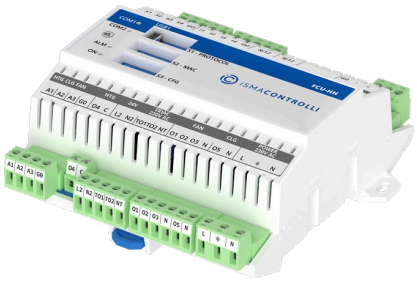
FCU – Configurable and Freely Programmable Fan Coil Unit Controllers



ADVANTAGES

- Based on open communication protocols BACnet and Modbus
- An Unique 2-in-1 Device: Configurable and freely programmable controller
- Pre-loaded Application for 256 Types of Fan Coil Units
- Inputs and Outputs Suitable for a Wide Range of FCU Applications
- Open Communication: two RS485 interfaces with open protocols, BACnet MS/TP and Modbus ASCII/RTU
- Offered by the Sedona Framework
- Seamless integration and management within Niagara Framework
- Scalable Solution with Light and Blind Controllers and Wall Panels

PRODUCT DETAILS

The fully programmable controller iSMA-B-FCU, is built with the aim of controlling the FCU. The controller is factory-equipped with the two most popular open communication protocols Modbus RTU/ASCII and BACnet MS/TP, which are selected using DIP switches.
To minimize time and simplify the commissioning process the controller is delivered with a default application, which supports the most popular types of FCU. A dedicated DIP switch allows for adjusting the parameters of the application. Additionally, in the BACnet protocol, the application has a built-in function that allows automatically to bind Master and Slave controllers in the groups (20 groups on the bus, up to 6 devices in one group). If the default application does not meet the project requirements, it can be modified or created from scratch by the freeware iSMA Tool. Changing the application is possible in real-time by USB. There are three hardware versions with different types of Triac Outputs and power supplies.

CHARACTERISTICS

- Universal default application
- Support 2-pipe or 4-pipe systems
- Application adjustable by dedicated DIP-switch
- Programming in real-time

- Addressing from 0 to 255 by DIP-switch
- Sedona Framework 1.2 support
- iSMA Tool - free of charge programming soft
- Mini USB to manage application (provides power)
- Real-time programming
- Onboard 18 Inputs/Outputs
- Fast processor with ARM core
- Modbus ASCII/RTU or BACnet MS/TP higher-level system connection
- 2x RJ12 (1x RS485) for wall panels connection
- Built-in 24 V AC for an external equipment (version 230 V AC).
- Easy firmware management, backup, and restore with FCU Updater

DIMENSIONS

See FCU datasheet

ARTICLE NUMBERS

Item number	description
On request	230 V ac, TRIAC 0,5 A 230 V ac
On request	230 V ac, TRIAC 0,5A/0,3 A 24 Vac
On request	24 V ac, TRIAC 0,5A/0,3 A 24 Vac

TECHNICAL CHARACTERISTICS

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) with PWM mode. 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: 123,6 x 136,6 x 54,5 mm (4.87 x 5.38 x 2.15 in), 123,6 x 171,2 x 54,9 mm (4.87 x 6.74 x 2.17 in) 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 (14°F to 122°F) Storage temperature: -40°C to 85°C (-40°F to 185°F) Relative humidity: 5% to 95%, non-condensing Ingress Protection Rating: IP40 – for indoor installation