

# CRC-FHM/C

## **Fume Hood Monitor / Controller**

Rev 5.1

#### **FEATURES:**

- Full color energy efficient ultra thin LCD touch screen interface
- Stand alone monitor and controller
- Configurable for both direct face velocity and volumetric control strategies
- Supports vertical and horizontal sash configurations
- Capable of controlling low flow hoods
- Supports CRC valves, exhaust terminals, linear valves and variable frequency drive control
- Fail safe control
- Energy saving sequencing and logic
- Multiple user modes
- Face velocity, CFM (I/s), sash and energy saver alarms
- Supports English and metric readouts
- Audible and visual alarms
- Password protected access
- Visual I/O and network diagnostics
- Water spray and dust resistant ultra thin surface mount or recess mount enclosure
- Resistive touch control use bare finger, gloved finger, or stylus for interaction
- All parameters / settings saved in nonvolatile memory
- Field configurable, easy, and intuitive menus
- Ability to calibrate the sash and velocity with a touch of a finger
- Supports multiple BMS protocols







#### **OVERVIEW:**

The Critical Room Control's Fume Hood Monitor / Controller model CRC-FHC accurately monitors and/or controls ventilation of a fume where proper face velocity or air volume is vital. The CRC-FHC can meet the stringent critical environment of; wet chemistry, open bench, bio-containment laboratories, pharmacies, clean rooms and animal research facilities. The CRC-FHC supports variable volume, constant volume and low volume hood configurations. The CRC-FHC controller is configurable for direct velocity control, vertical sash sensing, horizontal sash sensing, combination vertical / horizontal sash sensing and constant volume applications.

The CRC-FHC supports multiple air control devices including the CRC-CLV (Closed Loop Valve), exhaust air terminals, mechanical linear plunger valves and variable frequency drives. Each monitor/controller incorporates an easy to navigate microprocessor based controller with full color touch screen interface. All settings and programming is made via simple touch screen or network.

The CRC-FHC is designed to be a monitor only or complete system controller. Controller analog inputs/outputs and/or communications allow the CRC-FHC to seamlessly integrate with the CRC-CLV valves or building automation systems via hardwire analog inputs, outputs, relays, and / or via network communication.

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#### **DISPLAY:**

**Description**: 4.3" full color LED TFT 16 bit (65,535) color depth, sunlight viewable, 320cdm brightness,

touch screen interface - resistive touch (will work with gloved finger). Screen is capable of

wipe down cleaning and water spray and dust resistant meeting (IP-54)

Listing: CSA©, RU(us), UL 60950, UL 94 V-0 (Enclosure)

Modes: 4 Modes: In Use, Emergency Override, Standby, Decommission.

Alarms: 2 Alarms: flow and sash (both have audible and visual alarms)

I/O Diagnostic: Graphical display of controller analog inputs/outputs and digital inputs/outputs

Mounting: Low profile surface

#### **POWER REQUIREMENTS:**

Input Power: 22 to 26VAC; 50/60Hz, fully isolated

Power Draw: 15 VA Primary: 24VAC Input

## **ENCLOSURE:**

**Dimensions:** 3.625" W x 6" H x .75"D (92 mm x 152 mm x 19 mm)

Color: White

**Mounting:** Surface mount

#### **ENVIRONMENTAL CHARACTERISTICS:**

#### **Temperature Limits:**

Storage: -40 to 180
Operating: +0 to 160
Compensated Range: +35 to 130

Listing: UL-94-5VA

EMC: Œ compliant to EN61326: 1997+A1: 1998+A2: 2001 annex A (heavy industrial)

## CONTROLLER I/O:

**Analog Inputs**: 4 (4-20mA, 0-10V, or 0-5V)

Analog Outputs: 4 (0-10V or 0-5V)

Digital Inputs: 4

**Relays**: 4 (normally closed - 0.5 A at 125 VAC; 2 A at 30 VDC)

**Terminals**: Removable screw terminals (18ga - 26ga wire)

**Enclosure**: Fire retardant, extruded acrylic/PVC Alloy UL94V

**Communication**: RS-485

Onboard power: 10vdc (80mA max.), 5vdc (80mA max.), and onboard loop power circuit 22VDC (80mA max.)



## **COMMUNICATION:**

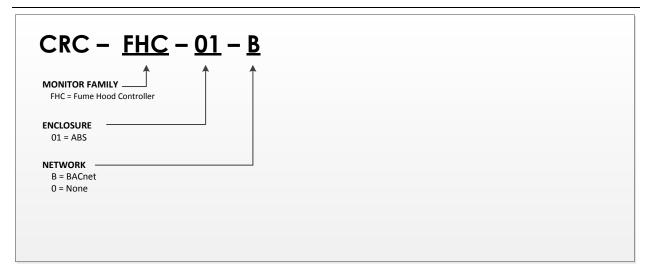
**Connection:** RS-485

Supported Protocol: BACnet MS/TP: Modbus, Johnson Controls Incorporated N2 & LON with optional card

**Network Debug:** Network communication diagnostics

**Network Setup:** Baud rate, MAC address and Instance ID configured via touch screen

### **ORDERING NOMENCLATURE:**



### ADDITIONAL PRODUCT INFORMATION:

Please contact us at:

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