

Because Lives, Property and Businesses Aren't Fireproof



**8100 Series
4-Wire Single Station Photoelectric
Smoke Detector**

Harrington Signal Inc.
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FEATURES:

- Functional Test Switch - Patented Three Position Test
- Nominal 2.5% Sensitivity
- 5-to-1 Signal-to-Noise Ratio
- Pulsing LED Sensing Chamber
- Fully Insect Screened
- Form A / Form C Dry Contacts
- Solid State LED Condition Indicator
- Quick-Disconnect Wiring Harness
- Mounting Hardware Adapts to Standard Junction Boxes
- Dust Cover to Prevent Contamination During Installation
- Protective High Air Velocity Gasket
- On Site Maintenance Washing Program
- Suitable for Release Device Service

designed for commercial, industrial, and institutional applications, including hotels, motels, dormitories, and other multi-family dwellings. Harrington offers a full range of detectors that are compatible with 4-wire control panels. The 8100 Series is engineered to provide outstanding performance wherever reliable fire protection is required. The Harrington 8100 Series provides an exclusive patented three position test feature that simulates a 0.85% and a 3.5% actual smoke condition, in full compliance with NFPA 72 and UL 268 standards. The test feature has the capability to let you know when maintenance is required.

A standard Form A dry contact for connection to the system initiating circuit and an auxiliary Form C dry contact are provided on all models. Other options include reverse/local 90dB solid-state piezo horns and 135°F self-



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Smoke Detectors**

restoring integral or isolated thermals to meet your specific requirements.

APPLICATIONS

The 8100 Series photoelectric single station smoke detectors are

ORDERING INFORMATION

MODEL #	PART #	DESCRIPTION
8100	349-0271	Photoelectric detector, 4-wire, 120VAC, Form A & Form C dry contacts
8100Y	349-0575	Photoelectric detector, 4-wire, 120VAC, Form A & Form C dry contacts, non latching circuit
8100T	349-0273	Photoelectric detector, 4-wire, 120VAC, Form A & Form C dry contacts, integral thermal rated at 135°F.
8100TY	349-0576	Photoelectric detector, 4-wire, 120VAC, Form A & Form C dry contacts, integral thermal rated at 135°F, non latching circuit
8100P	349-0275	Photoelectric detector, 4-wire, 120VAC, Form A & Form C dry contacts, reverse/local 90dB piezo horn
8100PY	349-0577	Photoelectric detector, 4-wire, 120VAC, Form A & Form C dry contacts, reverse/local 90dB piezo horn, non latching circuit

8100 Series 4-Wire Single Station Photoelectric Smoke Detector

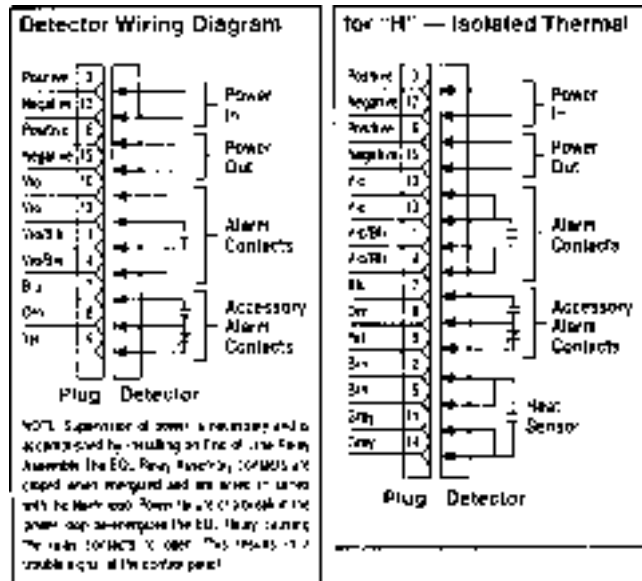
Architect & Engineer Specifications

The photoelectric smoke detector shall be a Harrington 8100 Series and shall operate on the photoelectronic light scattering principle and shall be listed by Underwriter's Laboratories, Inc., the State of California Fire Marshal and the Bureau of Standards and Appeals (NYC).

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 1 position, scatters the detector's LED light source to the equivalent of a nominal .85% actual smoke condition, when in Test 2 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 90dB 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.



Wiring Diagrams

The smoke detector shall be able to provide a self-restoring integral/isolated heat sensor set to alarm at 135° F.

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.

Electrical Specifications

Operating Voltage (Nominal) 120VAC Operating Voltage (Range) Min. 110VAC Max. 130VAC Operating Voltage (Frequency) 50-60HZ Current Consumption at Nominal Operating Voltage* Standby: 70mA Alarm: 70mA Sensitivity 2.5% Nominal	Alarm Contacts (1) Form A - N.O. (Resistive) 0.5A at 120VAC Auxiliary (1) Form C - N.O. (Resistive) 0.5A at 120VAC Temperature 40°-100°F (4.4°C-38°C) Humidity 10%-93% Relative Humidity Size Diameter: 6.5 OD (5.75 in. at ceiling) Depth: 2.625 in.
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NOTICE: The information contained in this document is intended only as a summary and is subject to change without notice. The devices described in this document have specific instruction sheets which cover various technical, limitation and liability information. Copies of these instruction sheets and the General Product Warning and Limitations Document, which also contains important information are provided with the product and are available from Harrington Signal Inc. Fire Alarm. Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact Harrington Signal Inc. Harrington Signal Inc. Fire Alarm reserves the right to change specifications without notice. Quality OEM manufactured for Harrington Signal Inc. Fire Alarm by Gentex.