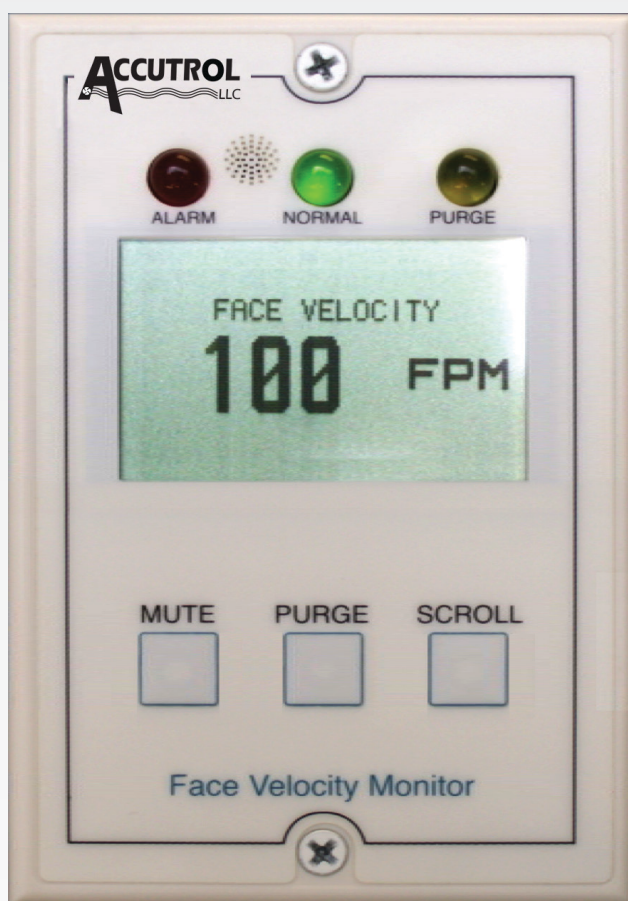




APEX Premier

High Performance Velocity Monitor



Ensures a safer operating environment for lab personnel

- For all types of fumehoods including high performance low flow hoods, variable volume and constant volume
- Microprocessor-based performance
- Microbridge mass airflow sensor technology and advanced automated factory calibration system for unparalleled accuracy and performance
- LCD Graphic Matrix touch screen display
- Real-time graphical display of face velocity
- Built-in menu driven set-up and calibration routines
- Local visual, descriptive and audible alarms
- Programmable mute button
- Programmable output relays for Purge or Alarm
- Programmable digital inputs for Alarm or Setback

Manufactured in the USA.



The APEX Premier ensures a safer operating environment for lab personnel with the most versatile fume hood and room transfer velocity monitor available. This monitor is suited for use on all types of fume hoods including **constant volume, variable volume** and **high performance low flow hoods**. The APEX Premier can also be used to monitor the velocity of transfer air between critical pressure controlled environments.

The APEX Premier utilizes state of the art technology to provide the highest level of performance achievable in a velocity monitor. The result is unparalleled reliability and simplistic operation. The heart of the APEX Premier is the Smart Sensor Module which is responsible for accurate, repeatable and instantaneous measurement of fume hood face or room transfer velocity. The velocity measurement is made by an ultra-sensitive micro-bridge mass airflow sensor with a response time of less than 3 milliseconds. The analog signal provided by the micro-bridge is digitized by a high-resolution A/D converter and then further enhanced and factory calibrated over the operating velocity range by an automated test and calibration system. The resulting velocity measurement of the calibrated Smart Sensor Module is an extremely accurate and repeatable signal suitable for use in all fume hood applications.

The brain of the APEX Premier is the APEX Operating System (A-OS) contained within its microprocessor core.

The A-OS controls the configuration tool, on-board operations, and the user interface. Upon entry of a unique password, the APEX Premier enters into set-up mode, which activates the matrix touch screen allowing access to the user-friendly start-up and calibration routines. The LCD graphic display can be configured to provide visual feedback to the lab occupants using descriptive text messages, real-time numerical face velocity data or real-time graphical trend history data.

During the normal operating mode, the A-OS continuously processes sensor data and user settings, and determines the appropriate output responses to indicate operating and alarm conditions.

Integration to a central building automation system can be accomplished by on-board I/O points for alarm contacts or an analog signal for velocity. These points can provide remote indication of alarm conditions, velocity measurement, or initiate alarm setback during unoccupied modes of operation.

Specifications

DISPLAY

Type	Graphic LCD matrix touch screen 128 x 64 pixels
Viewing Area	2.04" x 1.32"
Numeric Mode	Displays real time face velocity
Range	40 to 500 FPM
Resolution	Selectable for 1 FPM or 5 FPM
Accuracy	±10% or 10 FPM max.
Update Rate	Selectable for slow, medium or fast
Alpha Mode	Displays descriptive text indicating status
Graphical Mode	Displays face velocity trend line
Display Units	Imperial or Metric

AUDIBLE HORN

Sound Level	84 dB at 1-foot Configurable to be active or inactive
Operation	When active, horn sounds during alarm condition
Re-beep Mode	Provides reminder horn muted and alarm not cleared

ALARM CONTACTS

Type	Two independent SPST relays
Specifications	1A @ 30VDC, 0.5A @ 125VAC (resistive load) each
Operation	Programmable to indicate purge or alarm condition

