# IntesisBox®

## DK-AC-MBS-1 v.0.1

MODBUS RTU (RS-485) Interface for Daikin air conditioners. Compatible with Domestic line models

## User Manual

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Order Codes:

**DK-AC-MBS-1:** Modbus RTU Interface for Daikin air conditioners



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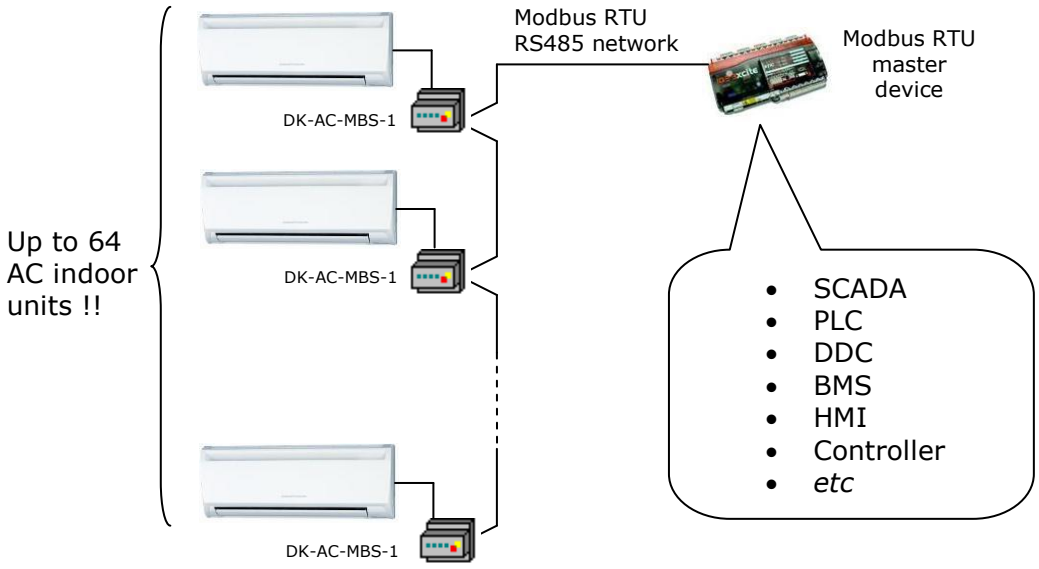
# 1. Presentation

The DK-AC-MBS-1 interface allow a complete and natural integration of ***Daikin*** air conditioners into Modbus RTU (RS-485) networks.

Compatible with all models of Domestic and Mr.Slim line (section 5).

- Reduced dimensions. 93 x 53 x 58 mm.

- Quick and easy installation.
  *Mountable on DIN rail, wall, or even inside the indoor unit in some models of AC.*
- External power not required.
- Direct connection to MODBUS RTU (RS-485) networks. Up to 254 DK-AC-MBS-1 devices can be connected in the same network.
  *DK-AC-MBS-1 is a Modbus slave device.*
- Direct connection to the AC indoor unit.
  *The cable for this connection is also supplied.*
- Configuration from both on-board DIP-switches and MODBUS RTU.
- Total Control and Supervision.
- Real states of the AC unit's internal variables.
- Allows using simultaneously the IR remote control and MODBUS RTU.



# 2. Connection

The interface comes with cable + connectors for direct connection to the AC indoor unit, and with a plug-in terminal block of 2 poles for connection to a Modbus RTU RS-485 network.

## *2.1 Connect to the AC indoor unit*

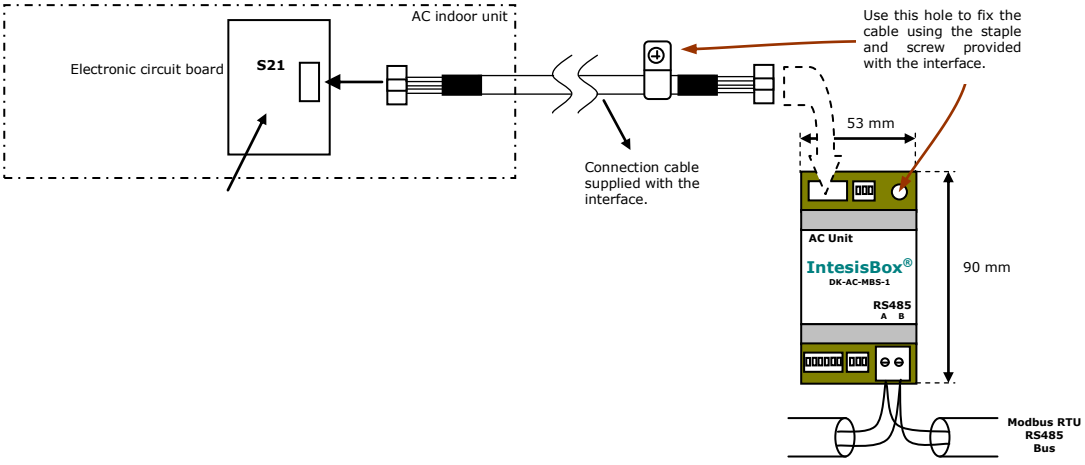
To connect the DK-AC-MBS-1 interface to the AC indoor unit follow these steps:

