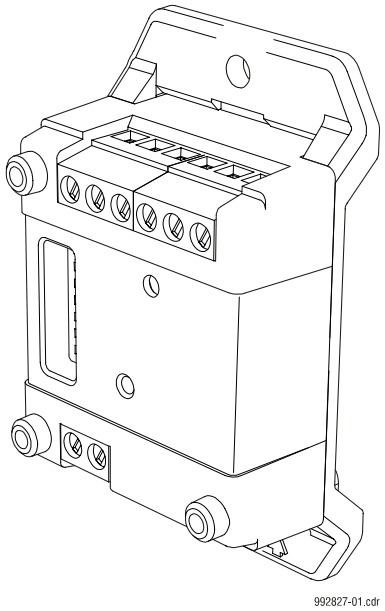


Description

The A45E-2 Single Interface Module, is an analog addressable device used to connect a monitored contact to a Loop Controller. One device address is required.

The module is designed to accept inputs from equipment providing normally open outputs and monitors circuit wiring for both open circuit and closed circuit faults. The A45E-2 Single Interface Module may be used for Alarm, Supervisory, or Monitor type applications.

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 module has activated.

The A45E-2 Single Interface Module can be mounted in a North American 2-1/2" (64 mm) deep 1-gang box, or standard 4" square box 1-1/2" (38 mm) deep with 1-gang cover. The terminal blocks will accept #14, 16, or 18 AWG wire (1.5 mm^2, 1.0 mm^2, 0.75 mm^2). 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 µA
Alarm current:	700 µA
EOLR value:	3K9

Wire Size	Max. Distance to EOLR
#18 AWG (0.75 mm^2)	3,930' (1,198m)
#16 AWG (1.0 mm^2)	6,225' (1,897m)
#14 AWG (1.5 mm^2)	9,900' (3,018m)

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.

Installation Instructions

1. The A45E-2 Single Interface Module is shipped from the factory as an assembled module; 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.

NOTES:

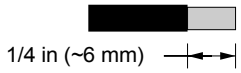
- If a 2" (51 mm) 1-gang box is used, conduit can enter the electrical box through ONLY ONE knock-out hole.
- If a 2-1/2" (64 mm) 1-gang box is used, conduit can enter the electrical box through ONE or BOTH knock-out holes.
- Wire in accordance with NFPA70-1996, National Electrical Code Article 760, 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 modules.
2. Adaptor plates for accessory box mounting
3. Single box mounting options

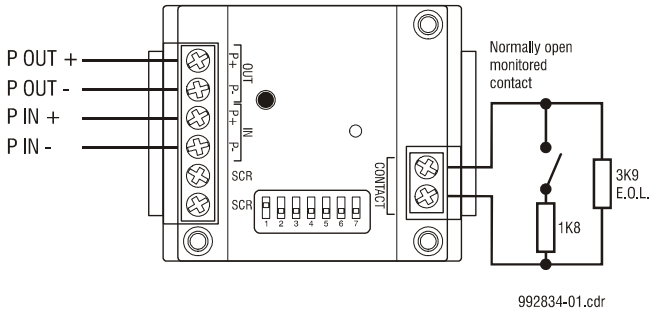
Wiring Stripping Guide



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



For connection to a Normally Open Contact with wiring monitored as follows:

Contact open:	Normal
Contact closed:	Alarm
Wiring open:	Fault
Wiring shorted:	Fault
E.O.L. resistor:	3900 ohms
Series resistor:	1800 ohms

Setting the address

The Single Interface Module, 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 any 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).