



UNIVERSAL PHASE ANGLE TRIGGER MODULE

FC11AL
X10222

INTRODUCTION

This single-phase or phase-to-phase firing module uses variable phase-angle control with adjustable signal-matching and adjustable **soft-start**. The power transformer is remote for increased reliability and wide operational voltage capacity. The unique ***MONO-LINK** firing system is ideal for use with inductive loads and requires minimal wiring to the power devices. The module is fully enclosed for safety and eligibility in industrial environments.

APPLICATIONS

This may be used on most ac resistive or inductive loads via a triac or thyristor, on single phase to neutral or phase-to-phase supplies, within voltage limits. This is also suitable for half-wave vibrator control (see POWER CONNECTIONS section).

FEATURES

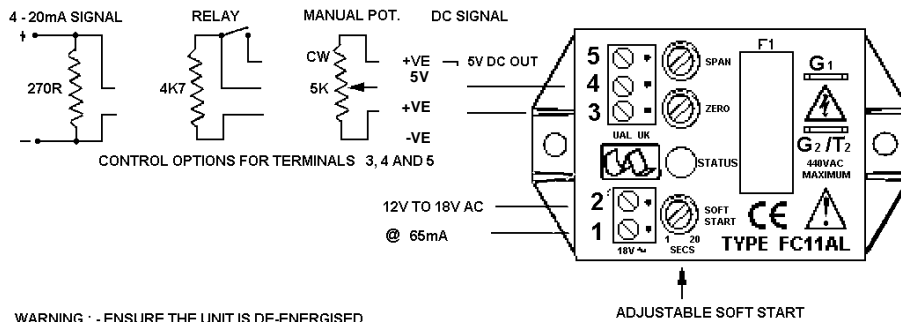
RoHS Compliant

- Fires triacs or thyristors up to 440V ac.
- **MONO-LINK™** gate-to-gate firing.
- High isolation opto-coupled output.
- Status LED giving output level indication.
- Adjustable soft-start function.



INSTALLATION

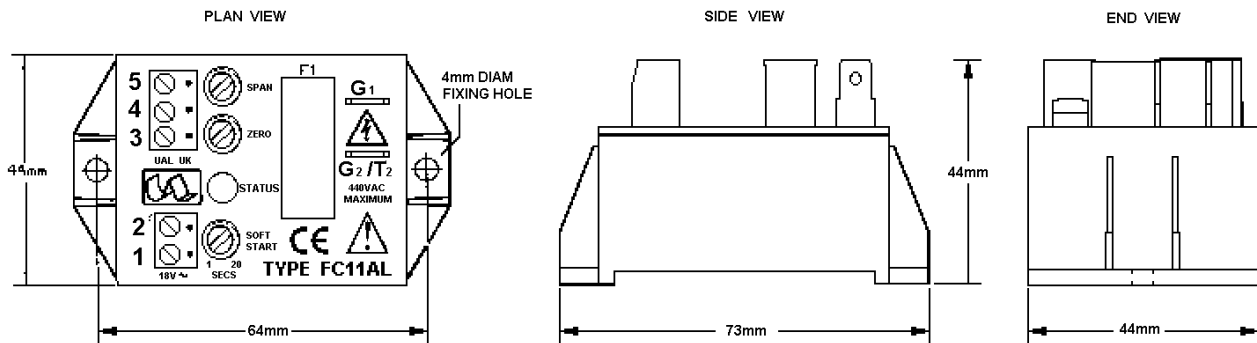
Dimensions and Control Options



SEE POWER CONNECTIONS

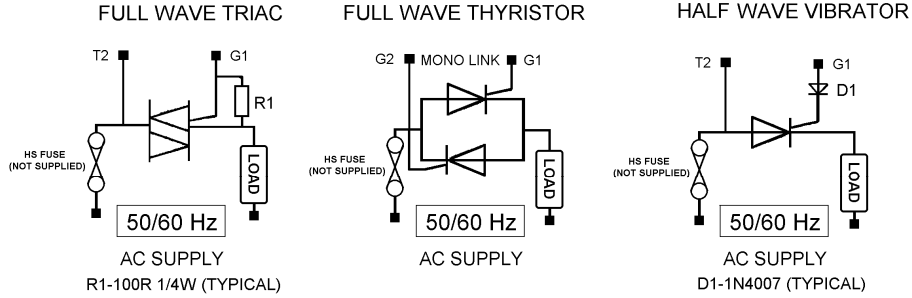
WARNING : - ENSURE THE UNIT IS DE-ENERGISED BEFORE REPLACING FUSES, OR WHEN NOT IN USE
NOTE:- 12V TO 18V AC INPUT MUST BE ISOLATED FROM SIGNAL AND BE IN PHASE WITH LINE VOLTAGE

ZERO & SPAN
For recalibration and adjustment refer to datasheet X10390 (See recommendations section)



*MONO-LINK is a trademark of United Automation Ltd. U.K. Patent No. 2197997

POWER CONNECTIONS (typical)



SPECIFICATION

Signal span min. (see X10390)	1.5 to 5V dc	ac input supply (Tmls. 1&2)	12 to 18V ac @ 65mA
Signal span max. (see X10390)	5 to 25V dc	Auxiliary output (Tmls. 3&4)	5V dc
Signal zero offset (see X10390)	0 to 30% of span	Line frequency	50/60 Hz
Max. gate/line voltage	440V ac rms	Adjustable soft start	1 to 20 seconds
Trigger isolation voltage	4kV rms	Mono-link fuse	F100mA (HRC type)
Trigger output rating	0.8A	Manual potentiometer	2, 5 or 10kΩ
Storage temperature range	0 to 65°C	Operating temperature range	0 to 65°C
Power connections (G1 & G2/T2)	6.3mm Amp tags		

FUSING

We recommend that semiconductor (fast acting) type fuses or circuit breakers (semiconductor- MCB) are used for unit protection and appropriate protection for unit supply (HRC F1A). On initial use, some loads need an increased factor of safety for unit and/or device protection (see SRA data sheet for further information).

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 Declaration of Conformity).

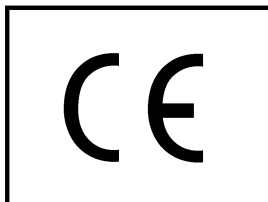
RECOMMENDATION

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

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, earth requirements and fusing recommendations.
X10390	ZSS	For signal zero and span calibration setup and adjustment.
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: FC11AL and signal option (set for manual 5kΩ pot. as std.).
Optional extras include: potentiometer, supply transformer.



UNITED AUTOMATION LIMITED
 Southport Business Park
 Wight Moss Way
 Southport, PR8 4HQ
 ENGLAND

Tel: 0044 (0) 1704 – 516500
 Fax: 0044 (0) 1704 – 516501
 enquiries@united-automation.com
 www.united-automation.com

Page 2 of 2 Issue 8 31/07/12

