

Section: Fire Detection series

Version:A

#### General

**B501-WP** base is intended for use in an Intelligent System Sensor with screw terminals provided for power (+) and (-), and remote annunciator connections. The communication takes place over the power (+) and (-) lines.

**B401-WP** plug-in detector base is used with smoke and heat detector heads. The capability of plugging these detectors into a variety of special bases makes them more versatile than equivalent direct-wired models.

The B401-WP base is intended for use in 2-wire systems with screw terminals provided for power and remote annunciator connections.

# Specification

#### B501-WP

Base Diameter:	104 mm (4.0 inches)	
Base Height:	20 mm (0.8 inches)	
Weight:	65 g (0.14 lb.)	
Mounting:	50 mm, 60 mm, and 70 mm centers	
IP Rate:	IP 54	
Temperature:	-10°C to +50°C (14°F to 122°F)	
Relative Humidity: 10% to 95% RH		
Electrical Ratings — includes base and		
detector		
System Voltage:	15 to 32 VDC	
Standby Current	: 150µA at 24 VDC	
Start-up impact	: 1.5 mA Max per second	
LED Current:	6mA at 24 VDC	
B401-WP		
Base Diameter:	103 mm (4.0 inches)	
Base Height:	20 mm (0.8 inches)	
Weight:	69 g (0.15 lb.)	
Mounting:	50 mm box, 60 mm box	
IP Rate:	IP 54	
Temperature:	$-10^{\circ}\mathrm{C}$ to $+50^{\circ}\mathrm{C}$ (14°F to 122°F)	
Relative Humidity: 10% to 95% RH		

Electrical Ratings — includes base and detector

	Base and Smoke	Base and Heat
	Detector	Detector
System Voltage:	12/24 VDC	24VDC
Max. Ripple	4 V peak to peak	4 V peak to peak
Voltage:		
Start-up	0.02 µ F max.	0.02 µ F max.
Capacitance:		
Standby Ratings:	8.5 VDC min.	15 VDC min.
	35 VDC max.	35 VDC max
	120 µ A max.	100 µ A max
Alarm ratings:	4.2 VDC min. at	4.2 VDC min. at
	10 mA	10 mA
	6.6 VDC max at	6.6 VDC max at
	100 mA	100 mA
Reset Voltage:	2.5 VDC min.	2.5 VDC min.
Reset Time:	0.3 s max.	0.3 s max.

## Installation B501–WP

All wiring must be installed in compliance with the National Electrical Code and the local codes having jurisdiction. Proper wire gauges should be used. The conductors used to connect smoke detectors to control panels and accessory devices should be color-coded to reduce the likelihood of wiring errors. Improper connections can prevent a system from responding properly in the event of a fire. For signal wiring (the wiring between interconnected detectors), it is recommended that the wire be no smaller than 1.0 square mm. Wire sizes up to 2.5 square mm may be used with the base. For best system performance, the power (+) and (-) loop wires should be twisted pair and installed in separate grounded conduit to protect the loop from extraneous electrical interference.

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Smoke detectors and alarm system control panels have specifications for allowable loop resistance. Consult the control panel manufacturer's specifications for the total loop resistance allowed for the particular model control panel being used before wiring the detector loops.



#### B401-WP

All wiring must be installed in compliance with applicable codes and the authority having jurisdiction. Proper wire gauges should be used. The conductors used to connect smoke detectors

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to control panels and accessory devices should be color-coded to reduce the likelihood of wiring errors.

Improper connections can prevent a system from responding properly in the event of a fire. For signal wiring (the wiring hetween interconnected detectors). It is recommended that the wire be no smaller than 18 gauge. Wire sizes up to 12 gauge may be used with the base. For best system performance, the power (+) and (-) loop wires should be twisted pair and installed in separate grounded conduit to protect the loop from extraneous electrical interference. Smoke detectors and alarm system control panels have specifications for allowable loop resistance. Consult the control panel manufacturer's specifications for the total loop resistance allowed for the control panel being used before wiring the detector loops.

Shorting Spring







## Wiring Instructions



(1) Penetrate the hole with screwdriver

(2) wire through the hole (each hole for one wire)

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