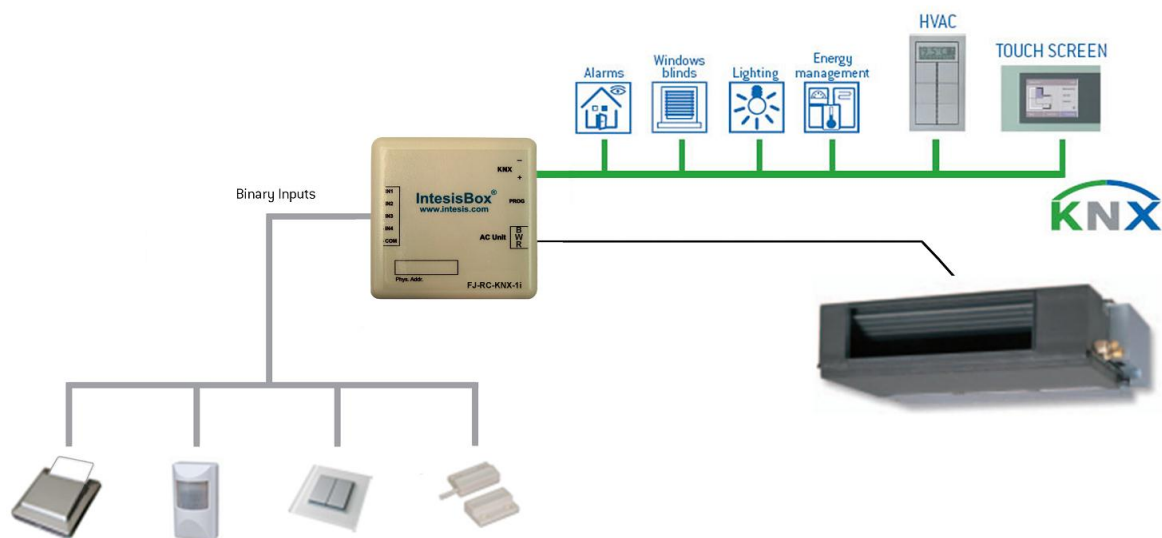




# IntesisBox® FJ-RC-KNX-1i

## KNX interface for FUJITSU air conditioners



FJ-RC-KNX-1i allows a complete and natural integration of Fujitsu air conditioners with KNX control systems.

Simple installation. Can be installed inside the own AC indoor unit, connecting one side directly to the BWR bus, and 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 *save* and *execute* scenes.

Four binary inputs for potential-free contacts provide the possibility to integrate many types of external devices. Also configurable from ETS, they can be used for switching, dimming, shutter/blind control, and more.

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

IntesisBox® FJ-RC-KNX-1i will offer you a full integration of the air conditioning in your KNX projects at a very affordable price.

## 1. KNX Interface

### 1.1 Communication Objects

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

- 1.1.1 FJ RC interface, 4 binary inputs
  - 0: Control\_ On/Off [DPT\_1.001 - 1bit] - 0-Off;1-On
  - 1: Control\_ Mode [DPT\_20.105 - 1byte] - 0-Aut;1-Hea;3-Coo;9-Fan;14-Dry
  - 17: Control\_ Vanes U-D / 4 Pos [DPT\_5.010 - 1byte] - Position values: 1,2,3,4
  - 24: Control\_ Setpoint Temperature [DPT\_9.001 - 2byte] - (°C)
  - 28: Control\_ Reset Error [DPT\_1.015 - 1bit] - 1-Reset error
  - 53: Status\_ On/Off [DPT\_1.001 - 1bit] - 0-Off;1-On
  - 54: Status\_ Mode [DPT\_20.105 - 1byte] - 0-Aut;1-Hea;3-Coo;9-Fan;14-Dry
  - 68: Status\_ Vanes U-D / 4 Pos [DPT\_5.010 - 1byte] - Position values: 1,2,3,4
  - 75: Status\_ AC Setpoint Temp [DPT\_9.001 - 2byte] - (°C)
  - 76: Status\_ AC Reference Temp [DPT\_9.001 - 2byte] - (°C)
  - 77: Status\_ Only Centrally Ctrl [DPT\_1.002 - 1bit] - 1-Only centrally controlled
  - 79: Status\_ Error/Alarm [DPT\_1.005 - 1bit] - 0-No alarm;1-Alarm
  - 81: Status\_ Error Text Code [DPT\_16.001 - 14byte] - 3-char FJ Error; Empty-None

