

Smoke Alarm

FEATURES

- **DEP approved. Meets requirements of the NYC Air Pollution Code.**
- **High tech, low cost.**
- **Microprocessor-based electronics.**
- **2-minute burner shutdown.**
- **Wide-beam light source and narrow field of view receiver assure non-critical alignment of breeching.**
- **Commercially available long-life lamp.**



*Typical A-08730-*0-A Smoke Alarm with Breeching Components (Light Source and Receiver).*

APPLICATION

The **Hays Cleveland Model A-08730 Smoke Alarm** provides reliable, continuous measurement of the density of confined particulates such as dust or smoke. It is easy to calibrate and requires no routine maintenance other than occasionally cleaning the lenses of the light source and receiver units.

The basic alarm system consists of an electronics unit and two breeching components. A light source directs a beam through the measured particulate, and a light sensor receives the beam, detects changes in opacity, and sends a proportional signal to the electronics unit. The wide-beam light source and narrow-view receiver make installation easy. Alignment of the breeching units does not need to be precise. The electronics produces a digital status readout. SPDT contacts are provided for a remote alarm (which can be purchased separately: **Hays Cleveland L-05500-00**). After actuation, the alarm must be reset manually. The electronics unit is available in surface-mount and flush-mount styles. It can be installed in any dry, convenient

area within 250 feet of the light source and receiver units. The face of the unit has a liquid crystal display and a "burner status" LED.

The **Model A-08730 Smoke Alarm** is equipped with a 2-minute (120-second) burner cutoff function. The **Burner Cutoff Function** is a delayed de-energization timer that shuts the burner down if an alarm condition (opacity exceeding 20%) persists for 120 seconds. The alarm must be reset manually after reduction of opacity to below 20%: it cannot be reset when opacity is above 20%. This feature meets **the requirements of the New York City air pollution control code** for alarm and burner control functions. An audible alarm with fixed trip point (20% opacity) is mounted on the front face of the electronics unit. The alarm emits one short beep and the LED blinks once for "Alarm" condition as soon as opacity exceeds 20%. The alarm emits three short beeps and the LED blinks three times for "Burner Cutoff" condition (after 120 second delay).

HOW TO ORDER

A-08730-*0-A

The basic catalog number for the **Hays Cleveland Model A-08730 Smoke Alarm** is shown below. Replace suffix **A** with a cabinet selection as shown below.

The standard base unit includes light source and receiver units. The electronics unit has a liquid crystal display and a burner status LED. Standard features include: alarm trip point fixed at 20% opacity, 120-second alarm delay, manual alarm reset which is disabled if opacity exceeds 20%, audible alarm located on panel front, and a contact closure for a remote alarm (which may be customer-supplied or quoted separately):

Hays Cleveland Model L-05500-00).

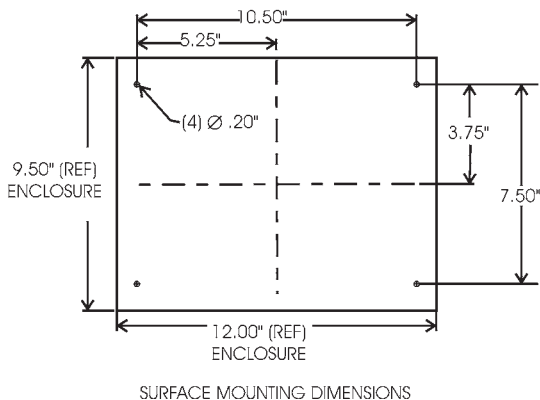
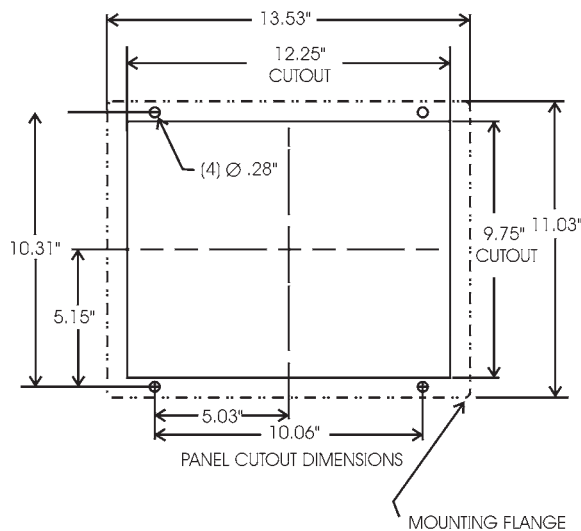
A = 1

Surface-mount cabinet for wall-mounting, NEMA_1.

