Integration manual

PELICAN

For AZAI6WSPDKC

AIRZONE

Index

Introduction

DESCRIPTION AND CHARACTERISTICS

DKN Plus allows the integration of Pelican interfaces with individual HVAC units via the Cloud API.

The DKN Plus device acts as a communication gateway that allows controlling the individual HVAC unit from a Pelican thermostat and its Pelican Cloud Services application. The DKN Cloud NA app is only required for the initial configuration of the device.
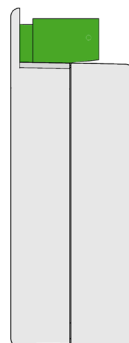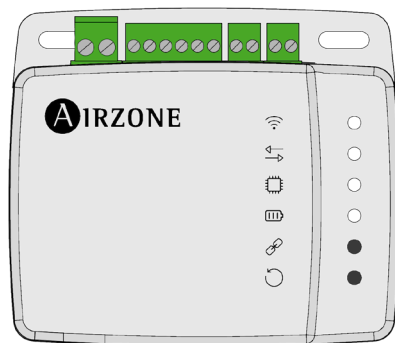
It enables the following features

- Monitoring and controlling various unit parameters, including:

    ◊ Unit on/off

    ◊ Set-point temperature

    ◊ Set-point temperature limits

    ◊ Room temperature

    ◊ Operation mode (Off/Auto/Heating/Cooling)

    ◊ Fan status (On/Auto)

    ◊ Temperature units (Celsius/Fahrenheit)

    ◊ Humidity

- Communication via Dual Wi-Fi (2.4/5 GHz)

- Error detection during communication

- Access to device parameter settings via Bluetooth

SPECIFICATIONS AND ELEMENTS

Note: *The DKN Plus device must be version 4.06 or higher.*

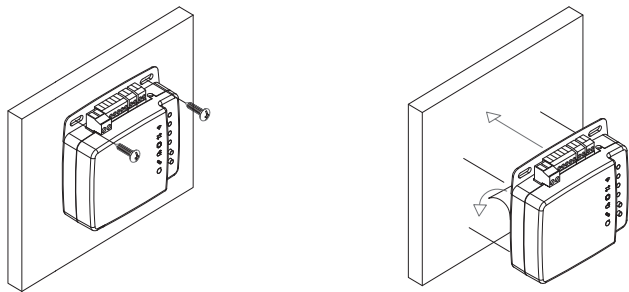| Power supply and consumption	
Type of power supply	Vcc
V máx.	18 V
I máx.	220 mA
V in	12-16 V
Consumption	1.08 W
Operating temperatures	
Storage	- 20 … 70 °C (- 4 … 158 °F)
Operation	0 … 50 °C (32 … 113 °F)
Operating humidity range	5 … 90% (no condensation)
RS485 port	
Twisted shielded cable	2 x 0.22 mm² (2 x 22-24 AWG)
Communication protocol	Modbus RS-485 Par BACnet MSTP 300 – 115200bps
Wi-Fi	
Protocol	Wi-Fi CERTIFIED ™ 802.11a/b/g/n/ac
Frequency	2.4 GHz (max. 150 Mbps) 5 GHz (max. 433 Mbps)
Maximum power:	19.5 dBm
Sensitivity	- 82 dBm
Default IP addressing	Static DHCP

Installation

The DKN Plus acts as an interpreter to control an individual HVAC unit. Integration will be carried out via the Cloud API with the Pelican interface.

ASSEMBLY

The DKN Plus is surface mounted (using screws or double-sided adhesive tape).
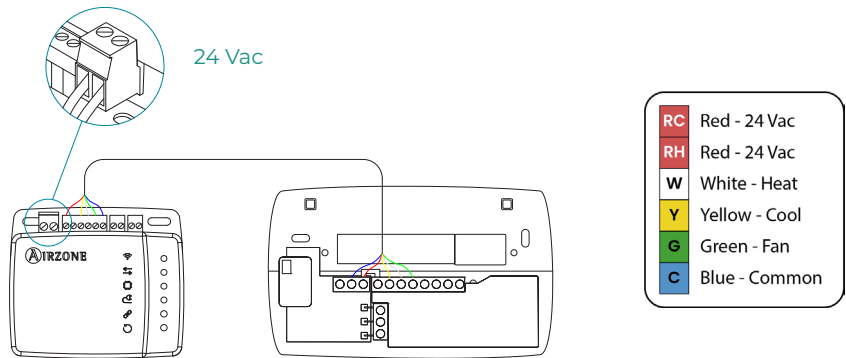

CONNECTION WITH HVAC UNIT

For connecting DKN Plus to the HVAC unit, please refer to the installation manual.