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

**S21** in Domestic line models

Using the cable that comes with the interface, insert one of its connectors, the biggest one, into the socket of the DK-AC-MBS-1, and the other connector, the one installed in the largest uncovered part, to the socket **S21** of the AC unit's electronic circuit. Close the AC indoor unit's front cover again.

Do not modify the length of the cable supplied with the interface, it may affect to the correct operation of the interface.




## *2.2 Connection to the RS485 bus*

Connect the RS485 bus wires to the plug-in terminal block (the one of two poles) of DK-AC-MBS-1, respect the polarity on this connection (A+ and B-). Respect the maximum distance of 1.200 meters for the bus, no loop or star topologies are allowed for RS485 bus, a terminator resistor of 120  must be present at each end of the bus to avoid signal reflections and also a fail-safe biasing mechanism (see section 3.6 for more details).

# 3. Modbus Interface Specification

## 3.1 Modbus physical layer

DK-AC-MBS-1 implements a MODBUS RTU (slave) interface, to be connected to an RS-485 line. It performs an 8N1 or 8N2 communication (8 data bits, no parity and 1 or 2 stop bit) with several available baudrates (2400 bps, 9600 bps -default-, 19200 bps and 57600 bps).

## 3.2 Modbus Registers

All registers are of type "16-bit unsigned Holding Register", in standard ModBus' big endian notation.

### 3.2.1 Control and status registers

| Register Address (protocol address) | Register Address (PLC address) | R/W | Description |
|---|---|---|---|
| 0 | 1 | R/W | AC unit On/Off<br>▪ 0: Off<br>▪ 1: On |
| 1 | 2 | R/W | AC unit Mode[1]<br>▪ 0: Auto<br>▪ 1: Heat<br>▪ 2: Dry<br>▪ 3: Fan<br>▪ 4: Cool |
| 2 | 3 | R/W | AC unit Fan Speed[1]<br>▪ 0: Auto<br>▪ 1: Low<br>▪ 2: Mid-1<br>▪ 3: Mid-2<br>▪ 4: High |
| 3 | 4 | R/W | AC unit Up/Down Vane Position[1]<br>▪ 0: Auto<br>▪ 10: Swing |
| 4 | 5 | R/W | AC unit Temperature Setpoint[1,2]<br>▪ 16..31 (ºC)<br>▪ 61..90 (ºF) |
| 6 | 7 | R/W | Window Contact<br>▪ 0: Closed<br>▪ 1: Open |
| 7 | 8 | R/W | DK-AC-MBS-1 Control disablement[3]<br>▪ 0: AC control enabled<br>▪ 1: AC control disabled |
| 8 | 9 | R/W | AC's Remote Control Disablement[3]<br>▪ 0: Remote Control enabled<br>▪ 1: Remote Control disabled |

[1] See Section 5 for detail on indoor unit model differences and function availability
[2] Magnitude for this register can be adjusted to Celsius (default) or Fahrenheit through DIP switch P5
[3] This value is stored in non-volatile memory

| Register Address (protocol address) | Register Address (PLC address) | R/W | Description |
|---|---|---|---|
| 9 | 10 | R/W | AC unit Operation Time[4]<br>▪ 0..65535 (hours). Counts the time the AC unit is in "On" state. |
| 10 | 11 | R | AC unit Alarm Status<br>▪ 0: No alarm condition<br>▪ 1: Alarm condition |
| 11 | 12 | R | Error Code. Details in section 6 |
| 26 | 27 | R/W | AC unit Up/Down Vane Position[1]<br>▪ 0: Auto<br>▪ 10: Swing |
| 28 | 29 | R/W | AC Humidification Value<br>▪ 0: Off<br>▪ 1: Low Humidification<br>▪ 2: Medium Humidification<br>▪ 3: High Humidification<br>▪ 10: Continuous |

