

SERIES 300 CONVENTIONAL RELAY BASES



FEATURES:

- **Accepts Series 300 range of detectors**
- **12V Non-Latching, 12V and 24V Latching versions**
- **Compatible with fire & security systems**
- **Tamper resistant feature**
- **Detector removal indication (2 wire system)**
- **Remote LED option**
- **Extended warranty**

DESCRIPTION:

The Series 300 range of relay bases are part of System Sensor's Series 300 range of conventional detectors. Series 300 is a family of conventional fire detectors designed using the latest manufacturing technology and incorporates an array of advanced features, enabling them to "act conventionally, think intelligently".

The range consists of 12V non-latching, 12V latching and 24V latching versions to suit an array of fire and security applications. All bases are fitted with a shorting spring to permit circuit testing prior to fitting the detector and circuit continuity when a detector is removed during normal system operation. There is also a tamper resistant feature, which when activated prevents the removal of the detector without the use of a tool.

Before determining which relay base to use, please consult the control equipment supplier to ensure product compatibility.

B312NL (12V Non-Latching)

The B312NL has been designed to provide interfacing between a Series 300 detector and 12V security control panels that do not provide a reset facility, as the relay base is self-resetting. Therefore, the relay base will automatically reset the Series 300 detector when a fire alarm condition no longer exists. While the detector is in alarm the LED will be on, although it will flash when an alarm check is performed. This base is also ideal for control of any electrical apparatus such as air conditioning systems or apparatus utilising a 12V power supply instead of a control panel.

B312RL (12V Latching)

The B312RL has been designed to provide interfacing between a Series 300 detector and a 12V fire system or security system that require an external contact to activate an ancillary piece of equipment. The relay is controlled directly from the detector. Therefore, in an alarm condition both the detector and relay base will latch into alarm, and can only be reset by removing the supply voltage from the detector. The base can be used with 4 wire security systems that have a reset facility.

B324RL (24V Latching)

The B324RL has been designed to provide interfacing between a Series 300 detector and 24V fire control panels or power supplies that require an external contact to activate an ancillary piece of equipment. The relay is controlled directly from the detector. Therefore, in an alarm condition both the detector and relay base will latch into alarm, and can only be reset by removing the supply voltage from the detector. A break off tab allows the base to be connected to a range of fire control panels. This tab should be broken when there is little current flow or no current limiting resistor such as when used as a stand-alone system powered by a 24V supply.

All System Sensor products are covered by our extended 3 year warranty.



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SERIES 300 CONVENTIONAL RELAY BASES

SPECIFICATION:

Start-up Time:	24s Maximum (based on 2351TEM)
Remote LED output Voltage:	4.0V
Remote LED output Current:	8mA
Relay Contact Type:	Form C (changeover contacts)
Relay Contact Ratings:	1.0A @ 30VDC resistive

Electrical	B312RL	B312NL	B324RL
Operating Voltage	8.5 to 32VDC *	8.5 to 15VDC *	8.5 to 32VDC**
Alarm Voltage (Maximum)	15VDC	15VDC	15VDC
Typical Standby Current	1 μ A***	20 μ A***	1 μ A***
Maximum Permissible Alarm Current	51mA	41mA	25mA
Relay Contact Resistance	100m Ω	100m Ω	100m Ω

* Nominal 12VDC (alarm voltage must be respected)

** Nominal 24VDC (alarm voltage must be respected using break-off tab if necessary)

*** Does not include detector current

Environmental

Operating Temperature Range	-20°C to +70°C
Humidity	0 to 93% Relative Humidity (non-condensing)

Mechanical

Height	29mm
Diameter	127mm
Weight	96g
Base terminal cable size:	2.5mm ² Maximum
Relay terminal block cable size:	1.5mm ² Maximum (solid) 1mm ² Maximum (stranded)
Colour	Pantone, warm grey 1C
Material	Bayblend FR110

