

Strobe Light Controller LD110 & LD120

The most flexible on the market!

The LD110 and LD120 are the most flexible light controllers available for the machine vision applications. The controller was designed to drive any type of LED module with it's built in security feature to limit output current and voltage. Each unit comes with a GUI for controlling all the parameters. A calibration mode was specially designed for integration of new light heads. Input and output triggers are provided for real time image capture applications. The strobe light controller can also accept digital encoder input for execution of position related events stored in the controller's memory, making this controller the perfect tool for your present and future lighting project.

Features:

- Fully programmable via RS-232, USB 2.0/1.1 or Ethernet 10/100Mbps
- Choice of 1 or 2 Light Head output models with 4 channels each
- 5 Amps pulsed current per channel
- Up to 20 Amps pulsed current per Light Head by combining the channels
- Programmable output voltage from 24 to 100 VDC
- Software programmable trigger polarity (rising or falling edge)
- Digital Signature for each Light Head based on 1-wire EEPROM technology
- Calibration Mode for new Light Head set-up
- Digital encoder input accurate position light strobe events
- Up to 4,000 position events of 24 bit can be stored in memory
- Easy to integrate form factor for electrical panel mounting

Model Description:

	LD110	LD110-U	LD110-E	LD120	LD120-U	LD120-E
Communication Type	RS232	USB	Ethernet	RS232	USB	Ethernet
Number of Light Head	1	1	1	2	2	2
Number of output channels	4	4	4	8	8	8
Digital encoder input	1	1	1	1	1	1
Opto-isolated trigger Input/Output	2/2	2/2	2/2	2/2	2/2	2/2

Electrical Specifications:

Parameters	Value	Unit
Power input voltage	24	VDC
Power input current require	500	mA
Trigger input voltage min.	5	V
Trigger input current	4-8	mA
Trigger output voltage TTL (max/min)	0.5/2.4	V
Trigger output current max.	8	mA
Light Head voltage	24-100	V
Current per channel pulse mode	0-5	A
Current per channel DC mode	0-150	mA
Digital encoder input differential as per RS422	---	---
Encoder, output supply voltage	5	V
Encoder, output supply current	200	mA

All Dimensions
Inch (mm)

Model Shown: LD120-U



Timing Specifications:

Parameters	Value	Unit
Delay from input to pulse	0.06-84000	µs
Width of the pulse	0.04-84000	µs
Hold off trigger input	0.04-84000	µs
Master power output	0-100	%
Encoder speed max at 1µm/step	10	m/s
Trigger propagation delay (max)	60	ns
Trigger Maximum Frequency	50	kHz

Power and I/O Connector Pin-out, TB12-3.5mm, Weidmüller p/n: 1615880000

Pin #	Signal	Description	Pin#	Signal	Description
1	0VDC	PWR Input	7	+TRIN2	Trigger IN Ch.2 positive
2	+24VDC	PWR Input	8	SHIELD	Chassis GND
3	SHIELD	Chassis GND	9	-TROUT1	Trigger OUT Ch.1 negative
4	-TRIN1	Trigger IN Ch.1 negative	10	+TROUT1	Trigger OUT Ch.1 positive
5	+TRIN1	Trigger IN Ch.1 positive	11	-TROUT2	Trigger OUT Ch.2 negative
6	-TRIN2	Trigger IN Ch.2 negative	12	+TROUT2	Trigger OUT Ch.2 positive

Mechanical and Environmental Specifications:

Dimensions (Width x Height x Depth): 2.140 x 6.500 x 6.395 inch, 54.4 x 165.1 x 162.4 mm

Weight: 600 g

Operating Conditions: Temp. 0 – 40°C, Humidity Maximum 95% (non-condensing)