### 3.2.2 Configuration Registers

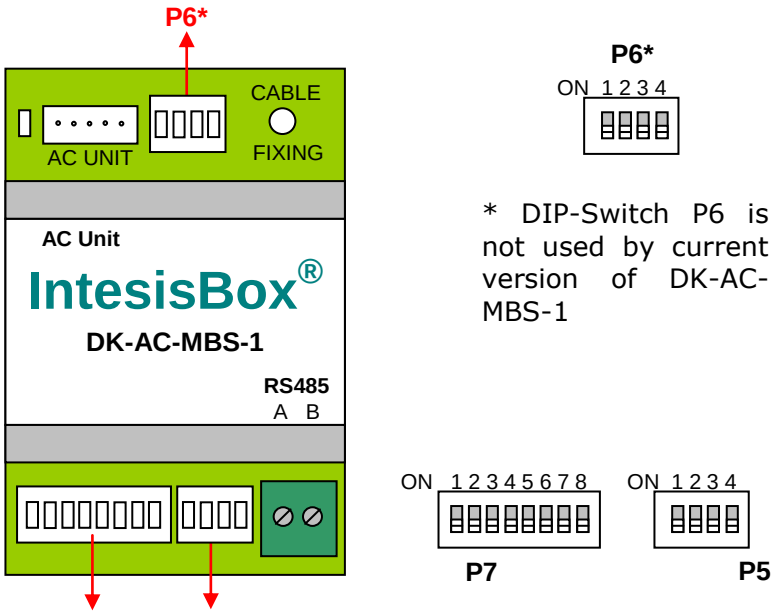
| Register Address (protocol address) | Register Address (PLC address) | R/W | Description |
|---|---|---|---|
| 13 | 14 | R/W | "Open Window" switch-off timeout[5, 4]<br>▪ 0..30 (minutes)<br>▪ Factory setting: 30 (minutes) |
| 14 | 15 | R | Modbus RTU baud-rate[6, 4]<br>▪ 2400 bps<br>▪ 4800 bps<br>▪ 9600 bps<br>▪ 19200 bps<br>▪ Factory setting: (9600 bps) |
| 15 | 16 | R | Device's Modbus slave address[6, 3]<br>▪ 1..63<br>▪ Factory setting: 0 (no address / configured at DIP-switch) |
| 21 | 22 | R | Max number of fan speeds<br>▪ Value is always 5 |
| 49 | 50 | R | Device definition:<br>▪ 0x700 (DK-AC-MBS-1) |
| 50 | 51 | R | Software version |

[4] This value is stored in non-volatile memory
[5] Once window contact is open, a count-down to switch off the AC Unit will start from this configured value
[6] This value is set-up from device's on-board DIP-switches. See Section 3.3

### 3.3 DIP-switch Configuration Interface

All configuration values on DK-AC-MBS-1 can be written and read from ModBus interface. Though, some of them can also be setup from its on-board DIP-switch interface.

They are DIP-switches P5, P6* and P7 on the device, in the following location:




The following table applies for configuration of the interface through these DIP-switches:

