## CASCADED LABS / BIO-CONTAINMENT LABS (BSL)

Environments such as wet chemistry and biological research labs require a high performance ventilation system to ensure safe, stable, and reliable working conditions. With a true closed loop control strategy, CRC systems continually verify that safe operating conditions are being met. Superior lab control, coupled with CRC's intuitive touch screen interface device, not only alerts occupants of potential dangerous conditions, but also allows local changes to environmental conditions. Bio-containment facility solutions are designed to deliver safe, consistent, and stable environments where performance is vital. Proper ventilation and a reliable working environment are paramount for both safety and quality research results.

· Fast, accurate, quiet and reliable room ventilation, temperature, humidity and pressure control

- · Stable cascaded lab pressure relationships
- · Captures and contains fumes ensuring occupant safety
- · Energy efficient control sequences
- · Safe closed loop control with true variable feedback
- · Local access to critical information at the touch of a finger
- · Fully automated room sequencing and safety procedures
- · Simple to navigate safety indication and alarming
- · Long term reliable control with no scheduled maintenance
- · Five unique modes developed specifically for lab space



## **CLOSED LOOP VALVES:**

CRC-CLV

In order to ensure that safe operating conditions are being met, it is critical to measure the output that is being controlled. Our unique closed loop venturi valve provides long term reliability, unmatched accuracy, and true airflow measurement.

- · Closed loop control
- · True industrial grade air flow measurement
- · Industry's lowest energy requirements
- · Impervious to lint, dirt and dust
- · No minimum static pressure requirements
- · Confirmation of desired set point
- · Fast acting and failsafe
- · No scheduled maintenance

- · Accurate to ±5% of flow
- · Ultra low pressure drop
- · No required straight duct runs
- · 10 to 1 turndown
- Aluminum, steel, stainless steel, and coated construction
- · Mount in any orientation



## Fume Hood Monitor / Controller:

CRC-FPM / CRC - FPC

The Fume Hood Controller (CRC-FHC) is designed to monitor and control a single fume hood where proper flow is vital.

- · Monitor and control fume hood face velocity or volume
- · Fast, accurate, stable and reliable control of fume hood face velocity
- · Full color touch screen clearly indicates fume hood condition and alarms
- · Supports constant volume or variable volume hoods
- · Supports direct sidewall , vertical sash, horizontal sash and combination sash sensing
- · Closed loop control strategy with true variable feedback
- · Energy saving sequencing and control logic
- · Can operate as a standalone controller or part of a CRC complete lab solution
- · Supports Imperial and Metric readouts
- · Seamless integration with CRC lab control system or BMS
- · Onboard BACnet MS/TP Communications

## **Lab Pressure Monitor / Controller:**

CRC-LPM / CRC-LPC

The bright, colorful, easy to read LCD touch screen can monitor and control the pressure relationship of up to two rooms while giving clear indication of the room's current status and current pressure readings.

- Monitor / control up to two rooms with one controller
- 5 fully customizable modes
- Automated room sequencing and changeover
- Dual password protection
- Displays current value, alarm, and set point adjustment of up to 8 points
- Best in class industrial grade dead ended direct pressure measurement
- Onboard BACnet MS/TP Communications
- · I/O and Network diagnostic functions





Critical Room Control's Multiple Room Monitor is an advanced compact display module that continuously monitors the occupancy and alarm status of up to four (4) individual rooms via hardwire or network connection. The CRC-MRM also allows the remote monitoring of five additional environmental points per room (20 points total).

- · Monitors up to 4 rooms
- · Displays and alarms up to five environmental points for each lab space (20 total)
- · Seamless integration with the CRC system and BAS
- · Clearly indicates any hazardous conditions within suite of lab spaces before entering suite
- In addition to the five (5) data elements (points), each room has an independent overall status with audible and visual alarm



LAB / Workroom 2

LAB / Workroom 1

Airlock Room

CORRIDOR