

# Intelligent Bases

**B224BI(A), B224RB(A), B501(A), B501BH(A), B501BH-2(A), B501BHT(A), B501BHT-2(A), B710LP(A), Mounting Kits, and Accessories**



**Intelligent Addressable Devices**

## General

Intelligent FlashScan® and CLIP mounting bases and kits provide a variety of ways to install NOTIFIER detectors in any application. Intelligent detectors can be mounted in either flanged or flangeless bases depending on junction box selection (see *Junction Box Selection Guide*). Across this product line, detectors plug in easily to the base with SEMS screws; and models employ various 12 to 22 AWG wire ranges.

**Relay, isolator, and sounder bases** can be used to meet local code requirements. Relay bases provide one Form-C contact relay for control of auxiliary functions such as door closure and elevator recall. Isolator bases allow loops to continue to operate under fault conditions and automatically restore when the fault is removed. Sounder bases are available in temporal and non-temporal pattern versions depending on whether the signal is to be used for evacuation purposes.

The **RMK400 recessed mounting kit** provides the most aesthetically pleasing installation. Surface mounting boxes are available when flush mounting isn't possible.

## Specifications

**Diameter:** For B501: 4.1" (104 mm). For B224BI, B224RB, B710LP: 6.1" (155 mm). For B501BH, B501BH-2, B501BHT, B501BHT-2: 6.0" (152 mm).

**Wire gauge:** for B224BI, B224RB: 14 to 24 AWG. For B710LP, B501, B501BH, B501BH-2, B501BHT, B501BHT-2: 12 to 18 AWG.

**Temperature range:** For B224BI, B224RB, B501BH, B501BH-2, B501BHT, B501BHT-2: 32°F to 120°F (0°C to 49°C). For B501 and B710LP, 32°F to 150°F (0°C to 66°C).

**Humidity range:** 10% to 93% RH, non-condensing.

**System temperature and humidity ranges:** This system meets NFPA requirements for operation at 0°C to 49°C (32°F to 120°F); and at a relative humidity (noncondensing) of 85% at 30°C (86°F) per NFPA, and 93% ± 2% at 32°C ± 2°C (89.6°F ± 1.1°F) per ULC. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15°C to 27°C (60°F to 80°F).

## Electrical Ratings

### FOR B224RB, B224BI:

**Operating voltage:** 15 to 32 VDC (powered by SLC).

**Standby ratings:** <500 µA maximum @ 24 VDC.

**Set time (B224RB only):** short delay 55 to 90 msec; long delay 6 to 9 seconds.

**Reset time (B224RB only):** 20 msec maximum.

**Relay characteristics (B224RB only):** two-coil latching relay; one Form-C contact; ratings (UL/CSA): 0.9 A @ 125 VAC, 0.9 A @ 110 VDC, and 3.0 A @ 30 VDC.

### FOR B501BH, B501BH-2, B501BHT, B501BHT-2:

**External supply voltage:** 17 to 32 VDC.

**Standby current:** 1.0 mA maximum.

**Alarm current:** 15 mA maximum.



Flangeless Mounting Base



Relay Base



Flanged Mounting Base



Recessed Mounting



Standard Sounder Base



Flangeless Surface Mounting

**Maximum ripple voltage:** 10% of supply voltage.

**Startup capacitance:** 200 µF.

**Set time:** for B501BH and B501BHT, 6 to 15 seconds. For B501BH-2 and B501BHT-2, 0.75 to 5.7 seconds.

**Sound output:** greater than 90 dBA measured in anechoic room at 10 feet (3.048 m), 24 volts. 85 dBA minimum in UL reverberant room.

## Recessed Mounting Kit

The RMK400 can be used with drywall or suspended ceilings. The aesthetically pleasing design can be used with standard junction boxes — suitable for use with 4.0" (10.16 cm) octagonal, 50 mm, and 60 mm junction boxes connected to flexible conduit. Note that junction boxes are not included in the kit. As an application example, with the B501 base, the RMK400 provides a simple installation solution in applications that demand a lower-profile smoke detector.

## Agency Listings and Approvals

The listings and approvals below apply to intelligent bases as noted. 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.

*Listing information to be provided in upcoming edits. Consult panel manuals for lists of compatible UL-Listed devices. All bases have been previously listed for use with various panels.*

## Product Line Information

### INTELLIGENT BASES

**B501:** Flangeless mounting base.

**B501A:** Flangeless mounting base, ULC Listed.

**B710LP:** Flanged mounting base.  
**B710LPA:** Flanged mounting base, ULC UL Listed.  
**B501BH:** Standard sounder base.  
**B501BHA:** Standard sounder base, ULC Listed.  
**B501BHT:** Temporal tone sounder base.  
**B501BH-2:** Standard sounder base, UL 864 9th edition compliant.  
**B501BH-2A:** Standard sounder base, UL 864 9th edition compliant, ULC Listed.  
**B501BHT-2:** Temporal tone sounder base, UL 864 9th edition compliant.  
**B501BHT-2A:** Temporal tone sounder base, UL 864 9th edition compliant, ULC Listed.  
**B224RB:** Relay base.  
**B224RBA:** Relay base, ULC Listed.

**B224BI:** Isolator base.  
**B224BIA:** Isolator base, ULC Listed.  
**MOUNTING KITS AND ACCESSORIES**  
**RMK400:** Recessed mounting kit.  
**SMK400:** Surface mounting kit, flangeless.  
**SMB600:** Surface mounting kit, flanged.  
**F110:** Retrofit flange for B501B, B524.  
**RA400Z:** Remote LED annunciator.  
**RA400ZA:** Remote LED annunciator, ULC Listed.  
**M02-04-01:** Detector test magnet.  
**M02-09-00:** Test magnet with telescoping handle.  
**XR2B:** Detector removal tool (*T55-127-000 included*).  
**XP-4:** Extension pole for XR2B (*5 to 15 ft/1.524 to 4.572 m*).  
**T55-127-000:** Detector removal head.  
**BCK-200B:** Black detector kit.

## Junction Box Selection Guide

Base Models	Single-Gang	3.5" Oct.	4.0" Oct.	4.0" Sq.	4.0" Sq. with 3.0" mud ring	50 mm	60 mm	70 mm	75 mm
B501	No	Yes	No	No	Yes	Yes	Yes	Yes	No
B710LP	Yes	Yes	Yes	Yes	Yes	No	No	No	No
B224RB	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes
B224BI	No	Yes	Yes	Yes	No	No	No	Yes	Yes
B501BH, B501BH-2	No	No	No	Yes	No	No	No	No	No
B501BHT, B501BHT-2	No	No	No	Yes	No	No	No	No	No

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

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