

# Strobe Overdrive Control Unit POD Series



Multi-functional and fine-tunable  
for various applications



# Voltage control during overdrive operation.



## Features

# Strobe lighting. Overdrive specifications.

Variable-voltage control

Strobe time control

Output voltage  
(24 to 48 V)

**512** levels

Fine-tuned light control

Strobe time:

**1 to 1,000**  $\mu$ s

Lighting delay: **0 to 1,000**  $\mu$ s

Adjustable in steps of 1  $\mu$ s.

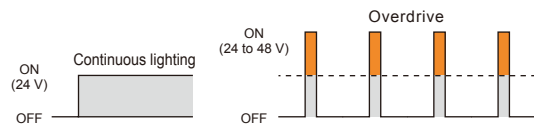
Ethernet communications (Parallel port also available.)

2 channels

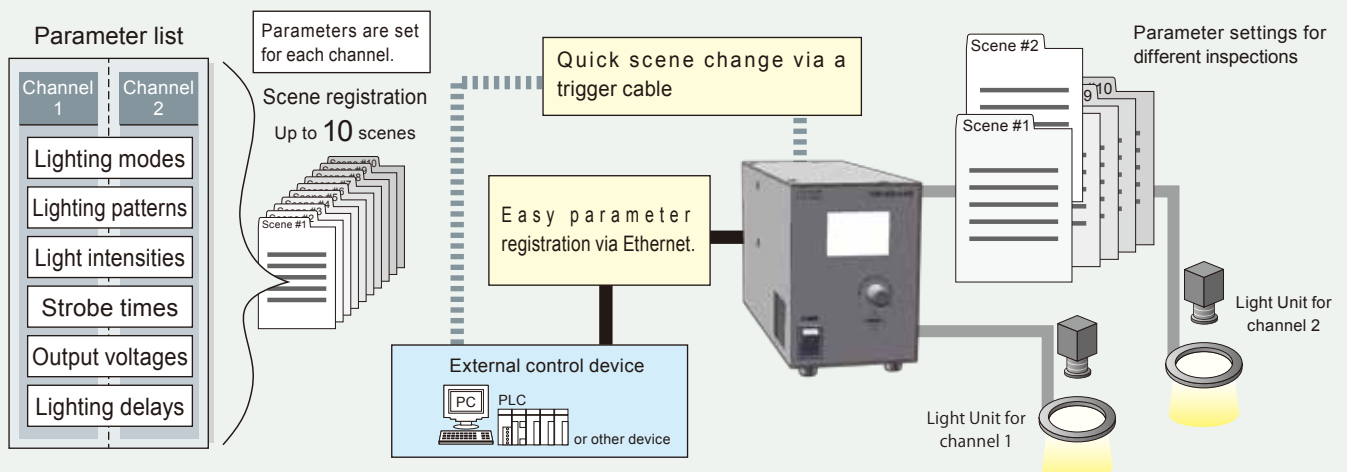
Continuous lighting under  
PWM control

### What Is "Overdrive"?

Overdrive is used to emit brighter light by applying a high voltage to an LED Light Unit only for flashes shorter than 1 ms. This voltage exceeds the voltage for continuous lighting.



## You can register the parameters according to your inspection scenes.



You can register sets of parameters called "scenes" that consist of the light control settings for the two channels. By just applying a scene to the channels, you can easily change the settings. Up to 10 scenes can be registered. Refer to the *Instruction Guide* for details.

# Using the POD Series

"I don't want to change the camera settings.  
I want to adjust only the brightness of the Light Unit."

### Conventional method

Camera Exposure time is adjusted.  
Exposure time adjustment

Light Unit Strobe time  
Thus, the shutter speed must be adjusted as well.

Adjusting the camera gains and other settings made the image coarse.

I don't want to change the parameters.

### POD Series

Camera Exposure time

Brightness (voltage) adjustment  
Light Unit Strobe time

Changing the output voltage (Variable-voltage control) adjusts the brightness of the Light Unit, without changing the exposure time.

Changing the voltage can be used to adjust the brightness without changing the exposure time.

All I have to do is to change the output voltage.

I can keep the shutter speed as it is.

"I want to eliminate image blur."

### Conventional method

Frequent blurring. (Long strobe time)

Minimum strobe time  $10 \mu\text{s}$   
(Set in steps of  $10 \mu\text{s}$ .)

A long strobe time leads to image blurring.

The inspection accuracy is not good because of image blurring.

I want to shorten the strobe time.

### POD Series

Less blurring. (Short strobe time)

Minimum strobe time  $1 \mu\text{s}$   
(Set in steps of  $1 \mu\text{s}$ .)

The shorter strobe time reduces blur.

I can take images without blurring.

Also, inspection accuracy has been improved.

Switching the scene according to the inspection item.

### Conventional method

Changing parameters takes time.

Light Unit for channel 2

Light Unit for channel 1

The parameters must be changed for each inspection.

Thus, it takes time, and is troublesome.

### POD Series

**The best light control in a flash**

- Register the light control parameters for both Light Unit in scenes.
- Switch the scene as needed.

Light Unit for channel 2

Light Unit for channel 1

Scene #2

Scene #1

Once parameters have been registered, they can be quickly applied for each inspection.

This saves time and is useful in changing the system setup for inspections.