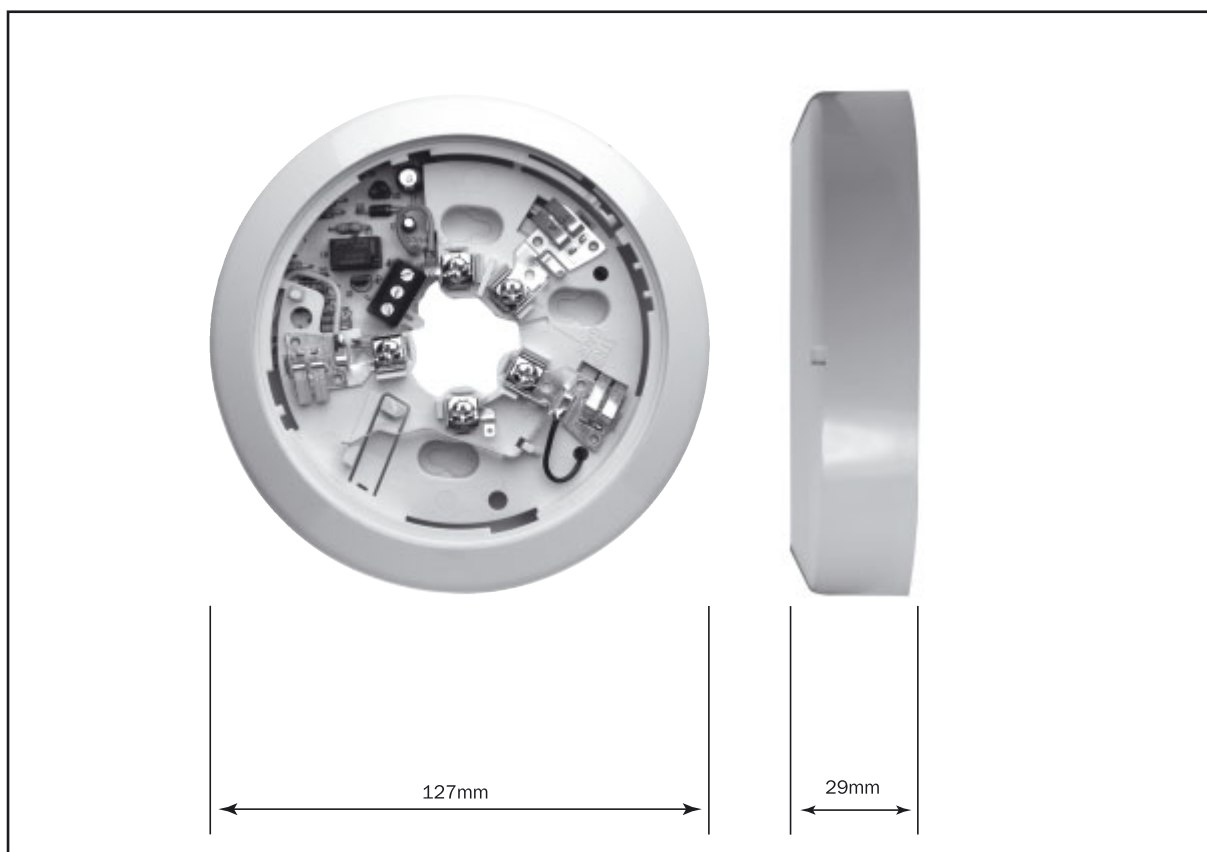
Base Compatibility Table

Nominal Panel Voltage	System Type	Panel Reset Facility	Panel Resistance	Suitable Base
12V	4 wire	No reset	N/A	B312NL
12V	4 wire	Reset	N/A	B312RL
24V	4 wire	Reset	<160 Ω	B324RL (tab broken)
24V	2 wire	Reset	>470 Ω	B312RL
24V	2 wire	Reset	>160 Ω to <470 Ω	B324RL
24V	2 wire	Reset	<160 Ω	B324RL (tab broken)

PRODUCT RANGE

Detectors	2351TEM photo-thermal 2351E photoelectric 4351E fixed temperature 78°C 5351E rate of rise and fixed temperature 58°C
Bases (See Note)	B401 Standard Base B401SD Standard base with Schottky diode B401R Resistor base with 470 Ohm resistor B401RSD Standard base with 470 Ohm resistor and Shottky diode B401RM Standard recess base with 470 Ohm resistor B401DG Deep base B401DGR Deep base with 470 Ohm resistor B401DGSD Deep base with Shottky diode B312NL 12V non-latching relay base B312RL 12V latching relay base B324RL 24V latching relay base
Accessories	S300RPTU Remote Programming and Test Unit S300RTU Remote Test Unit S300SAT Remote Programming Interface Unit S300ZDU Zonal Display Unit

Note: Bases with other resistor values are available to suit the requirements of most Fire Alarm Control Panels.