**P7** – Modbus protocol: Slave address and baudrate

| Add | Switches 1 2 3 4 5 6 7 8 | Add | Switches 1 2 3 4 5 6 7 8 | Add | Switches 1 2 3 4 5 6 7 8 | Add | Switches 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|---|---|---|
| 0 | ↓ ↓ ↓ ↓ ↓ ↓ x x | 16 | ↓ ↓ ↓ ↓ ↑ ↓ x x | 32 | ↓ ↓ ↓ ↓ ↓ ↑ x x | 48 | ↓ ↓ ↓ ↓ ↑ ↑ x x |
| 1* | ↑ ↓ ↓ ↓ ↓ ↓ x x | 17 | ↑ ↓ ↓ ↓ ↑ ↓ x x | 33 | ↑ ↓ ↓ ↓ ↓ ↑ x x | 49 | ↑ ↓ ↓ ↓ ↑ ↑ x x |
| 2 | ↓ ↑ ↓ ↓ ↓ ↓ x x | 18 | ↓ ↑ ↓ ↓ ↑ ↓ x x | 34 | ↓ ↑ ↓ ↓ ↓ ↑ x x | 50 | ↓ ↑ ↓ ↓ ↑ ↑ x x |
| 3 | ↑ ↑ ↓ ↓ ↓ ↓ x x | 19 | ↑ ↑ ↓ ↓ ↑ ↓ x x | 35 | ↑ ↑ ↓ ↓ ↓ ↑ x x | 51 | ↑ ↑ ↓ ↓ ↑ ↑ x x |
| 4 | ↓ ↓ ↑ ↓ ↓ ↓ x x | 20 | ↓ ↓ ↑ ↓ ↑ ↓ x x | 36 | ↓ ↓ ↑ ↓ ↓ ↑ x x | 52 | ↓ ↓ ↑ ↓ ↑ ↑ x x |
| 5 | ↑ ↓ ↑ ↓ ↓ ↓ x x | 21 | ↑ ↓ ↑ ↓ ↑ ↓ x x | 37 | ↑ ↓ ↑ ↓ ↓ ↑ x x | 53 | ↑ ↓ ↑ ↓ ↑ ↑ x x |
| 6 | ↓ ↑ ↑ ↓ ↓ ↓ x x | 22 | ↓ ↑ ↑ ↓ ↑ ↓ x x | 38 | ↓ ↑ ↑ ↓ ↓ ↑ x x | 54 | ↓ ↑ ↑ ↓ ↑ ↑ x x |
| 7 | ↑ ↑ ↑ ↓ ↓ ↓ x x | 23 | ↑ ↑ ↑ ↓ ↑ ↓ x x | 39 | ↑ ↑ ↑ ↓ ↓ ↑ x x | 55 | ↑ ↑ ↑ ↓ ↑ ↑ x x |
| 8 | ↓ ↓ ↓ ↑ ↓ ↓ x x | 24 | ↓ ↓ ↓ ↑ ↑ ↓ x x | 40 | ↓ ↓ ↓ ↑ ↓ ↑ x x | 56 | ↓ ↓ ↓ ↑ ↑ ↑ x x |
| 9 | ↑ ↓ ↓ ↑ ↓ ↓ x x | 25 | ↑ ↓ ↓ ↑ ↑ ↓ x x | 41 | ↑ ↓ ↓ ↑ ↓ ↑ x x | 57 | ↑ ↓ ↓ ↑ ↑ ↑ x x |
| 10 | ↓ ↑ ↓ ↑ ↓ ↓ x x | 26 | ↓ ↑ ↓ ↑ ↑ ↓ x x | 42 | ↓ ↑ ↓ ↑ ↓ ↑ x x | 58 | ↓ ↑ ↓ ↑ ↑ ↑ x x |
| 11 | ↑ ↑ ↓ ↑ ↓ ↓ x x | 27 | ↑ ↑ ↓ ↑ ↑ ↓ x x | 43 | ↑ ↑ ↓ ↑ ↓ ↑ x x | 59 | ↑ ↑ ↓ ↑ ↑ ↑ x x |
| 12 | ↓ ↓ ↑ ↑ ↓ ↓ x x | 28 | ↓ ↓ ↑ ↑ ↑ ↓ x x | 44 | ↓ ↓ ↑ ↑ ↓ ↑ x x | 60 | ↓ ↓ ↑ ↑ ↑ ↑ x x |
| 13 | ↑ ↓ ↑ ↑ ↓ ↓ x x | 29 | ↑ ↓ ↑ ↑ ↑ ↓ x x | 45 | ↑ ↓ ↑ ↑ ↓ ↑ x x | 61 | ↑ ↓ ↑ ↑ ↑ ↑ x x |
| 14 | ↓ ↑ ↑ ↑ ↓ ↓ x x | 30 | ↓ ↑ ↑ ↑ ↑ ↓ x x | 46 | ↓ ↑ ↑ ↑ ↓ ↑ x x | 62 | ↓ ↑ ↑ ↑ ↑ ↑ x x |
| 15 | ↑ ↑ ↑ ↑ ↓ ↓ x x | 31 | ↑ ↑ ↑ ↑ ↑ ↓ x x | 47 | ↑ ↑ ↑ ↑ ↓ ↑ x x | 63 | ↑ ↑ ↑ ↑ ↑ ↑ x x |

**Table 3.1** P7: Modbus Slave address

* Default value

| Binary value $b_0...b_8$ | Decimal value | Switches 1 2 3 4 5 6 7 8 | Description |
|---|---|---|---|
| xxxxxx00 | 0 | x x x x x x ↓ ↓ | 2400bps |
| xxxxxx10 | 1 | x x x x x x ↑ ↓ | 4800bps |
| xxxxxx01 | 2 | x x x x x x ↓ ↑ | 9600bps (- default value) |
| xxxxxx11 | 3 | x x x x x x ↑ ↑ | 19200bps |

**Table 3.2** P7: Modbus baud rate

**P5 –** Other: Degrees/Decidegress (x10), temperature magnitude (ºC/ºF) and EIA485 termination resistor

| Binary value $b_0...b_4$ | Decimal value | Switches 1 2 3 4 | Description |
|---|---|---|---|
| 0xxx | 0 | ↓ x x x | Temperature values in Modbus register are represented in degrees (x1) (default value) |
| 1xxx | 1 | ↑ x x x | Temperature values in Modbus register are represented in decidegrees (x10) |
| x0xx | 0 | x ↓ x x | Temperature values in Modbus register are represented in Celsius degrees (default value) |
| x1xx | 1 | x ↑ x x | Temperature values in Modbus register are represented in Fahrenheit degrees |
| xxx0 | 0 | x x x ↓ | EIA485 bus without termination resistor (default value) |
| xxx1 | 1 | x x x ↑ | Internal termination resistor of 120Ω connected to EIA485 bus** |