### 1.2 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.

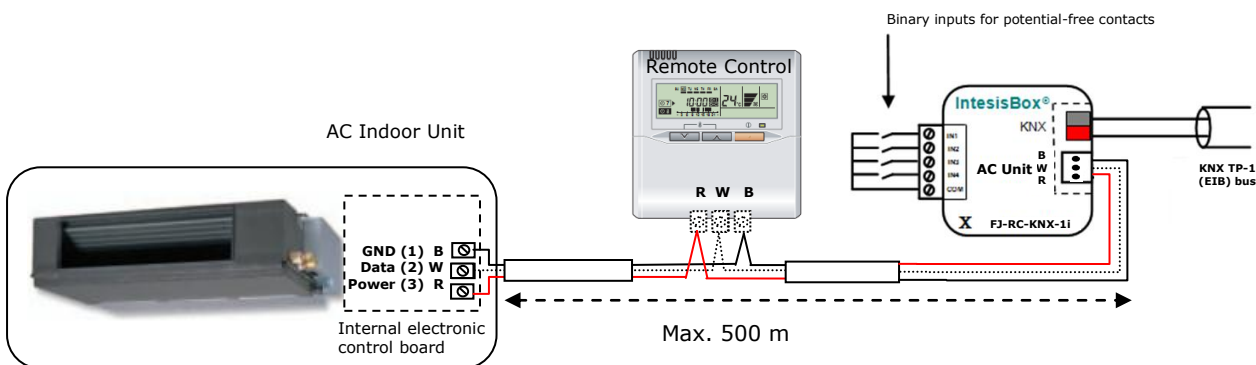
Device: 1.1.1 FJ RC interface, 4 binary inputs

General	Download latest database entry for this product and its User Manual from:	
Mode Configuration	Send READs for Control_ objects on bus recovery (T & U flags must be active)	No
Special Modes Configuration	Scene to load on bus recovery / startup (needs to define vals for that scene)	(none)
Fan Speed Configuration	Disallow control from remote controller	No
Vanes Up-Down Configuration	> Enable comm obj "Ctrl_ Remote Lock"	No
Temperature Configuration	Enable func "Control_ Lock Control Obj"	No
Scene Configuration	Enable func "Operating Hours Counter"	No
Switch-Off Timeouts Configuration	Enable use of objects for Filter (for Control and Status)	No
Binary Input 1 Configuration	Enable object "Error Code [2byte]"	No
Binary Input 2 Configuration	Enable object "Error Text Code [14byte]" (3 ASCII-char Error Code)	Yes
Binary Input 3 Configuration		
Binary Input 4 Configuration		

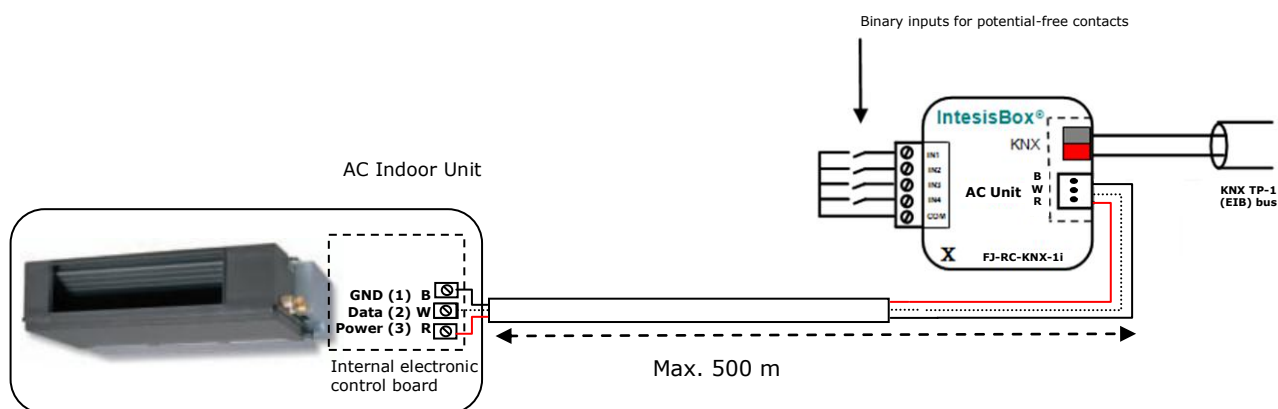
## 2. Connection

The FJ-RC-KNX-1i can be used with a **FUJITSU** Remote Controllers or without them. Use the KNX connector in the FJ-RC-KNX-1i to connect to the KNX TP-1 (EIB) network.

