

Description and Application

CAE series duct smoke detectors provide early detection of smoke and products of combustion in air moving through HVAC ducts in commercial, industrial, and residential applications. These detectors are designed to prevent the circulation of smoke by the air handling systems, fans, and blowers. Complete systems can be shut down in the event of smoke detection.

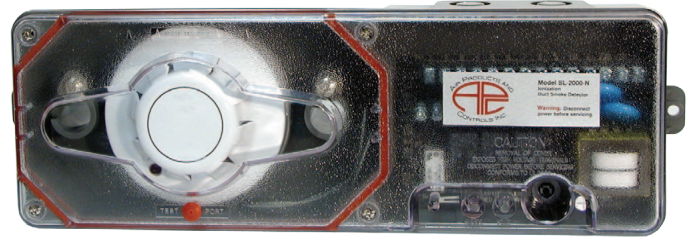
Ionization and photoelectric modes are available.

Additional key features include round-duct or flat-surface duct mounting, smoke tested with cover on, cover removed trouble indicator, magnet test capability (magnet included), reset and test on the same switch that is accessible with cover on, and front loading sample tubes.

The intake sampling and the 7 inch (178 mm) long exhaust tubes are front loaded and extend into the duct. **The intake sampling tube is available in three different lengths and must be ordered separately (see Accessories section).**

Features

- ◆ Operates from 24 VDC/VAC, 115 VAC, or 230 VAC
- ◆ Low-flow technology for velocities between 100 and 4000 feet per minute
- ◆ Green pilot light and red alarm visual indicators
- ◆ Two sets of 10 A form "C" alarm contacts
- ◆ One set of 2 A form "A" alarm contacts
- ◆ One set of 10 A form "C" trouble contacts
- ◆ Reset switch doubles as an alarm test switch
- ◆ UL, CUL, CSFM, and MEA Listed
- ◆ No additional filters or screens to clean
- ◆ Outputs for remote accessories such as horns, strobes, remote status indicator, and test/reset switches or pushbuttons



Models

CAE-1003	Ionization duct smoke detector
CAE-1103	Photoelectric duct smoke detector

Accessories

SAA-1030	Sampling tubes for duct widths of 12 to 36 inches
SAA-1060	Sampling tubes for duct widths of 36 to 60 inches
SAA-1120	Sampling tubes for duct widths of 60 to 120 inches

Specifications

Power Requirements

	Standby	Alarm
24 volts AC	13.5 mA	128.7 mA
24 volts DC	39.4 mA	59.3 mA
15 volts AC	13.8 mA	27.0 mA
230 volts AC	7.9 mA	16.0 mA

Relay Contact Rating

Alarm Contacts	2 SPDT rated 10 A @ 115 volts resistive, 1 SPST @ 2 A
Trouble Contacts	1 SPDT rated 10 A @ 115V resistive

Radioactive Element (CAE-1003 only)

Americium 241;
0.9 Micro-Curie

Air Velocity 100 to 4000 fpm (1.5 to 20.3 mps)

Material

Markalon 94V-0, 1.5 mm
Gray plastic back box with clear plastic cover

Environmental Limits

Temperature	32 to 100° F (0 to 38° C)
Humidity	10 to 85% relative humidity, (noncondensing/nonfreezing)

Weight 2.5 pounds (1.13 kg)

Dimensions

Length	13.5 in.	342.9 mm
Height	4.50 in.	114.6 mm
Depth	2.25 in.	57.2 mm

Mounting

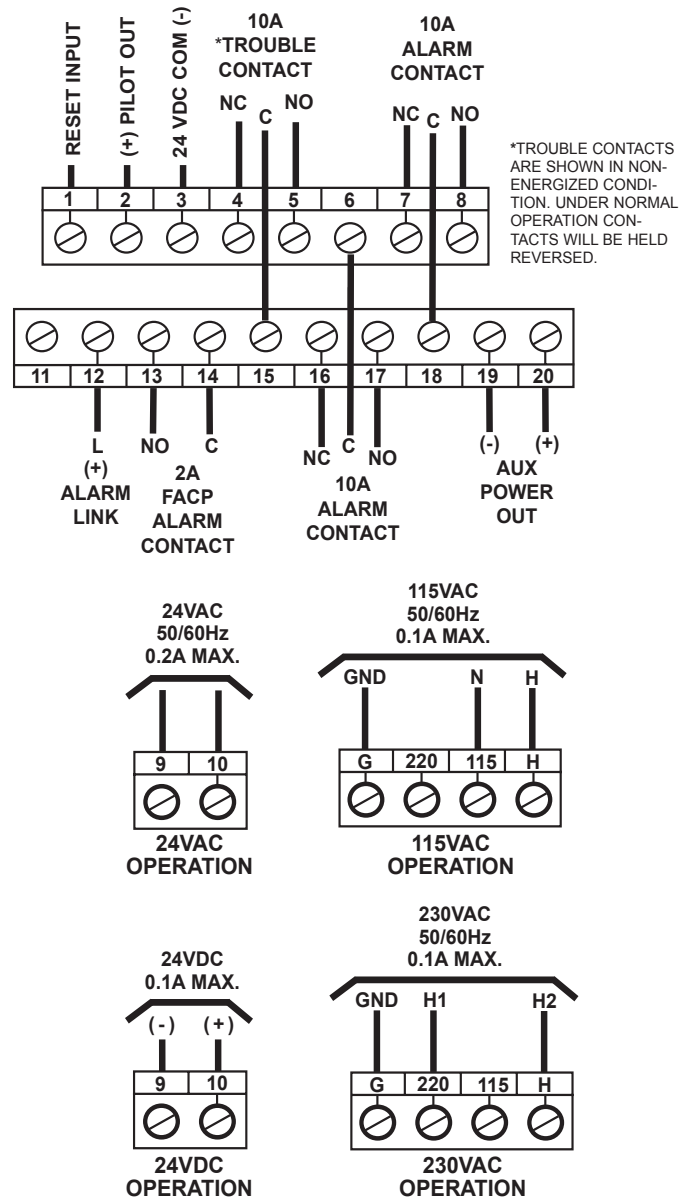
Instructions, template, and hardware included.
Sampling tubes ordered separately.

Regulatory Approvals

UL and CUL Listed (UL268A, UROX, UROX7)
File #S2829
CSFM Listed (3240-1004: 105)
MEA Accepted (73-92-E; VOL. 27)

Wiring

See illustration below and installation guide for more information.



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