**Table 3.3** Temperature and termination configuration

## *3.4 Implemented Functions*

DK-AC-MBS-1 implements the following standard MODBUS functions:

- 3: Read Holding Registers
- 4: Read Input Registers
- 6: Write Single Register
- 16: Write Multiple Registers (Although this function is allowed, the interface does not allow write operations on more than 1 register with the same request, this means that length field should always be 1 when using this function for writes)

** Only in the interfaces connected at both ends of the bus must be activated the termination resistor. More information in section 3.6

### 3.5 Device LED indicator

The device includes a LED indicator to signal its different possible operational states. In the following table are presented the different indications it can perform and its meaning.

| Device status | LED indication | ON / OFF Period | Meaning |
|---|---|---|---|
| On power-up | LED pulse | ON for 5 seconds / OFF after | Device reset / power-up |
| During normal operation | LED flashing | 200ms ON / 2s OFF | Device correctly configured and working |
| During normal operation | LED OFF | OFF continuously | No Modbus slave address configured |
| During normal operation | LED blinking | 200ms ON / 200ms OFF | Communication Error with the AC unit |

### 3.6 RS485 bus. Termination resistors and Fail Safe Biasing mechanism

RS485 bus requires a 120Ω terminator resistor at each end of the bus to avoid signal reflections.

In order to prevent fail status detections by the receivers *"listening"* the bus when all the transmitters outputs are in three-state (high impedance), it is also required a fail-safe biasing mechanism. This mechanism provides a safe status (a correct voltage level) in the bus when all the transmitters' outputs are in three-state.

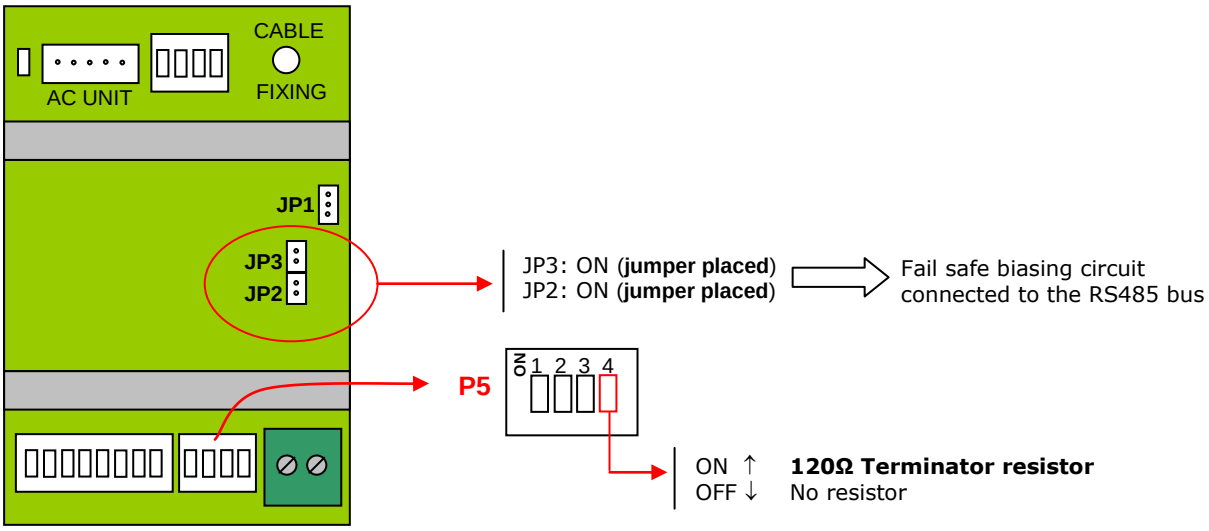
The DK-AC-MBS-1 device includes an on-board terminator resistor of 120Ω that can be connected to the RS485 bus by using DIP-switch P5 (see below).

A fail safe biasing circuit has also been included in the board of DK-AC-MBS-1, it can be connected to the RS485 bus by placing the internal jumpers JP2 and JP3 (see details below).
This fail safe biasing of the RS485 bus must only be supplied by one of the devices connected to the bus. As this fail safe biasing circuit also provides a termination resistance, only one of both must be selected in the DK-AC-MBS-1 device, fail safe biasing (*jumpers JP2 and JP3 placed*) or terminator resistor (*DIP-switch P5 position 4 to ON*).

