

8000 / 8003 Series

Photoelectric System Smoke Detector

120 VAC and 24 VDC System Smoke Detector

24 units per carton, 32 pounds per carton

Applications

The Gentex 8000/8003 Series of photoelectric smoke detectors are designed for commercial, industrial, residential and institutional applications. The 8000/8003 is engineered to provide outstanding performance wherever reliable fire protection is required.

The Gentex 8000/8003 Series provides an exclusive patented three position test feature that simulates a 0.85% and a 3.5% actual smoke condition. The test feature has the capability to let you know when maintenance is required.

A standard Form A dry relay contact for connection to the system initiating circuit and an auxiliary Form C dry relay contact is provided on all models for use as remote annunciation as a releasing device. Other options include reverse/local 90dBA solid-state piezo horns and 135°F (57.2°C) fixed temperature self-restoring integral or isolated thermals to meet your specific requirements.

The 8000/8003 Series are ANSI/UL 268 listed and are warranted for two years from date of purchase.

Standard Features

- Available in 120 VAC and 24 VDC
- Photoelectric smoke sensing technology
- Listed for releasing device service
- Form A/Form C dry relay contacts
- Horn frequency 3100 Hz (nominal)
- Temporal 3 evacuation sounding device (8003 Series)
- Nominal 2.5% sensitivity
- Patented three-position test switch
- Quick-disconnect wiring harness
- 5-to-1 signal-to-noise ratio
- Pulsing LED sensing chamber
- Fully insect screened
- Easy Wash® on-site maintenance washing program
- Solid-state LED condition indicator
- Mounting hardware adapts to standard junction boxes
- Dust cover to prevent contamination during installation
- Protective high air velocity gasket
- Two year warranty from date of purchase



Product Listings

SIGNALING



- ANSI/UL 268 Listed
- CSFM: 7272-0569:102
- MEA: 928-84-SA
- MSFM Listing: 1929

Product Compliance

- NFPA 72
- IBC/IFC/IRC
- Quality Management System is certified to: ISO 9001:2008

 **Easy Wash®**
On Site Maintenance Program

8240 and 8100 Series

Model	Part Number	Voltage	Integral 135°F Thermal	Non-Latching Circuit "Y"
8240	908-1201-002	24 VDC		
8240Y	908-1207-002	24 VDC		•
8240T	908-1203-002	24 VDC	•	
8100	908-1233-002	120 VAC		
8100Y	908-1239-002	120 VAC		•
8100T	908-1234-002	120 VAC	•	

8243P and 8103P Series

Model	Part Number	Voltage	Reverse/Local 90dBA Piezo	Integral 135°F Thermal	Isolated 135°F Thermal	Non-Latching Circuit "Y"
8243P	908-1211-002	24 VDC	•			
8243PT	908-1212-002	24 VDC	•	•		
8243PTY	908-1215-002	24 VDC	•	•		•
8243PY	908-1214-002	24 VDC	•			•
8243PH	908-1213-002	24 VDC	•		•	
8243PHY	908-1216-002	24 VDC	•		•	•
8103P	908-1243-002	120 VAC	• (local)			
8103PY	908-1246-002	120 VAC	• (local)			•

Notes:

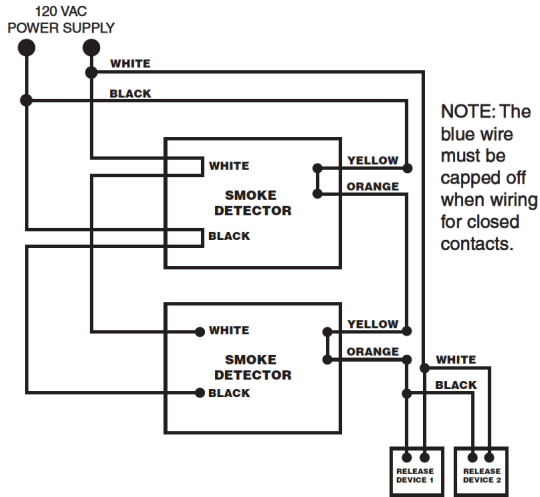
- The 8000/8003 Series are round units.
- When testing 8103P/8243P Series, it may take up to 16 seconds longer for smoke alarm to go in or out of alarm mode.
- It is recommended that 8000/8003 Series smoke detector be tested monthly.
- Refer to Technical Bulletin 002 for Easy Wash® on site washing instructions
- 8103P/8243P units produce a temporal 3 audible alarm.

