HARRINGTON
SIGNAL INC.
FIRE ALARM

100 Series

Low-Profile Plug-in Smoke Detector

Harrington Signal Inc.
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FM MEA UL

Description

System Sensor 100 Series Plug-In Smoke Detectors offer superb performance and reliability in a profile which is just 1.6" (4.2cm) deep. Model 2151 (photoelectronic sensor) can be used with a variety of different adapter bases in several wiring configurations and voltages. Other features include: low current draw, stable performance in high air velocities, built-in tamper resistant base design, remote LED option, removable cover, and built-in test switch.

The 100 series is designed to meet the performance criteria designated by UL. It's sensing chambers are sealed against back pressure air flow, dirt, and insects. This chamber is protected by a fine mesh screen which can be cleaned or replaced. Additional key features include a variety of mounting bases and a full line of accessories.

Photoelectronic

All 100 Series photoelectonic smoke detectors contain a unique optical sensing chamber designed to sense smoke particles produced by a wide range of combustion sources. A custom integrated circuit incorporates signal processing to reduce false alarms.

Features

- Sleek, low-profile design
- Compatible with 400 Series Product
- Two LEDs blink in standby, providing 360° visibility
- Field sensitivity metering of detector to meet the requirements of NFPA 72
- Broad range of adapter bases available with built-in shorting spring

Specifications

Operating Voltage / Alarm Current
See Adapter Base Selection Guide following

Standby Current
Photo: 85μA Standby

Sensitivity
3% ± 7%/ft. Photo

Shipping Weight
3.6 oz. (102 g)

Size
1.66" h. (42 mm)
4.1" / 104 mm dia. unflanged base
6.1" / 155 mm dia. flanged base

Construction
Flame Retardant thermoplastic

Temperature
32° to 120°F (0° to 49°C)

UL Listed Velocity Range
Photo: 0 - 3000 fpm (0 - 15.2m/s)

Humidity Range
10% - 93% RH noncondensing

Smoke Detector Spacing
on smooth ceilings (as defined in NFPA 72), spacing of 30 feed (900 sq. ft.) may be used as a guide. Other spacing may be used depending on ceiling height, high air movements, and other conditions or response requirements.

Ordering Information

Model Number	Part Number	Description
2151	2151	Low-profile photoelectric detector. Must be mounted to one of the B100 Series or B400 Series bases listed in Adapter Base Selection Guide

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Adapter Base Selection Guide

Base Model Number	Loop Type	Current Limit Resistor	Contact Type	Nominal Voltage	Current Draw on Alarm (mA)
B100LP	2-wire*	No	-	12/24VDC	10-130
B110RLP	2-wire*	Yes	-	24VDC	10-62
B112LP	4-wire	Yes	Form A&C	24VDC	17-36
B114LP	4-wire	Yes	Form A&C + A Supervisory	120VAC	75 mA AC Max
B116LP	2-wire*	No	Form C	24VDC	20-100**
B401†	2-wire*	No	-	12/24VDC	10-130**

*Functionality contingent on panel compatibility

**Must be limited by control panel

†Flangeless base

Relay Contact Ratings: Resistive or Inductive (60% power factor) load.

Form A:	2.0A at 30 VAC/DC
Form C:	0.6A at 110VDC, 2.0A at 30VDC
	1.0A at 125VAC, 2.0A at 30VAC

Junction Box Selection Guide

Base Model Number	Single Gang	3½ Octagon	4" Octagon	4" Square	50 mm	60mm	75mm
B401	No	No	No	No	Yes	Yes	No
B110LP/RLP	Yes	Yes	Yes	Yes	No	No	No
B112LP/B116LP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B114LP	No	No	Yes	Yes	No	No	No