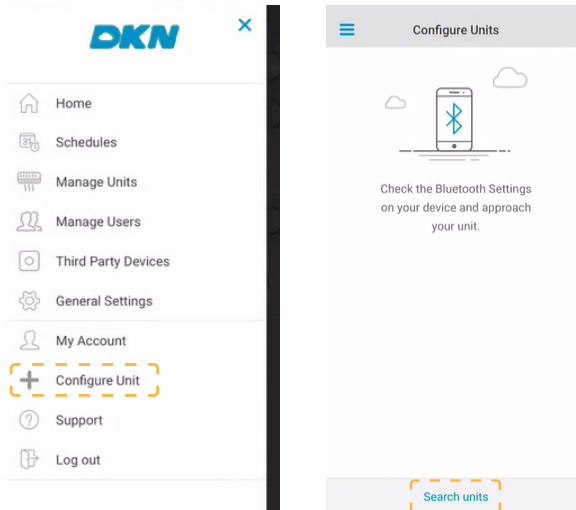## CONNECTION OF THE DKN PLUS WITH THE PELICAN INTERFACE

The Pelican interface can be connected to the DKN Plus device using the GYW cables to serve as a backup in case of loss of Cloud API connection. For more details on how the Fallback algorithm operates, please refer to the DKN Plus operation manual.
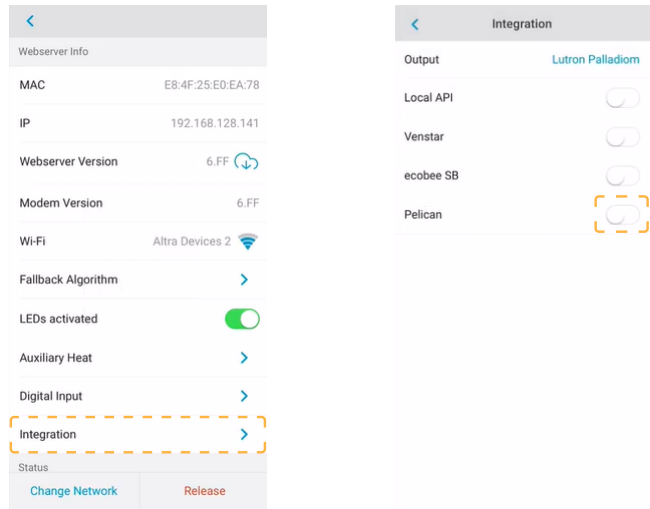

24 Vac

RC	Red - 24 Vac
RH	Red - 24 Vac
W	White - Heat
Y	Yellow - Cool
G	Green - Fan
C	Blue - Common

Configuration of DKN Plus with the Pelican thermostat

CONFIGURATION WITH DKN CLOUD NA

Access the DKN Cloud NA app and, in the side menu, click on "Configure unit". Click on "Search untis" to search for devices and select the device that you want to configure.
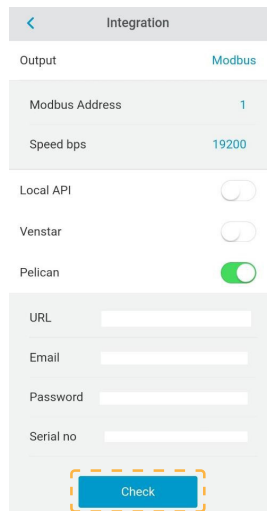
Once the DKN Plus device is selected, click the *Integration* submenu. Then, enable the Pelican integration.

Enter the required device credentials and information:

- URL: The same web address used for online system control.

- Email and password: Pelican account credentials.

- Serial number: The serial number of the Pelican thermostat, which can be found on the thermostat itself or on the Pelican website.

Tap *Check* to confirm the entries are valid.

CONTROL FROM THE PELICAN THERMOSTAT

From the Pelican thermostat connected to the DKN Plus device, the following parameters can be controlled:

- Unit on/off

- Set-point temperature[1]

- Room temperature

- Operation mode (Off/Auto/Heating/Cooling)

- Fan status (On/Auto)

- Temperature units (Celsius/Fahrenheit)

- Humidity[1]

[1]*For the HVAC unit to operate based on the temperature and humidity detected by the Pelican thermostat, the DKN Plus device must be configured as the master thermostat.*

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