Electrical Specifications

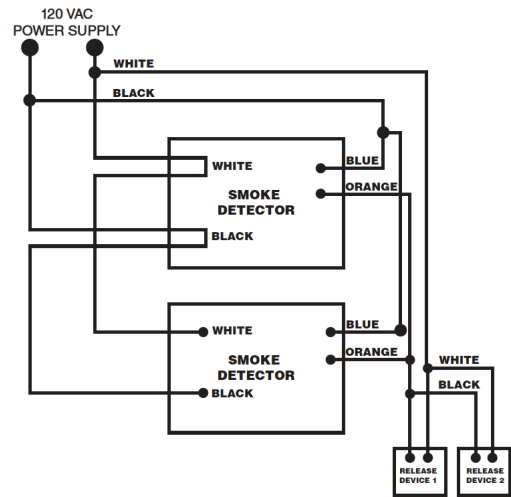
	8240 / 8243P	8100 / 8103P
Operating Voltage Nominal	24 VDC	120 VAC
Range: Min	18 VDC	110 VAC
Range: Max	30 VDC	130 VAC
Frequency	---	60 HZ
Standby Operating Current (mA)	6 mA	70 mA
Alarm Operating Current (mA)	60 mA	70 mA
Sensitivity	2.5 % Nominal	
Form A Relay Contact	1 amp	0.6 amps
Form C Relay Contact	1 amp	0.6 amps
Temperature	40° - 100°F (4.4° - 38°C)	
Humidity	10% - 93% humidity	
Size	Diameter at base: 5.75 in. (14.605 cm) Overall diameter: 6.25 in. (16.51 cm) Depth: 2.625 in.	

