



ARB-6

ANALOG RELAY DETECTOR BASE



P/N 99231



Features

- Two form C relays as part of the base assembly
- Works independent of the sensors attached
- May be mapped to any device connected to the Control Panel
- LED to indicate that the unit is active
- Separation included in the base for high and low voltage and power limited/non-power limited connections
- Maximum standby current 250 μ A
- Maximum alarm current 50 mA (aux power)
- For JFS-A Series control panels or JFS-IP Series control panels using Nohmi protocol

Description

The Addressable Relay Base 6" (ARB-6) is combination sensor base with a relay module included. The base has a locking feature for the sensor that may be used or removed in the field. Once the head is removed, the relay is accessible in the bottom of the unit.

The relay module is a uniquely addressed module that provides two form C contacts. The first relay is rated at 8 amps at 30 VDC or 240VAC. The second relay is rated at 2 amps at 30 VDC or 240 VAC. The ARB-6 has a divider providing means for separation of high voltage and non-power limited connections from the power limited, regulated Signaling Line Circuit (SLC).

The ARB-6 is designed that once activated, both relays change position. The activation of the unit is identified by a LED on the unit latching red. The unit is reset when the panel is reset. The panel will support any combination of sensors or modules on the SLC. The ARB-6 occupies one address on the loop.

Detector Base Mounting

ARB-6 should be mounted directly on the electrical box. The mounting holes are configured for a single gang, double gang, octagon or 4" square box.

Setting the Address

Each addressable module, smoke sensor, heat detector and combination sensor/detector must have the address set before connecting the device to the SLC loop. The address is set using the hand held device programmer or the addressing feature on the control panel.

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to SLC or device. Verify the following:

1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

Document discrepancies and notify appropriate personnel.

Specifications			
Working voltage range for SLC	22.0 to 24.0 V	Installation temperature range ⁽²⁾	32 to 120°F (0 to 49°C)
Standby current for SLC ⁽¹⁾	250 µA	Operating relative humidity range	0% to 93% (Non-condensing)
Working voltage range for 24V (device requires Aux Power)	19.0 to 28.0 V	Maximum number of addresses per zone	127
Active current for 24V (including indicator)	50 mA DC	Maximum number of lighted indicators in alarm per zone	Unlimited
Active indicator	1 LED (yellow)	Color	Eggshell White
Contact output style	2 form C (NC / COM / NO)	Dimensions (without detector)	Height: 2.13 in (54.4 mm)
Contact rating	NO1/C1/NC1...8A / 240VAC, 8A / 30VDC NO2/C2/NC2...2A / 240VAC, 2A / 30VDC		Diameter: 6.0 inches (150 mm)

(1) The standby current is the current that the device consumes when the device is in a non-activated condition and where no communication current is transmitted to the fire alarm control panel.

(2) FHA with ARB-6 can be installed under 120°F. (Installation temperature range of ARB-6 is 32 to 120°F.)

Field Wiring Diagram

Typical field wiring diagrams for the Signaling Line Circuit (SLC) are shown in Figure 1. The SLC supports NFPA wiring Styles 4, 6 and 7.

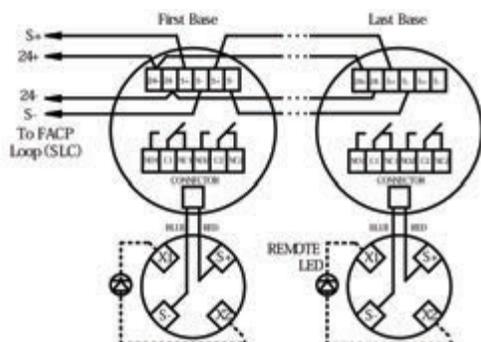


Figure 1: Typical Field Wiring

Figure 1 is typical of NFPA Style 4 SLC (S+, S-) wiring arrangement using the ARB. In a Style 6 arrangement two separate conductors would return from the last base to a listed compatible fire alarm control panel (FACP).

In Style 7, it is required to use Potter-Nohmi's AIBs (Addressable Isolator Bases) and typical field diagram is in the AIB manual.



Locking Feature

The ARB-6 includes a locking feature that prevents removal of the detector and removal of the base cover without using a tool.

1. To eliminate this feature, break off the locking tab (refer to Figure 2), and then install the detector.
2. To remove the detector from the base once the locking feature has been activated, insert a small screwdriver into the slot on the base to push the plastic tab while simultaneously turning the detector head counter-clockwise (refer to Figure 3).
3. To remove the base cover from the lower enclosure once the locking feature has been activated, insert a small screwdriver into the slot on the on the base to push the plastic tab while simultaneously turning the detector head counter-clockwise (refer to Figure 4).

Break the plastic tab by twisting it toward a center of the base

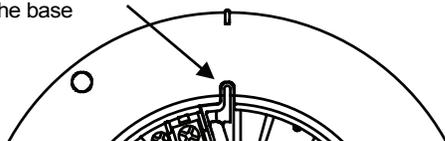


Figure 2: Eliminating the Locking Feature

Use a small bladed screwdriver to push the locking tab

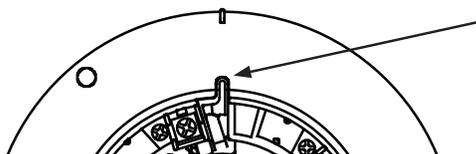


Figure 3: Removing Detector Head from Base

Plastic Tab

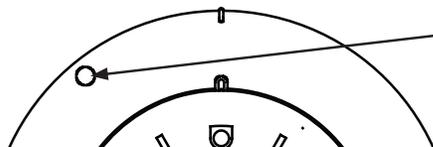


Figure 4: Removing Base Cover from Lower Enclosure

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Ordering Information

Model Number	Description	P/N
ARB-6	6" Analog Relay Base	99231

Note: Approvals/Listings maintained by and manufactured by Potter Electric Signal Company.

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