

**1 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 current thus inhibiting radio frequency interference.

**2 Applications**

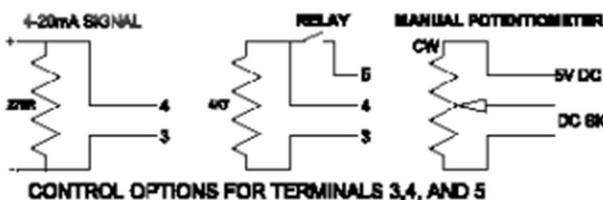
Virtually all resistive-heater loads including air curtains, space heaters, ovens, furnaces, hot plates, extruders, moulders, boilers, soldering pots and irons, heating tapes, drying and other heating and ventilating applications, when used in conjunction with auxiliary power devices.

**3 Features**

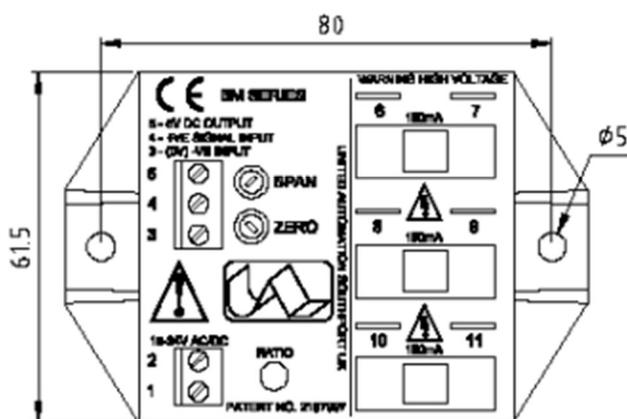
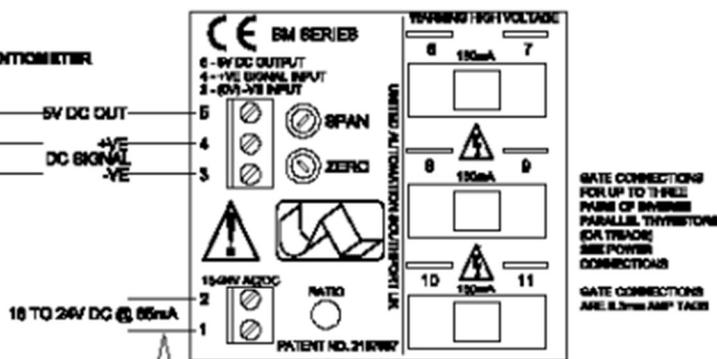
- Fires triacs or thyristors up to 440V (50/60Hz) supplies
- MONO-LINK™ gate-to-gate firing
- No phase timing or matching required
- Zero voltage switching (RFI free).
- Status LED giving output ratio indication.
- High isolation opto-coupled output.



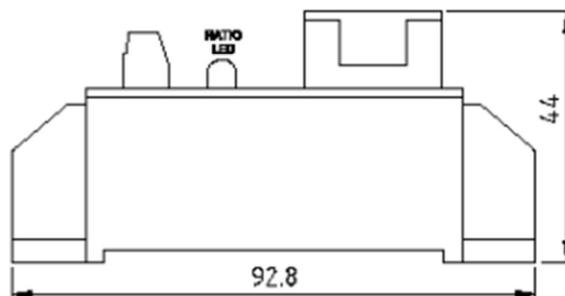
**4 Installation**



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



**NOTE**  
THIS SUPPLY MUST BE ISOLATED FROM THE SIGNAL



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**UNITED AUTOMATION LTD**

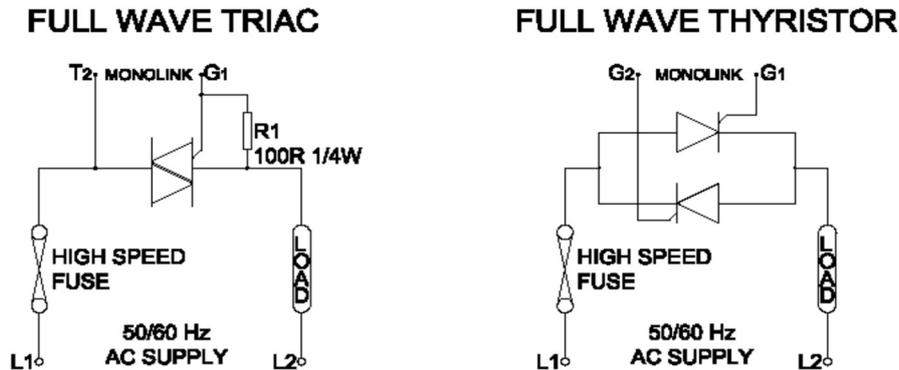
Southport Business Park  
Wight Moss Way  
Southport, PR8 4HQ  
ENGLAND

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

unitedautomationltd UA\_Limited



## 5 Power Connections



## 6 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	2, 5 or 10k $\Omega$
Storage temperature	20°C to 85°C	Power connections	6.3mm Amp tags

## 7 Fusing

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

## 8 CE Marking

This product family carries a "CE marking". These phase angle controllers need a suitable remote filter. For information see recommendation section and contact our sales desk. See the Declaration of Conformity.

## 9 Recommendations

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

Code	Identity	Description
X10390	ZSS	Zero and span setup procedure
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. (formerly 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	State part number: BM1, BM2 or BM3 and control signal option.
Optional extras	potentiometer, supply transformer, power stack, heatsink paste, fuses.



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