

# B501BI-W ISOLATOR BASE

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**SPECIFICATIONS**

Model Number:	B501BI-W
Height:	20.3 mm
Diameter:	102.0 mm
Weight:	44 g
Operating Temperature Range:	-10°C ~ 55°C
Relative Humidity:	10% ~ 93% RH, Non-condensing
Operating Voltage Range:	15 ~ 32VDC
Standby Current:	< 150µA
Maximum Current Draw:	17mA (device in isolation)
Maximum Load Current:	1A
Maximum ON Resistance (24V)	60m Ω
Maximum ON Resistance (15V)	70m Ω
Standard:	AS ISO 7240.17:2015
Type:	A

**BEFORE INSTALLING**

Please read the System Smoke Detectors Application Guide, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications. Copies of this application guide are available from System Sensor. Before installing and using the product, please read the system wiring and installation manual thoroughly. If the products will be installed in an existing operational system, inform the operator and local authority that the system will be temporarily out of service, disconnect power to the control panel before installing the products.

This isolator base must be installed in compliance with the control panel installation manual and meet the requirements of the authority having jurisdiction. The installer must be familiar with these requirements, with local codes, and any special requirements of the authority having jurisdiction.

**NOTICE:** This manual should be left with the owner/user of this equipment.

**GENERAL DESCRIPTION**

There is an automatic switch in the product that opens when the line voltage drops below 4 volts. It is used to isolate the detector which is connected in the communication line. In the event of a short circuit condition on the communication line in the detector, the isolator base will open its switch and disconnect the detector from the communication line. When the short condition is removed and the line voltage rises above 7 volts, the isolator base will detect the removal of the fault condition and automatically reconnect the isolated detector. Refer to Figure 1.



Remove power from initiating-device circuits before installing the isolator base.

**MOUNTING**

Mount the detector base directly to a 4-inch square with plaster ring, or a 3.5-inch octagon box. Mounting hole spacing is 50mm, 60mm and 70mm, symmetrical center.

**WIRING INSTALLATION GUIDELINES**

The B501BI-W isolator base is intended to use in an Intelligent System, There are five terminal blocks on the base (Refer to Figure 1).

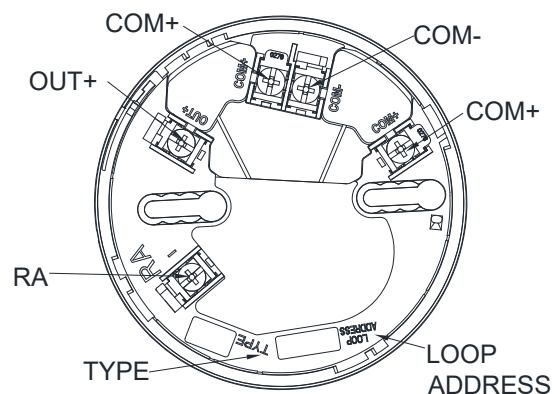
- 'COM+' = Positive power supply input / output
- 'COM-' = Negative power supply input / output / Negative remote annunciator output
- 'OUT+' = Positive power supply output
- 'RA' = Positive remote annunciator output

For signal wiring (the wiring between interconnected detectors and modules), it is recommended that the wiring be no smaller than 18 AWG (0.823 square mm). Wire sizes up to 12 AWG (3.31 square mm) may be used with the base.

**Note:** Refer circuit wiring diagram Figure 2.

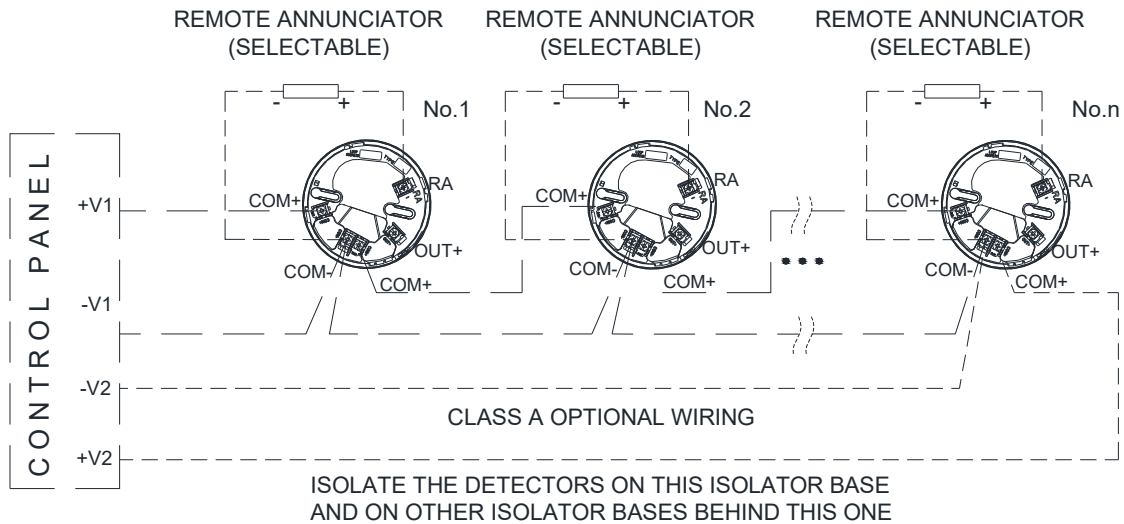
**Note:** Please dispose electronic waste following national or local regulations after being scrapped or replaced. Do not discard.

**FIGURE 1. APPEARANCE**



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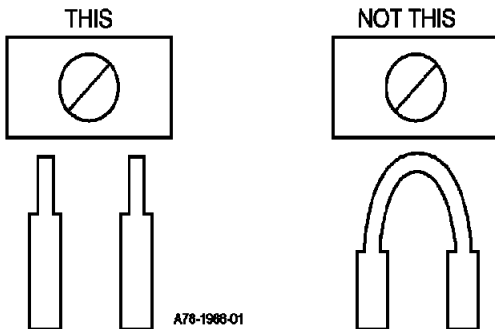
**FIGURE 2. WIRING DIAGRAM**



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FOR SYSTEM MONITORING – FOR TERMINALS COM+ AND COM-, DO NOT USE LOOPED WIRE UNDER TERMINALS. BREAK WIRE RUN TO PROVIDE MONITORING OF CONNECTIONS.

**FIGURE 3.**



**THREE-YEAR LIMITED WARRANTY**

Xi'an System Sensor Electronics Ltd. warrants its enclosed isolator base to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. Xi'an System Sensor Electronics Ltd. makes no other express warranty for this isolator base. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the isolator base which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning Xi'an System Sensor for a Return Authorization Number and faxing a copy of the filled form of CUSTOMER RETURNS with

authorized RA# to Xi'an System Sensor Electronics Ltd. send defective units with a copy of the form postage prepaid to: Xi'an System Sensor Electronics, Ltd./ 28 Tuan Jie South Road/ Xi'an National Hi-tech Industrial Development Zone, 710075/ China. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault.