

# X10261 – FC11BL/2

## Burst Fire Firing Trigger Module



Issue 9

### 1 Interaction/Introduction

This single-phase firing module has its own built in power device, reducing wiring and fixing connections. Ideal for heating loads up to 25A, when fitted onto a suitable heatsink. Burst firing operates on a 1second nominal time base. The zero-crossing triggered output has a variable on/off ratio which is proportional to the manual control signal or dc input demand signal. The burst firing circuit provides trigger pulses coincide with the mains polarity crossover, ensuring complete sine wave cycles are passed through the resistive load. This prevents fast changes in load current and inhibits RFI.

### 2 Applications

Virtually all resistive loads including ovens, hot plates, furnaces, dryer heater bands, space heating and other temperature control applications, up to 25A when fitted on to a suitable heatsink (1.3°C/W).

### 3 Features

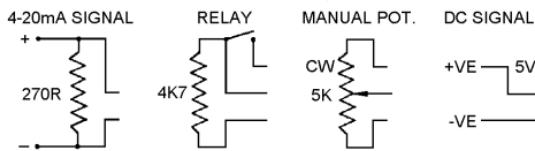
- 25A TRIAC fitted
- Universal span and zero matching to voltage or mA control signals
- Status LED giving output level indication
- No external filtering required
- Consumes fewer than 2W
- Adjustable soft-start function



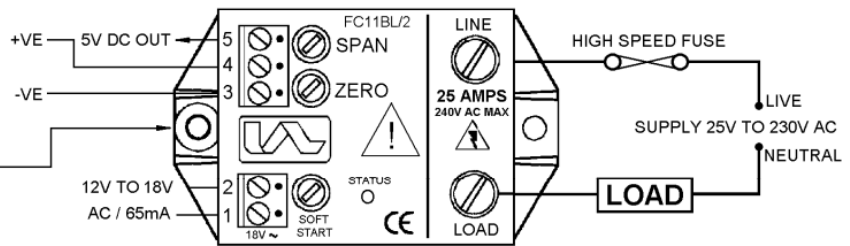
### 4 Installation

#### DIMENSIONS AND CONNECTIONS

CONTROL OPTIONS FOR TERMINALS 3,4 AND 5



**WARNING**  
THIS UNIT MUST BE EARTHED



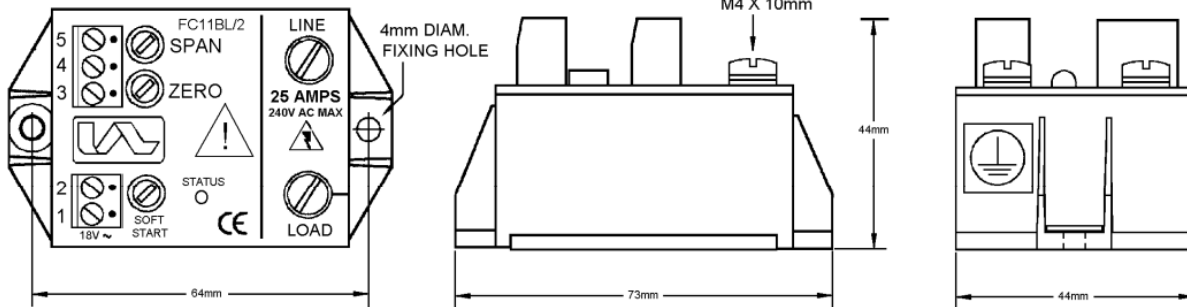
NOTE: AC INPUT MUST BE ISOLATED FROM SIGNAL AND BE IN PHASE WITH LINE VOLTAGE.

**ADJUSTABLE PHASE ANGLE**  
**SOFT START**

PLAN VIEW

SIDE VIEW  
POWER CONNECTIONS  
M4 X 10mm

END VIEW



USE HEATSINK COMPOUND FOR EFFECTIVE THERMAL COUPLING

WARNING LIVE TERMINALS

SWITCH OFF MAINS SUPPLY BEFORE COMMENCING ANY SERVICE WORK

## UNITED AUTOMATION LTD

Southport Business Park  
Wight Moss Way  
Southport, PR8 4HQ  
ENGLAND

Tel: 0044 (0) 1704 – 516500  
enquiries@united-automation.com  
www.united-automation.com

unitedautomationltd UA\_Limited



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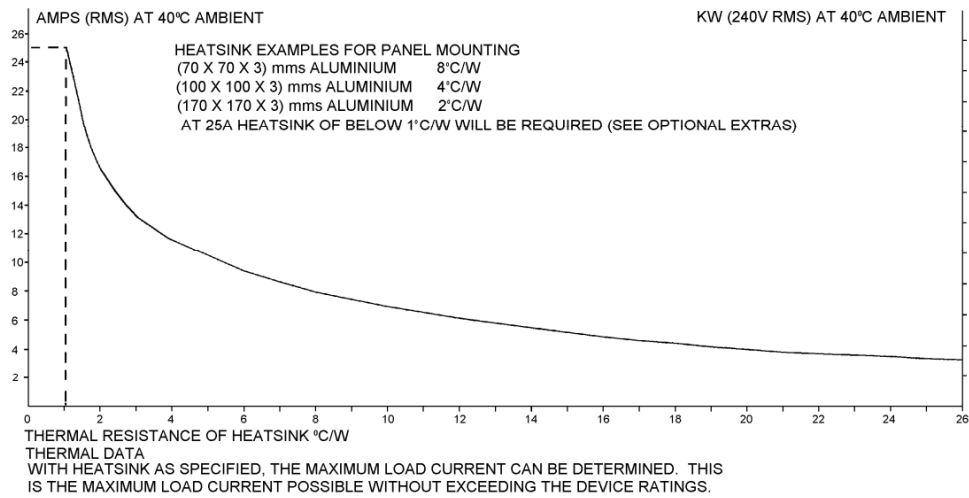


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## 5 Cooling Requirements



## 6 Technical Specifications

Signal Span Minimum	1.5 to 5V DC	AC Input Power (1 and 2)	12 to 18V AC @ 65mA
Signal Span Maximum	5 to 25V DC	Auxiliary Output	5V DC
Signal Zero Offset	0 to 25% of span	TRIAC Limiting RMS Current	25A
Signal Input Resistance	5kΩ ±20%	Line Voltage	25V to 250V (50/60Hz)
Manual Potentiometer	2, 5 or 10kΩ	Peak One Cycle Surge	250A
Cycle Time Base	1 sec nominal	Max. Peak Voltage	600V
I <sup>2</sup> t for Fusing (10m sec)	250A <sup>2</sup> s	Power Consumption	1.7W
Max Operating Temperature	65°C	Storage Temperature	0°C to 85°C
Isolation Voltage	2.2kV RMS	Max. RMS On-state Current	25A

## 7 Fusing

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor – MCB) for unit protection and an appropriate fuse for unit supply (F1A). (See SRA datasheet for further information).

## 8 CE Marking

This product family carries a “CE” marking. For information see recommendation section and contact our sales desk. See Declaration of Conformity.

## 9 Recommendations

Other documents available on request, which may be appropriate for your applications.

Code	Identity	Description
X10229	RFI	Filtering recommendation – 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, Earthing Requirements and 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.

## 10 Order Code

Part Number	FC11BL/2 + signal option
Optional Extras	Potentiometer, Supply transformer and heatsink assembly



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