



# 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

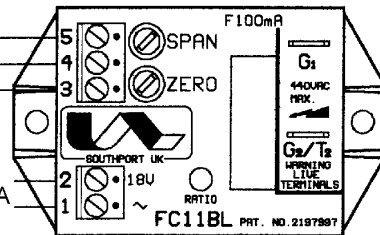
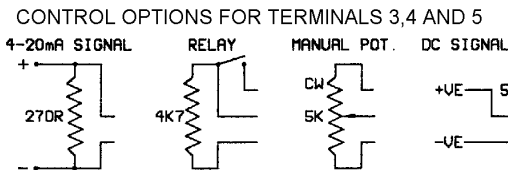
- Fires triacs or thyristors up to 440V 50/60Hz supplies.
- MONO-LINK – gate to gate firing.
- Universal span and zero matching to voltage or mA control signal.
- Status LED giving output level indication.
- High isolation opto-coupled output.

RoHS Compliant



#### INSTALLATION

#### CONNECTIONS AND DIMENSIONS



#### WARNING

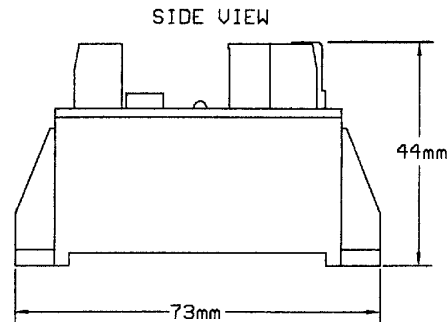
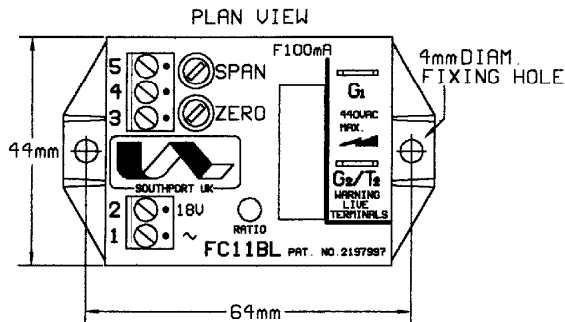
SUPPLY: 18V TO 24V ac/dc @ 65mA

SWITCH OFF MAINS BEFORE COMMENCING ANY SERVICING WORK

#### NOTE

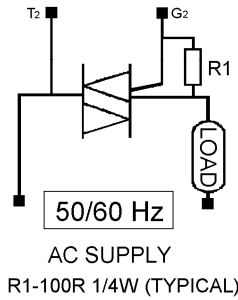
INPUT SUPPLY MUST BE ISOLATED FROM SIGNAL/VAL

GATE CONNECTIONS 6.3mm X 0.83mm VERTICAL AMP TAGS

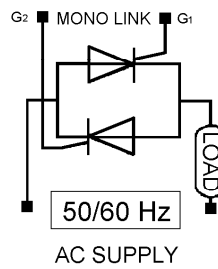


**POWER CONNECTIONS**

FULL WAVE TRIAC



FULL WAVE THYRISTOR



**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	4kV rms	Mono-link fuse	F100mA (HRC)
Trigger output rating	0.8A	Manual potentiometer	2, 5 or 10kΩ
Storage temperature	0°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 datasheet 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: -

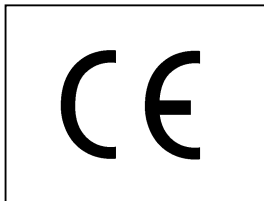
CODE	IDENTITY	DESCRIPTION
X10229	RFI	Single Phase Filtering recommendations - addressing EMC Directive
X10213	ITA	Interaction, uses for phase angle and for burst fire control.
X10255	SRA	Safety requirements - addressing the Low Voltage Directive (LVD) including: - Thermal data/cooling; "Live" parts warning & Earth requirements; Fusing recommendations.
P01.1	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.T. (formally I.E.E.) regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding installation and safety of electrical equipment. Specific installers should refer to local and national regulations.

**ORDER CODE**

State part number: FC11BL + signal option

Optional extras include: potentiometer, supply transformer, complete assemblies.



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