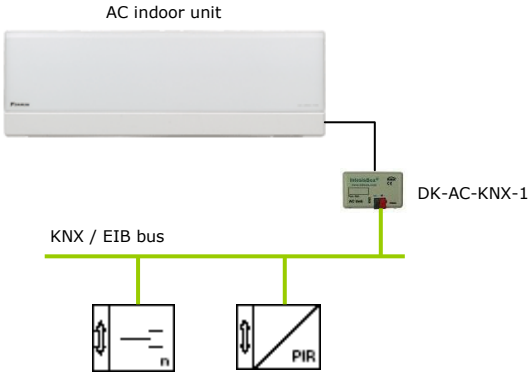
IntesisBox®
DK-AC-KNX-1

Interface KNX for DAIKIN Air Conditioners
(Domestic Line)



IntesisBox® DK-AC-KNX-1 allows monitoring and control, fully bi-directionally, all the functioning parameters of DAIKIN Air Conditioners from KNX installations. Compatible with all the models of the domestic line commercialised by DAIKIN (FTXR-E, CTXU-G, FTXG-E, FTXS-G, FTXS-F, FVXS-F, FLXS-B, FDXS-E, and FDXS-C. Consult for others).

Simple installation. Can be install inside the own AC indoor unit, it connects one side directly to the electronic circuit of the AC indoor unit (cable supplied), and in the other side directly to the KNX TP-1 (EIB) bus.

Great flexibility of integration into your KNX projects. Configuration is made directly from ETS, the database of the device comes with a complete set of communication objects allowing, from a simple and quick integration using the basic objects, to the most advanced integration with monitoring and control all the AC unit's parameters. Also available specific device's communication objects, as for example save and execute scenes.

Allows the use of a KNX temperature sensor for the air conditioning control.

IntesisBox® DK-AC-KNX-1 will allow you offering a full integration of the air conditioning in your KNX projects at a very affordable cost.

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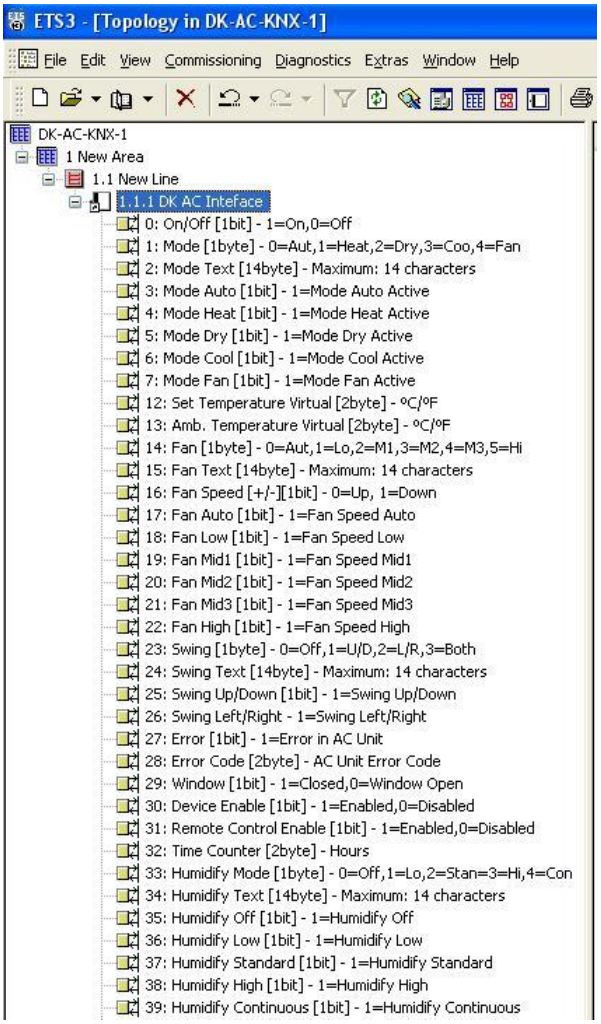
1. Communication objects

The ETS database of the device comes with multiple communication objects allowing great flexibility of integration.



Function	Object Type	R	W
On/Off	1 Bit	✓	✓
Virtual Ambient Temperature [1]	2 Bytes		✓
Setpoint Temperature	2 Bytes	✓	✓
Virtual Setpoint Temperature [2]	2 Bytes		✓
Operation Mode	1 Byte 1 Bit Text [3]	✓ ✓ ✓	✓ ✓ ✓
Fan Speed	1 Byte 1 Bit Text [3]	✓ ✓ ✓	✓ ✓
Swing	1 Byte 1 Bit Text [3]	✓ ✓ ✓	✓ ✓
Humidifier	1 Byte 1 Bit Text [3]	✓ ✓ ✓	✓ ✓
Error in the AC Unit	1 Bit	✓	
Error Code	2 Bytes	✓	
Save/Execute Scenes [4]	1 Byte 1 Bit		✓ ✓
Current Scene [4]	1 Byte	✓	
Device Enable	1 Bit	✓	✓
AC Unit's Remote Control Enable	1 Bit	✓	✓
Running Hours	2 Bytes	✓	✓
Window Contact	1 Bit		✓

[1] Only in case of "Virtual Temperature", to use a ambient temperature supplied by KNX for the air conditioning control
[2] Only in case of "Virtual Temperature", to use a setpoint temperature supplied by KNX for the air conditioning.
[3] String-type object (14 characters), the text is configurable in device's parameters.
[4] Up to 3 scenes can be saved and executed. A scene is a desired set for: Operation Mode, Temperature Setpoint, Fan Speed, and Swing.