## Specifications

Model	POD-5024-2-PEI	
Lighting method	Strobe lighting (Overdrive mode), Continuous lighting (PWM mode)	
Drive method	Constant-voltage system	
Intensity control method	Variable-voltage control, PWM control	
Number of channels	2 channels	
Output ratings (total for 2 channels)*	When both channels are in O/D Mode	Output current: 10 A max.
	When both channels are in PWM Mode	Output power: 45W max.
	When the channels are used together with different lighting modes	Output current: 6.3 A max. and Output power: 36 W max.
PWM frequency	125 kHz	
Light control settings	Manual	Operation on the front panel
	External	Command input via TCP/IP or UDP/IP communications Signal input through parallel port
Strobe time settings	Manual	Operation on the front panel
	External	Command input via TCP/IP or UDP/IP communications Signal input through parallel port
Lighting delay settings	Manual	Operation on the front panel
	External	Command input via TCP/IP or UDP/IP communications Signal input through parallel port

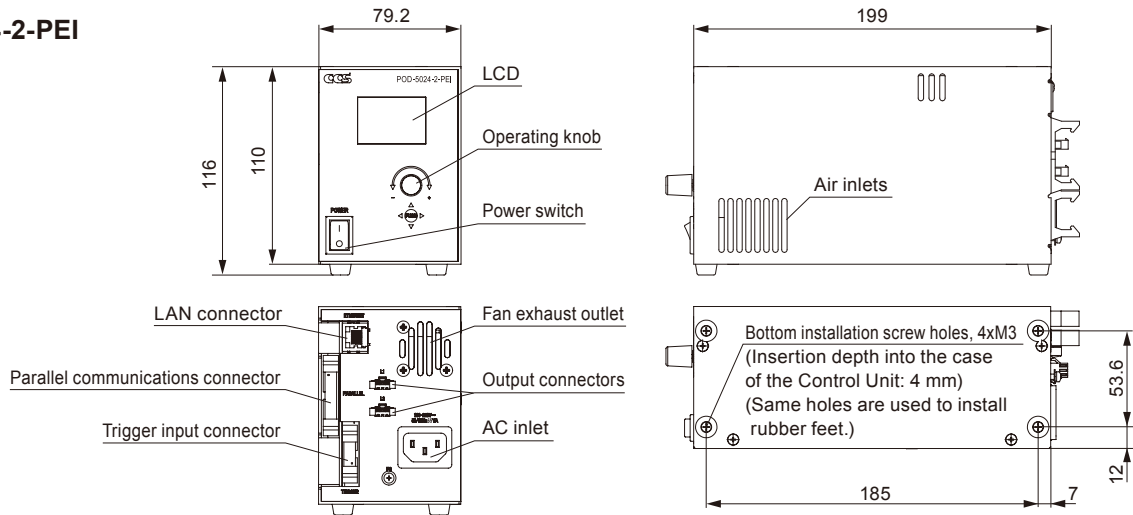
Input power	100 to 240 VAC (+10%, -15%), 50/60 Hz
Power consumption (typ.)	65 VA
Inrush current (typ.)	15 A (at 100 VAC), 36 A (at 240 VAC) from a cold start
Ground leakage current	3.5 mA max. (264 VAC, 60 Hz, with no load)
Output voltage (ratings)	Overdrive mode: 24 to 48 VDC, PWM mode: 24 VDC
Insulation withstand voltage (input-output, input-FG)	1500 VAC for one minute, Cutoff current: 10 mA, 500 VDC, 20 MΩ min.
Overvoltage category	Category II
Operating environment	Temperature: 0 to 40°C, Humidity: 20% to 85% (with no condensation) Altitude: 2,000 m max., Protective ground class: Class I, Pollution degree: 2, Indoor use only
Storage environment	Temperature: -20 to 60°C, Humidity: 20% to 85% (with no condensation)
Vibration resistance	Acceleration: 19.6 m/s <sup>2</sup> , Frequency: 10 to 55 Hz, Cycles: 3 minutes, Sweep cycle: for 1 hour each in X, Y, and Z directions
Cooling method	Forced air cooling
CE Marking	Safety standard: Conforms to EN 61010-1, EMC standard: Conforms to EN61000-6-2, EN61000-6-4
Environmental regulations	RoHS compliant
Material, coating, and surface processing	Steel sheet, Cover thickness: 1.6 mm, Chassis thickness: 1.0 mm, N3 (leather tone)
Weight	1,500 g max.
Accessories	One Instruction Guide, One 2-m-long 3-prong AC power cord with ground terminal

\* For information on the combination of Light Units and POD-series Control Unit, please refer to our website. <http://www.ccs-grp.com/lnk/qr/pod>

## Dimensions (mm)

### POD-5024-2-PEI

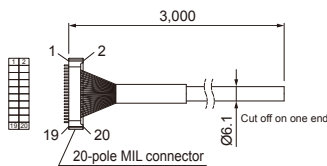
CE



## Optional Accessories

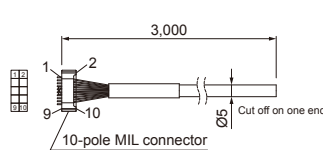
### Parallel Communications Cable

Model: EXCB2-M20-3



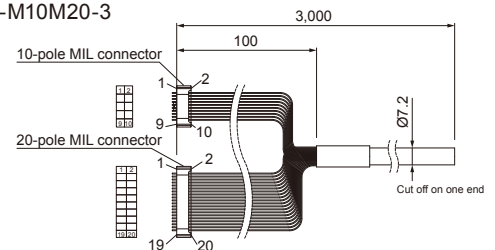
### Trigger Input Cable

Model: EXCB2-M10-3



### Parallel Communications and Trigger Input Branch Cable

Model: EXCB2-M10M20-3



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• To ensure proper and safe use of the product, please read the Instruction Guide completely before using the product. • The design and specifications of this product are subject to change without notification for product improvement.



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