

X10222

TRIGGER MODULES | SINGLE PHASE | PHASE TO PHASE

FC11AL

Up to 440V

Universal Phase Angle Controller

CONTACT US:

☎ 0044 (0) 1704-516 501

✉ enquiries@united-automation.com

🌐 www.united-automation.com



KEY FEATURES:

- ✓ **Versatile Power Control:** Supports phase-angle firing for triacs or thyristors up to 440V AC, ideal for inductive loads like transformers and motors.
- ✓ **MONO-LINK™ Firing System:** Unique gate-to-gate firing method reduces wiring complexity and enhances reliability.
- ✓ **High Isolation:** Opto-coupled output with a 4000Vrms isolation voltage ensures safe and stable operation.
- ✓ **Adjustable Soft Start:** Smoothly ramps up power delivery with an adjustable soft-start function (0-20 seconds), protecting sensitive equipment.
- ✓ Status LED.
- ✓ Durable and Safe.

APPLICATIONS:

Ideal for a wide range of industrial and commercial applications, including:

- Industrial Ovens
- Restaurant and Hospitality
- Quartz and Heat Lamps
- Moulders and Dryers
- Inductive Loads

The **FC11AL** is a versatile single-phase or phase-to-phase firing module designed for precise control of inductive loads through variable phase-angle modulation. With its adjustable signal matching and soft-start capabilities, this module is perfect for applications requiring smooth and controlled power delivery, such as ovens, hospitality equipment, heat lamps, and industrial dryers.

The FC11AL features the innovative **MONO-LINK™** firing system, which ensures reliable operation with minimal wiring, making it an ideal choice for environments where reliability and ease of installation are paramount. The module's fully enclosed design enhances safety and durability, making it suitable for industrial settings.

The **FC11AL Phase-Angle Firing Module** is the go-to solution for professionals seeking reliable, adjustable power control in demanding industrial and commercial applications. Its robust design, coupled with advanced features like the MONO-LINK™ system, ensures optimal performance and long-term durability.

