

SCR POWER CONTROL DRIVER BOARD ZERO CROSS (BURST) FIRED - NWUPCM-1B



- **Fast Synchronous Burst Firing Algorithm**
- **0.5-1% Control Resolution**
- **Zero Cross Firing**
- **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**
- **Automatic 50/60Hz operation (30 to 90Hz capable)**
- **Adjustable Power Limit (-PL) Option**
- **Single phase and three phase control**
- **LED power and output indicators**

Product Description

The microprocessor based NWUPCM-1B provides linear burst fire 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-1B-

Power Control Module

Single Pole

Burst Fire

SCR or SSR

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	2%

Output Specifications(cont.)

Voltage Limit Adjustment Range	5-100% of max. Output voltage
Line Voltage Compensation Range	+/-15% up to 100% output power
Regulation	+/-2%

Thermal Specifications

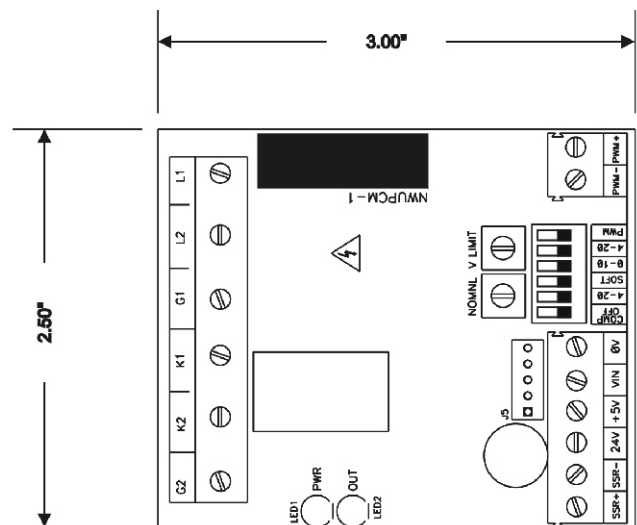
Operating Temperature Range	0 to 50 degC
Storage Temperature Range	-40 to 100 degC

Dip Switch Selections

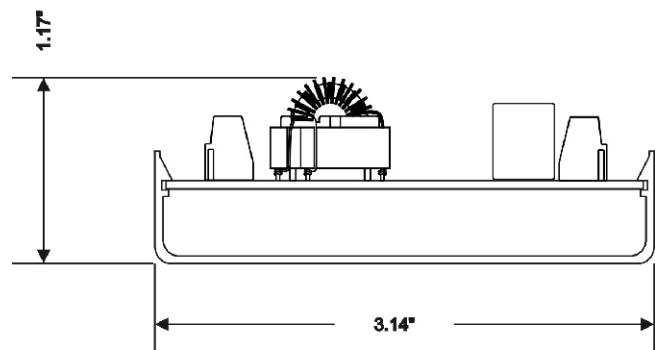
Dip Switch 1	Dip Switch 3	#of cycles	Cycle Time (60Hz)	Cycle Time (50Hz)	Resolution (% of FS)
*OFF	*OFF	~16	266mS	320mS	~1%
ON	OFF	60	1S	1.2S	1.66%
OFF	ON	600	10S	12S	0.166%
ON	ON	6000	100S	120S	0.0166%

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)