

# Instruction Manual

## VDOT-SCI Short Circuit Isolator Module

### Before Installation

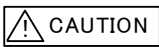
Please read these instructions carefully and keep for future reference.  
The information in this document is subject to change without notice.  
For updates please refer to our website.



Do not use the products outside the rated power supply voltage range specified in the Specifications. It may cause a fire or damage to equipment.



Do not disassemble, repair, or modify the products. It may cause a fire or electric shock.



Make sure to turn the power off before commencing any wiring work. Otherwise it may cause electric shock or damage to equipment.

**Note :** Follow the requirements for the installation of the product in accordance with the Specifications. Otherwise it may cause malfunction.

**Note :** Do not install the product in any location where oil, dust, iron powder, chemicals, or hydrogen sulphide may occur or affect the product. It may cause malfunction.

This package contains the following items:

Main unit .....	1
Outer cover .....	1
Instruction Manual .....	1
Tapping screw .....	2
Pan head screw .....	2

### General Description

VDOT-SCI Short Circuit Isolator Module is a short circuit isolator module that prevents an entire loop failure in the event of a short in the loop. If a short is detected the yellow LED indicator illuminates, and short-circuited area is isolated automatically. Upon removal of the short condition, the module automatically connects the area to restore the entire loop to the normal operating status. The module is not addressable.

### General Operation

Normal standby condition: The module monitors the voltage at the SLC (Signaling Line Circuit).

Short condition: If an overcurrent occurs because SLC is shorted, SCI LED (yellow) illuminates, and the short circuit is isolated.

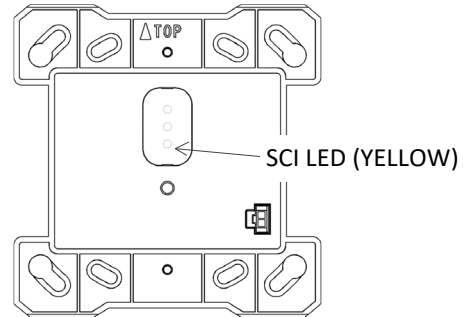


Figure 1

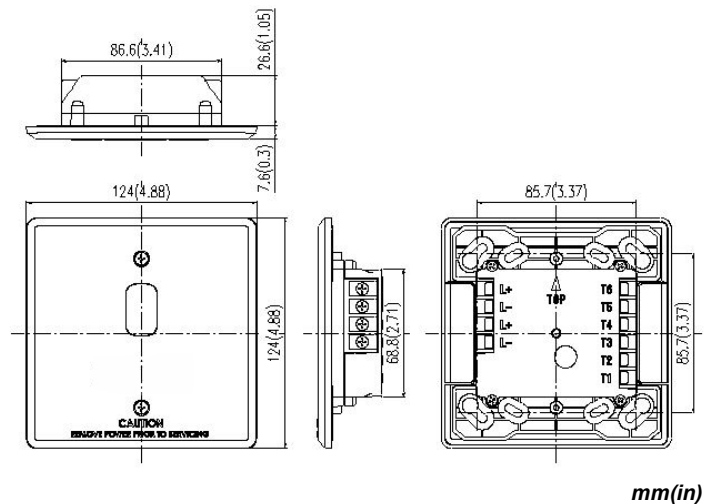


Figure 2

### Compatibility Requirement

To ensure proper operation, the module shall be connected to UL listed control panel series.

### Before Installing

Disconnect power to the control panel before installing the module.  
If the module is installed in an existing operational system, inform the operators and local authorities that the system will be temporarily out of service.

## Mounting

Mount the module directly to 4" square electrical box (UL Listed).

Secure the module to the electrical box, as shown in Figure 3.

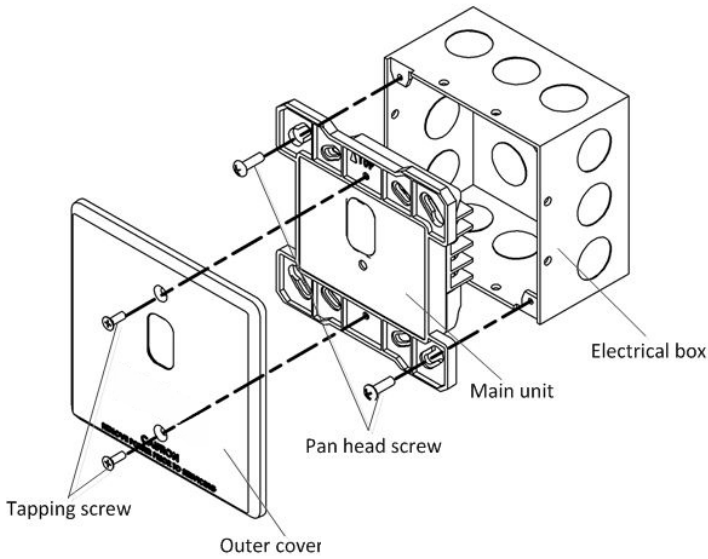


Figure 3

## Wiring

All wiring must conform to applicable local codes, ordinances, and regulations.

Install module wiring in accordance with the wiring diagrams. Refer to

Figure 4.

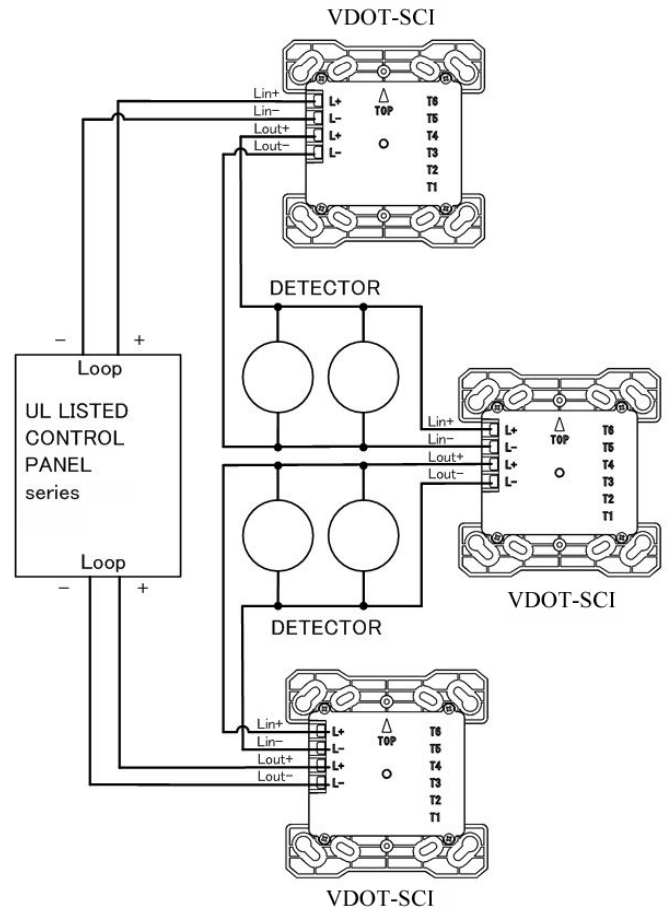
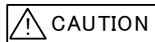
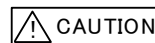


Figure 4



CAUTION

Use cable AWG12-22 for wiring. Do not connect different gauge cables at one terminal in order to prevent loosening. Use a fork terminal for crimping two cables.



CAUTION

Do not connect cables in reverse polarity. Failure to connect the polarity correctly could result in damage to the module and/or other equipment.

**Note:** All wiring is power-limited and supervised.

Routine inspection: Ensure the module is secure and undamaged.

## Operation Test

The purpose of the Operational Test is to confirm the product's correct operation.

- 1) When carrying out site testing of the product, the control panel shall be set to "one-man-walk test mode" prior to the test.
- 2) Take any necessary precautions to limit the sounding of the alarm sounders/bells and any fire service summoning device.
- 3) Short between terminal Lin+ (Lout+) and Lin- (Lout-), and the SCI LED (yellow) is illuminated. The short circuit isolator isolates the devices connected after the short-circuited area, which makes these devices have no response. Upon removal of the short condition, the area is automatically connected to go back to the normal operating status, and the SCI LED (yellow) turns off.

FOR WARRANTY SERVICE, RETURN TO:

ZETA ALARMS LIMITED

72-78 MORFA ROAD, SWANSEA, SA1 2EN

<http://www.zetaalarmsystems.com>

### Specifications

SLC Applied Voltage	Rated Range 20 to 38VDC
SLC Current Consumption	Standby 100 $\mu$ A Activated (SCI Isolation) 22mA
SLC Line Impedance	Up to 50 ohms
SCI on Resistance	0.2 ohms (max)
SCI Fault Detection Threshold	10V (min)
Visual Indicator (Status LED)	SCI LED (YELLOW)
Ambient Installation Temperature	0°C to 49°C (32°F to 120°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Max Relative Humidity	Up to 93% RH, non-condensing
Environment	Indoor dry use only
Terminal	Screw AWG12 to 22
Dimensions	124mm H x 124mm W x 34.5mm D (4.882" H x 4.882" W x 1.358" D) (Mount to a 4" square by 2 $\frac{1}{8}$ " deep box)
Weight	Approximately 139g (4.9oz)
Conformity	UL864

### Warranties

1.1 Zeta warrants to the customers that:

- (a) all products supplied hereunder will be of merchantable quality and will comply with any specification agreed between Zeta and customer.
- (b) it is not aware of any rights of any third party in the market which would or might render the sale of the products, or the use of any of the trade marks on or in products, or the use of any of the trade marks on or in relation to the products, unlawful.

1.2 In the event of any breach of the Zeta's warranty in Clause 1.1(a) whether by reason of defective materials, production faults or otherwise, Zeta's liability shall be limited to:

- (a) replacement of the products in question; or
- (b) at the Zeta's option, repayment of the price where this had been paid.  
And the warranty period is three (3) years from the shipment from Zeta's factory.

1.3 Notwithstanding anything to the contrary in this warranty terms, Zeta shall not be liable to the customer by reason of any representation or implied warranty, condition or other term or any duty at common law, or under the express terms of this warranty terms, for any consequential loss or damage whether for loss of profit or otherwise and whether occasioned by the negligence of Zeta or its employees or agents or otherwise, arising out of or in connection with any act or omission of Zeta relating to Zeta or supply of the products, their use by any customer.

1.4 Customer shall indemnify Zeta against all loss, damages, liabilities, costs and expenses which Zeta may suffer or incur as a result of or in connection with any breach by customer of this warranties terms or any laws or regulations of any jurisdiction or any rules of any governing authorities.