

## Trigger Module PSPC 100



Left: PSPC100 - I - 440  
Right: PSPC100 - Z - 440

## Features

- o High specification zero voltage or instantaneous trigger module
- o Constant current protected input
- o Direct driven by TTL or CMOS circuits
- o Triggers high powered thyristors (or solid state relays) up to 1000A
- o Zero voltage triggering eliminates transient noise
- o Instantaneous triggering (i.e. phase control) suitable for inductive load applications
- o Versatile packaging saves assembly time
- o Wide input logic range
- o High output 'blocking' voltage
- o Conforms to UL, CSA and VDE requirements

# General

The PSPC 100 is a low cost, high performance zero voltage or instantaneous switching thyristor trigger module. The packaging concept for this product allows the user to mount PSPC 100 trigger module directly alongside encapsulated thyristor power modules, therefore saving space and wiring between trigger circuits and thyristors.

The advanced product design gives the PSPC 100 the capability of triggering any thyristor (or solid state relays) up to 1000A current rating without any external components. It also accepts a wide logic input range and has an input current limit of 14mA (max).

Instantaneous switching is suitable for phase angle control applications and inductive loads such as solenoids.

The zero voltage switching reduces high inrush current and electrical noise and is suitable for resistive or low inductive loads.

The unit is also suitable for connection with single phase, (line neutral), 3 phase line-line (delta) and 3 phase 4 wire star configurations.

The PSPC 100 thyristor trigger modules are housed inside a versatile industry tested casing, resulting in a more convenient and easy to install system and even further space savings.

## Ordering:

Zero crossing version=  
"PSPC100-Z-(240 or 440)"

Instantaneous version=  
"PSPC 100-I-(240 or 440)"

(The only physical differences between the two versions are that the instantaneous version has wires G2, K2, K1, G1 from left to right as in the diagram overleaf, whereas the zero-crossing version has wires G2, K2, G1, K1 from left to right when viewed from the front of the unit)

# Specification

## Input:

Range.....	0V to 30V (0V - 15V optimal) <i>For input ranges greater than 15 V it is recommended to use a 1K (1W) resistor in series with the logic input.</i>
Operates at.....	Above 4V dc
Releases at .....	Below 1.5V dc
Input current.....	14 mA (max)

## Output:

Output current (each gate).....	1.4A peak at 90° phase angle firing
Isolation input/output.....	2500v rms
Max. turn on voltage window .....	40v (240v), 80v (440v) : PSPC 100-Z only
Off state dv/dt (minimum) .....	100v/us
'Blocking' voltage .....	1600v rms

## Supply:

Supply voltage.....	240v rms or 440v rms (+10% -30%)
Supply frequency.....	40-70 Hz

## Environmental:

Operating temperature.....	0°C to +55°C ( - 10°C to +100°C extreme)
Storage temperature.....	- 30°C to 125°C

## Mechanical:

Overall dimensions.....	92 x 20 x 35 mm (80 mm between centres)
Mounting holes .....	Suitable for M5 screw fixings
Weight .....	62.5g (typ)
Standards and specification.....	UL94V-0

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