PLASTEC® VENTILATION

AIR CONTROL

ALARM FOR SAFETY CABINETS

Specifications

PLASTEC® VENTILATION, INC.

www.indventech.com

ALARM FOR SAFETY CABINETS

General Description

BENEFITS

- Ease of installation and maintenance
- Attractive design
- Digital display in m/s or FPM: change from one to other by pressing Light and Alarm Buttons simultaneously for 5 seconds
- Applications: Safety Cabinets and Ductless Fume Hoods

FEATURES

- Audible and Visual Alarm
- 3 Push Buttons: Fan On/Off, Light On/Off, Mute
- Alarm for no time remaining

OPTIONS

- **Alarm Relay:** An Alarm Relay can be installed optionally
- **Battery Back Up:** Red LED Alarm is still functional up to 6 hours when unit loses power.
- **Digital Display** for time remaining. May also display velocity in m/s or FPM

COLORS

Plastic fascia is available in 3 colors: White, Black or Yellow

PACKING

- Supplied in cardboard box which includes Controller Circuit Board, "O" Ring Seal, Power Supply 115/12V, Plastic Tube and Mounting Box.

INTERNATIONAL STANDARDS COMPLIANCE

- CEM Electromagnetic Compatibility EN 61326:1997 / A1 : 1998 /A2 : 2001 / A3 : 2003 *(Test RC-05-42060-1)* US FCC Part 15 Class B edition 2005 *(Test report RC-05-42060-2-A).*
- RoHS directive
- Laboratory French standard XPX 15206 January. 2005
- CE
- **Labour regulation Nr R4222-13** (Alarm for Safety Cabinets containing dangerous products)
- UL 94 (Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing), class V-0 (burning stops within 10 seconds on a vertical specimen; drips of particles allowed as long as they are not inflamed).

COMPONENTS

- **Circuit Board with Sensor included**: Panel mounted circuit board to be installed horizontally onto cabinet with 2X2,8 mm screws; IP55 protection ensured by "O" Ring Seal; Face plate is supplied with chemical resistant plastic sticker (horizontal) with control/push buttons on fascia; Mounting Box is included.
- **Power Supply:** 115 VAC to 12 VDC power transformer directly into Alarm Circuit Board.