TECHNICAL SPECIFICATIONS

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



BMF House - Wight Moss Way,
Southport Business Park
Southport PR8 4HQ
ENGLAND

united automation

unitedautomationltd UA_Limited

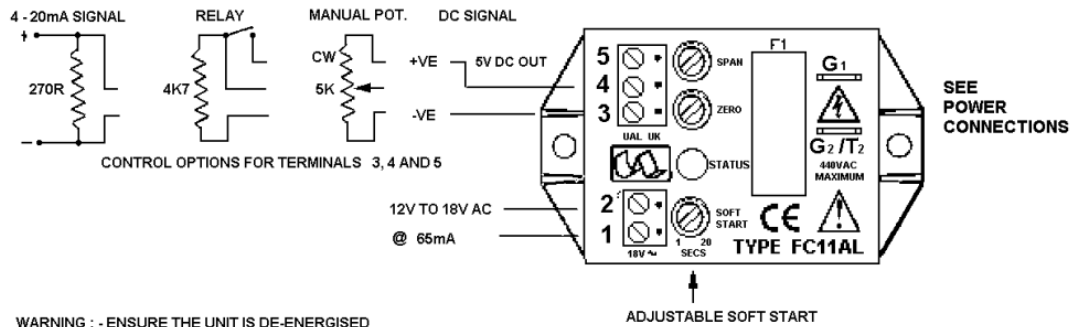


FC11AL

Up to 440V

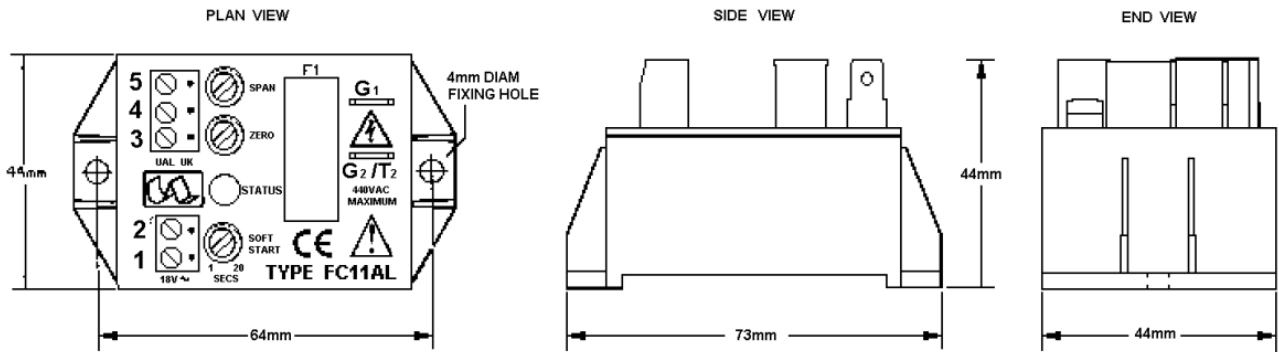
Universal Phase Angle Controller

INSTALLATION



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

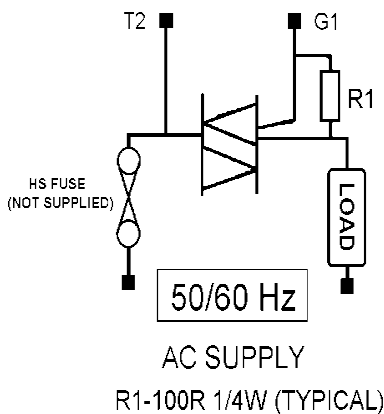
NOTE:- 12V TO 18V AC INPUT MUST BE ISOLATED FROM SIGNAL AND BE IN PHASE WITH LINE VOLTAGE



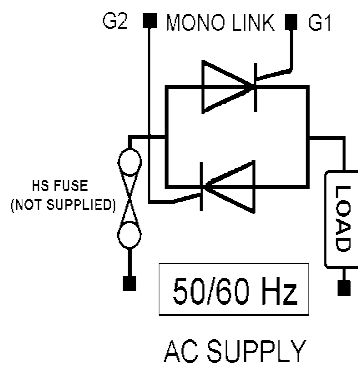
*MONO-LINK is a trademark of United Automation Ltd UK Patent No. 2197997

CONNECTIONS

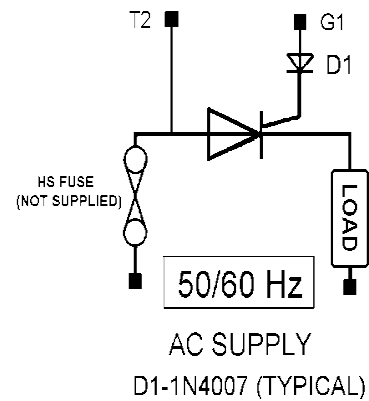
FULL WAVE TRIAC



FULL WAVE THYRISTOR



HALF WAVE VIBRATOR



BMF House - Wight Moss Way,
Southport Business Park
Southport PR8 4HQ
ENGLAND



FC11AL

Up to 440V

Universal Phase Angle Controller

RECOMMENDATIONS

FUSING

It is recommended that semiconductor, fast-acting type fuses or circuit breakers (Semiconductor-MCB) be used for unit protection. On initial operation 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.

DOCUMENTS

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

Code	Identity	Description
X10229	RFI	Filter recommendations: Addressing the 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 and Fusing Recommendations
P01.1	COS	UAL Conditions of Sale

It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.T. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding the safety of electrical equipment. For International standards refer STANDARDS on D of C.

OPTIONAL EXTRAS

Product Code	Product Description
A-EN2010-30-S	RFI Filter
T30201	Supply Transformer
Z01062	Heatsink Compound Syringe (Must be applied while fitting)
Note: When ordering a filter, the current at which the FC11AL/2 is to be used at will be required.	

PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description
A31214	FC11ALL - Phase-Angle Firing Module



BMF House - Wight Moss Way,
Southport Business Park
Southport PR8 4HQ
ENGLAND