	Abnormality / Protection control	Problem
E12	Automatic address setting in progress	-
E13	Indoor unit transmission failure to remote controller	-
E15	Automatic address alarm (too few units)	-
E16	Automatic address alarm (too many units)	-
E18	Group control wiring communication failure	-
E20	No indoor unit in automatic address setting	-
E21	Outdoor main board failure	-
E22	Outdoor main board sensor error	-
E24	Communication failure between outdoor units	-
E26	Inconsistencies in number of outdoor units	-
E31	Communication failure between units	-
F01	Indoor heat exchanger inlet temperature sensor (E1)	-
F02	Water heat exchanger anti-freeze sensor (E2)	-
F03	Water heat exchanger refrigerant outlet temperature sensor (E3)	-
F04	Compressor outlet temperature sensor	-
F06	Outdoor heat exchanger inlet temperature sensor / Outdoor heat exchanger 2 inlet temperature sensor (3WAY only)	-
F08	Outside air temperature sensor	-
F10	Indoor unit intake temperature sensor / Hot and cold water inlet sensor	-
F11	Indoor unit discharge temperature sensor / Hot and cold water outlet sensor	-
F12	Compressor inlet temperature sensor	-
F13	Coolant temperature sensor	-
F16	Compressor inlet / outlet pressure sensor error	-
F17	Hot water outlet temperature sensor	-
F18	Exhaust gas temperature sensor	-
F20	Clutch coil temperature sensor error	-
F21	Clutch coil 2 temperature sensor error	-
F29	Indoor nonvolatile memory (EEPROM) error	-
F31	Outdoor nonvolatile memory (EEPROM) error	-
H07	Compressor oil depletion error	-
L02	Inconsistencies in indoor / outdoor unit models	-
L03	Multiple main units set for group control	-
L04	Duplicate system (outdoor unit) address setting	-
L05	Duplicate indoor unit priority setting	-
L06	Duplicate indoor unit priority setting	-
L07	Group control wire present for individual-control indoor unit	-

Diagnosis display	Abnormality / Protection control	Problem
L08	Indoor unit address not set	-
L09	Indoor unit capacity not set	-
L10	Outdoor unit capacity not set	-
L13	Indoor unit model type setting failure	-
L15	Defective pairing of indoor units	-
L16	Faulty water heat exchanger unit parallel array addresses	-
L19	Duplicated water heat exchanger unit parallel arrays addresses	-
L21	Gas type setting failure	-
P01	Indoor fan error / Indoor unit fan rpm error	-
P03	High compressor discharge temperature	-
P04	Refrigerant high-pressure switch operation	-
P05	Power source error	-
P09	Indoor unit ceiling panel connector connection failure	-
P10	Indoor unit float switch operation	-
P11	Indoor unit drain pump error / Water heat exchanger unit anti-icing sensor error	-
P12	Indoor DC fan error	-
P13	Refrigerant circuit error (W MULTI / Models with suction bypass valve (85kW type) / Refrigerant circuit error (3 Way))	-
P15	Complete refrigerant gas depletion	-
P18	Bypass valve error	-
P19	Four-Way valve lock error (no detected 3WAY MULTI)	-
P20	Refrigerant high-pressure error	-
P22	Outdoor unit fan error	-
P23	Water heat exchanger unit interlock error (for only water heat exchanger unit)	-
P26	Clutch connection error	-
P30	Group control's sub unit error	-
P31	Group control error	-

