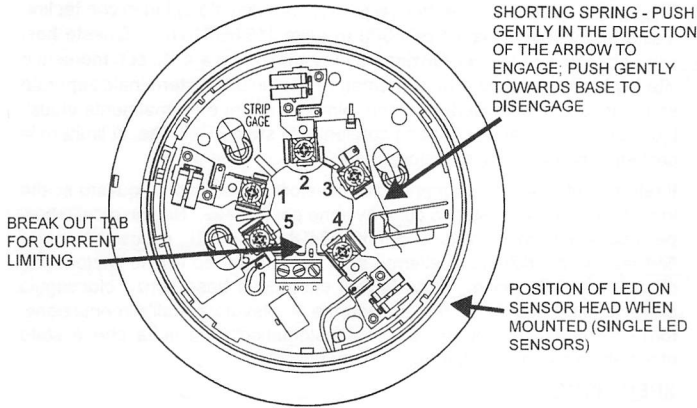


INSTALLATION INSTRUCTIONS FOR 300 SERIES SENSOR RELAY BASES

Figure 1: Terminal Layout



GENERAL DESCRIPTION

These plug-in Sensor relay bases are for use with System Sensor 300 Series sensor heads (can also be used with obsolete 1151E/2151E sensors). They are designed to operate in both 2 and 4-wire systems, with screw terminals provided for power connections. Normally open and normally closed relay contacts are provided on a separate terminal block. The circuit built into the base provides current limiting to the sensor in the alarm state.

The relay is controlled directly from the sensor, therefore as the sensor is latched in alarm, so will be the base. For the B324RL and B312RL latching relay bases, the alarm condition can only be terminated by removal of the supply to the sensor and base. The B312NL Non-latching base periodically isolates the sensor from the supply, hence providing an "automatic reset" once the alarm stimulus has cleared.

SPECIFICATIONS

- Base diameter: 127mm
- Base height: 29mm (excluding sensor)
- Weight: 96g (excluding sensor)
- Base fixing centres: 60mm
- Operating temperature range: -20°C to 70°C
- Operating humidity range: 0 to 93% Relative Humidity (Non-condensing)

NOTE: In order to prevent possible nuisance alarms due to shock or vibration, any devices connected to the B312RL base must not signal an alarm until the relay base contacts have switched for a period greater than 500mS.

MOUNTING

The sensor base should be mounted using pan head screws, with a maximum thread diameter of 4mm, and maximum head diameter of 8mm. If required, suitable junction boxes may be used.

Sensor LED Position

If a single LED sensor is used, when mounted in the base the position of its indicator LED will coincide with terminal 4 on the base.

WIRING

All wiring must be installed in compliance with applicable local codes and standards, and the authority having jurisdiction.

See figure 2a if the base is to trigger an auxiliary device on a 2-wire system, or figure 2b for connection to a 4-wire system.

The base terminals are designed to accept cables between 0.5mm² and 2.5mm², however reference should be made to the panel specifications for acceptable cable resistance and capacitance. The NO/NC terminals can accept multi core cables up to 1mm² or single core up to 1.5mm²

Note: Do not loop the wire under the terminals - to ensure supervision of contacts, the wire run must be broken.

To permit continuity testing of the wiring circuit prior to installation of the sensor heads, the base contains a shorting spring which acts to connect terminals 2 (negative in) and 3 (negative out) - see figure 1. To activate, gently push the spring toward the centre of the sensor until it clips into place. The short will automatically disengage when the sensor is installed.

BREAKOUT TAB OPTION (B324RL ONLY)

See figure 1: When power to the B324RL is provided by a power supply greater than 15V, without current limiting to 25mA or less in alarm, the tab on the PCB should be broken using a suitable tool such as a pair of thin nose pliers, otherwise damage may occur to the base and sensor.

Note: If in doubt, refer to the control panel manufacturer. **Once broken the tab cannot be reset!**

Tamper Resist Feature

The base includes a feature which, when activated, prevents removal of the sensor without a tool - see figures 3a and 3b.

Figure 2a: 2-Wire System Auxiliary Device Wiring

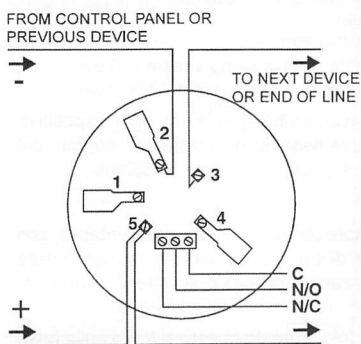


TABLE 1: WIRING CONNECTIONS	
Terminal No.	Function
BASE TERMINALS	
1	DO NOT USE
2	Supply In -
3	Supply Out -
4	DO NOT USE
5	Supply In and Out +
RELAY CONTACTS	
TB1	Normally Open
TB2	Normally Closed
TB3	Common

Figure 2b: Typical 4-Wire System Connections

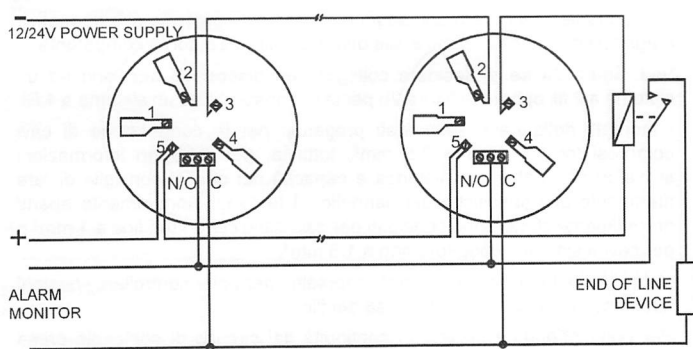


Figure 3a: Tamper Resist Activation

REMOVE TAMPER RESIST 'SNAP OFF' TAB ON END OF PLASTIC ARM TO ENABLE LOCKING OF SENSOR.

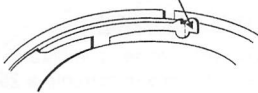


Figure 3b: To Remove a Locked Sensor

USE A SMALL SCREWDRIVER TO BREAK THE INSET SECTION, AND GENTLY PUSH THE PLASTIC LEVER IN THE DIRECTION OF THE ARROW



TABLE 2: ELECTRICAL RATINGS

	B324RL	B312NL	B312RL
Supply voltage dc	10.5 to 32V *	10-15V	10-15V
Standby Current	1µA	20µA	1µA
Contact activation time after detector alarm	100ms	100ms	100ms
Contact reset time after detector unlatch	100ms	100ms	100ms
Contact resistance	100mΩ	100mΩ	100mΩ
Contact rating dc	1A	1A	1A

*Important - when a B324RL is to be used refer to the Breakout Tab Option paragraph.

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