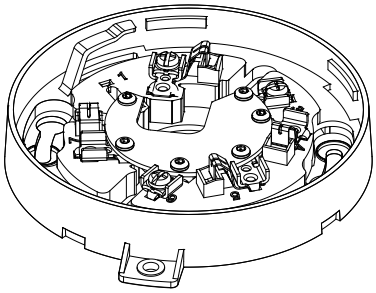
Signature Detector 4-inch Isolator Base Installation Sheet



Description

The Signature Detector 4-inch Isolator Base is used to mount Signature detectors on 4-inch square boxes connected to a signaling line circuit (SLC). It has a built-in line fault isolator to prevent wire-to-wire shorts from taking down the entire SLC. It does not operate without a detector and does not provide connections to a SIGA-LED. The base ships with a matching trim skirt.

Table 1: Models

Model	Description
SIGA-IB4	Isolator base, white
SIGA-IB4B	Isolator base, black

The isolator operates as follows: A short on the line causes all isolators to open within 23 ms; at 10 ms intervals, beginning on the side of the Class A circuit nearest the loop controller, the isolators close to provide the next isolator down the line with power; when the isolator next to the short closes, it reopens within 10 ms. The process repeats beginning on the other side of the loop controller.

Installation

Caution: Risk of equipment damage. To prevent damage to the base, do not overtighten the base mounting screws or wire terminal screws. Refer to “Specifications” on page 2 for torque values.

Refer to Technical Bulletin P/N 270145 for location and spacing requirements.

To install the detector base:

1. Mount the detector base on a compatible electrical box using the screws provided with the electrical box.
2. Wire the base as shown in the “Wiring” section.
3. Write the address assigned to the detector on the label provided and apply the label to the inside rim of the base.
4. Install the trim skirt to finish the installation.

Wiring

Caution: Risk of system failure. Electrical supervision requires that the wire run be broken at each terminal. Do not loop the field wires around the terminals.

Notes

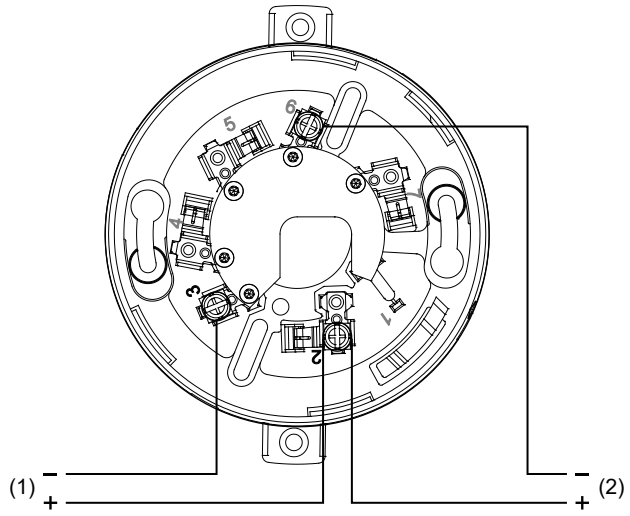
- Shielded wire is required only in environments with very high electrical noise.
- Shields, if used, must be continuous and insulated from ground.

To wire the detector base:

1. Wire the detector base as shown in Figure 1.

   Break the wire run at each terminal. Do not loop the signaling line circuit field wires around the terminals.
2. Insulate the shield with electrical tape.

Figure 1: Wiring the detector base



(1) SLC IN (from previous device)
(2) SLC OUT (to next device)

Table 2: Base terminals

Number	Description
1	Not used
2	SLC IN / OUT +
3	SLC IN −
4	Not used

Number	Description
5	Not used
6	SLC OUT −
7	Not used

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Specifications

Circuit resistance between isolators	6 Ω max.
Wire size	12 to 18 AWG (1.0 to 4.0 mm²) Sizes 16 and 18 AWG are preferred
Screw torque	
Base mounting	18 lbf-in (2.0 N·m) max.
Terminal	12 lbf-in (1.4 N·m) max.
Housing	
SIGA-IB4	High impact engineering polymer, white
SIGA-IB4B	High impact engineering polymer, black
Compatible detectors	Signature Series detectors
Trim skirts	SIGA-TS, SIGA-TSB, SIGA-TS4, TS4B
Compatible electrical boxes	North American single-gang box Octagon box 3-1/2 in. (89 mm) by 1-1/2 in. (38 mm) deep Octagon box 4 in. (102 mm) by 1-1/2 in. (38 mm) deep European single-gang box 75 mm with 60.3 mm fixing centers BESA box with 60.3 mm fixing centers Square box 4 in. (102 mm) by 1-1/2 in. (38 mm) deep (using the outer mounting lugs on the base)
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing

Regulatory information

Manufacturer	Edwards, A Division of UTC Fire & Security Americas Corporation, Inc. 8985 Town Center Parkway, Bradenton, FL 34202, USA EU authorized manufacturing representative: UTC Fire & Security B.V. Kelvinstraat 7, 6003 DH Weert, Netherlands
Last two digits of year CE mark was first placed:	18
EU compliance	CE
CPR certificates	2831-CPR-F2232

EN 54-17 ratings

V max	19.95 VDC	IC max	0.147 A to 0.149 A
V nom	19.0 VDC	IL max	0.1 mA
V min	15.2 VDC	IS max	0.75 A
Vso max	17.64 VDC	ZC max	400 mΩ
Vso min	17.57 VDC		
Vsc max	17.80 VDC		
Vsc min	17.59 VDC		

European Union directives	1999/5/EC (R&TTE directive): Hereby, UTC Fire & Security declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

Contact information

For contact information see our website: www.edwardsfiresafety.com.

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