

992829-01.cdr

## Description

The A50E-2 Line Relay Unit, is an addressable device used to provide one Form "C" change over dry relay contact to control external appliances (door closers, fans, dampers, etc.) or equipment shutdown. The system firmware ensures that the relay is in the proper ON/OFF state. Upon command from the control panel, the relay energizes. TB2-6 and TB2-7 provide a normally-closed relay connection; TB2-7 and TB2-8 provide a normally-open relay connection. One device address is required.

Up to 127 devices can be assigned to the loop. All devices incorporate a binary DIP switch enabling them to be given a unique address.

A red LED indicator illuminates when the unit has activated.

The A50E-2 Line Relay Unit can be mounted in a North American 2-1/2" (64 mm) deep 2-gang box, or standard 4" square box 1-1/2" (38 mm) deep, or European 100mm square box. The terminal blocks will accept #14, 16, or 18 AWG wire (1.5 mm<sup>2</sup>, 1.0 mm<sup>2</sup>, 0.75 mm<sup>2</sup>). Sizes #16 and #18 are preferred.

## Specification

Application:	Indoor use
Temp range:	-10°C to +75°C
Humidity range:	20% to 95% RH (non condensating)
Indication:	LED (red) flashing on activation
Operating voltage:	20 volt pulsed analogue loop (19.5V to 20.5V). Max line drop 4V

Standby current: 600  $\mu$ A

Alarm current: 700  $\mu$ A

Relay contact rating:

### DC

Max Voltage : 30VDC

Current : 1 Amp

### AC

Max Voltage : 40 V

Current : 0.30 Amp

Power factor resistive load : 1

Power factor inductive load (L/R = 7mS) : 0.4

## WARNING:

- This module has been designed to comply with PR EN54-18 Standard. The operation of the device may be impaired if used in conditions or circumstances, which do not comply with those tested for and allowed in the PR EN54-18 Standard. The supplier will not be liable for any injury suffered or damage which may arise if the module is used in conditions or circumstances which do not comply with those tested for and allowed in the PR EN54-18 Standard. You must contact our technical support division for advice if the device is to be used in conditions, which differ from those prescribed in the PR EN54-18 Standard.
- This module will NOT operate without electrical power. As fires frequently cause power interruption, we suggest you discuss further safeguards with your local fire protection specialist.
- Dangerous voltages may be present at terminals even when power is shut off!!

## Installation Instructions

1. The A50E-2 Line Relay Unit is shipped from the factory as an assembled unit; it contains no user-serviceable parts and should NOT be disassembled.
2. Verify that all field wiring is free of opens, shorts, and ground faults.
3. Make all wiring connections as shown in the wiring diagram.

## NOTE:

- If a 2" (51 mm) 1-gang box is used, conduit can enter the electrical box through ONLY ONE knock out hole.

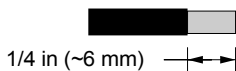
- If a 2-1/2" (64 mm) 1-gang box is used, conduit can enter the electrical box through ONE or BOTH knock-out holes.
- Wire in accordance with NFPA70-1996, National Electrical Code Article 760, Section 760-54(a)(1), Exceptions No. 2 and 3, or to equivalent local wiring codes.

## Mounting

Mounting options include:

1. A din rail method for mounting multiple/single units.
2. Adaptor plates for accessory box mounting
3. Single box mounting options

## Wiring Stripping Guide



Strip 1/4 in (about 6 mm) from the ends of ALL wires that connect to the terminal block of the module.

**CAUTION:** Exposing more wire may cause a short, which may cause a ground fault. Exposing less wire may result in a faulty connection.

## Wiring Diagram

### Setting the address

The A50E-2 Line Relay Unit, contains a 7 way DIP switch. The switch is used to set the device address in binary code. The switch may be set to represent all addresses from 1 to 127.

A switch only represents its coded value position. In the OFF position it represents a zero. See table below.

Switch no.	1	2	3	4	5	6	7
Coded value	1	2	4	8	16	32	64

To arrive at the address number of a device, add the representative numbers of all switches which are in the ON position: for example switches 2, 3 and 6 set to ON will represent address 38 (2 + 4 + 32).

