



# BURST FIRE ZVS TRIGGER MODULE

## FC11BL

X10247

### INTRODUCTION

This single phase burst firing module operates on a one second nominal time base. The zero triggered output has a variable on/off ratio, which is proportional to the manual control signal or dc input demand signal. Phase timing problems are eliminated, as the opto-isolated output driver stage is self-timing from the associated power device connections. The burst firing circuit provides trigger pulses coincident with the mains supply polarity crossover, ensuring complete sine wave cycles are passed through the resistive load. This prevents fast changes in load current and inhibits RFI (Radio Frequency interference).

### APPLICATIONS

Virtually all resistive loads including ovens, furnaces, hot plates extruders, moulders, space heating, boilers, dryers, soldering pots and irons, heating tapes, stress relieving, smelting and heating mantles, when used with auxiliary power devices.

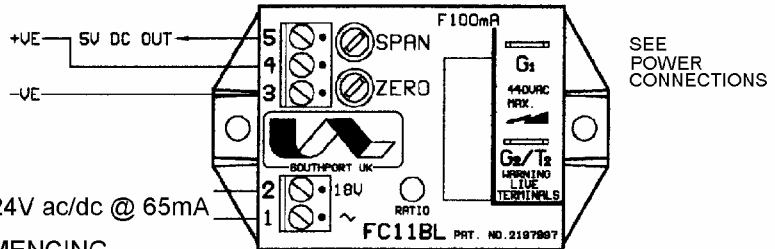
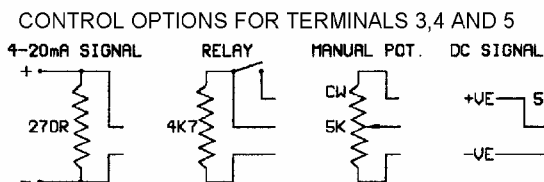
### FEATURES

- Fires triacs or thyristors up to 440V 50/60 Hz supplies.
- MONO-LINK – Gate to Gate firing.
- Universal Span & Zero matching to voltage or mA control signal.
- Status LED giving output level indication.
- High isolation opto-coupled output.



### INSTALLATION

#### CONNECTIONS AND DIMENSIONS

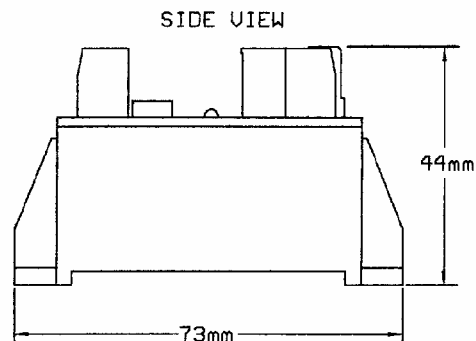
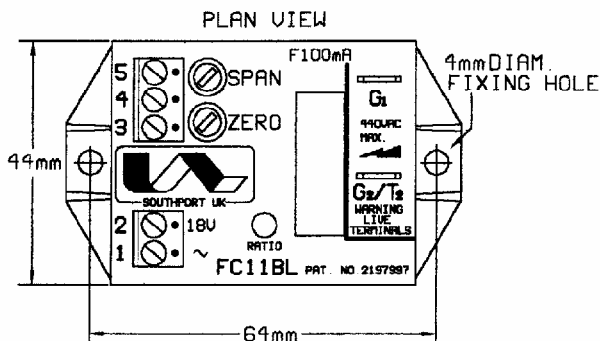


**WARNING** SUPPLY: 18V TO 24V ac/dc @ 65mA

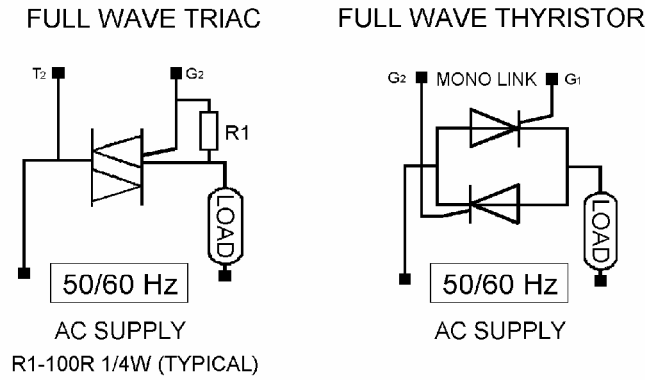
SWITCH OFF MAINS BEFORE COMMENCING ANY SERVICING WORK

**NOTE** INPUT SUPPLY MUST BE ISOLATED FROM SIGNAL

GATE CONNECTIONS 6.3mm X 0.83mm VERTICAL AMP TAGS



**POWER CONNECTIONS**



**SPECIFICATIONS**

|                           |                  |                            |                       |
|---------------------------|------------------|----------------------------|-----------------------|
| Signal Span minimum       | 1.5 to 5V dc     | AC input supply (nominal)  | 18 to 24V rms @ 65mA  |
| Signal Span maximum       | 5 to 25V dc      | Auxiliary output (nominal) | 5V dc @ 5mA protected |
| Signal Zero offset        | 0 to 30% of span | Line Frequency             | 50/60 Hz              |
| DV/dt rating              | 100V/μs          | Max. Ambient temperature   | 65°C operational      |
| Max. Gate/Line voltage    | 440V ac          | Cycle time base nominal    | 1 second              |
| Trigger isolation voltage | 4000V rms        | Mono-link fuse             | F100mA (HRC)          |
| Trigger output rating     | 0.8A             | Manual potentiometer       | 2K, 5K or 10K         |
| Storage temperature       | -20°C to +85°C   | Power connections          | 6.3mm Amp tags        |

**FUSING**

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor-MCB) for protection. On initial 'switch on' some loads may need an increased Factor of Safety (F of S) for Unit and/or Device protection. See SRA Data sheet for further information.

**CE MARKING**

This product family carries a "CE marking". For more information see *recommendations* section and contact our sales desk.

**RECOMMENDATIONS**

Other documents available on request, which may be appropriate for your application: -

| CODE   | IDENTITY | DESCRIPTION                                                                                                                                                            |
|--------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X10229 | RFI      | Single Phase Filtering recommendations - addressing EMC Directive                                                                                                      |
| X10213 | ITA      | Interaction, uses for phase angle and for burst fire control.                                                                                                          |
| X10255 | SRA      | Safety requirements - addressing the Low Voltage Directive (LVD) including: - Thermal data/cooling; "Live" parts warning & Earth requirements; Fusing recommendations. |
| AP02/4 | COS      | UAL Conditions of sale.                                                                                                                                                |

**NOTE** It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.E. wiring regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment (For International Standards refer to I.E.C/ directive IEC 950).

**ORDER CODE**

State part number: FC11BL + signal option

Optional extras include: Potentiometer, Supply transformer, complete assemblies,



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