

AZAI6WSPDKC - DKN Plus Interface

Project Name:		
Location:	_ Approval:	
Engineer:	Date:	
Submitted to:	Construction:	
Submitted by:	Unit #:	
Reference:	Drawing #:	

MODEL COMPATIBILITY:

Unit Family	R410a Units	R32 Units (WH-KRPPOW required)	Туре
VRV	CXTQ ² , FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXNQ, FXSQ, FXTQ ² , FXUQ, FXZQ	FXTA ^{2,3} , FXFA ³ , FXMA ³ , FXSA ³ , FXAA ³	P1P2
SkyAir	FAQ, FBQ, FTQ ² , FCQ, FHQ	FTA ^{2,3} , FBA ³ , FCA ³ , FAA ³	P1P2

Unit Family	Unit Model Group	Type
Single-Zone and Multi-Zone	FDMQ, FFQ	P1P2
	CDXS, CTX ¹ , CTXS, CTXV, FDXS, FTK ¹ , FTKB ¹ , FTKF, FTX ¹ , FTXB ¹ , FTXC, FTXF, FTXG,	S21
	FTXM, FTXQ, FTXR, FTXS, FTXV, FVXS	

¹FTK_AXVJU, FTKB_AXVJU, FTX_AXVJU, FTXB_AXVJU and CTX_AXVJU units are not compatible.

The following indoor units do not have the S21 connection and require an additional interface adaptor (ordered separately):

Indoor Unit Models	Interface Adaptor
FTX09NMVJU(A), FTX12NMVJU(A), FTX09WMVJU9, FTX12WMVJU9, FTXQ09ASBU9, FTXQ12ASBU9, CTXV07AVJU9, FTXV09AVJU9, FTXV12AVJU9, FTXV15AVJU9, FTXV18AVJU9, FTXV24AVJU9, FTKF09BVJU9, FTKF12BVJU9, FTKF18BVJU9, FTKF24BVJU9, FTXF09BVJU9, FTXF12BVJU9, FTXF18BVJU9, FTXF24BVJU9	KRP067A41E
FTX15NMVJU(A), FTX15WMVJU9, FTX24NMVJU	KRP980B2E
FTXM09VVJU, FTXM12VVJU, FTXM18VVJU, FTXM24VVJU, FTXM09WVJU9, FTXM12WVJU9, FTXM18WVJU9, FTXM24WVJU9	KER087A41

SPECIFICATIONS:

Model		AZAI6WSPDKC
Description		DKN Plus Interface
Maximum connections		1 for each S21/P1P2 indoor unit
\ A /:	S21 Wire	8.2 ft / 2.5 m (Included)
Wiring	P1P2 Wire	8.2 ft / 2.5 m (Included)
Baud Rat (Modbus	e: RTU / BACnet MSTP)	9600, 19200, 38400, 57600, 76800, 115200 bps (Default: 38400)
Power supply	For DKN Plus Interface	12-16 VDC by the Indoor unit PCB. For P1P2 indoor units: X18A or X35A. (For FXTQ_PA(B) and FTQ_PA(B), use the X9A terminal on the A2P PCB)
	For 3 rd party thermostat	24VAC from external power supply
Contact	Digital output (Aux. Heat)	1 amp. at 24VAC (Normally Open (NO))
Rating	Digital Input (Force Off)	Dry contact (Configurable as NO or NC).
Dimensio	ons	3.62 in x 3.15 in x 1.14 in / 92mm x 80 mm x 29 mm
Weight		3.24 oz / 92g
Storage temperature		-4°F to 158°F
Operation temperature		32°F to 113°F
Compliance		EMC with the standard 47 CFR Part 15B (US) EMC with ICES-003 Issue 6 standard (Canada)

PRODUCT IMAGE:





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Rev.1025

19001 Kermier Road, Waller, TX, 77484 www.daikincity.com

²Remote or return temperature sensor should be installed on the CXTQ and FXTQ for use with the fallback logic, i.e., when using a wired thermostat.