ECOi EX 2 Way units

Diagnosis display	Abnormality / Protection control	Problem
E06	Outdoor unit receiving failure from indoor unit	-
E12	Prohibit starting auto address setting	-
E15	Auto address alarm (a small number of indoor units)	-
E16	Auto address alarm (a large number of indoor units)	-
E20	No indoor unit during auto address setting	-
E21	Receiving failure of main system from sub system when link wiring is used for outdoor units	-
E22	Receiving failure of sub system from main system when link wiring is used for outdoor units	-
E24	Receiving failure of relay control unit from outdoor unit(s)	-
E25	Failure of outdoor unit address setting (duplicative)	-
E26	Inconsistencies in number of outdoor units	-
E29	Failure of outdoor unit to receive relay control unit	-
E30	Failure of transferring outdoor unit serial	-
E31	Wiring error between the P.C. board ([L-Pow], [HIC] wire)	-
F04	Compressor 1 discharge temperature sensor abnormal [DISCH1]	-
F05	Compressor 2 discharge temperature sensor abnormal [DISCH2]	-
F06	Outdoor unit heat exchanger 1 gas (inlet) temperature sensor abnormal [EXG1]	-
F07	Outdoor unit heat exchanger 1 liquid (outlet) temperature sensor abnormal [EXL1]	-
F08	Outdoor temperature sensor abnormal [TO]	-
F12	Compressor inlet temperature sensor abnormal [SCT]	-
F14	Supercooling gas temperature sensor abnormal [SCG]	-
F16	High pressure sensor abnormal, high-load [HPS]	-
F17	Low pressure sensor abnormal [LPS]	-
F23	Outdoor unit heat exchanger 2 gas (inlet) temperature sensor abnormal [EXG2]	-
F24	Outdoor unit heat exchanger 2 liquid (outlet) temperature sensor abnormal [EXL2]	-
F31	Outdoor unit nonvolatile memory (EEPROM) error	-
H01	Compressor 1 abnormal current values	Overcurrent
H03	Compressor 1 CT sensor disconnected, short-circuit	-
H05	Compressor 1 discharge temperature sensor disconnected	-
H06	Low pressure abnormal lowering	-
H07	Oil loss - error	-
H08	Oil sensor (connection) error 1	-

Diagnosis display	Abnormality / Protection control	Problem
H11	Compressor 2 abnormal current values	Overcurrent
H13	Compressor 2 CT sensor disconnected, short-circuit	-
H15	Compressor 2 discharge temperature sensor disconnected	-
H21	Compressor 2 HIC alarm	-
H27	Oil sensor (connection) error 2	-
H31	Compressor 1 HIC alarm	-
L04	Outdoor unit address settings duplicated	-
L05	Indoor unit priority duplicated (for priority indoor)	-
L06	Indoor unit priority duplicated (not for priority indoor) and outdoor unit	-
L10	Outdoor unit capacity settings not made	-
L17	Inconsistencies in outdoor unit models	-
L18	4-way valve coil disconnected, line disconnected	-
P03	Compressor 1 discharge temperature error	-
P04	Actuation of high pressure switch	-
P05	Compressor 1 open-phase detection	-
P11	Cooling water freeze	Chiller
P14	Actuation of O2 sensor	-
P15	Compressor 2 open-phase detection	-
P16	Compressor 1 secondary overcurrent	-
P17	Compressor 2 discharge temperature error	-
P19	Compressor 2 start failure	Compressor lock / Compressor wiring open-phase / DCCT failure
P20	High load	Forgot to open valves
P22	Outdoor unit fan1 failure	IPM damage / Overcurrent / Inverter failure / DC fan lock / Hole IC open-phase
P23	Inter lock not cancellation	Chiller
P24	Outdoor unit fan2 failure	IPM damage / Overcurrent / Inverter failure / DC fan lock / Hole IC open-phase
P26	Compressor 2 secondary overcurrent	-
P29	Compressor 1 start failure	Compressor lock / Compressor wiring open-phase / DCCT failure

