

FUME HOOD MONITOR With LOCAL CONTROLLER

BULLETIN 873-a



The Waddell Fume Hood face Velocity monitor is a dependable and accurate solution for technician safety as well as space environmental conditions

Displays

The monitor displays the instantaneous face velocity, high and low flow alarms as well as a night setback. Additionally, there is an emergency audible alarm with a purge.

Three LEDs indicate system performance; Alarm (RED), Caution (Amber) and Safe (Green).

Three external relays are included and are useable for an alarm mute as well as an internal light.

Features

- High volume Purge
- Clear display
- User friendly

Benefits

- Technician safety
- Accurate readings
- Environmental control

System Operation

The monitor is matched with a local controller mounted locally on the hood. The Monitor includes a side wall mass flow which measures the actual air flow into the hood.

This sensor outputs this signal to the monitor for display and to the local controller. The local controller compares the required exhaust airflow with the actual exhaust airflow and adjusts the dedicated valve or fan accordingly.

Remote monitoring is possible with additional software.

Controller Outputs

The local controller outputs an analog signal to a damper actuator as well as a BacNet signal to the Building Automation System.

- Display range 0-1000 ft/min
- Alarm range 0-1000 ft/min
- Sensor Display Resolution 1 ft/min
- Face velocity Accuracy +/- 10%
- Field Set up 2 point velocity calibration
- Alarm mute Temporary/Permanent
- RS 485 For Laptop or BAS
- Power 120v/60Hz
- Agency CE Listed

Monitor Notes

- Direct Control of the actuator by the sash position sensor
 - Sensor value is scaled directly to an actuator position during commissioning using a certified face velocity
- Purge
 - When the Purge button is activated on the unit, the valve actuator is commanded to a full open position. The monitor will display a red light and actuate the audible alarm. If desired this alarm can be sent remotely to the BAS.
 - To return to a normal condition the Purge button is activated a second time. The alarm is then cleared and the audible alarm is muted.
- Night Set back
 - A time of day function in the controller board triggers a Night Set Back program, setting the set point to a preset lower value. The night set back will display on the Waddell face velocity monitor.
- Alarms
 - High Sash Alarm – If the sash position sensor measures a value above the maximum safe opening, an audible/visual alarm is triggered at the Waddell monitor and an alarm is sent to the BAS.
 - Warning Flow – If the face velocity falls out of the safe measured level for a specified length of time, an audible/visual alarm is triggered at the Waddell monitor and an alarm is sent to the BAS.



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