Description
ESL 405 polarity reversal relay modules are designed for use with ESL smoke detectors that have built-in sounders. On alarm, the module disconnects the detectors from their normal power supply and applies reverse polarity from the notification appliance circuit. Applying reverse polarity causes the sounders on detectors not in alarm to activate.

Application Notes
Use the following guidelines to determine the appropriate application of the relay modules:
• For 2-wire applications, DO NOT connect pull stations, heat detectors or other shorting devices.
• Use a single reversal module for 4-wire applications.
• For 2-wire applications, use one reversal module for each initiating circuit.

Installation
All wiring must conform to National Electrical Code (NEC) and/or local codes having jurisdiction.
The module comes assembled for installation on a standard 4 inch commercial electrical box.
Use the following instructions to install the module in a control panel:
1. Slide the terminal/circuit board off the gray plastic mounting bracket.
2. Remove the two screws holding the plastic mounting bracket to the metal plate.
3. Place double-sided adhesive tape on the back of the plastic mounting bracket and stick the bracket inside the control panel enclosure.
4. Slide the terminal/circuit board back into the plastic mounting bracket.
5. Strip 3/8” of insulation from each conductor and insert each one under the appropriate screw terminal. Refer to the wiring diagrams for typical wiring configurations.
6. Tighten the screws and check all wiring connections.

WARNING!
This device may not be compatible with all power supervision relays. When you use this device on 4-wire circuits, use the ESL 204 series power supervision relay at the end of line. An ESL smoke detector/alarm with a sounder that incorporates an end-of-line/sensitivity relay output may also be used.

<table>
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<tr>
<th>Application</th>
<th>Terminal 5</th>
<th>Terminal 7</th>
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<tbody>
<tr>
<td>24V fire control panel</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>12V burglary/fire combined control panel</td>
<td>+</td>
<td>-</td>
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</tbody>
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Standby terminal connections:
Wiring Diagrams

Two Wire Diagram

1 2
3 4
5 6
7 8

ESL 2 Wire Sounder 
smoke detectors

* Confirm compatibility when using powered and wire initiating devices.

Four Wire Diagram

Switched 
smoke 
power

ESL 4 Wire Sounder 
smoke detectors

Specifications

Voltage:
405-01 ......................................................... 20-30VDC
405-03 ......................................................... 9.2-18VDC

Current:
405-01 ......................................................... 21mA@24V
405-03 ......................................................... 43mA@12V

Contacts ...................................................... 1A@30VDC resistive

Weight................................................................. 0.02lbs.

Dimensions:
Height................................................................. 2.9” (7.3 cm)
Width................................................................. 2.1” (5.3 cm)
Depth................................................................. 1” (2.5 cm)

Listing................................................................. UL 864

Product Ordering

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>405-01</td>
<td>24VDC, single circuit polarity reversal module, UL &amp; CSFM</td>
</tr>
<tr>
<td>405-03</td>
<td>12VDC, single circuit polarity reversal module, UL only</td>
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