GARDASOFT
Machine Vision Control

World leaders in
LED Lighting and Control

PP5XX

PP5XX LED Strobe Controller

Key features:

- Compatible with nearly any LED lighting assembly available today
- Two independent controlled output channels
- Ethernet connectivity
- SafeSense™ technology for safe overdriving
- Small compact unit with optional DIN mounting available

PP5XX Quick Specification:

- 2 channel output
- Optional Ethernet interface
- 10A maximum pulsed
- 2A maximum continuous
- Supply voltage 12-48V DC
- SafeSense™ enabled
- 20µS minimum pulse width
- Optional 5µS pulse width (F version)

For a full specification please refer to the PP500 datasheet

Manufacturer connection diagrams

- CCS Creating Customer Satisfaction

To get the very best out of your LED lighting solution, in terms of brightness stability and control, the lights should be driven from a current source, not a nominal voltage supply. The Gardasoft controllers are current sources. The PP5XX LED lighting controller offers two output channels which are independently controlled.

Each channel can be individually configured to output continuously; or pulsed based on an external trigger signal or internal timer. The 'F' version controller will allow pulse width control down to 5µS resolution. Selected mode allows switching of the light based upon the state of an external trigger.

The PP520 models can be quickly configured using our free software which can be downloaded from this page, or simply by accessing the controller via your internet browser; type in the IP address for the controller into your browser and you have full access to all of the parameters. If you are using a third party software package the PP520 has a simple command set that is detailed in the manual allowing easy communication. As with all Gardasoft products, all the settings are stored in non-volatile memory, and it will retain these settings even when the Ethernet connection is disconnected.

Using our patented SafeSeries™ technology, the PP5XX controller allows you to overdrive your LED lights safe in the knowledge that the lights will be protected from damage. SafeSense™ regulates the pulse width timing and duty cycle, depending on how high you are overdriving the light. The end result is you get the maximum light possible for your application. Gardasoft Controllers are universally compatible with LED Vision lighting, from manufacturers such as CCS.

If you're overdriving you may need to increase the DC power input to the controller or heat-sink the controller due to power dissipation. If this is an issue for your application we would recommend the RT200 series controller, which has all of the features of the PP5XX controller but is based around our SafePower™ technology. The Gardasoft White Paper on LED Controller technology is a useful reference for the principles of attaining maximum performance for Machine Vision illumination.

Specifications

Parameter	PP520	PP520F
User interface	Ethernet or pushbutton	Ethernet or pushbutton
Output channels	Two independent constant current outputs with SafeSense™	
Output current	From 0mA to 10A in steps of 3mA. Up to 2A per channel continuous or 10A pulsed.	
Trigger inputs	2 opto-isolated digital inputs. Require 3V to 24V.	
Pulse width timing	From 20us to 999 milliseconds in steps of 20us. Timing repeatability 0.1us	From 5us to 999 milliseconds in steps of 20us. Timing repeatability 0.1us
Delay from trigger to pulse	From 20us to 999 milliseconds in steps of 20us. Timing repeatability 1us	From 5us to 99 milliseconds in steps of 1us. Timing repeatability 1us
Output voltage	0V to 46V.	
Supply voltage	Regulated 12V to 48V. The supply voltage must be at least 1V higher than the output voltage required by the lighting.	

Dimensions	118mm long by 76mm wide by 27mm high (excluding DIN fixing)
Weight	240g excluding DIN fixing
Mounting	DIN rail or panel mounting.

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