# ESL 405-05 and 405-06 Relay Modules Installation Instructions



#### **CSFM**

### **405-05 Polarity Reversal Relay Module**

For use with 4-Wire Sounder Smoke Detectors and Fire/Burglar Alarm Control Panels

#### **Installation Instructions**

- Choose a mounting location in the control panel within reach of the leads provided. Use 50/50 water to isopropyl alcohol to clean the mounting surface. After the surface has dried, remove protective covering from the tape. Mount unit as shown on control panel illustration. Route wires to the appropriate terminals as noted below.
- 2. Connect 405-05 trigger wires to the fire alarm output terminals. Observe polarity. [Gray wire to positive (+) and White wire to negative (-)].
- 3. Connect 405-05 incoming power wires to the smoke detector power source. [White-Red to (+) and White-Black to (-)].
- 4. Connect 405-05 outgoing power wires to the smoke detector power in terminals. [Red to (+) and Black to (-)].
- 5. Connect the smoke detector initiating circuit (alarm loop) to the alarm control.
- 6. Maintenance: no maintenance is required.

#### Warning

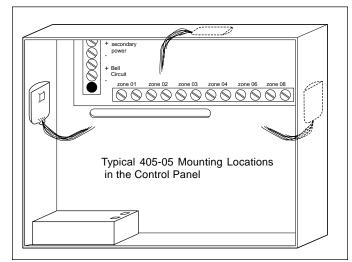
This polarity reversal device may not be compatible with all power supervision relays. When using ESL 405 Series polarity reversal relays on four wire circuits, use the ESL 204 Series power supervision relay at the end of line. Note: Another option is to use an ESL 449CTE (or CSTE with Sounder) which incorporates an End-of-Line/Sensitivity Status Relay Output.

This polarity reversal device cannot be connected to any coded annunciator.

#### **Testing: 405-05**

- 1. Test in accordance with NFPA 72 Chapter 7 Test Methods & Frequencies, interfacing equipment.
- 2. To test the 405-05 initiate an alarm with smoke or approved test method on any detector connected to the control panel via the 405 relay. In alarm, detectors that have responded to smoke or test will sound in their distinct alarm patterns.
- Reset the smoke detectors by removing power to the detectors.

**Note:** For two wire smoke detectors, use the ESL 405-01 or 405-03 polarity reversal relay module.



#### ESL 405-05 Polarity Reversal Relay Module ESL 405-05 Burglar / Fire Polarity Reversal Relay Alarm Control ESL 400 Series Smoke White Alarm -0 Detectors Gray with Sounders Output +0 ESL 204-12/24V White/Black - c Power Supervision Relay Power White/Red Supply Red Alarm End of Loop Line Device

## 405-06 DPDT Relay Module

For use as a Universal Switch Device

#### **Installation Instructions**

- 1. Connect 405-06 trip wires to trigger circuit. **Observe polarity**. [Gray to positive (+) and White to negative (-)].
- 2. Connect the 405-06 DPDT relay contacts as required. The first set of contacts are:

common red

closed white-red open white-blue

3. The second set of contacts are:

common black

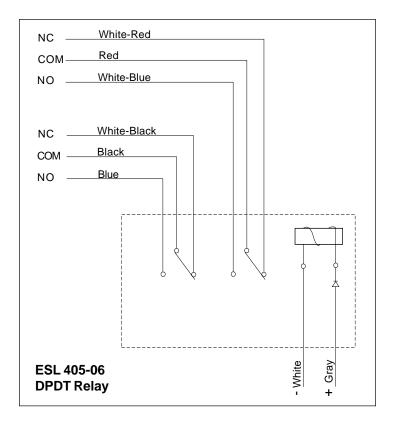
closed white-black

open blue

- 4. When fail safe operation is required, wire the relay in the powered or energized condition.
- 5. Do not exceed rating of relay.
- 6. Testing: 405-06

Test unit in accordance with NFPA 72 Chapter 7 Test Methods and Frequencies, interface equipment.

To test the 405-06, energize the relay coil and confirm the contacts transfer.



### **Specifications for 405-05 & 405-06**

Operating voltage	8.5-33VDC
Maximum operating current	34.0 mA at 12 VDC
	35.0 mA at 24 VDC
Relay contacts	. 2 A at 30 VDC, 1 A at 120 VAC
Operating temperature	32° F to 120° F (0° C to 49° C)
Operating humidity range	0 to 85% Non-condensing
Dimensions	1.8 in. (4.6 cm) x 1.7 in. (4.3 cm)
Wire connections 18	AWG stranded, tinned, 18" long



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