A = 2

Flush-mount cabinet for panel-mounting, NEMA_1.

*0 = Current model.



SPECIFICATIONS

Power requirements: 120 V AC \pm 10%, 50/60 Hz.

Ambient temperature ranges: 32–130F (0–54C) for electronics unit. 32–160F (0–70C) for light source and receiver units.

Fuse: One, @ 1 amp.

Response time: 1 second for 90% of actual change in opacity.

Accuracy: \pm 5% opacity under all specified operating conditions.

Light source to receiver distance: minimum 4 ft. (1.2 m.), to maximum 20 ft. (6.0 m.).

Light source lamp life: 1 year minimum.

Spectral response of photocell: 350–1100 nM.

Cable length: 250 ft. (76 m.) maximum.

Indicator: Red "Burner Status" LED and flashing display.

Alarm contacts: isolated SPDT, 10 amp, 120 V AC resistive, failsafe.

Trip point for "Warning" Alarm contacts : fixed at 20% opacity.

Immediate response when trip point is reached. (Single beep.)

Trip point for Burner Shutdown Alarm contacts: fixed at 20% opacity.

Delayed response when trip point is reached (120 second timer). (Three beeps.)

Reset "Warning" Alarm contacts : automatic if opacity goes below 20% within 120 seconds. **Manual** reset if burner shutdown contacts change state (after 120 seconds).

Reset Burner Shutdown Alarm contacts: Manual. Alarm will not reset until opacity is less than 20%.

Housing for enclosed models: NEMA 1.

Relative Humidity: 0-90%, non-condensing.

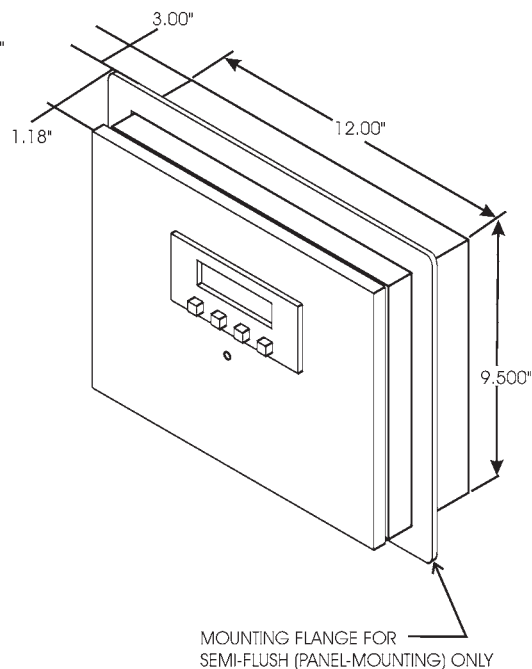
Shipping Weight:

Electronics units are 8.0 lbs.

Light source and receiver, combined, 6.2 lbs.

Approvals: NYC DEP approved. UL & CUL pending.

SPECIFICATIONS ARE SUBJECT TO CHANGE.



MOUNTING FLANGE FOR SEMI-FLUSH (PANEL-MOUNTING) ONLY

Are you reading a FAX or a COPY of this bulletin? DOWNLOAD the full-color PDF version of this and other literature at our website!

Visit us on the World Wide Web at www.hayscleveland.com

Hays Cleveland Div. of UniControl Inc.
1903 South Congress Avenue
Boynton Beach FL 33426
Telephone: 561.734.9400
Fax: 561.734.8060
email: salescombustion@unicontrolinc.com

Hays Cleveland Div. of UniControl Inc.
1111 Brookpark Road
Cleveland OH 44109
Telephone: 216.398.4414
Fax: 216.398.8558
email: salescombustion@unicontrolinc.com