

# The PP820 Series High Current LED Lighting Controller With Ethernet

## LEDS CAN NOW REPLACE XENON STROBES



Brightest LED Pulsing Ever

Pulsing up to 160A

Very Accurate Timing

Designed for New Generation LED's

The PP820 series LED lighting controller range provides very fast accurate large current pulses for high end applications. With new generation LEDs the PP820 series can provide high intensity pulses which exceed the brightness of xenon strobes. There is also a high precision version of the standard series, offering significantly higher control of the output current.

Three modes of operation are provided independently for each channel:

**Continuous:** Output is a continuous current, with configurable intensity

**Pulsed:** Output is pulsed once per trigger, with configurable delay, pulse width and intensity

**Switched:** Output is a continuous current, turned on and off by a digital input

The PP820 series is configured using the Ethernet connection to a network. The configuration is saved in non-volatile memory so that the PP820 series will resume operation after a power cycle.

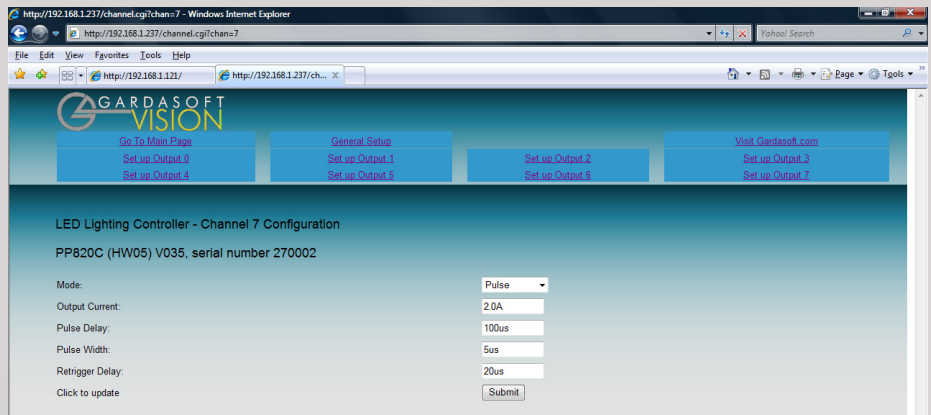
PP820 Series Specification	
Output channels	8 independent constant current output channels
Output current options	<p>PP820: Controllable in steps of approx 100mA. Up to 20A pulsed or 2A continuous            PP820C: Controllable in steps of approx 5mA. Up to 20A pulsed or 2A continuous</p> <p>PP821: Controllable in steps of approx 10mA. Up to 2A pulsed or 2A continuous            PP821C: Controllable in steps of approx 0.5mA. Up to 2A pulsed or 2A continuous</p> <p>PP822: Controllable in steps of approx 25mA. Up to 5A pulsed or 2A continuous            PP822C: Controllable in steps of approx 1.5mA. Up to 5A pulsed or 2A continuous</p>
Trigger inputs	8 opto-isolated digital inputs
Pulse width timing	From 1 microseconds to 300 milliseconds in steps of 1 microsecond. Timing repeatability 100 nanoseconds
Delay from trigger to pulse	From 4 microseconds to 300 milliseconds in steps of 1 microsecond. Timing repeatability 1 microsecond (depending on conditions)
Supply voltage	Unregulated or regulated 12V to 48V
Configuration	Ethernet, using TCP/IP or UDP. Configured using a web browser, Gardasoft's configuration program or from the user's application software
Dimensions	215mm long by 54mm wide by 82mm high
Weight	600g
Mounting	Panel mounting. Six M4 tapped holes



## Miniature Web Server

The PP820 series LED Lighting controllers has all the features of Gardasoft's LED Lighting controllers with the addition of an Ethernet connection.

The PP820 acts as a miniature web server and can be controlled by image processing software on a remote PC.

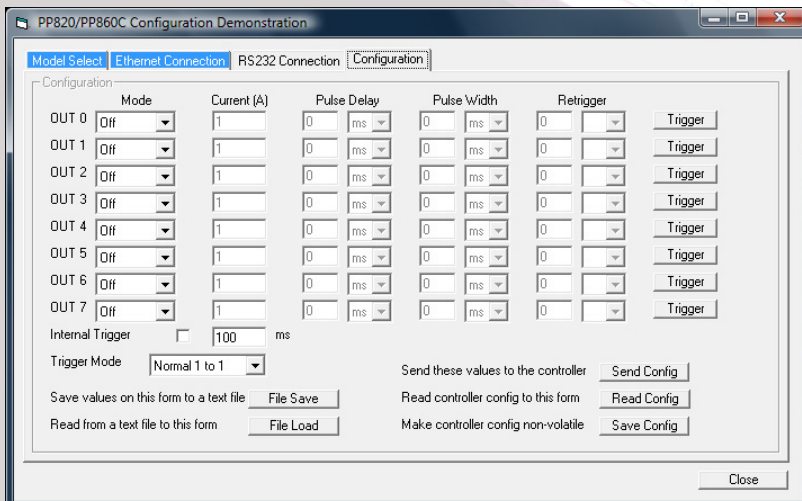


Screenshot of the control interface simply using a web browser

## Optional Ways to Configure

Firstly, a Web Browser can be used to access its web pages allowing status to be viewed and parameters to be changed.

Secondly, simple string commands can be sent from an application program using TCP/IP or UDP. The Gardasoft Vision website [www.gardasoft.com](http://www.gardasoft.com) has a free download of a configuration program (with fully commented source) showing how the PP820 series can be controlled from a PC using the customer's application.



The Gardasoft range offers a range of communication options including Ethernet and RS232, as well as embedded control via a simple pushbutton interface.

The latest controllers also provide Gardasoft patented SafeSense™ technology. These controllers (PP500 & PP420) provide the user with a safe working environment when overdriving LEDs; ensuring that limits are not exceeded that would damage the LEDs.

## Ethernet Features

The PP820 series needs an IP address. It can be configured to work using a specific IP address or using a Dynamic Host Configuration Protocol (DHCP) server, which supplies a temporary IP address.

## Gardasoft Lighting Controllers

Gardasoft Vision Ltd manufacture a wide range of LED controllers. Two channel (PP500) and four channel controllers (PP420) are also available alongside the eight channel controllers.

