iSMA-B-FCU

iSMA-B-FCU, **fully programmable controller,** is built with the aim of controlling the FCU. The controller is factory-equipped with the two most popular open communication protocols **ModbusASCII/RTU and BACnetMSTP**, which are selected using DIP switches.

To minimise time and simplify commisioning proces the controller is delivered with universal application, which supports the most popular types of FCU. Dedicated DIP-switch allows to adjust parameters of the application. Additionally, in the BACnet protocol, the application has the built-in function which allows automatically to bind Master and Slave controllers in the groups (20 groups on the bus, up to 6 devices in one group). In the case, if the application does not meet the project requirements, it can be modified or created from scratch. Changing of the application is possible in real-time by USB port or using simulator on PC in off-line mode. There are three hardware versions which have different types of Triac Outputs and power supply.

Key Features

- Pre-loaded universal application
- Support 2-pipe or 4-pipe system
- Adjust application by dedicated DIP-switch
- Addressing from 0 to 255 by DIP-switch
- Sedona Framework 1.2 support
- Programming in real-time
- Bulit-in 18 Inputs/Outputs
- Fast processor with ARM core
- Modbus ASCII/RTU or BACnet MSTP for connecting to higher level system
- 2 x RJ12 (1x RS485) for connecting wall panels, external devices communicating in Modbus ASCII/RTU
- Built-in 24 V AC for an external equipment (version 230 V AC).

iSMA-B-FCU

Specification

Inputs

- 4x Special Input - voltage, resistance, dry contact
- 4x Digital Input – dry contact

Outputs

- 3x Digital Output 6 A (Fan Speed)
- 1x Digital Output 10 A (electric heater)
- 1x Digital Output 6 A (cooling actuator)
- 2x Triac 0,5 A @ 230 V AC or 0,5 A/0,3 A* @ 24 V AC (heating and cooling, actuators)
- 3x Analog Outputs 0-10 V DC (heating, cooling actuators and Fan Speed)

Platform

- ARM Cortex-M4

Power supply

- 230 V AC or 24 V AC

Communication

- Interface RS485 half duplex
- Up to 128 devices on the bus
- Protocols: Modbus or BACnet
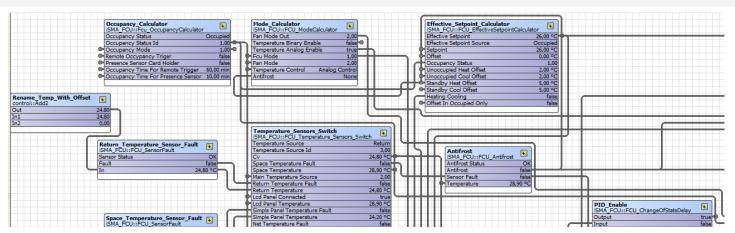- Baud rate: 4800 to 115200 bps

Housing

- Dimension: 123,6x136,6x54,5 mm, (123,6x171,2x54,9 mm) with plastic cover for terminals
- Construction: plastic, self-extinguishing (PC/ABS)
- DIN rail mounting DIN (DIN EN 50022 norm)
- Cooling: internal air circulation

Environment

- Operating temperature: -10°C to 50°C
- Storage temperature: -40°C to 85°C
- Relative humidity: 5% to 95%, no condensation
- Ingress Protection Rating: IP40 – for indoor installation

$^* I_{max}=0,3A=I_{TO1}+I_{TO2}+I_{24V\,out}$

Ordering	Power supply 230 V AC	Power supply 24 V AC	Triac 0,5 A 230 V AC	Triac 0,5 A/0,3 A 24 V AC*
iSMA-B-FCU-HH	✓		✓	
iSMA-B-FCU-HL	✓			✓ *
iSMA-B-FCU-LL		✓		✓
FCU-TC	Mounting accessory - plastic cover for terminals, recommended for 230 V AC			

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