100 Series

100 Series Low-Profile Plug-In Smoke Detectors

NOTIFIER® by Honeywell

Conventional Initiating Devices

General

100 Series Plug-in Smoke Detectors offer superb performance and reliability in a profile which is just 2" (5.1 cm) deep. Model 2151 (photoelectric sensor) and model 2151T (photoelectric sensor with thermal) 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. Its 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.

All 100 Series photoelectric 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.

Model 2151(A) photoelectric detector's unique optical sensing chamber is engineered to sense smoke by a wide range of combustion sources. Dual electronic thermistors add 135°F fixed temperature thermal sensing on model 2151T.

Specifications

Operating Voltage/Alarm Current: See Adapter Base Selection Guide *(see page 2)*.

Standby Current: 120µA Standby.

Sensitivity: 1 - 3.18%/ft.

Height: 2.0" in B401.

Diameter: 4.1" installed in B401; 6.2" installed in B110LP.

Shipping Weight: 5.2 oz.

Construction: Flame retardant thermoplastic.

Temperature:

- Photo: 32°F to 120°F (0°C to 49°C).
- Photo/Thermal: 32°F to 100°F (0° to 38°C).

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

Humidity Range: 10%–93% RH non-condensing.

Smoke Detector Spacing: On smooth ceilings (as defined in NFPA 72), spacing of 30 feet (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.

Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.



- **UL Listed**: S911.
- **ULC Listed**: CS308.
- **CSFM**: 7272-1653:0122.
- **FM Approved.**
- **MEA Approved**: 205-94-E.
- **Maryland State Fire Marshal**: #2180.

Product Line Information

***NOTE:** "A" suffix indicates ULC listed model.*

2151(A): Low-profile photoelectric detector. Must be mounted to one of the B100 Series or B400 Series bases listed in the Adapter Base Selection Guide.

2151T: Low-profile photoelectric detector with thermal. Must be mounted to one of the B100 Series or B400 Series bases listed in the Adapter Base Selection Guide.

F110: Retrofit replacement flange for B400 Series flanged bases.

RA100Z: Remote annunciator for 2 or 4 wire systems, 3-32V. Fits standard single gang electrical box.

SENS-RDR: Hand-held sensitivity reader.

SMK400E: Surface mounting kit provides for entry of surface wiring conduit. For use with B401 or B401R mounting bases only.

EOLR-1: End of line relay for power supervision, 12/24 VDC systems.

M02-04-00: Test magnet.

M02-09-00: Test magnet with 32° telescoping handle.

XR2B: Detector removal tool. Allows installation and/or removal of 100 Series detector heads from base in high ceiling installations when used with XP-4.

XP-4: Extension pole for XR2B. Comes in three 5 ft. sections.

C58-227-01: Replacement dust cover for 100 Series smoke detectors.

RMK400: Recessed mounting kit (B401 sold separately).

Adapter Base Selection Guide

Base Model Number	Loop Type	Current Limit Resistor	Contact Type	Nominal Voltage	Current Draw on Alarm (mA)
B110LP	2-wire*	No	—	12/24 VDC	10-130**
B110RLP/B401BR†	2-wire*	Yes	—	24 VDC	10-62
B112LP/B402†	4-wire	Yes	Form A & C	24 VDC	17-36
B114LP/B404†	4-wire	Yes	Form A & C + A Supervisory	120 VAC	75 mA AC maximum
B116LP/B406†	2-wire*	No	Form C	24 VDC	20-100**
B401†	2-wire*	No	—	12/24 VDC	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: 2.0 A at 30 VAC/DC
Form C: 0.6 A at 110VDC, 2.0 A at 30 VDC
1.0 A at 125VAC, 2.0 A at 30 VAC

Junction Box Selection Guide*

Base Model Number	Single Gang	3-1/2" Octagon	4" Octagon	4" Square	50 mm	60 mm	75 mm
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

* Box depth contingent on base and wire size. Refer to National Electrical Code or local applicable codes for appropriate recommendations.

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