ΡD

control logic by using a contact element (or similar element) with the output point name.

## Maintenance

No periodic maintenance or calibration is required for this module. If a module is to be replaced, verify the replacement module's relay form configuration matches the original relay output module.

Fuses for each output are located inside the module. These fuses are for protection of the I/O chassis connectors and module circuit board only, and are not field-replaceable. Should an internal fuse blow, it indicates that the module is being used for output loads in excess of the safe rating of the module and the I/O chassis.

Modules with blown fuses should be returned to ICS for repair or replacement.

## **Safety Considerations**

#### TÜV

The relay output modules are TÜV certified as noninterfering, and can be used in a safety system for simplex non-safety critical outputs. For safety critical outputs, guarded output modules should be used (model T7481, T7484, T7485 or T7488 are recommended).



# **Specifications**

| Safetybus Power  |                           | 1.0 load u   | nits                          |
|------------------|---------------------------|--|-------------------------------|
| Number of Output | ts                        | Eight isolated circuits (four<br>Form-C contacts, four<br>selectable N.O. or N.C.<br>contacts) |                               |
|                  | T7446                     | SL   | T7446H                        |
| Voltage Range    | 0.1 to 125 V              | AC/DC  | 5  to  250  VAC               |
|                  |                           |  | $5 	ext{ to } 125 	ext{ VDC}$ |
| Load Current     | 2.0 amps                  |  | 2.0 amps                      |
| Minimum Load     | 0.1 VDC/10                | μA   | 5 VDC/10 mA                   |
| Surge Current    | 20 amps, 16               | msec   | 20 amps, 16 msec              |
| Over Voltage     |                           |  | - ·                           |
| Protection       | 750 VAC, 1                | minute   | 1000 VAC, 1<br>minute         |
| Rated Load       |                           |  |                               |
| resistive        | 110 VAC, 0.               | 3 amps   | 250 VAC, 2 amps               |
|                  | 24 VDC, 1 a               | mp   | 50 VDC, 2 amps                |
| inductive        | 110 VAC, 0.               | 2 amps   | 250 VAC, 2 amps               |
|                  | 24 VDC, 0.3               | amp  | 30 VDC, 2 amps                |
| Maximum          |                           |  |                               |
| Switching        | 00 TTA 00 TT              | <b>T</b>   |                               |
| resistive        | 60 VA, 30 W               | /<br>T   | 500 VA, 100 W                 |
|                  | 20 VA, 10 W               | /  | 500 VA, 60 W                  |
| Resistance       | 50 mOhms                  | initial  | 30 mOhms initial              |
| Broakdown        | oo monnis,                | miniai   | 50 monnis, muai               |
| Voltage          |                           |  |                               |
| Logic to field   | 1000 VAC                  |  | 2000 VAC                      |
| Same channel     | 750 VAC                   |  | 1000 VAC                      |
| Chnl to chnl     | 2500 VAC                  |  | 2500 VAC                      |
| Turn-On Delay    | 5 msec                    |  | 10 msec                       |
| Turn-Off Delay   | $2 \mathrm{msec}$         |  | 10 msec                       |
| Heat Dissipation | 4.5 Watts, 1<br>BTUs/hour | 5  | 4.5 Watts, 15<br>BTUs/hour    |

### (T7446L, H) Relay Output Modules

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| Fusing (internal)  | One 3.5 A, slow blow per<br>output  |
|--|---|
|  | Note: Internal fuses are for<br>protection of the printed cir-<br>cuit board only. Each output<br>should be individually fused<br>outside the module with a<br>fuse rated for the output<br>load.                                 |
| Operating Temperature  | 0° to 60° C<br>(32° to 140° F)  |
| Storage Temperature  | -40° to 85° C<br>(-40° to 185° F)   |
| Operating Humidity   | 0 to 95% relative humidity,<br>non-condensing   |
| Vibration<br>10 to 55 Hz:  | ±0.15mm   |
| Shock<br>Operating:  | 15 g, ½ sine wave, $11$ msec  |
| <ul> <li>Electromagnetic<br/>Interference</li> <li>IEC 801 Part 2 - Electrostatic<br/>Discharges</li> <li>IEC 801 Part 3 - Radiated<br/>Electromagnetic Fields</li> <li>ANSI/IEEE C37.90 - Surge<br/>Withstand Capability</li> <li>Safety</li> </ul> | Level 3: Contact discharge of<br>6 kV<br>Level 3: 10 V/M, 27 MHz -<br>500 MHz<br>1 kV damped 1 MHz sine<br>wave<br>Certified to DIN V VDE<br>0801 (non-interfering) and<br>designed to meet UL 508 and<br>CSA 22.2, No. 142-M1981 |
| Dimensions<br>Height:<br>Width:<br>Depth:  | 12.6" (320 mm)<br>1.27" (32 mm)<br>10.12" (257 mm)  |
| weight   | 4.0 lbs (1.8 kg)  |

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Relay Output Modules (T7446L, H)