ECOi EX 3 Way units

Diagnosis display	Abnormality / Protection control	Problem
E06	Some indoor units does not respond to outdoor unit	-
E12	Auto address failed to start	-
E15	Fewer indoor units are found in auto addressing than the setting on outdoor PCB	-
E16	More indoor units are found in auto addressing than the setting on outdoor PCB	-
E20	No indoor unit responded in auto addressing	-
E24	No response from sub outdoor unit	-
E25	The outdoor unit address is duplicating	-
E26	The number of responding outdoor units does not match with the setting on the main outdoor unit	-
E29	No response from main outdoor unit	-
E31	Error in communication inside outdoor unit control box	-
F04	Compressor 1 discharge temperature sensor has failure (DISCH1)	-
F05	Compressor 2 discharge temperature sensor has failure (DISCH2)	-
F06	Outdoor unit heat exchanger 1 gas temperature sensor has failure (EXG1)	-
F07	Outdoor unit heat exchanger 1 liquid temperature sensor has failure (EXL1)	-
F08	Outdoor temperature sensor has failure (TO)	-
F12	Compressor inlet temperature sensor has failure (SCT)	-
F14	Subcooling heat exchanger temperature sensor has failure (SCG)	-
F16	High pressure sensor has failure (HPS)	-
F17	Low pressure sensor has failure (LPS)	-
F23	Outdoor unit heat exchanger 2 gas temperature sensor has failure (EXG2)	-
F24	Outdoor unit heat exchanger 2 liquid temperature sensor has failure (EXL2)	-
F31	EEPROM on outdoor unit PCB has failure	-
H01	Compressor 1 primary current is overcurrent	-
H03	Compressor 1 current sensor is disconnected or shorted	-
H05	Compressor 1 discharge temperature sensor is disconnected, shorted or misplaced	-
H06	Low pressure sensor value is too low	-
H07	Compressor or refrigerant circuit has low oil	-
H08	Compressor 1 oil temperature sensor has failure (OIL1)	-
H11	Compressor 2 primary current is overcurrent	-

Diagnosis display	Abnormality / Protection control	Problem
H13	Compressor 2 current sensor is disconnected or shorted	-
H15	Compressor 2 discharge temperature sensor is disconnected, shorted or misplaced	-
H21	Compressor 2 HIC has failure	HIC is overcurrent or overheat / VDC is undervoltag
H27	Compressor 2 oil temperature sensor has failure (OIL2)	-
H31	Compressor 1 HIC has failure	HIC is overcurrent or overheat / VDC is undervoltag
L04	Duplicate system address setting on outdoor units	-
L10	Capacity setting of outdoor unit is not correct	-
L11	Incorrect wiring of remote group control wiring (in case of shared solenoid valve)	-
L17	Model mismatch between outdoor units	-
P03	Compressor 1 discharge temperature is too high	-
P04	High pressure switch is activated	-
P05	Compressor 1 AC power supply has abnormal	-
P11	Cooling water freeze	-
P14	O2 sensor has activated	-
P15	Compressor 2 AC power supply has abnormal	-
P16	Compressor 1 secondary current is overcurrent	-
P17	Compressor 2 discharge temperature is too high	-
P19	Compressor 2 start failure	Compressor 2 is missing phase
P22	Outdoor unit fan motor has failure	-
P25	High pressure is out of compressor operating range	-
P26	Compressor 2 secondary current is overcurrent	-
P27	Low pressure is out of compressor operating range	-
P29	Compressor 1 start failure	Compressor 1 is missing phase

Mini ECOi units

Diagnosis display	Abnormality / Protection control	Problem
C17	Indoor unit does not respond to central control equipment	-
E01	Indoor unit does not respond to remote controller	-
E02	Remote controller is having error in sending serial communication signal	-
E03	Remote controller does not respond to indoor unit	-
E04	Outdoor unit does not respond to indoor unit	-
E06	Some indoor units does not respond to outdoor unit	-
E08	Indoor unit address is duplicating	-
E09	Two or more remote controllers are set as main on R1-R2 link	-
E12	Auto address failed to start	-
E14	Two or more indoor units are set as main, in the group controlled indoor units	-
E15	Fewer indoor units are found in auto addressing than the setting on outdoor PCB	-
E16	More indoor units are found in auto addressing than the setting on outdoor PCB	-
E18	No response from sub indoor to the main indoor unit in group control wiring	-
E20	No indoor unit responded in auto addressing	-
E31	Error in communication inside outdoor unit control box	-
F01	Indoor unit heat exchanger liquid temperature sensor has failure (E1)	-
F02	Indoor unit heat exchanger temperature sensor has failure (E2)	-
F03	Indoor unit heat exchanger gas temperature sensor has failure (E3)	-
F04	Compressor discharge temperature sensor has failure (DISCH)	-
F06	Outdoor unit heat exchanger gas temperature sensor has failure (EXG)	-
F07	Outdoor unit heat exchanger liquid temperature sensor has failure (EXL)	-
F08	Outdoor temperature sensor has failure (TO)	-
F10	Indoor suction air (room) temperature sensor has failure (TA)	-
F11	Indoor discharge air temperature sensor has failure (BL)	-
F12	Compressor inlet temperature sensor has failure (SCT)	-