³ Power harness adapter WH-KRPPOW (sold separately) is required to connect DKN adapter to unit.



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FEATURES:

- Easy commissioning with Bluetooth configuration App through DKN Cloud NA App
- Indoor unit control and monitoring points using the DKN Cloud NA App
 - On/Off Setpoint Room temperature Mode (Auto, Cool, Heat, Fan, Dry) Fan speed Louver position -Error code
- Versatile interface that can integrate with smart thermostats through multiple approaches:
 - Cloud API (Honeywell Home App/Cloud Ecobee App/Cloud Nest App/Cloud -Pelican Thermostat)
 - Local API (Daikin Color Touch (P1P2 only)
 - Modbus RTU (Lutron Palladium Thermostat)
 - BACnet MS/TP
- 3rd party thermostat G/Y/W (Fan/Cool/Heat) relay control through thermostat wiring.
 - Automatically disables the thermostat relay logic when the cloud API connection is detected.
 - Custom control logic applied to minimize the loss of indoor unit efficiency when no cloud API, BACnet or Modbus connection was detected.
 - Compatible Daikin thermostats: App Stat 250803400 Value Series (TSTATD1100-2 or TSTATD1152-2) –
 Premium series (D4271C) Premium Mini (D2270C) Color Touch (DT4272C)
- Controls auxiliary heater with dry contact as a secondary heat source:
 - Turn on and off the auxiliary heater based on the differential (configured in the App) between the setpoint and the room temperature.
 - Enable/Disable the auxiliary heater based on outdoor temperature (S21 IDU only)
 - The user can enable the emergency heat mode from the DKN App
 - If the indoor unit has an error, the user can enable the emergency heater from the app.
- Ability to disable Bluetooth/Wi-Fi for secure building applications with firmware v4.06
- Digital input dry contact to force the indoor unit off.
- Integration into home automation systems through software drivers, available in Daikin City
 - o Crestron
 - o Control4
 - o RTI Control
 - Fibaro
- BACnet MS/TP and Modbus RTU Integration
 - o The DKN Plus adaptor will provide the following data objects:

No.	Point Name	Read Only/Writable
1	Unit on/off	Writable
2	Setpoint	Writable
3	Room temperature	Writable**
4	Mode Auto/Cool/Heat/Fan/Dry	Writable
5	Fan speed	Writable
6	Louver position	Writable
7	Error code	Read only
8	Digital input status	Read only
9	Auxiliary heat output status	Read only

^{**} The room temperature is writable for P1P2 indoor units only and read-only for S21 indoor units.



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For FTX_B, FTK_B, FTXB_B models the unit is running based on a 1°C temperature control. The setpoint command
will be rounded to °C to send to the indoor unit. For some setpoints, the indoor unit temperature command may not
change as shown in the table below.

User Setpoint on Controller (°F)	Actual Indoor Unit Setpoint (°F)
68	68
69	68
70	70
71	70
72	72
73	73
74	73
75	75
76	75
77	77
78	77
79	79
80	79
81	81
82	82

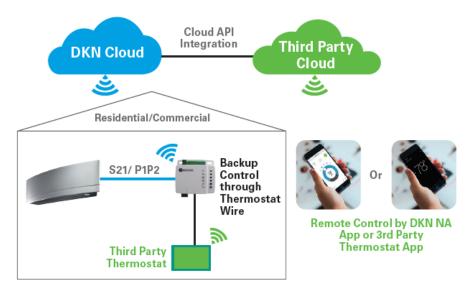


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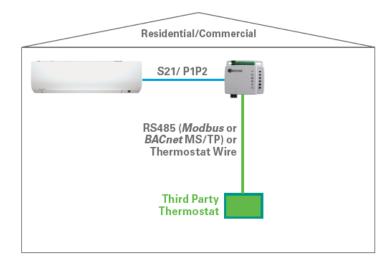
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SYSTEM DIAGRAM:

