Datasheet

LED Strobe Controller IPSC2

Business Class LED Illumination Controllers at Economy Prices

The IPSC Strobe Controller series is designed for Industrial Machine Vision camera applications where fast moving objects need be captured with minimal blur. To achieve this, the strobe controller generates very bright LED flashes (strobes) precisely synchronized with the cameras' image capture during the very short exposure times. Due to the ultra-short, but high power strobes, the illumination intensity is significantly increased and at the same time, the thermal effects for the LEDs are reduced. This method of lighting control exploits the characteristics of the LED illumination devices beyond their standard mode of operation without affecting their lifetime and reducing overall system costs.
The two channel model IPSC2 drives a broad range of LED illumination devices in continuous and flash mode. Thanks to the ability to deliver current pulses of up to 10A and up to 200V per channel, it is also suitable for large and high-power LED lights connected in series. The exceptional switching power and precision is complemented by integrated LED cooling fan power supplies and the use of Digital Light-Head coding, which reads the power limitations of the LED illumination devices used and avoids potential damage caused by high power pulses.
The IPSC Strobe Controller series is designed for long life, continuous operation and reliability. In addition, the units have Ethernet access to the controller settings via a user friendly graphical interface in the internet browser, or alternatively via a C++ based API which allows easy integration into any software application. The combination of cutting-edge performance and a highly competitive price point has led to an ever-growing list of demanding reference applications for the SMARTEK Vision IPSC series. Applications range from quality assurance in German luxury car production to print inspection of tokens. Our sales and support team is on hand and ready to assist you in finding the right solution for your specific application.

Key Benefits & Features:

- 2 channels with adjustable output voltage from 5V up to 200V
- High power pulses of up to 10A @ 200V per channel
- Ultra precise pulse adjustment per 1µs and 1mA
- Variable pulse durations from 1µs to 1s
- Comfortable control via browser interface, client application or API, over Ethernet
- Trigger input interface from 5V up to 24V level at negative or positive edge
- Digital or analog light-head coding
- Online current and voltage measurement
- Temperature sensor and overload protection
- Integrated power supply for cooling fan
- Robust and compact anodized aluminum case
- Optional 48V output voltage limitation

Strobe Controller IPSC2

Specifications:

Output channels:	2
Max current pulse (depending on pulse width):	10A @ 200V per channel (20A total)
Max continuous current:	1A @ 30V per channel (2A total)
Pulse output range:	1µs to 1000ms in 1µs increments
Trigger input:	0 – 5V or 0 – 24V level, positive or negative edge
Control interface:	Ethernet (10BaseT)
Power requirements:	12V – 24V DC (min 11V, max 26V)
Power consumption:	Max 3A @ 24V (72W) Max 3.5A @ 24V (84W) with cooling fan on output
Housing:	Black aluminum case
External dimensions (H / W / L):	39 x 88 x 103 mm
Weight:	approx. 285g
Storage temperature:	from -30°C/-22°F up to +80°C/+176°F
Operating temperature:	from -5°C/+23°F up to +50°C/+122°F
Operating relative humidity:	from 25% up to 80% (non-condensing)

Accessories (sold separately):

Our team is happy to assist you in finding the optimal accessories for your controller.

Power supply:	100W/ 24V DC, AC plug E+F(CEE 7/7), 2 leads with core ends for controller DC interface
Cabling:	Ethernet CAT5e/6 cables with RJ45 plugs (straight or angled, various flexibility grades) Standard power output cable to connect LED lights
Lighting:	Please contact your local sales representative for our comprehensive lighting portfolio

Software Environment:

Client software:	SMARTEK Vision ScLibClient Strobe controller configuration and control, intuitive graphical user interface for the adjustment of all available settings
Web interface:	Fully featured remote configuration via HTTP, no software installation needed
SDK:	ScLibSDK with documented API, configuration software and programming samples
Firmware update:	via Ethernet

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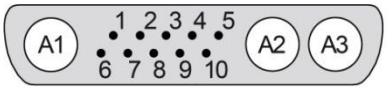
Pin Assignment (Output Connector):



1 – **Channel 1, GND**
2 – **Channel 2, GND**
3 – Not connected
4 – Not connected
5 – Not connected
6 – Not connected
7 – Analog ID
8 – Signal GND (GND for signals 7, 9, 10)
9 – Trigger Output Digital Signal, 3.3V LVTTL level
10 – Digital ID (1-Wire EEPROM interface, 3.3V LVTTL level)
A1 – +24V DC, max 0.5A (for light head cooling fan)
A2 – Power GND
A3 – **+V, Common Output voltage**

Dimensions in mm / [inch]:

External dimensions (H / W / L): 39 x 88 x 103 mm