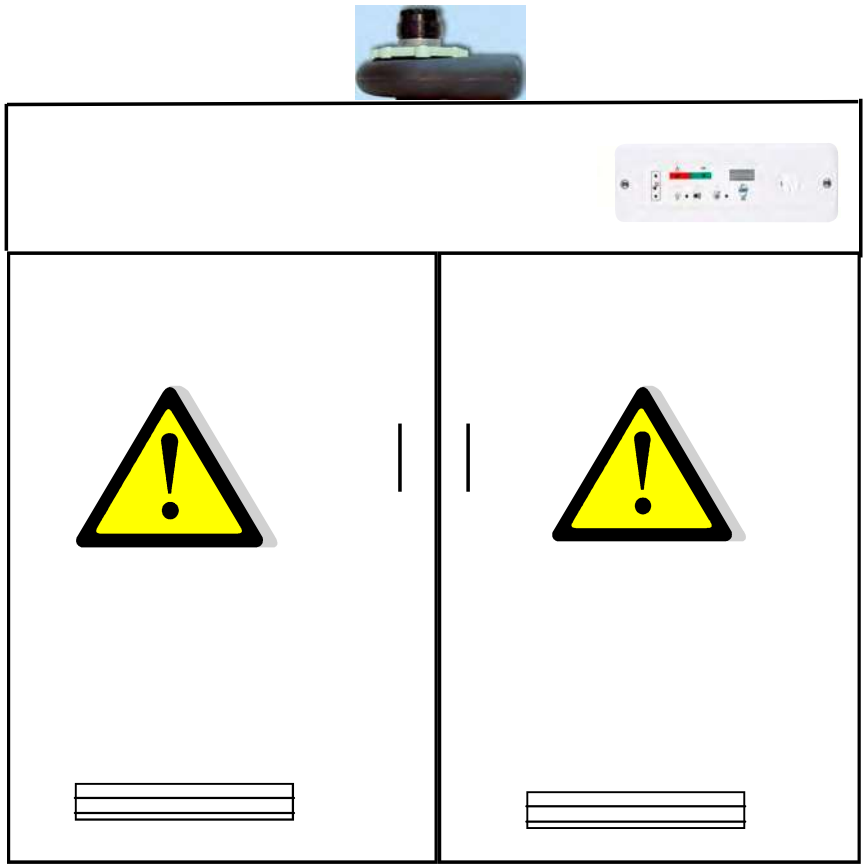
ALARM FOR SAFETY CABINETS

Operating Principle

When the fume extraction fan is running, it causes negative pressure inside the safety cabinet or hood. During normal operation (closed doors) the pressure is intense, the front air velocity is constant. If the doors are opened, the pressure becomes less intense and air velocity decreases.

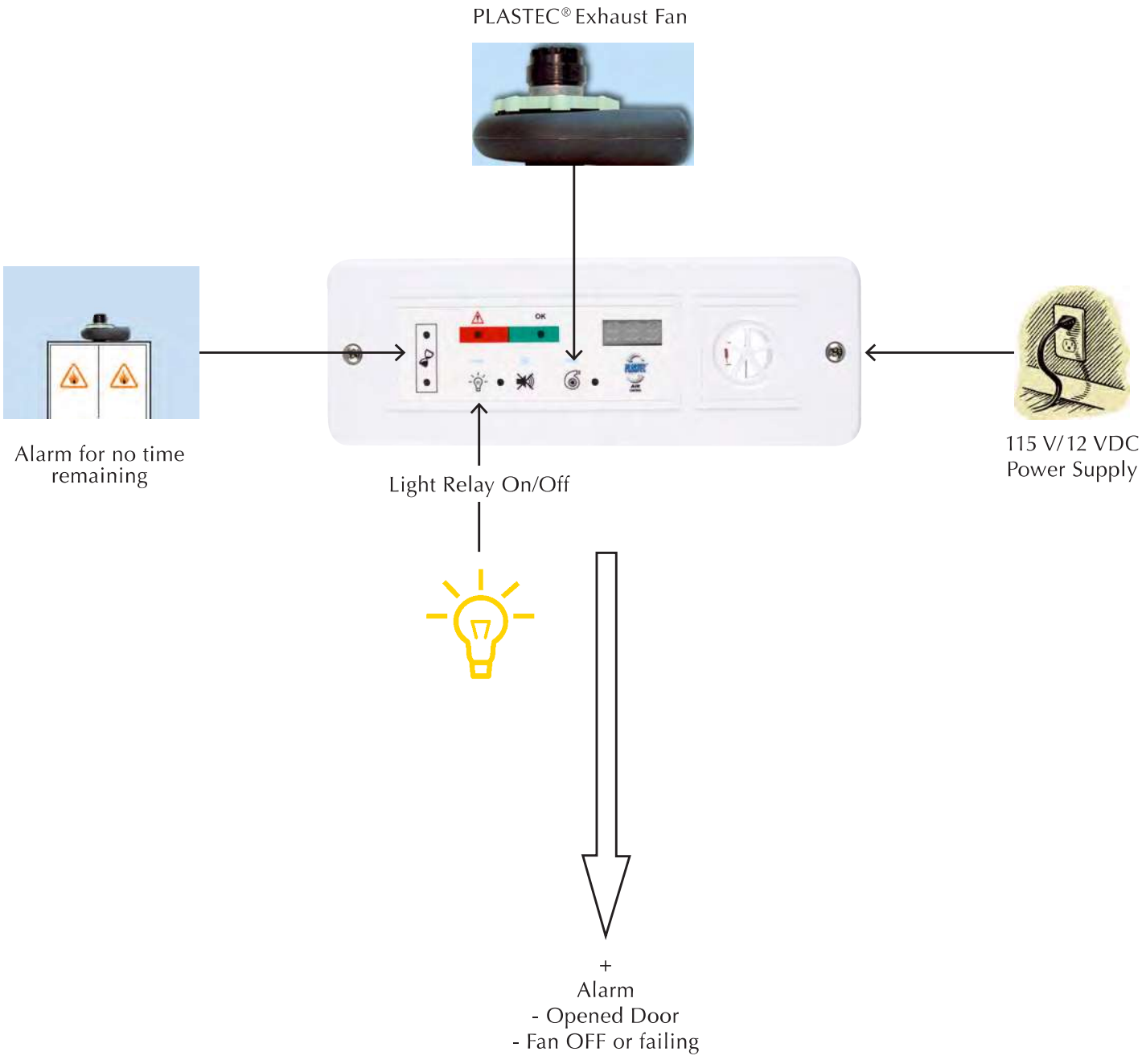
If an opening is made in the wall of the cabinet, air will enter in at a velocity determined by the same negative pressure that is drawing air in the front of the safety cabinet. The obtained air velocity level measurement, by using the numerical sensor, is displayed on the fascia by displaying Digital Read Out. An audible alarm will sound in case of opened doors or exhaust fan failure.