- FJ-RC-KNX-1i with FUJITSU wired Remote Controller



- FJ-RC-KNX-1i without FUJITSU wired Remote Controller

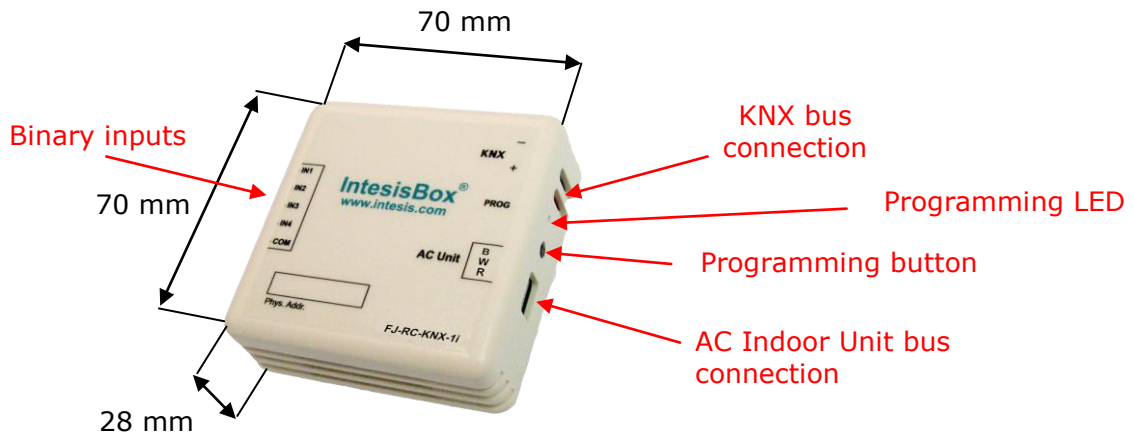


## 3. List of compatible FUJITSU AC indoor units

A list of FUJITSU indoor unit model references compatible with FJ-RC-KNX-1i and their available features can be found in:

[http://www.arktika.ru/instrpdf/IntesisBox\\_FJ-RC-xxx-1\\_AC\\_Compatibility1.pdf](http://www.arktika.ru/instrpdf/IntesisBox_FJ-RC-xxx-1_AC_Compatibility1.pdf)

### 4. Technical Specifications



<b>Envelope</b>	ABS (UL 94 HB). 2,5 mm thickness
<b>Dimensions</b>	70 X 70 X 28 mm
<b>Weight</b>	70g
<b>Colour</b>	Ivory white
<b>Power supply</b>	29V DC, 7mA Supplied through KNX bus.
<b>AC Indoor Unit Bus</b>	Voltage: 13-18V Current: 80mA
<b>LED indicators</b>	1 x KNX programming.
<b>Push buttons</b>	1 x KNX programming.
<b>Binary inputs</b>	4 x Potential-free binary inputs. Signal cable length: 5m unshielded, may be extended up to 20m with twisted. Compliant with the following standards: IEC61000-4-2 : level 4 - 15kV (air discharge) - 8kV (contact discharge) MIL STD 883E-Method 3015-7 : class3B
<b>Configuration</b>	Configuration with ETS.
<b>Operating Temperature</b>	From 0°C to 40°C
<b>Storage Temperature</b>	From 40°C to 45°C
<b>Isolation Voltage</b>	2500V
<b>RoHS conformity</b>	Compliant with RoHS directive (2002/95/CE).
<b>Certifications</b>	CE conformity to EMC directive (2004/108/EC) and Low-voltage directive (2006/95/EC)  <ul style="list-style-type: none"> <li>• EN 61000-6-2</li> <li>• EN 61000-6-3</li> <li>• EN 60950-1</li> <li>• EN 50491-3</li> <li>• EN 50090-2-2</li> <li>• EN 50428</li> <li>• EN 60669-1</li> <li>• EN 60669-2-1</li> </ul>