# Intelligent Bases
## Standard, Relay, Isolator, Sounder, and Low-Frequency Sounder Bases

®
**by Honeywell**

## 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 24 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. Low frequency sounder bases are UL listed for low frequency operation and comply with NFPA 72 requirements for sleeping spaces.

This datasheet discusses the following bases: B501(A), B200S(A), B200S-LF, B200SR(A), B200SR-LF, B210LP(A), B2241BI(A), B224RB(A), B200SCOA, mounting kits, and accessories.

## Specifications

**Diameter:**

- B501: 4.1" (104 mm).
- B224BI, B224RB, B210LP: 6.1" (155 mm).
- B200S, B200S-LF, B200SR, B200SR-LF, B200SCOA: 6.875" (17.46 cm).

**Wire gauge:**

- B224BI, B224RB: 14 to 24 AWG.
- B210LP, B501, B200S, B200S-LF, B200SR, B200SR-LF, B200SCOA: 12 to 24 AWG

**Temperature range:**

- B224BI, B224RB, B200S, B200S-LF, B200SR, B200SR-LF, B200SCOA: 32°F to 120°F (0°C to 49°C).
- B210LP, B501: -4°F to 150°F (-20°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).

**Flangeless Mounting Base
B501(A)**

**Flanged Mounting Base
B210LP(A)**

**Sounder Base
B200S(A), B200SR(A),
B200SCOA**

**Relay Base
B224RB(A)**

**Low-Frequency Sounder Base
B200S-LF, B200SR-LF**

## Electrical Ratings

*FOR B200S, B200S-LF, B200SR, B200SR-LF, B200SCOA:*

**External supply voltage:** 16 to 33 VDC (VFWR)

**Standby current:**

- B200S: 500 µA maximum.
- B200S-LF, 550 µA maximum.
- B200SR: 500 µA maximum.
- B200SR-LF: 1 mA maximum.

**Alarm current:**

- B200S: 35 mA maximum at high-volume setting; 15 mA maximum at low-volume setting.
- B200S-LF, High-volume setting:
  - 70 mA maximum @ 33.0 VDC.
  - 90 mA maximum @ 24.0 VDC.
  - 140 mA maximum @16.0 VDC.
- B200S-LF, Low-volume setting:
  - 15 mA maximum @ 33.0 VDC.
  - 20 mA maximum @ 24.0 VDC.
  - 25 mA maximum @ 16.0 VDC.
- B200SR: 35 mA maximum.
- B200SR-LF:
  - 65 mA maximum @ 33.0 VDC.

- **–** 90 mA maximum @ 24.0 VDC.
- **–** 125 mA maximum @16.0 VDC.
- B200SCOA: 40mA Max. (DC), 70mA Max. (FWR)

**SLC operating voltage:** 15 to 32 VDC.

**SLC standby current:** See applicable sensor specification.

**Sound output:**

- B200S/B200S-LF, high-volume*: Greater than 85 dBA minimum.
- B200S/B200S-LF, low-volume*: Greater than 75 dBA minimum.
- B200SR*/B200SR-LF*: Greater than 85 dBA minimum.
- B200SCOA, high-volume**: Greater than 87 dBA minimum.
- B200SCOA, low-volume**: Greater than 85 dBA minimum

*Measured in a UL reverberant room at 10 feet, 24 Volts (continuous tone)
**Measured in a ULC anechoic room at 10 feet, 24 Volts continuous tone)

### 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.

## Product Line Information

### INTELLIGENT BASES

**B501:** Flangeless mounting base.

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

**B501BP:** Bulk pack of B501 (10).

**B210LP:** Flanged mounting base.

**B210LPA:** Flanged mounting base, ULC listed

**B210LPBP:** Bulk pack of B210LP (10).

**B200S:** Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol. Only compatible with the NFS-320, NFS2-640 and NFS2-3030 operating version with version 15.0 or higher panel firmware.

**B200SA:** ULC-listed version of B200S.

**B200SCOA:** ULC-listed version of B200S with CO detector markings in English/French (required in Canada for ULC applications with FCO-851A).

**B200S-LF:** Low Frequency version of the B200S; produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200SR:** Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone.

**B200SRA:** ULC-listed version of B200SR.

**B200SR-LF:** Low Frequency version of the B200SR; produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B224RB:** Relay base.

**B224RBA:** Relay base, ULC Listed.

**B224BI:** Isolator base.

**B224BIA:** Isolator base, ULC Listed.

### MOUNTING KITS AND ACCESSORIES

**SMB600:** Surface mounting kit, flanged.

**F110:** Retrofit flange for converting high-profile bases to low-profile.

**F110BP:** Bulk pack of F110 (10).

**F210:** Accessory flange ring for B210LP(A) base (new design). 6-inch diameter.

**F210BP:** Bulk pack of F210 (10).

**RA100Z:** Remote LED annunciator.

**RA100ZA:** Remote LED annunciator, ULC Listed.

**M02-04-00:** Detector test magnet.

**M02-09-00:** Test magnet with telescoping handle.

**XR2B:** Detector removal tool for current heads *(T55-127-010 included)*.

**XR2:** Detector Remove Tool for use with low profile detector heads, and FSL-751.

**XP-4:** Extension pole for XR2/B *(5 to 15 ft/1.524 to 4.572 m)*.

**T55-127-010:** Detector removal head.

**BCK-200B:** Black detector kit, package of 10 (for use with photo and ion detectors).

**WCK-200B:** White detector kit, package of 10 (for use with photo and ion detectors).

## 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.

- **UL Listed:** S911, S1115.
- **ULC Listed:** S911, S1115.
- **FM Approved.**
- **MEA:** 22-95-E, 205-94-E Vol. 2; 257-06-E
- **CSFM:** 7300-1653:0126, 7135-1653:0213, 7300-1653:0109

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| B200S, B200S-LF, B200SR, B200SR-LF, B200SCOA | Yes | Yes | Yes | Yes | Yes | No | No | No | No |
| B501 | No | Yes | No | No | Yes | Yes | Yes | Yes | No |
| B210LP | 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 |

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

**ISO 9001**
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QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
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For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
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