

US011

Room unit for fan coil controller



Summary US011 is a communicative room unit for fan coil controller FC010.

Application ■ **Systems with fan coils – control and measuring of room temperature**

Function The controller reads actual room temperature, temperature correction, fan speed and required operation mode which are set by pushing of buttons. Measured and set values are sent over a RS485 bus to the FC010 controller. The fan coil controller may send to the unit other data (heating / cooling mode, fan stage, day / night / standby mode etc.) which are displayed on the LCD display.

Connect the room unit to FC010 over a 4 core cable, the most suitable types are JY(St)Y or LAM 2x2x0.8. Use the same type which powers the FC010 controller as if the room unit power is taken from the FC010 terminals, the cores in a terminal should be of the same cross-section.

Technical data

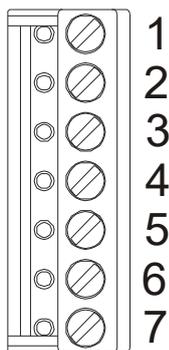
Power	24 V AC+/- 10%
Consumption	600 mVA
Measuring range	-20 ÷ 70 °C
Protection	IP20
Sensor accuracy	+/- 1,5 K (with software correction)
Set point correction	according to configuration, +/- 10 to +/- 1 K
Communication	RS485 - Modbus RTU
Display	LCD 60 x 60 mm
Terminals	screw terminals for 0,14 – 1,5 mm ² wires
Cover	ABS, RAL9010, other colours

Weight	0,13 kg
Dimensions	see below

Control:

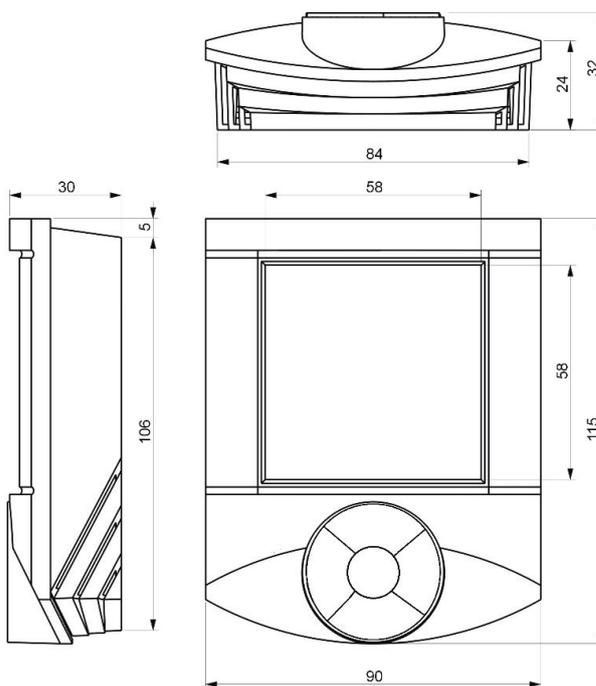
Buttons left / right	decrease / increase required temperature
Buttons up / down	switching fan speed Auto – 0 – I – II – III
Middle button	setting operation status (Comfort – Standby – Off)

Terminals



- 1: NC not connected
- 2: NC not connected
- 3: K- communication RS485 -
- 4: K+ communication RS485 +
- 5: GND technical earth
- 6: G0 power – reference point
- 7: G power

Dimensions



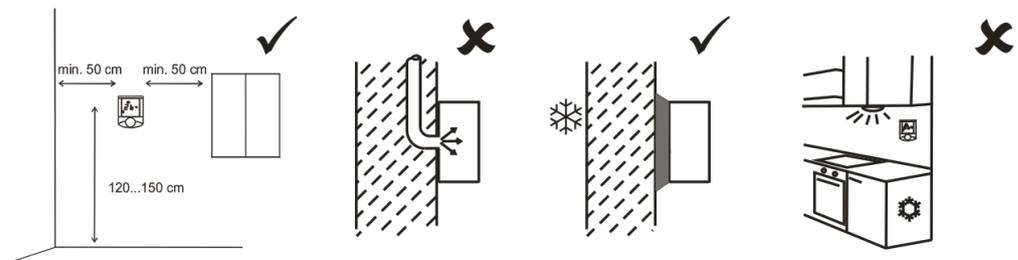
All dimensions in *mm*.

Installation

Units are intended for operating in a normal and chemically non-aggressive environment. They do not need any servicing or maintenance. Install them in a vertical position at places where they can be operated easily and measure correct values of temperature, i.e. in the height of about 150 cm, with no direct sunlight or other heat / cool source (AHU outlets, refrigerator, electrical appliances). The device consists of two parts: bottom with screw terminal block and cover containing PCB, display, and the

knob. The bottom part is fixed by 2 or 4 screws to any flat surface or a flush-mounting box \varnothing 50 mm. At the back of the bottom there is an aperture for cabling. The bottom should be installed and cabling connected first, and the upper part inserted after the construction works have been finished to prevent damage to the unit.

Seal the conduits to avoid influencing the sensor by draught. Use insulating pad when installing the sensor on cold walls. Avoid sensor exposition to sunlight or other heat sources.



Opening the cover

When removing the display part, proceed as follows:

- press gently the side parts of the unit and pull the right of the display part by several millimeters
- pull the left of the display part
- pull the display part and remove it from the bottom.

Do not bend the display part too much, the connector pins could be damaged. The locks are only at the sides of the display part, not at the top nor bottom.

RoHS notice

The device contains a non-rechargeable battery which backups the real-time clock and part of the memory. After the device is not operable, please return it to the manufacturer or dispose of it in compliance with local regulations.

**Changes in
versions**

09/2016 — Changed the format.

03/2017 — Added picture and description of the installation and link on the datasheet with other colours.