2. Parameters

Multiple parameters can be configured to ensure the maximum flexibility for the integration, not only in functionality of the device but in visibility of objects in ETS for a more comfortable integrator's work.

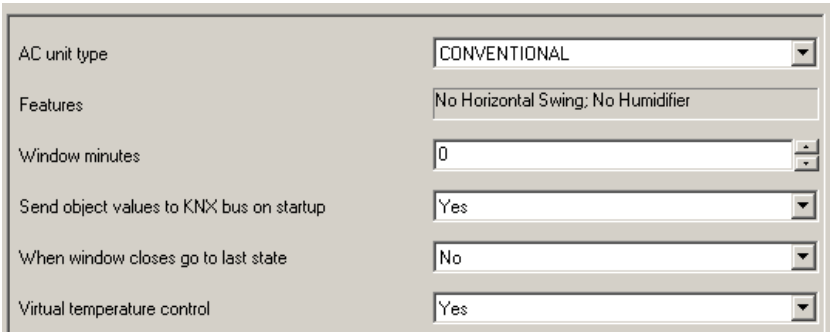


Figure 2.1. General

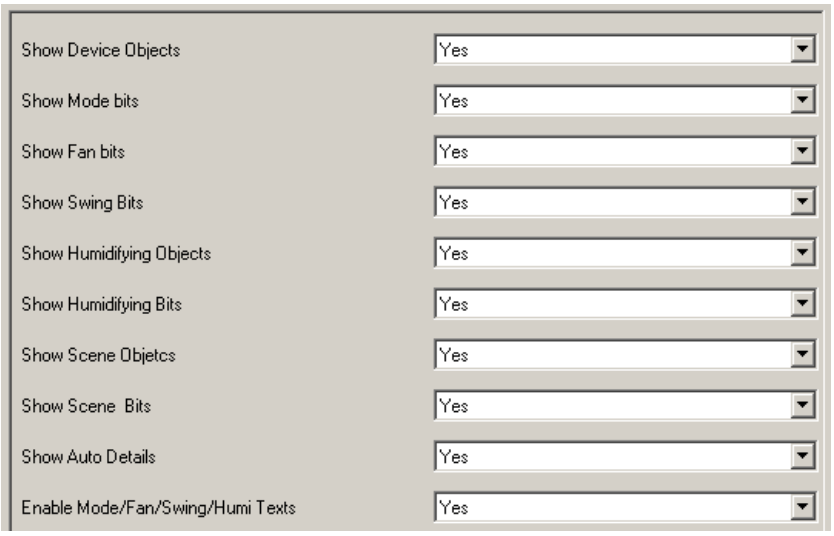


Figure 2.2. Objects Display

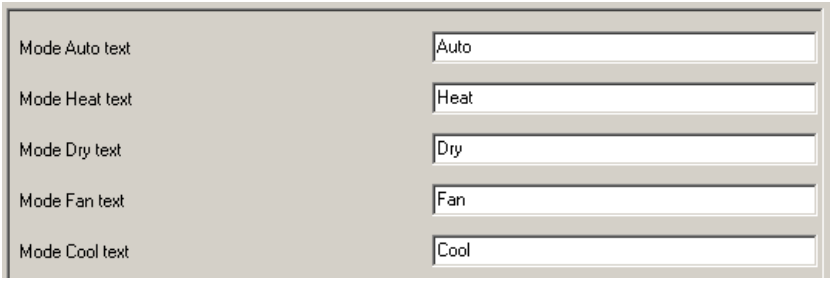


Figure 2.3. Mode Text

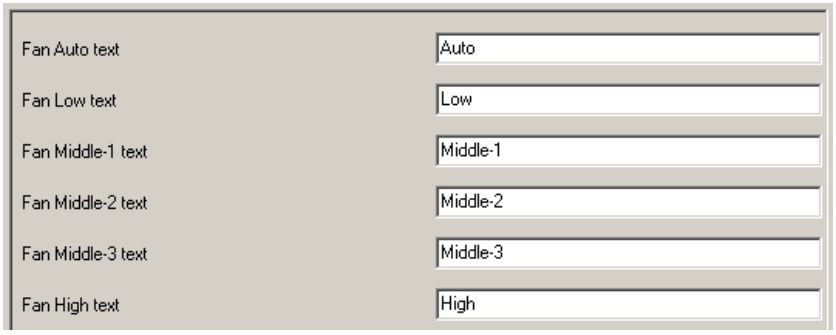


Figure 2.4. Fan Text

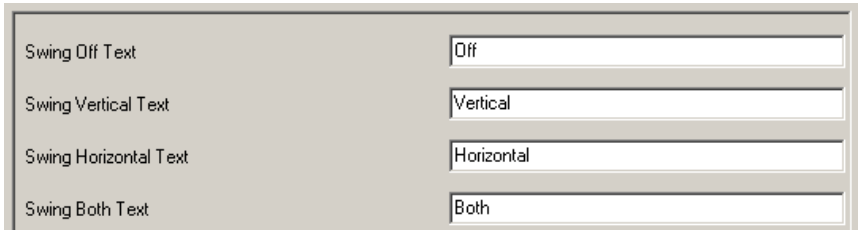


Figure 2.5. Swing Text

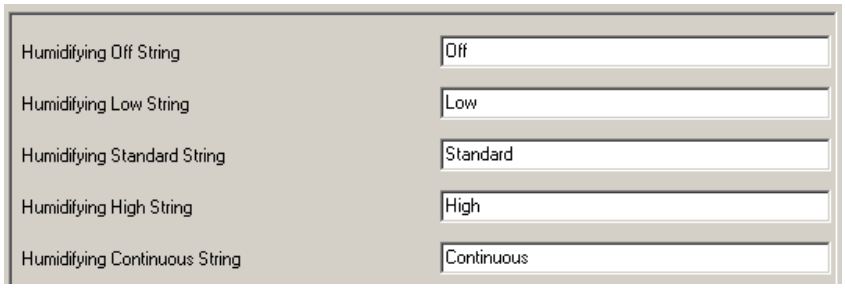


Figure 2.6. Humidifying Text

3. Connections

Connection of the interface to the AC indoor unit:

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

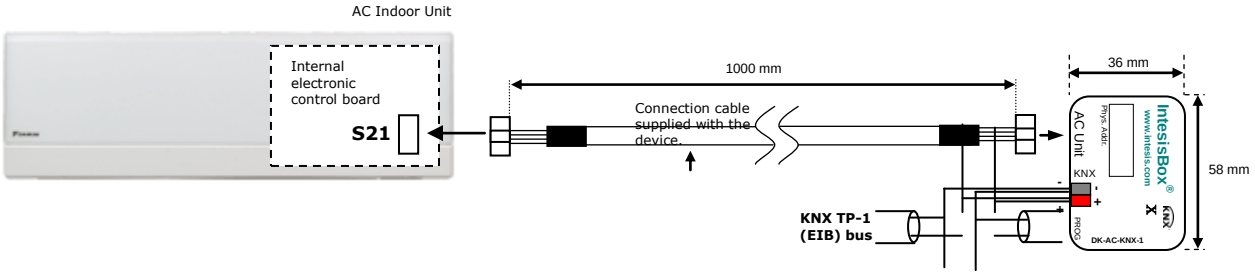
S21 in Domestic line models

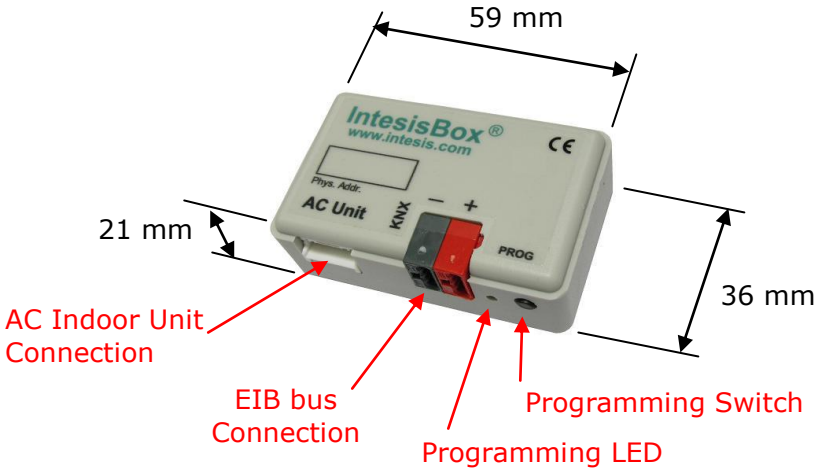
And plug the supplied cable in it. For more information check the User Manual.

Connection of the interface to the KNX bus:

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

Connections diagram:





4. Technical Specifications

Envelope	ABS (UL 94 HB). 2,5 mm thickness
Dimensions	59 x 36 x 21 mm
Weight	42g
Colour	Green
Power supply	29V DC, 7mA Supplied through KNX bus.
LED indicators	1 x KNX programming/bus.
Push buttons	1 x KNX programming.
Configuration	Configuration with ETS.
Operating Temperature	From -25ºC to 85ºC
Storage Temperature	From -40ºC to 85ºC
Isolation Voltage	4000V
RoHS conformity	Compliant with RoHS directive (2002/95/CE).
Certifications	CE conformity to EMC directive (2004/108/EC) and Low-voltage directive (2006/95/EC) EN 61000-6-2 EN 61000-6-3 EN 60950-1 EN 50491-3

5. AC Unit Types compatibility.

A list of Daikin indoor unit model references compatible with DK-AC-KNX-1 and their available features can be found in:

http://www.intesis.com/pdf/IntesisBox_DK-AC-xxx-1_AC_Compatibility.pdf

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