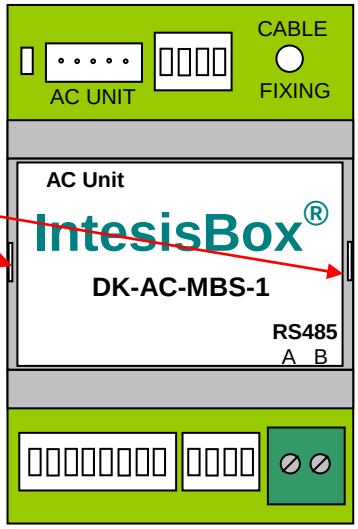
The device providing fail safe biasing or terminator resistor should be the one connected at one end of the bus. At the other end of the bus, if there is also a DK-AC-MBS-1 device, select the 120Ω terminator resistor through DIP-switch P5, or if there is a master device not providing internal 120Ω terminator resistor, connect an external 120Ω resistor in the bus terminal block connection of such master device.

*Some Modbus RTU RS485 master devices can provide also internal 120Ω terminator resistor and/or fail safe biasing (consult the technical documentation of the master device connected to the RS485 network in every case).*

Location of jumpers and DIP-switches for RS485 bus Termination resistor or Fail Safe Biasing selection:

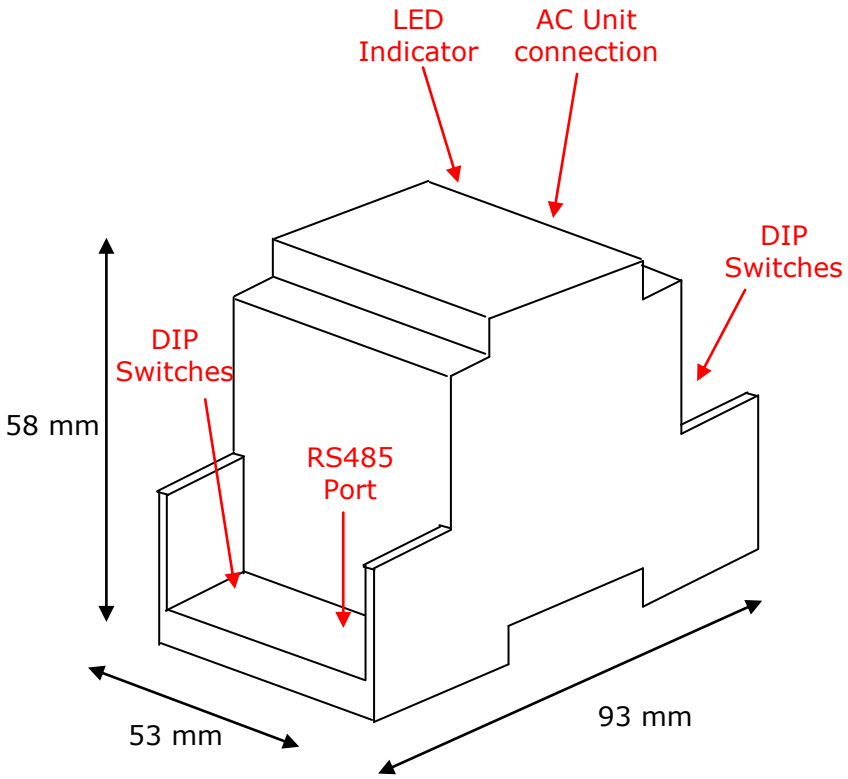



To access to internal jumpers JP2 and JP3, extract the top cover of the interface inserting a small screw-driver or clip in the holes located at both sides of the cover.



## 4. Specifications

| | |
|---|---|
| Dimensions: | *93 x 53 x 58 mm* |
| Weight: | *85 g* |
| Operating Temperature: | *-40 . . . 85ºC* |
| Stock Temperature: | *-40 . . . 85ºC* |
| Operating Humidity: | *<95% RH, non-condensing* |
| Stock Humidity: | *<95% RH, non-condensing* |
| Isolation voltage: | *1000 VDC* |
| Isolation resistance: | *1000 MΩ* |
| Modbus Media: | *Compatible with Modbus RTU - RS485 networks* |




## 5. List of supported AC Unit Types

A list of Daikin indoor unit model references compatible with DK-AC-MBS-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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# 6. Error Codes

