

PHASE ANGLE SCR DRIVER BOARD for RESISTIVE LOADS - NWUPCM-1P



- **True linear output phase angle control**
- **Suitable for resistive (SCR/SSR) and Inductive (SSR) Loads**
- **PWM input – inexpensive PLC interface**
- **Inputs of 4-20mA, 0-10V, 0-5V, Pot, PWM**
- **Line voltage compensation increases process stability**
- **Configurable soft start for sensitive loads**
- **Automatic 50/60Hz operation (30 to 90Hz capable)**
- **Adjustable voltage limit**
- **Single phase and three phase control**
- **LED power and output indicators**

Product Description

The microprocessor based NWUPCM-1P provides true linear phase angle control of resistive and inductive loads. The output power is proportional to the command input which can be dip switch selected from six different industry standard inputs. The output can drive SSRs or SCR gates directly.

Ordering Codes

NWUPCM-1P- - -

- Power Control Module
- Single Pole
- Phase Angle
- SCR or SSR
- XSS (Softstart Time, seconds)
- XSC (Soft Change Time, seconds)
- REV (Reverse Acting Output)
- PWM (PWM Input)

Input Specifications

Power Supply	24VAC +/-10%,100mA max
Frequency Range	47-63Hz 24V power supply, 30-90Hz synch input
Command Inputs	4-20mA, 0-20mA, 0-5V, 1-5V, 0-10V, 2-10V, Pot, PWM
Command Input Impedance	10K (0-10V), 250 Ohms (4-20mA), 100K (0-5V)
PWM Input Frequency Range	500Hz - 15KHz
External Potentiometer Resistance	10-25KOhm

Output Specifications

SSR Control Output	SSR Drive, DC Pulse, nominally 10V @ 20mA
SCR Drive Output	16KHz Burst for 1.35mS every half cycle. Initial pulse peak current of 600mA, maintain pulses, 300mA, 10uS pulse width per pulse, rise time of 100nS.
Response Time	30mS
Linearity	+/-3%

Output Specifications(cont.)

Default Softstart Period	5 seconds to reach 100%
Voltage Limit Adjustment Range	25-100% of max. Output voltage
Line Voltage Compensation Range	+/-15% up to 100% output power
Regulation	+/-3%

Thermal Specifications

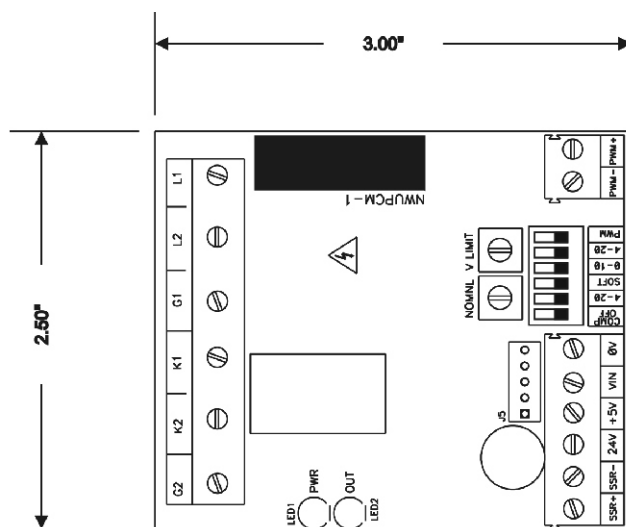
Operating Temperature Range	0 to 50 degC
Storage Temperature Range	-40 to 100 degC

Dip Switch Selections

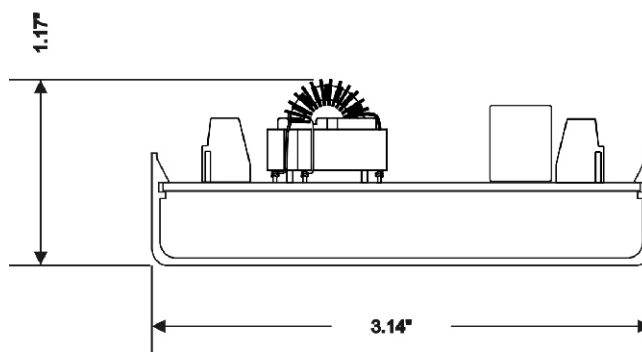
Feature to Enable	1	3
Line Voltage Comp Enabled (default)	OFF	OFF
None	ON	OFF
Soft Start Only Enabled	ON	ON
Soft Start & Line Voltage Comp Enabled	OFF	ON

Command Input	2	4	5	6
0-5V (Default)	OFF	OFF	OFF	OFF
Potentiometer	OFF	OFF	OFF	OFF
0-10V	OFF	ON	OFF	OFF
4-20mA	ON	OFF	ON	OFF
1-5V	ON	OFF	OFF	OFF
2-10V	ON	ON	OFF	OFF
PWM (isolated input)	OFF	OFF	OFF	ON

Dimensions



NWUPCM-1 MODULE (ALONE)



NWUPCM-1 MODULE (MOUNTED IN SNAP TRACK)