The alarm timer counts down the safety cabinet time remaining. It allows to check the filters and installation situation in accordance with recommendation. The setting is made from 0 to 100 hours and from 5 to 365 days.



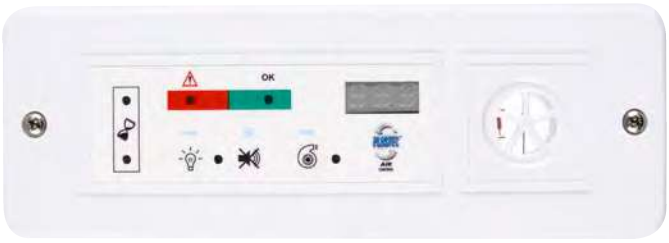
ALARM FOR SAFETY CABINETS

Schematic Digital Display



ALARM FOR SAFETY CABINETS

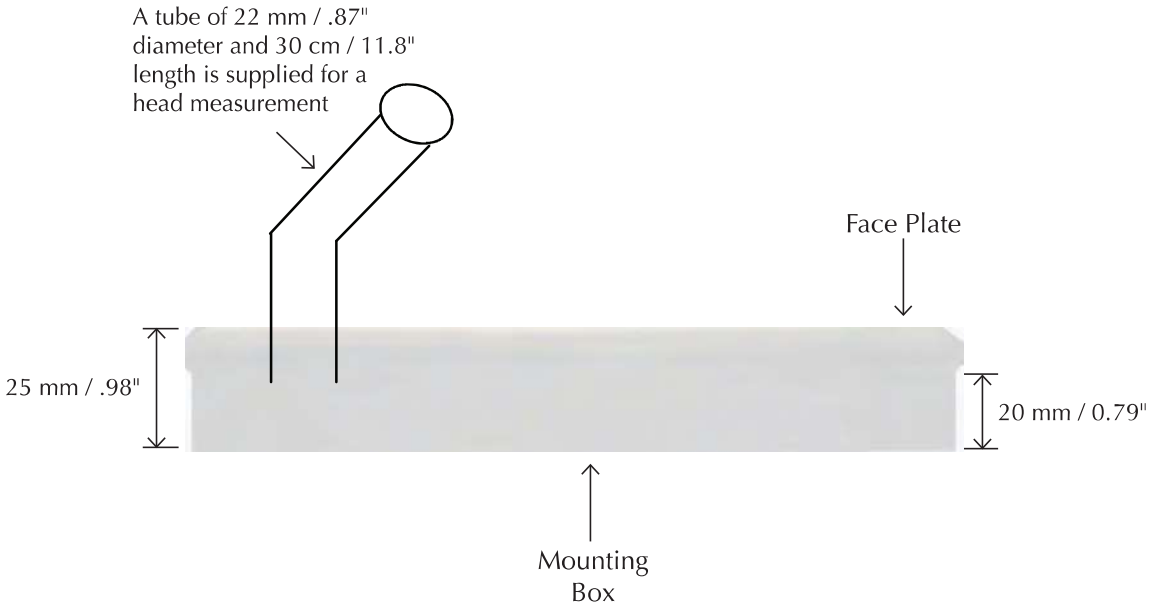
Specifications

	Digital Display
	
References/Model Number	**819698**
Digital Display	1 green LED Air flow OK 1 flashing red LED flashing for Alarm **3 digits display with velocity reading**
Units	meter per second (m/s) / FPM
Display Range	0 - 2.00 m/s / 394 FPM
Alarm Past Time	1 flashing LED 5% remaining time 2 constant LEDs no remaining time
Alarm Delay	15 or 30 Seconds
Alarm Indication	1 flashing red LED & Audible Buzzer
Alarm Mute Button	
Light On/Off Button	
Fan On/Off Button	
Alarm Relay	Yes, optional
Battery Back Up	Yes, optional
Alarm Past Time	Audible and Visual
Mounting	Mounting Box
Calibration	Factory pre-calibrated @ 0.5m/s / 100 FPM Recalibration possible
Power Supply	12 VDC (power supply included) 115V:12V
Orientation	Horizontal
Dimensions: (U.S.)	Front fascia: 8.27"L x 3.54"W x 0.39"D Mounting box: 8.07"L x 3.35"W x 0.98"D
Dimensions: (metric)	Front fascia: 210L x 90W x 10D Mounting box: 205L x 85W x 14D