- Integration with 3rd party thermostat
 - o Integration with Smart Thermostats through 3rd third-party Cloud API



Integration through RS485 or Thermostat Wire

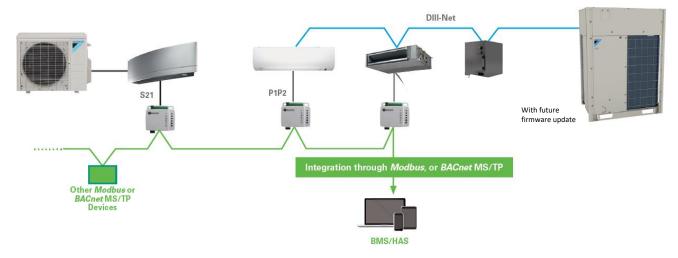




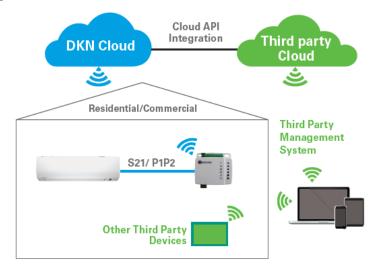
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- Integration with Building Management System (BMS) or Home Automation System (HAS)
 - Integration through Modbus RTU or BACnet MS/TP



Integration through Cloud API



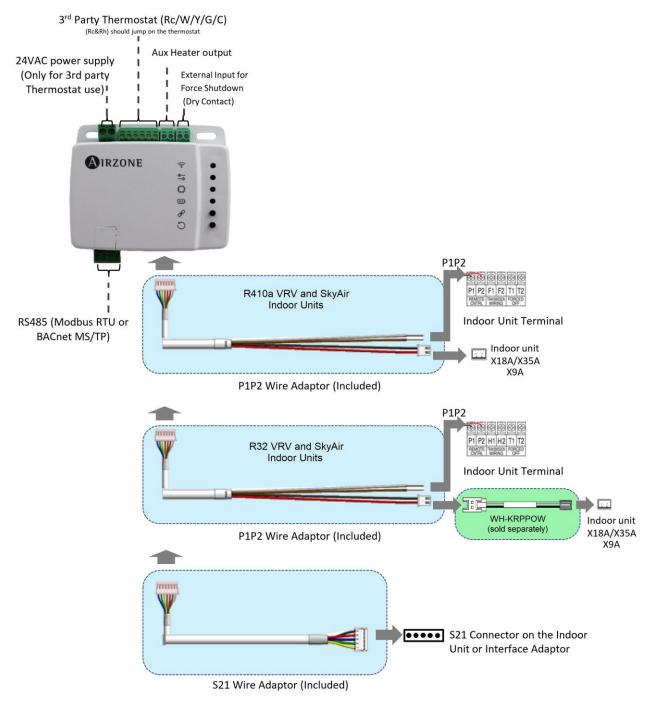


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WIRING DIAGRAM:

Connects to P1P2 or S21 indoor unit



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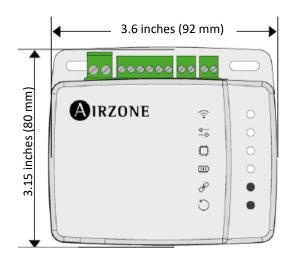
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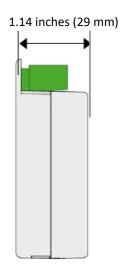


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DIMENSIONS:





DOCUMENTATION:

Documentation available on www.daikincity.com and/or www.daikincomfort.com:

- Product Flyer
- Operation Manual
- Installation Manual
- Bacnet Integration Manual
- Modbus Integration Manual
- Local API integration Manual
- Pelican Thermostat Integration Manual
- Lutron Palladium Thermostat Integration Manual
- DKN Plus and 3rd party thermostat Application Guide
- Written Guide Specs