Wiring for Releasing Device Service

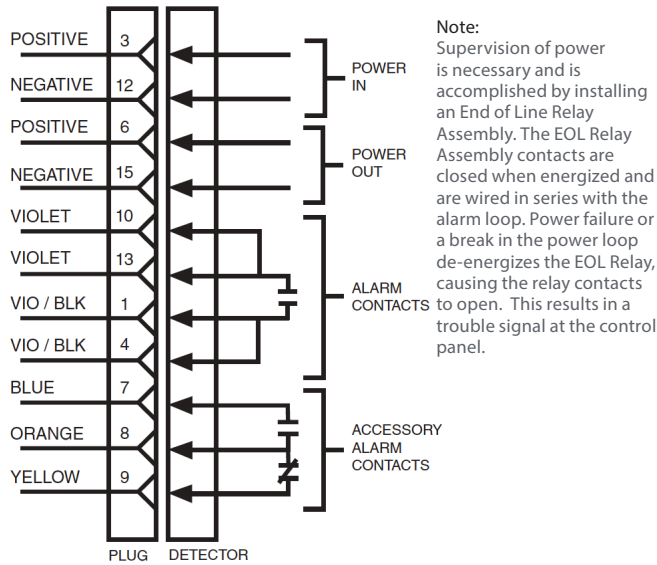
Normally Closed Configuration



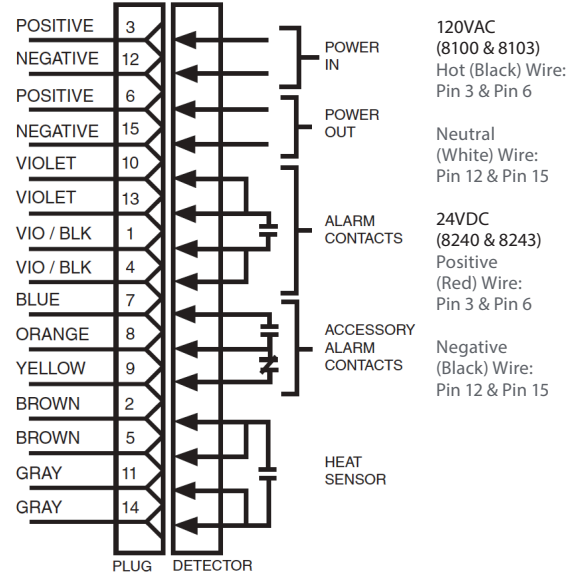
Normally Open Configuration



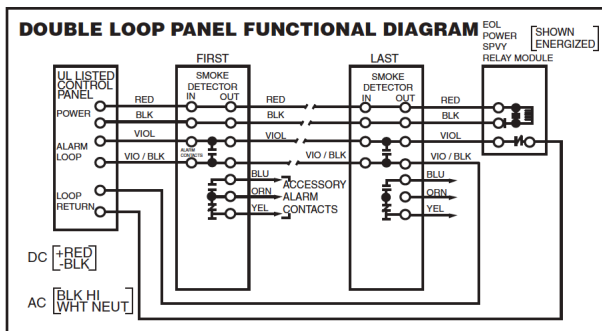
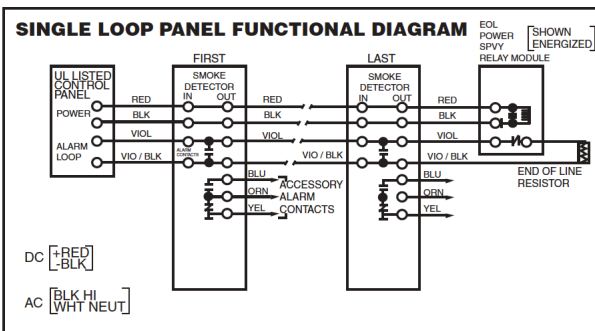
Detector Wiring Diagram



For "H" - Isolated Thermal



Supervised Wiring Diagrams



8000 / 8003 Series

Photoelectric System Smoke Detector

Architect & Engineering Specifications

The photoelectric smoke detector shall be a Gentex Model 8100/8103/8240/8243 or approved equal and shall operate on the photoelectric light scattering principle and shall be listed by Underwriter's Laboratories, Inc. (ANSI/UL 268).

The smoke detector shall contain an infrared LED light source and a light sensing photodiode. These components shall be positioned such that when smoke particles enter the sensing area, light from the LED reflects onto the photodiode. When the amount of light reflected onto the photodiode reaches a predetermined level, the detector shall latch into alarm.

The smoke detector shall contain a test knob that, when in TEST 2 Position, scatters the detector's LED light source to the equivalent of a nominal .85% actual smoke condition, when in TEST 1 position the detector shall simulate an equivalent of a nominal 3.5% actual smoke condition. Test feature shall indicate when maintenance is required without the need of additional equipment. A magnetic switch closure or other switch closure, or smoke generating equipment which does not scatter the light beam or test sensitivity is not sufficient.

The smoke detector shall be able to contain an optional internal 90dBA horn (at 10 feet) which emits an intermittent tone when the detector alarms. Also have the provision of reverse polarity operation. The horn shall have the capability of being self-restoring.

The smoke detector shall be able to provide a self-restoring integral/isolated heat sensor set to alarm at 135°F (57.2°C) fixed temperature. The smoke detector shall be provided from the manufacturer with all internal wiring (power in, power out and alarm contacts have 2 wires, auxiliary relay contacts each have 1 wire) leading into a plug-in terminal socket for ease of field installation. Screws are not acceptable since they make service more difficult. The manufacturer shall further supply the field wiring harness with plug connector for connection to insulated wire connectors. The smoke detector shall mount to a 2" x 3" switch box or 4" octagon junction box using a standard bracket that does not have to be purchased separately. The smoke detector shall be listed for wall or ceiling mounting