| Error Code | Error in Remote Controller | Error category | Error Description |
|---|---|---|---|
| 0 | N/A | DK-AC-MBS-1 | No active error |
| 17 | A0 | Indoor Unit | External protection devices activated |
| 18 | A1 | | Indoor unit PCB assembly failure |
| 19 | A2 | | Interlock error for fan |
| 20 | A3 | | Drain level system error |
| 21 | A4 | | Temperature of heat exchanger (1) error |
| 22 | A5 | | Temperature of heat exchanger (2) error |
| 23 | A6 | | Fan motor locked, overload, over current |
| 24 | A7 | | Swing flap motor error |
| 25 | A8 | | Overcurrent of AC input |
| 26 | A9 | | Electronic expansion valve drive error |
| 27 | AA | | Heater overheat |
| 28 | AH | | Dust collector error / No-maintenance filter error |
| 30 | AJ | | Capacity setting error (indoor) |
| 31 | AE | | Shortage of water supply |
| 32 | AF | | Malfunctions of a humidifier system (water leaking) |
| 33 | C0 | | Malfunctions in a sensor system |
| 36 | C3 | | Sensor system of drain water error |
| 37 | C4 | | Heat exchanger (1) (Liquid pipe) thermistor system error |
| 38 | C5 | | Heat exchanger (1) (Gas pipe) thermistor system error |
| 39 | C6 | | Sensor system error of fan motor locked, overload |
| 40 | C7 | | Sensor system of swing flag motor error |
| 41 | C8 | | Sensor system of over-current of AC input |
| 42 | C9 | | Suction air thermistor error |
| 43 | CA | | Discharge air thermistor system error |
| 44 | CH | | Contamination sensor error |
| 45 | CC | | Humidity sensor error |
| 46 | CJ | | Remote control thermistor error |
| 47 | CE | | Radiation sensor error |
| 48 | CF | | High pressure switch sensor |
| 49 | E0 | Outdoor Unit | Protection devices activated |
| 50 | E1 | | Outdoor uni9t PCB assembly failure |
| 52 | E3 | | High pressure switch (HPS) activated |
| 53 | E4 | | Low pressure switch (LPS) activated |
| 54 | E5 | | Overload of inverter compressor motor |
| 55 | E6 | | Over current of STD compressor motor |
| 56 | E7 | | Overload of fan motor / Over current of fan motor |
| 57 | E8 | | Over current of AC input |
| 58 | E9 | | Electronic expansion valve drive error |
| 59 | EA | | Four-way valve error |
| 60 | EH | | Pump motor over current |
| 61 | EC | | Water temperature abnormal |
| 62 | EJ | | (Site installed) Protection device activated |
| 63 | EE | | Malfunctions in a drain water |
| 64 | EF | | Ice thermal storage unit error |
| 65 | H0 | | Malfunctions in a sensor system |
| 66 | H1 | | Air temperature thermistor error |
| 67 | H2 | | Sensor system of power supply error |
| 68 | H3 | | High Pressure switch is faulty |
| 69 | H4 | | Low pressure switch is faulty |
| 70 | H5 | | Compressor motor overload sensor is abnormal |
| 71 | H6 | | Compressor motor over current sensor is abnormal |
| 72 | H7 | | Overload or over current sensor of fan motor is abnormal |

| | | | |
|---|---|---|---|
| 73 | H8 | | Sensor system of over-current of AC input |
| 74 | H9 | | Outdoor air thermistor system error |
| 75 | HA | | Discharge air thermistor system error |
| 76 | HH | | Pump motor sensor system of over current is abnormal |
| 77 | HC | | Water temperature sensor system error |
| 79 | HE | | Sensor system of drain water is abnormal |
| 80 | HF | | Ice thermal storage unit error (alarm) |
| 81 | F0 | | No.1 and No.2 common protection device operates. |
| 82 | F1 | | No.1 protection device operates. |
| 83 | F2 | | No.2 protection device operates |
| 84 | F3 | | Discharge pipe temperature is abnormal |
| 87 | F6 | | Temperature of heat exchanger(1) abnormal |
| 91 | FA | | Discharge pressure abnormal |
| 92 | FH | | Oil temperature is abnormally high |
| 93 | FC | | Suction pressure abnormal |
| 95 | FE | | Oil pressure abnormal |
| 96 | FF | | Oil level abnormal |
| 97 | J0 | | Sensor system error of refrigerant temperature |
| 98 | J1 | | Pressure sensor error |
| 99 | J2 | | Current sensor error |
| 100 | J3 | | Discharge pipe thermistor system error |
| 101 | J4 | | Low pressure equivalent saturated temperature sensor system error |
| 102 | J5 | | Suction pipe thermistor system error |
| 103 | J6 | | Heat exchanger(1) thermistor system error |
| 104 | J7 | | Heat exchanger(2) thermistor system error |
| 105 | J8 | | Oil equalizer pipe or liquid pipe thermistor system error |
| 106 | J9 | | Double tube heat exchanger outlet or gas pipe thermistor system error |
| 107 | JA | | Discharge pipe pressure sensor error |
| 108 | JH | | Oil temperature sensor error |
| 109 | JC | | Suction pipe pressure sensor error |
| 111 | JE | | Oil pressure sensor error |
| 112 | JF | | Oil level sensor error |
| 113 | L0 | | Inverter system error |
| 116 | L3 | | Temperature rise in a switch box |
| 117 | L4 | | Radiation fin (power transistor) temperature is too high |
| 118 | L5 | | Compressor motor grounded or short circuit, inverter PCB fault |
| 119 | L6 | | Compressor motor grounded or short circuit, inverter PCB fault |
| 120 | L7 | | Over current of all inputs |
| 121 | L8 | | Compressor over current, compressor motor wire cut |
| 122 | L9 | | Stall prevention error (start-up error) Compressor locked, etc. |
| 123 | LA | | Power transistor error |
| 125 | LC | | Communication error between inverter and outdoor control unit |
| 129 | P0 | | Shortage of refrigerant (thermal storage unit) |
| 130 | P1 | | Power voltage imbalance, open phase |
| 132 | P3 | | Sensor error of temperature rise in a switch box |
| 133 | P4 | | Radiation fin temperature sensor error |
| 134 | P5 | | DC current sensor system error |
| 135 | P6 | | AC or DC output current sensor system error |
| 136 | P7 | | Total input current sensor error |
| 142 | PJ | | Capacity setting error (outdoor) |
| 145 | U0 | System | Low pressure drop due to insufficient refrigerant or electronic expansion valve error, etc. |
| 146 | U1 | | Reverse phase, Open phase |
| 147 | U2 | | Power voltage failure / Instantaneous power failure |
| 148 | U3 | | Failure to carry out check operation, transmission error |
| 149 | U4 | | Communication error between indoor unit and outdoor unit, communication error between outdoor unit and BS unit |
| 150 | U5 | | Communication error between remote control and indoor unit / Remote control board failure or setting error for remote control |
| 151 | U6 | | Communication error between indoor units |