Diagnosis display	Abnormality / Protection control	Problem
F14	Subcooling heat exchanger temperature sensor has failure (SCG)	-
F16	High pressure sensor has failure (HPS)	-
F17	Low pressure sensor has failure (LPS)	-
F29	EEPROM on indoor unit PCB has failure	-
F31	EEPROM on outdoor unit PCB has failure	-
H01	Compressor primary current is overcurrent	-
H02	PFC is overcurrent or VDC is overvoltage (single phase only)	-
H03	Compressor current sensor is disconnected or shorted	-
H05	Compressor discharge temperature sensor is disconnected, shorted or misplaced (DISCH)	-
H06	Low pressure sensor value is too low	-
H31	Compressor HIC has failure	HIC is overcurrent or overheat. VDC is undervoltage or overvoltage
L01	Indoor unit address setting has error	No main indoor unit in group control
L02	Indoor unit model does not match with the outdoor unit model (multi-split/mini-split)	-
L03	Two or more indoor units are set as main in group control	-
L04	Duplicate system address setting on outdoor units	-
L05	Two or more indoor units are set as priority indoor unit (priority indoor unit)	-
L06	Two or more indoor units are set as priority indoor unit (non-priority indoor unit)	-
L07	Group control wiring is detected for indoor unit set as individual control	-
L08	Indoor unit address is not set	-
L09	Capacity setting of indoor unit is not correct	-
L10	Capacity setting of outdoor unit is not correct	-
L13	Indoor unit model does not match with outdoor unit	-
L17	Model mismatch between outdoor units	-
L18	4-way valve has failure	-
P01	Thermal protector for indoor unit fan motor is activated	-
P03	Compressor discharge temperature is too high	-
P04	High pressure switch is activated	-
P05	AC power supply has abnormal	-
P09	Connection to the panel of indoor unit is not good	-

Diagnosis display	Abnormality / Protection control	Problem
P10	Float switch of drain pan safety is activated	-
P11	Drain pump failure or locked rotor	-
P12	Indoor unit fan inverter protection control is activated	-
P14	O2 sensor has activated	-
P16	Compressor secondary current is overcurrent	-
P20	Too high load in refrigerant circuit	-
P22	Outdoor unit fan motor has failure	-
P29	Compressor start failure	Compressor is missing phase or reverse phase
P31	Other indoor unit in group control has an alarm	-

Big PACi units

Diagnosis display	Abnormality / Protection control	Problem
E01	Remote controller reception error	-
E02	Remote controller transmission error	-
E03	Error in indoor unit receiving signal from remote controller (central)	-
E04	Error in indoor unit receiving signal from the outdoor unit	-
E05	Error in indoor unit transmitting signal to the outdoor unit	-
E06	Outdoor unit failed to receive serial communication signals from indoor unit	-
E08	Duplicate indoor unit address settings error	-
E09	More than one remote controller set to main error	-
E12	Automatic address setting start is prohibited while auto-address setting in progress	-
E14	Main unit duplication in simultaneous-operation multi control	Detected outdoor unit
E15	Automatic address alarm	The total capacity of indoor units is too low
E16	Automatic address alarm	The total capacity of indoor units is too high or the total number of indoor units is too many
E18	Faulty communication in group control wiring	-
E20	Connection problem of indoor/outdoor units	-
F04	Compressor discharge temperature sensor (TD) trouble	-
F06	Inlet temperature sensor (C1) in heat exchanger trouble	-
F07	Intermediate temperature sensor (C2) in heat exchanger trouble	-
F08	Outdoor air temperature sensor (TO) trouble	-
F12	Compressor inlet suction temperature sensor (TS) trouble	-
F31	Outdoor unit nonvolatile memory (EEPROM) trouble	-
H01	Primary (input) overcurrent detected	-
H02	PAM trouble	-
H03	Primary current CT sensor (current sensor) failure	-
H31	HIC trouble	-
L04	Outdoor unit address duplication	-
L10	Outdoor unit capacity not set or invalid	-
L13	Indoor unit type setting error	-
L18	4-way valve operation failure	-
P03	Compressor discharge temperature trouble	-

