



# 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

Applicable to most AC resistive or inductive loads via a triac or thyristor, on single phase to neutral or phase to phase supplies, within voltage limits. Also suitable for half-wave vibrator control.

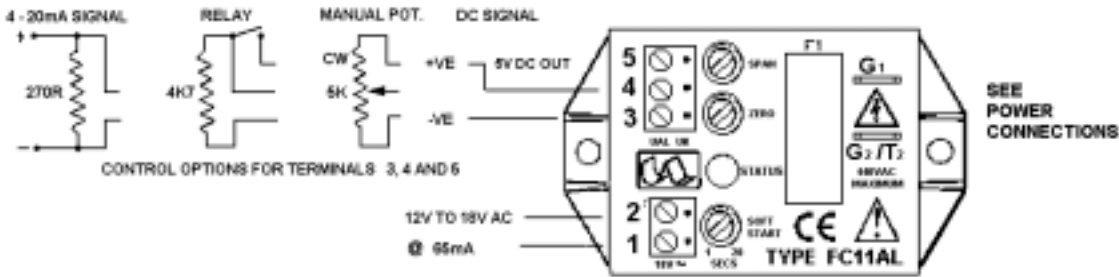
### FEATURES

- Fires triacs or thyristors up to 440V (50/60 Hz) supplies.
- MONO-LINK™ - Gate to Gate firing.
- High Isolation opto-coupled output.
- Status LED giving output level indication.
- Adjustable Soft Start Function.



### INSTALLATION

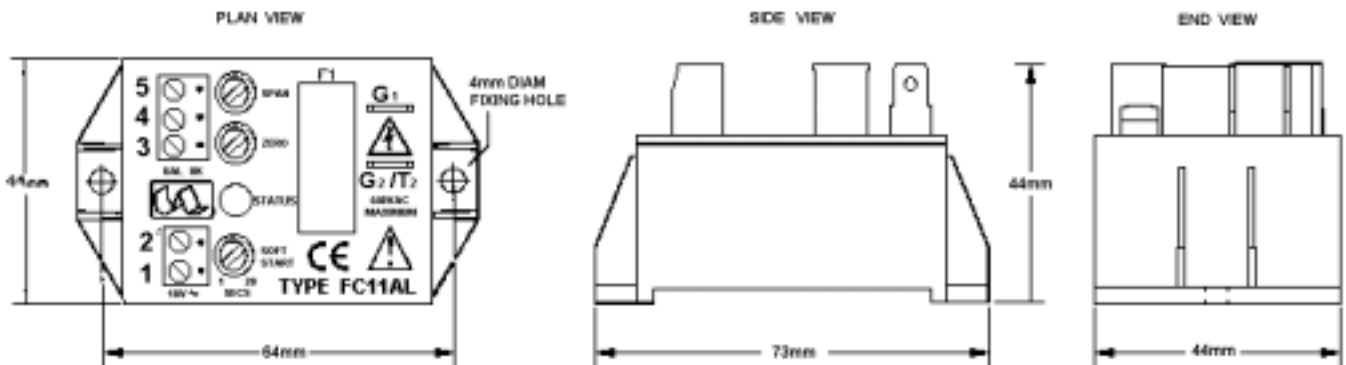
### DIMENSIONS AND CONNECTIONS



WARNING : - ENSURE THE UNIT IS DE-ENERGISED BEFORE REPLACING FUSES, OR WHEN NOT IN USE

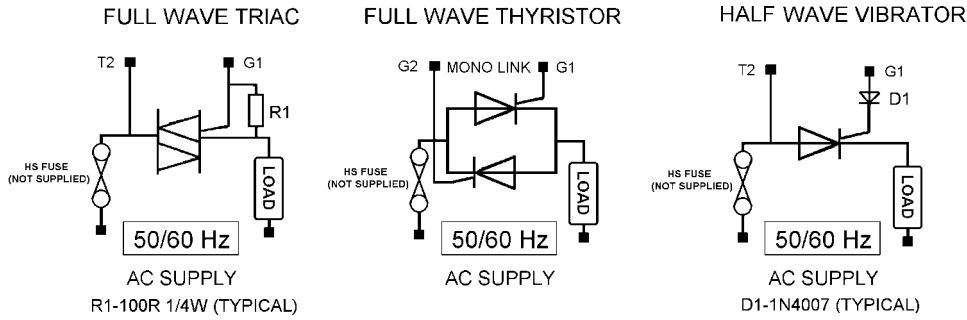
NOTE:- 12V TO 18V AC INPUT MUST BE ISOLATED FROM SIGNAL AND BE IN PHASE WITH LINE VOLTAGE

ADJUSTABLE SOFT START



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

**POWER CONNECTIONS**



**SPECIFICATION**

Signal Span Minimum	0 to 2V dc	AC input supply	12 to 18V ac @ 65mA
Signal Span Maximum	0 to 25V dc	Auxiliary output	5V dc
Signal zero offset	0 to 30% of span	Line Frequency	50/60 Hz
dV/dt rating	100V/μs	Operating temperature range	0 to +65°C
Max. Gate/Line voltage	440V ac	Adjustable soft start	0-20 seconds
Trigger isolation voltage	4000Vrms	Mono-link fuse	F100mA (HRC)
Trigger output rating	0.8A	Manual potentiometer	2K, 5K or 10K
Storage temperature range	-20 to +85°C	Power connections	6.3mm Amp tags

**FUSING**

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (semiconductor- MCB) for unit protection and appropriate protection for unit supply (HRC F1A). On initial 'switch on' some loads 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". 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 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; 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. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment. (For International standards refer to I.E.C. directive I.E.C. 950).

**ORDER CODE:**

State part number: FC11AL + Signal option.  
Optional extras include Potentiometer, and Supply transformer.



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