| | | | |
|---|---|---|---|
| 152 | U7 | | Communication error between outdoor units / Communication error between outdoor unit and ice thermal storage unit |
| 153 | U8 | | Communication error between main and sub remote controllers (sub remote control error) / Combination error of other indoor unit / remote control in the same system (model) |
| 154 | U9 | | Communication error between other indoor unit and outdoor unit in the same system / Communication error between other BS unit and indoor/outdoor unit |
| 155 | UA | | Combination error of indoor/BS/outdoor unit (model, quantity, etc.), setting error of spare parts PCB when replaced |
| 156 | UH | | Improper connection of transmission wiring between outdoor and outdoor unit outside control adaptor |
| 157 | UC | | Centralized address duplicated |
| 158 | UJ | | Attached equipment transmission error |
| 159 | UE | | Communication error between indoor unit and centralized control device |
| 160 | UF | | Failure to carry out check operation Indoor-outdoor, outdoor-outdoor communication error, etc. |
| 209 | 60 | | All system error |
| 210 | 61 | | PC board error |
| 211 | 62 | | Ozone density abnormal |
| 212 | 63 | | Contamination sensor error |
| 213 | 64 | | Indoor air thermistor system error |
| 214 | 65 | | Outdoor air thermistor system error |
| 217 | 68 | | HVU error (Ventiair dust-collecting unit) |
| 219 | 6A | | Dumper system error |
| 220 | 6H | | Door switch error |
| 221 | 6C | | Replace the humidity element |
| 222 | 6J | | Replace the high efficiency filter |
| 223 | 6E | | Replace the deodorization catalyst |
| 224 | 6F | | Simplified remote controller error |
| 226 | 51 | | Fan motor of supply air over current or overload |
| 227 | 52 | | Fan motor of return air over current / Fan motor of return air overload |
| 228 | 53 | | Inverter system error (supply air side) |
| 229 | 54 | | Inverter system error (return air side) |
| 241 | 40 | Others | Humidifying valve error |
| 242 | 41 | | Chilled water valve error |
| 243 | 42 | | Hot water valve error |
| 244 | 43 | | Heat exchanger of chilled water error |
| 245 | 44 | | Heat exchanger of hot water error |
| 258 | 31 | | The humidity sensor of return air sensor |
| 259 | 32 | | Outdoor air humidity sensor error |
| 260 | 33 | | Supply air temperature sensor error |
| 261 | 34 | | Return air temperature sensor error |
| 262 | 35 | | Outdoor air temperature sensor error |
| 263 | 36 | | Remote controller temperature sensor error |
| 267 | 3A | | Water leakage sensor 1 error |
| 268 | 3H | | Water leakage sensor 2 error |
| 269 | 3C | | Dew condensation error |
| 339 | M2 | | Centralized remote controller PCB error |
| 345 | M8 | | Communication error between centralized remote control devices |
| 347 | MA | | Centralized remote control devices inappropriate combination |
| 349 | MC | | Centralized remote controller address setting error |
| 65535 | N/A | DK-AC-MBS-1 | Error in the communication of DK-AC-MBS-1device with the AC unit |

☞ In case you detect an error code not listed, contact your nearest Daikin technical support service.