Diagnosis display	Abnormality / Protection control	Problem
P04	High pressure trouble	-
P05	AC power supply trouble	-
P13	Alarm valve open	-
P14	O2 sensor detect	-
P15	Insufficient gas level detected	-
P16	Compressor overcurrent trouble	-
P22	Outdoor unit fan motor trouble	-
P29	Lack of INV compressor wiring, INV compressor actuation failure (including locked), DCCT failure	-
P31	Group control error	-

PACi NX units

Diagnosis display	Abnormality / Protection control	Abnormality judgement	Protection operation	Problem	Check location
E04	Indoor / Outdoor abnormal communication	After operation for 1 minute	Indoor fan only operation can start by entering into force cooling operation	Indoor / Outdoor communication not establish	- Indoor / Outdoor wire terminal - Indoor / Outdoor PCB - Indoor / Outdoor connection wire
F04	Compressor temperature sensor abnormality	Continuous for 5s	-	Compressor temperature sensor open or short circuit	Compressor temperature sensor lead wire and connector
F06	Outdoor heat exchanger temperature sensor 1 abnormality	Continuous for 5s	-	Outdoor heat exchanger temperature sensor 1 open or short circuit	Outdoor heat exchanger temperature sensor 1 lead wire and connector
F08	Outdoor air temperature sensor abnormality	Continuous for 5s	-	Outdoor air temperature sensor open or short circuit	Outdoor air temperature sensor lead wire and connector
H01	Indoor high pressure protection	-	-	Indoor high pressure protection (Heating)	- Check indoor heat exchanger - Air filter dirty - Air circulation short circuit
H02	Power factor correction (PFC) circuit protection	4 times happen within 20 minutes	-	Power factor correction circuit abnormal	Outdoor PCB faulty
H03	Outdoor current transformer (CT) abnormality	-	-	Current transformer faulty or compressor faulty	Outdoor PCB faulty or compressor faulty
L18	4-way valve switching abnormality	4 times happen within 30 minutes	-	4-way valve switching abnormal	4-way valve - Lead wire and connector
P03	Compressor overheating protection	4 times happen within 20 minutes	-	Compressor overheat	Insufficient refrigerant
P04	Outdoor cooling high pressure protection	4 times happen within 20 minutes	-	Cooling high pressure protection	- Check refrigeration system - Outdoor air circuit
P05	Indoor / Outdoor misconnection abnormality	-	-	Indoor and outdoor rated voltage different	Indoor and outdoor units check

Diagnosis display	Abnormality / Protection control	Abnormality judgement	Protection operation	Problem	Check location
P07	Power transistor module overheating protection	4 times happen within 30 minutes	-	Power transistor module overheat	· PCB faulty · Outdoor air circuit (fan motor)
P15	Refrigeration cycle abnormality	2 times happen within 20 minutes	-	Refrigeration cycle abnormal	· Insufficient refrigerant or valve close
P16	Outdoor direct current (DC) peak detection	Continuous happen for 7 times	-	Power transistor module current protection	· Power transistor module faulty os compressor lock
P22	Outdoor fan motor mechanism lock	2 times happen within 20 minutes	-	Outdoor fan motor lock or feedback abnormal	· Outdoor fan motor lead wire and connector · Fan motor lock or block
P29	Compressor abnormal revolution	4 times happen within 20 minutes	-	Compressor abnormal revolution	· Power transistor module faulty os compressor lock

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