UNITED AUTOMATION

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.

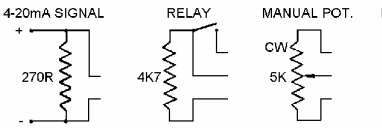
RoHS Compliant Directive 2002/95/EC

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.

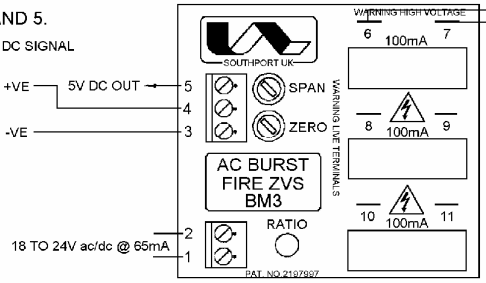
INSTALLATION

CONTROL OPTIONS FOR TERMINALS 3,4 AND 5.



WARNING

SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK.

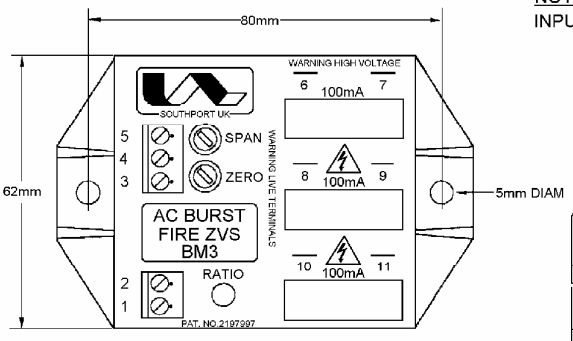


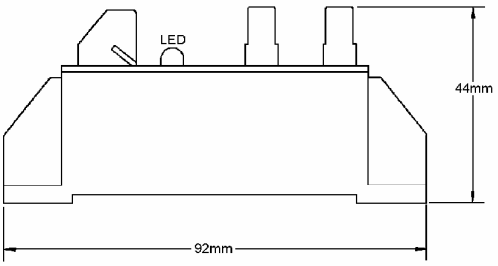
GATE CONNECTIONS FOR UP TO THREE PAIRS OF INVERSE PARALLEL THYRISTORS (OR TRIACS) SEE POWER CONNECTIONS.

GATE CONNECTIONS 6.3mm AMP TAGS

NOTE

INPUT SUPPLY MUST BE ISOLATED FROM SIGNAL.





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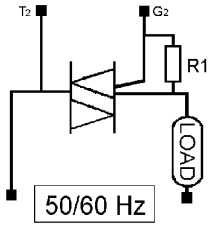
POWER CONNECTIONS

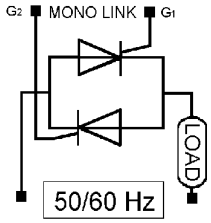
FULL WAVE TRIAC



AC SUPPLY

R1-100R 1/4W (TYPICAL)

FULL WAVE THYRISTOR



AC SUPPLY

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/ μs	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

CE

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