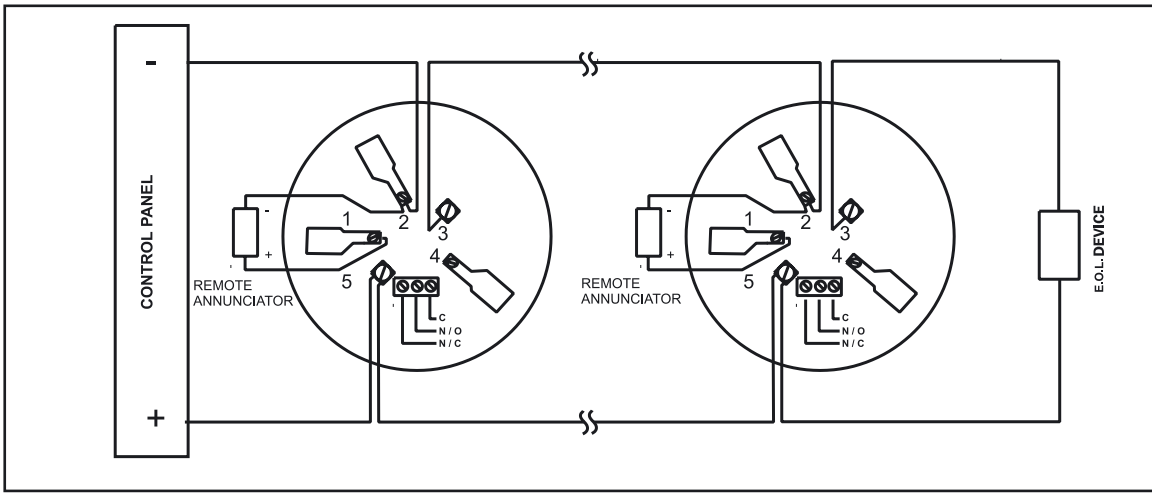
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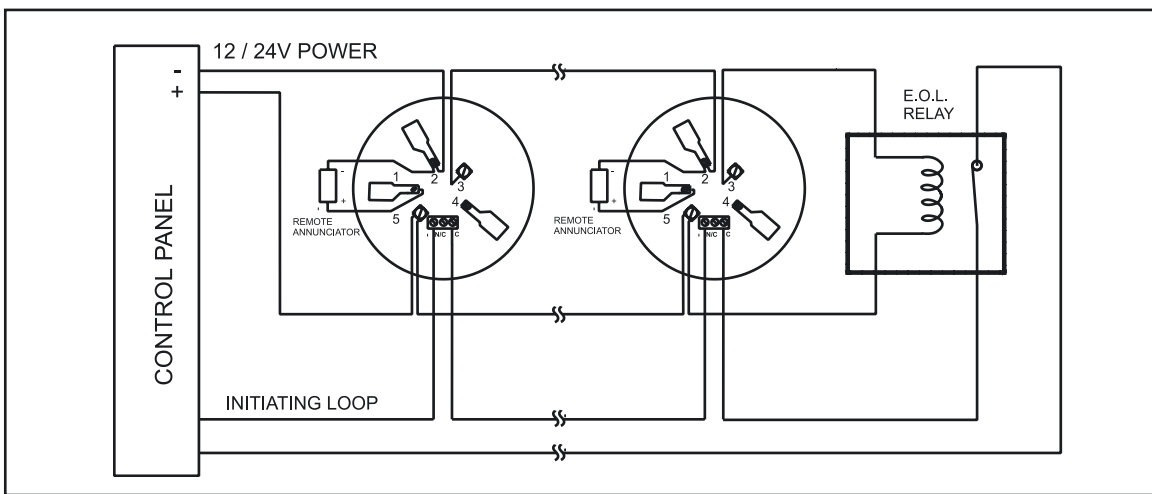
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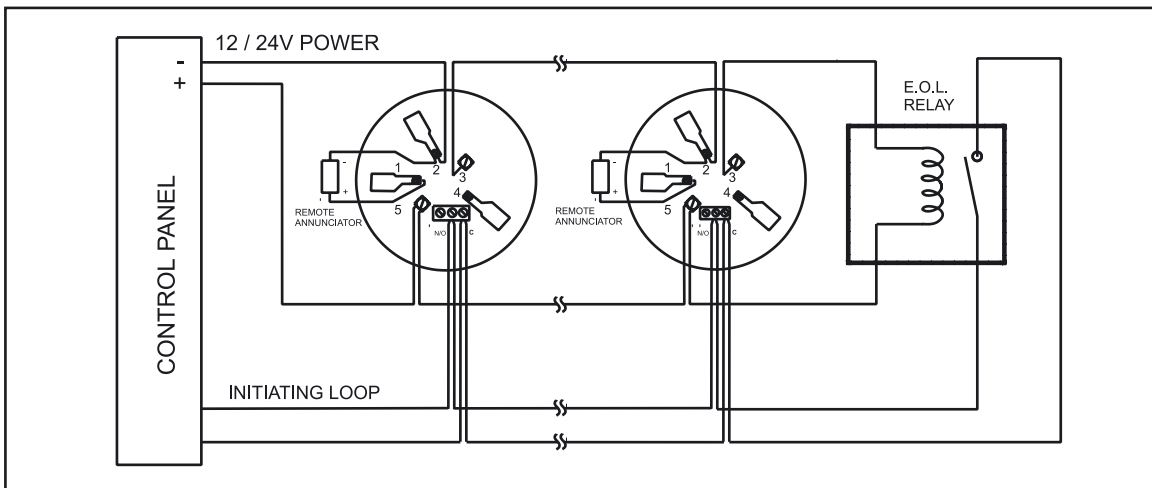




Typical 2-wire system using B312RL / B324RL Relay Base.



Typical 4-wire Security System with normally closed contacts using B312NL / B312RL Relay Base.
Note: Contact is normally closed when power is supplied.



Typical 4-wire Fire System with normally open contacts using B312RL / B324RL Relay Base.
Note: Contact is normally open when power is supplied. Loss of power to bases/detectors will cause an alarm condition.