

SD-651

SD-651 Low-Profile Plug-In Smoke Detectors



Conventional Initiating Devices

General

The Notifier SD-651 Plug-in Smoke Detectors offer superb performance and reliability in a profile which is just 2" (5.1 cm) deep. Model SD-651 (photoelectric 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 SD-651 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.

SD-651 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 SD-651 photoelectric detector's unique optical sensing chamber is engineered to sense smoke by a wide range of combustion sources.

Specifications

Operating Voltage/Alarm Current: See Adapter Base Selection Guide following

Standby Current: 85µA Standby

Sensitivity: 1 - 3.18%/ft.

Height: 2.0" in B401

Diameter: 4.1" installed in B401; 6.1" installed in B110LP

Shipping Weight: 5.2 oz

Construction: Flame retardant thermoplastic

Temperature: Photo: 32°F to 120°F (0°C to 49°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 Listing and Approval

One listing and approval apply to the module 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

Product Line Information

SD-651: Low-profile photoelectric detector. 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.

RA400Z: Remote annunciator for 2 or 4 wire systems, 3-32V. Fits standard single gang electrical box.

B401BH-2: Sounder base. Requires an external 24 VDC power supply. Mounts to 4" square electrical box (112" minimum depth, 218" recommended).

SMK400: 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.

M02-04-01: Test magnet.

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

XR-2B: Detector removal tool. Allows installation and/or removal of SD-651 detector heads from base in high ceiling installations when used with XP-4.

XP-4: Extension pole for XR-2B. Comes in three 5 ft. sections.

C58-227-01: Replacement dust cover for SD-651 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)
<i>B110LP/B401†</i>	2-wire*	No	—	12/24 VDC	10-130**
<i>B110RLP/B401R†/B401BR†</i>	2-wire*	Yes	—	24 VDC	10-62
<i>B401†</i>	2-wire*	No	—	12/24 VDC	10-100**

* Functionality contingent on panel compatibility.

** Must be limited by control panel.

† Flangeless base.

Junction Box Selection Guide*

Base Model Number	Single Gang	3-1/2" Octagon	4" Octagon	4" Square	50 mm	60 mm	75 mm
<i>B401</i>	No	No	No	No	Yes	Yes	No
<i>B110LP/RLP</i>	Yes	Yes	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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