Note: analog output option, relay one is 5A @250VAC or 30VDC

ANALOG OUTPUT (OPTIONAL)

Type	Voltage output, proportional to face velocity measurements
Scaling	0 to 10VDC adjustable in 0.1VDC increments, proportional to 0 to 1000 FPM adjustable in 1 fpm increments
Voltage Output	Source 20mA max. factory calibrated (300K ohm load)

DIGITAL INPUTS

Type	Two independent dry contact inputs
Operation	Each input is user programmable
Functions	Annunciate external alarm or setback mode
Text Message	Provide selectable text messages to the display
Time Delay	Programmable to initiate after a user defined delay

PUSH BUTTONS

Mute	Silences horn, Programmable active/inactive
Purge	Activates purge relay, Programmable active/inactive
Scroll	Enables user to review entire monitor configuration

INPUT POWER

24 VAC ±20% 50/60 Hz @ 8VA or 15VDC ±20% @ 500mA

LED INDICATORS

Type	8mm diffused lens
Green	Indicates normal condition, Flashes for warning condition
Red	Indicates alarm condition, Flashes on mute
Yellow	Indicates purge button has been depressed

ENVIRONMENT

Temperature	
Storage	0° to 150° F (-18° to 65° C)
Operating	40° to 120° F (4° to 49° C)
Compensated	60° to 80° F (15° to 26° C)
Humidity	
Storage	10% to 90% non-condensing
Operating	20% to 90% non-condensing
Electromagnetic	Conforms to EMC standards EN61326 Class A

VELOCITY SENSOR

Type	Micro-bridge mass flow sensor
Range	Bidirectional ±1000 FPM
Response Time	Typical 1ms, maximum 3ms
Accuracy	±0.35% reading, includes repeatability and hysteresis
Overpressure	25 PSI

REFERENCE PROBE

Internal	Integrated to display face, no external probe required
External	Optional, consult factory

HOOD PROBE

Type	7/16" diameter, feed through bushing, press fit, 5' tubing
Material	Polyethylene

TUBING

Type	.170" ID 1/4" OD Clear
Material	Ester based polyurethane

PHYSICAL CHARACTERISTICS

Size	
Front Bezel	3.35" W x 5.1" H x 0.5" D (85.1mm W x 129.5mm H x 12.7mm D)
Rear Enclosure	2.5" W x 4.25" H x 3.5" D (63.5mm W x 108mm H x 88.9mm D)
Weight	1 lb. (454 grams)
Materials	Front bezel; ABS Rear enclosure; 20 Gauge sheet metal

AGENCY APPROVALS

CE approved, UL listed

Ordering Guide

Please see the following page for Ordering Guide.



APEX Premier Ordering Guide

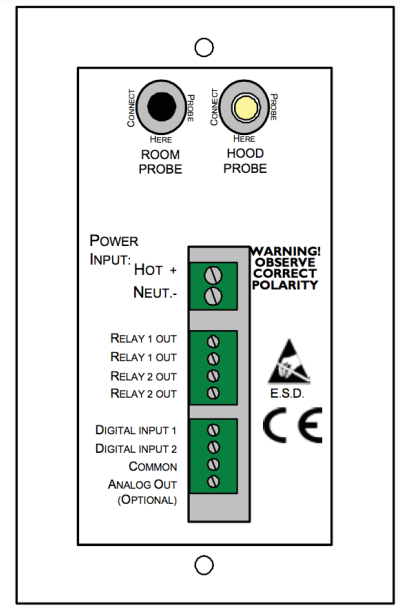
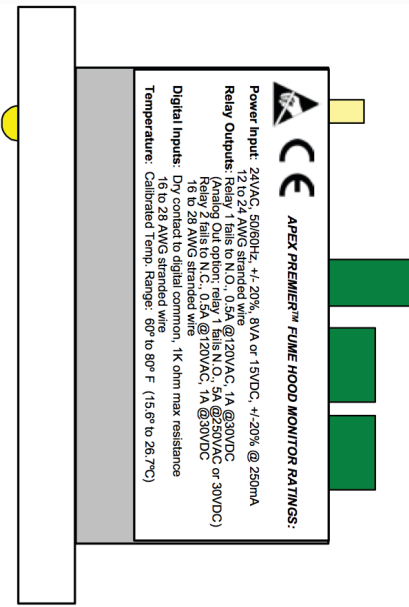
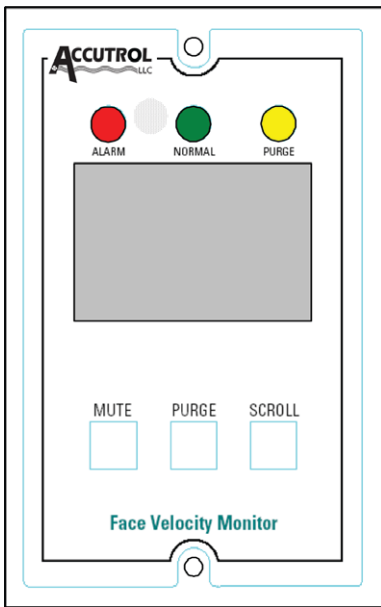
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Analog Output

- 0** = None
- 1** = Analog Output Version 0-10V

External Reference Probe

- 0** = None
- 1** = External Reference Probe



Your representative is:

