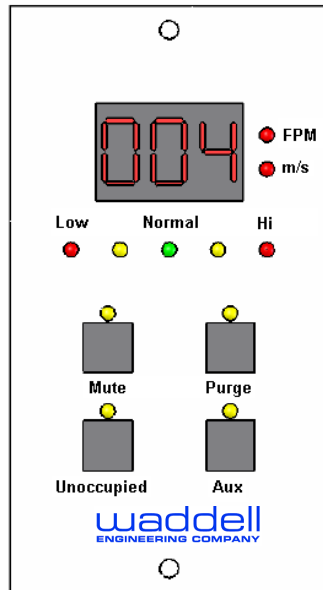


## Fume Hood Monitor with Local Control

## 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 airflow with alarms as well as a night set back. 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 separate controller mounted locally to the hood. The controller accepts a linear analog signal proportional to the position of the sash as well as a signal from a mass flow sensor next to the monitor. The mass flow sensor provides a signal proportional to the actual air flow into the fume hood. The controller then outputs a signal based on a closed loop with feedback.

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.

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- Display Range 0-199 Ft/Min (0-1.01 m/sec)
- Alarm Range 0-199 Ft/Min (0-1.01 m/sec)
- Sensor Display Resolution 1 ft/min
- Face Velocity Accuracy +/- 5%
- Field Set up 1 point velocity calibration
- Alarm Mute Temporary/Permanent
- RS 485 For Laptop or BAS
- Input Power 24V AC or DC
- Agency CE Listed
- Humidity 20 to 80% non-condensing
- Operating Temperature 50 to 125 F°

### 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 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 a 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.