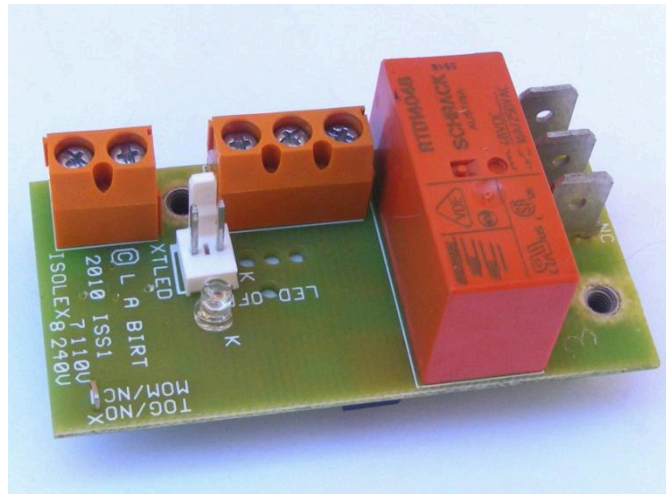


# ISOLEX7™ 'NO-VOLT' ISOLATED SWITCH MODULE



At last, a 21<sup>st</sup> century, low cost alternative **to air switch systems and tubing**. These AC powered, miniature (60 X 30 mm) units utilise advanced ferro-magnetic technology to provide **full galvanic isolation to connected electrical switches**. The novel, low impedance technique, passes near zero current through the connected switch creating a safe, earthed '**electric free**' circuit.

The devices can be used with momentary or latching electrical switches, connected by up to 50 metres of **earthed** cable to the switch input. The module has an integral 16 amp changeover relay to control external power loads. Inbuilt safety circuits automatically de-energise the output if the connected switch wiring is **short circuited** or inhibit the output if the AC power is interrupted whilst the connected **switch is already on**. An on board (or optional remote) LED indicates relay active/inactive, diagnostic and fault conditions.

## SPECIFICATION

- Operating temperature - -20 +65 Degrees C
- Electrical connections - 5 off screw terminals, 3 off 6.3mm blades (relay contacts)
- Supply voltage - 230V AC + 15 - 15%. 110V AC, 24V DC to order
- Supply current - 2.5mA relay off, 10mA relay on (nominal)
- Switch circuit power - less than 30 microwatts
- Relay output - single pole changeover, 16A resistive @ 240V AC
- Operation - momentary operation or latch on/off action, link selectable
- Power up operate delay - 5 seconds switch line **diagnostic test**
- LED indication
  - Onboard green LED. Two pin Molex for remote LED
  - Blinking off - power up test, switch line signal OK
  - Blinking on - relay de-energised
  - Continuous on - relay energised
- Switch connection - 2 wire earthed or **1 wire** double earthed (see over)

## INSTALLATION

### SWITCH OPERATION

The unit is factory set for **momentary operation** relay energises whilst the connected switch is closed

To select **latching operation** cut the wire link **X** relay alternately energises/de-energises each time the connected switch is closed and opened

### LED INDICATION

The unit is factory set for **on board LED** indication

To select **remote LED** indication 'spin cut' the copper pad marked **LED OFF** to disconnect the on board LED

connect the remote LED to the 2 pin Molex header (ensure LED cathode connected to pin **K**)

### POWER CONNECTION

Connect Live, Neutral and Earth wires to 3 way terminal block (L,N,E marked on pcb)

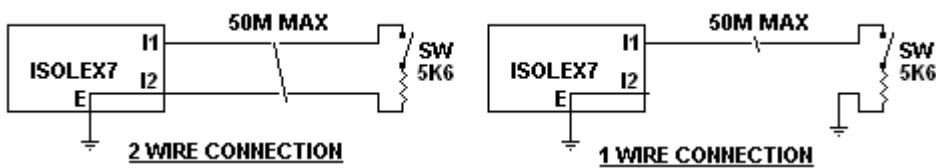
### LOAD CONNECTION

Connect switched load to the 6.3mm blade terminals marked **NO, C, NC**

### SWITCH CONNECTION

Connect a 5.6 Kilohm 0.25W resistor onto one of the switch terminals. This enables the module to differentiate between a valid switch closure and a short circuited switch line.

Connect the switch/resistor combination to the **I1** and **I2** (earth) input terminals using either the 2 wire or 1 wire configuration shown below



### MOUNTING

Finally, chassis mount the unit onto the two fixing pillars using M3 screws (40mm vertical centres, 17mm horizontal centres)

### SWITCH WIRING DIAGNOSTIC TEST

Set the connected switch to off and switch on the AC power to the unit. The LED will illuminate and blink for approximately 5 seconds if the length/capacitance of the switch wiring is within acceptable limits.