ALARM FOR SAFETY CABINETS

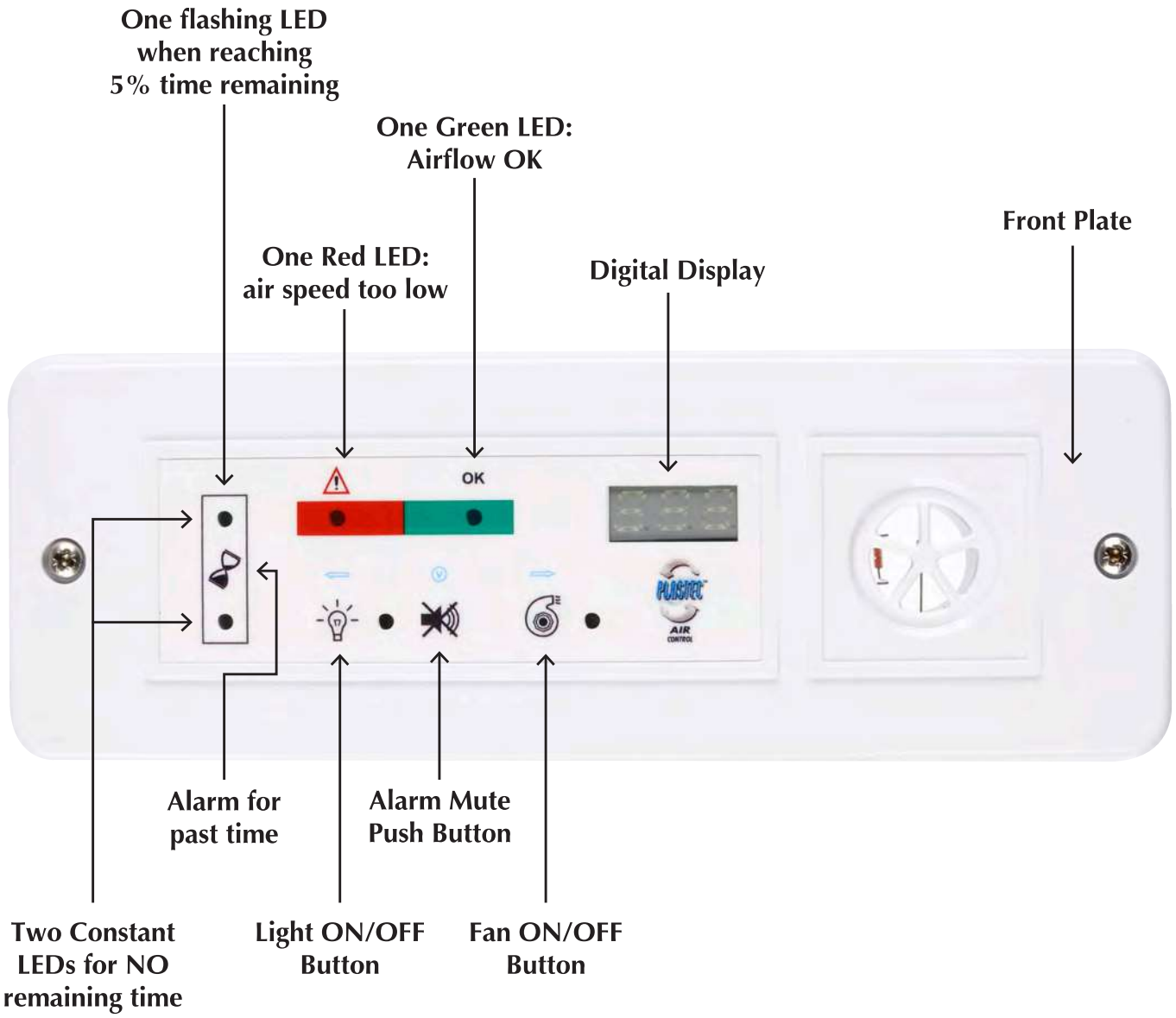
Dimensions

ALARM & MOUNTING BOX



ALARM FOR SAFETY CABINETS

Overall View



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Wiring and Settings

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Contacts and Features

Door Contact
115V 3A

Night Set Back: Contact
115V 3A

Sensor

Power Supply: Transformer
115 VAC / 12 VDC

BUZZER Micro Switch 1:
ON: Buzzer Always Active
OFF: Buzzer only when Fan is on

ALARM DELAY Micro Switch 2:
ON: 30 seconds Alarm Delay
OFF: 15 seconds Alarm Delay

Night Set Back Mode

Reset

Fan Contact
115V 3A

Light

Alarm Relay 115V 3A (optional)

ALARM FOR SAFETY CABINETS

Alarm Set-Up

ALARM SET UP IN TIMER MODE

1) Push  for more than 5 seconds, then release and push simultaneously  , release.

Buzzer sounds twice, the Green LED is ON and the Red LED is flashing indicating controller is in manual set up mode.

2) (If Digital Display)
Push on  to modify the uptime from 0 to 100 hours and from 5 to 365 days.

This value will be memorized as the set point.

3) Wait for a minimum 10 seconds for air speed to stabilize.

4) Push on  buttons simultaneously for more than 5 seconds until Buzzer beeps 5 times; time and control setting is set up.

– If Time Remaining is set to zero, the Digital Display will display the Air Velocity in FPM or M/S.

– If Time Remaining is set then it will be displayed in Digital Display

– To get the Velocity Reading press  twice and in 10 seconds it will be displayed.

ALARM FOR SAFETY CABINETS

Alarm Set-Up and Test Mode

DISPLAY MESSAGES

The display will show “HI” for an airflow superior to 0.8 m/s or 157.5 FPM and “LO” for an airflow inferior to 0.20 m/s or 39.37 FPM.

In case of faulty, improper or absent sensor, the display will show “PB”.

FACTORY DATA RESET

Press RESET (at the back of the controller) for 15 seconds. Buzzer sounds 5 times.

When using this feature, you restore factory default settings: set point and display at 0.5 m/s or 98.43 FPM all Relays and LEDs deactivated.

This operation must be done in "Auto" mode.

TEST MODE

Test Mode is to confirm that all functions are operational. to access Test Mode, follow this procedure:

1) Press simultaneously the following buttons: 
   * Buzzer sounds twice

2) Press the 3 buttons alternately to verify all functions.
   * Buzzer sounds 3 times indicating normal operating mode
   * Buzzer sounds 10 times if malfunction

In case of faulty sensor, the display will show “PB”.