



# UNIVERSAL BURST FIRE TRIGGER MODULE

BM1/2/3

X10219

## INTRODUCTION

This burst fire control module incorporates the unique MONO-LINK™, Gate to Gate, firing feature, which uses single path hard firing for each phase thyristor pair, eliminating cathode firing connections. The zero crossing 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 prevents fast changes in load current thus inhibiting Radio Frequency Interference.

## APPLICATIONS

Virtually all resistive heater loads including air curtains, space heaters, ovens, furnaces, hot plates, extruders, moulders, boilers, soldering pots and irons, heating tapes, drying and other heating & ventilating applications, when used in conjunction with auxiliary power devices.

RoHS Compliant  
Directive  
2002/95/EC

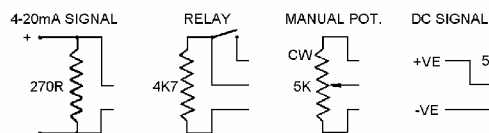
## FEATURES

- Fires triacs or thyristors up to 440V (50/60Hz) supplies
- **MONO-LINK™** Gate to Gate firing
- No phase timing or matching required
- Zero voltage switching (RFI free).
- Status LED giving output ratio indication.
- High isolation opto-coupled output.

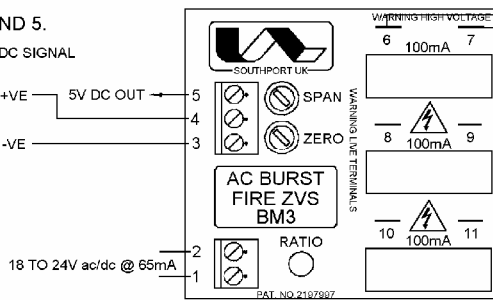


## INSTALLATION

### CONTROL OPTIONS FOR TERMINALS 3,4 AND 5.



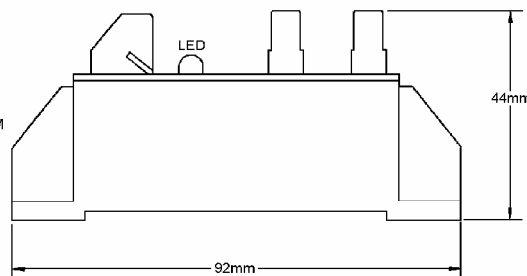
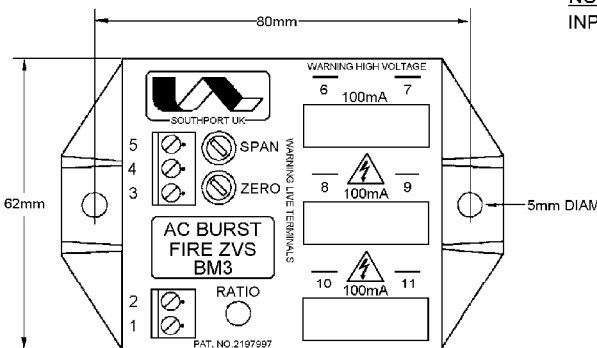
**WARNING**  
SWITCH OFF SUPPLY BEFORE  
COMMENCING ANY SERVICE WORK.



GATE CONNECTIONS  
FOR UP TO THREE  
PAIRS OF INVERSE  
PARALLEL THYRISTORS  
(OR TRIACS) SEE POWER  
CONNECTIONS.

GATE CONNECTIONS  
6.3mm AMP TAGS

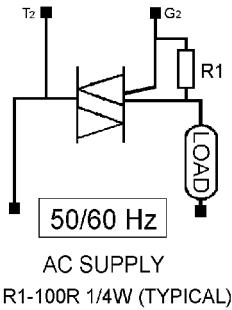
**NOTE**  
INPUT SUPPLY MUST BE ISOLATED FROM SIGNAL.



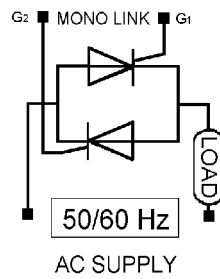
MONO-LINK IS A TRADEMARK OF UNITED AUTOMATION LTD. PATENT NO 2197997

## POWER CONNECTIONS

FULL WAVE TRIAC



FULL WAVE THYRISTOR



## SPECIFICATIONS

Signal Span minimum	0 to 2V dc	AC input supply	18 to 24V ac/dc @ 65mA
Signal Span maximum	0 to 25V dc	Auxiliary output	5V dc @ 5mA protected
Signal Zero offset	0 to 30% of span	Line Frequency	50/60 Hz
dv/dt rating	100V/ $\mu$ s	Max. Ambient temperature	65°C operational
Max. Gate/Line voltage	440V ac	Cycle time base nominal	1 second
Trigger isolation voltage	2500V 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 that semiconductor, fast acting type, fuses or circuit breakers (Semiconductor-MCB) be used for protection. On initial operation 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 information see recommendation section and contact our sales desk. (See Declaration of Conformity)

## RECOMMENDATIONS

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

CODE	IDENTITY	DESCRIPTION
X10229	RFI	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 and 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 the safety of electrical equipment. For International Standards refer to I.E.C. Directive IEC 950.

## ORDER CODE:

State part number: BM1, BM2 or BM3 + Signal option.  
Optional extras include: Potentiometer, Supply transformer, Power Stack, Heatsink paste, Fuses



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