

Because Lives, Property and Businesses Aren't Fireproof



**7100 Series  
Multiple Station Photoelectric  
Smoke Detector**

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**FEATURES:**

- 90dBA Solid-State Non-Latching Piezo Horn
- Nominal 2.5% Sensitivity
- 5-to-1 Signal-to-Noise Ratio
- Pulsing LED Sensing Chamber
- Fully Insect Screened
- Functional Test Switch - Patented Three Position Test
- Solid-State LED Condition Indicator
- Quick-Disconnect Wiring Harness
- Mounting Hardware Adapts to Standard Junction Boxes
- Dust Cover to Prevent Contamination During Installation
- On-Site Maintenance Washing Program

**APPLICATIONS**

The 7100 Series Multiple Station Photoelectric Smoke Detector is

designed for apartments, hospitals and hotels, in compliance with UL 217 and NFPA 72. Available in many different models, the 7100 Series is engineered to virtually eliminate nuisance alarms and deliver outstanding performance wherever reliable fire protection is required.

The Harrington 7100 Series provides an exclusive patented three position test feature that simulates a 0.85% and 3.5% actual smoke condition in full compliance with NFPA 72 and UL 217 standards. It also provides a maintenance indicator and makes the 100% testing requirement easy.

Options include self-restoring 135°F fixed temperature integral or isolated thermals, and Form A/ Form C dry contacts for remote annunciation. Tandem interconnection of up to 12 units is available on several models;



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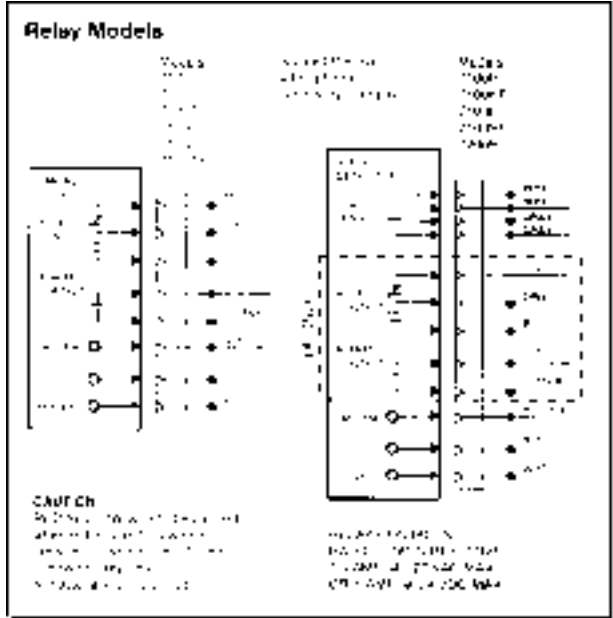
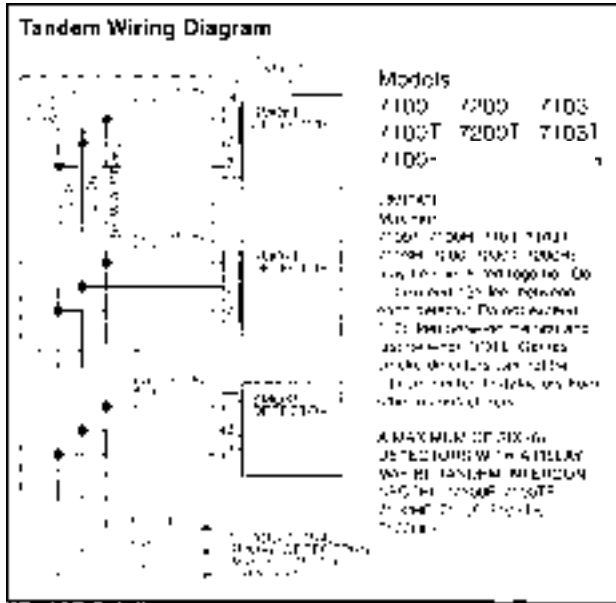
tandem interconnection of up to 6 units is available on "F" models, which activate the dry contacts from a remote alarm through the tandem wire or a local alarm.

**ORDERING INFORMATION**

MODEL #	PART #	DESCRIPTION
7100	349-0378	Photoelectric detector, piezo horn, 120VAC, Tandem connect upto (20) units
7100T	349-0419	Photoelectric detector, piezo horn, 120VAC, integral thermal, 135°F, tandem connect up to (20) units
7100H	349-0372	Photoelectric detector, piezo horn, 120VAC, isolated thermal, 135°F, tandem connect up to (20) units
7100F	349-0584	Photoelectric detector, piezo horn, 120VAC, Form A and Form C dry contacts, tandem connect up to (20) units
7100TF	349-0417	Photoelectric detector, piezo horn, 120VAC, integral 135°F heat, tandem connect up to (6) units, Form A and Form C dry contacts
7100HF	349-0392	Photoelectric detector, piezo horn, 120VAC, isolated 135°F heat, tandem connect up to (6) units, Form A and Form C dry contacts

**7100 Series Photoelectric Multiple Station Smoke Detector**

**Wiring Diagrams**



**Architect & Engineer Specifications**

The photoelectric smoke detector shall be a Harrington 7100 Series, which shall provide the following features and functions. The nominal sensitivity shall be 2.5%. The detector shall utilize an infrared LED sensing circuit which pulses in 4 to 5 second intervals; when subjected to smoke the pulse rate shall increase 8 times. After 2 consecutive pulses in smoke, the detector will alarm. The detector shall provide minimum 5-to-1 signal-to-noise ratio in the optics frame to assure stability of operation in environments of high RF and transient conditions. The sensing chamber shall be fully protected to prevent entrance of small insects, thus reducing the probability of false alarms. A solid state piezo alarm rated at 90dB at 10 ft. A visual LED monitor (condition indicator) will pulse in normal operation and will remain solid in alarm. An easily accessible test knob shall be provided. The test knob in the TEST position will simulate an actual smoke condition of approximately 3.4% causing the detector to alarm within 20-36 seconds. It will also have the capability of testing to 0.85% as a required minimum. 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 detector shall have a tandem interconnect capability of up to 20 units or 6 units with relay. The manufacturer shall provide other compatible detector models with the following optional features: a) 135 degree F isolated thermal with normally opened contact for remote connection to local alarm or annunciator; b) 135 degree F integral thermal; c) auxiliary Form A/Form C relay contacts or initiating remote functions and annunciation; d) relay option that is capable of activation by tandem interconnect wire. Thermal sensor shall be self-restoring. Unit must be UL 217 listed for both wall and ceiling mount. Unit shall also meet all requirements of the State of California Fire Marshal.

**Electrical Specifications**

Operating Voltage .....	120VAC, 60Hz	"F" Auxiliary Relay .....	(1) Form A & (1) Form C
Operating Current (All Voltages) .....	45 amps	.....	(0.5 amp)
Operating Current (Relay Options) .....	70 mA	"T" Integral Thermal (Self Restoring) .....	.....
Operating Ambient Temp Range .....	40°F to 100°F	.....	135°F at 50 ft.
Alarm Horn Rating .....	90dB at 10 ft.	"H" Isolated Thermal Form A (Self Restoring) .....	.....
Nominal Sensitivity .....	2.5% Obscuration	.....	135°F at 50 ft.
		Size .....	Diameter: 6.5 in. OA (5.75 in. at Ceiling)

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.