

## SECTION 678-11

### TWO-CHANNEL AC ISOLATOR (MODEL 252)

#### 678-11.1 General Requirements:

- (a) The Model 252 Two-Channel AC Isolator shall contain two (2) isolation channels which provide isolation between external 120 VAC input circuits and the controller unit input circuits. The method of isolation shall be based upon a design which provides reliable operation.
- (b) A channel input voltage (V on) of 80 (+5) VAC applied for a minimum duration of 100 ms shall cause an output (ground true) to the controller.
- (c) A channel input voltage of V on minus 10 VAC applied for a minimum duration of 100 ms shall cause an output (False) to the controller.
- (d) Each channel input circuit shall have a input impedance of between 6,000 to 15,000 Ohms at 60 Hz.
- (e) Circuitry switching to invert inputs to read ground false logic (by jumpers) shall be provided.
- (f) The transistor shall be capable of sinking 50 ma at 30 VDC.
- (g) The minimum isolation shall be 1,000 megohms between the input and output terminals at 500 VAC applied voltage.
- (h) Each channel input shall withstand, without damage, the discharge of a 10 microfarad capacitor charged to +1,000 volts, when connected directly to the open input pins. Each channel shall withstand, without damage, the discharge of a 10 microfarad capacitor charged to +2,000 volts, when connected between either input pin and equipment ground.

#### 678-11.2 Physical Dimension Requirements:

The physical dimensions of the Isolator are provided in Figure 678-27.