

# Strobe Overdrive Control Units POD Series



Multi-functional and fine-tunable  
for various applications



**POD-5024-2-PEI**  
(2-channel model)



**POD-22024-4-PEI**  
(4-channel model)

**NEW**

Expanded  
product lineup

# Strobe Overdrive Control Units

# POD Series

## Strobing Combined with Overdriving.

Variable-voltage control

Strobe time control

You can individually control both brightness and flash duration.

Intensity  
**512**  
levels

Minimum  
strobe time  
**1**  $\mu$ s

Continuous  
lighting under  
PWM control

Ethernet and  
Parallel  
communications

Storable  
Scenes

**NEW**

Expanded  
product lineup



### POD-22024-4-PEI

Strobe time

For manual control and Ethernet communications:

**1 to 1,000  $\mu$ s** (in steps of 1  $\mu$ s)

**1,002 to 3,000  $\mu$ s** (in steps of 3  $\mu$ s)

For parallel communications:

High range: 3 to 3,000  $\mu$ s (in steps of 3  $\mu$ s), Low range: 1 to 1,000  $\mu$ s (in steps of 1  $\mu$ s)

**4 channels with 6 connectors**

Light connectors

• **Four SM connectors** (L1, L2, L3, and L4 channels)

• **Two EL connectors** (L1 and L2 channels)

Note: The Light Units corresponding to the L1 or L2 channel operate in the same way.

**Trigger Link Function**

You can make the Light Units on more than one channel flash linked to a trigger signal that is input through one of the pins in the trigger input connector.

### POD-5024-2-PEI

Strobe time

For manual control, Ethernet communications, and parallel communications

**1 to 1,000  $\mu$ s** (in steps of 1  $\mu$ s)

**2 channels with 2 connectors**

Light connectors

• **Two SM connectors** (L1 and L2 channels)

#### A Specification Difference between POD-5024-2-PEI and POD-22024-4-PEI

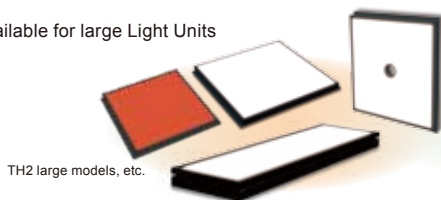
In POD-22024-4-PEI (4-channel model), the lighting mode setting (Overdrive or PWM) is applied to all channels. Please note that the setting cannot be individually specified for each channel as in POD-5024-2-PEI (2-channel model).

### Compatible with More Than 700 Models Light Units

These Light Units support strobe lighting using overdrive. They emit light brighter than that of continuous lighting.

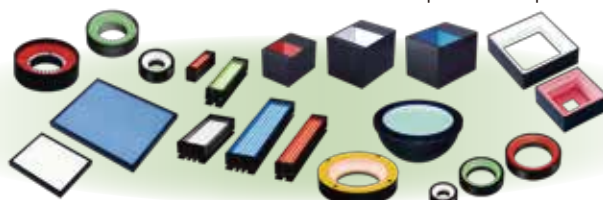
#### EL Connector Models

Available for large Light Units



#### SM Connector Models

Rich product lineup



For information on possible combinations of Light Units with a POD-series Control Unit, refer to our website.  
<http://www.ccs-grp.com/lnk/qr/pod>

#### What Is "Overdriving"?

Overdriving is used to emit brighter light by applying a high voltage to an LED Light Unit. This voltage exceeds the voltage for continuous lighting.

ON (24 V) Continuous lighting  
OFF

Overdriven strobe lighting  
ON (24 to 48 V)  
OFF

# 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 adjustment — The amount of light is adjusted by changing exposure time.

Light Unit — Strobe time — Thus, the shutter speed is decreased.

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 is adjusted with variable-voltage control.

Light Unit — Strobe 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.

## 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 Units in scenes.
- Switch the scene as needed.

Light Unit for channel 2

Light Unit for channel 1

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

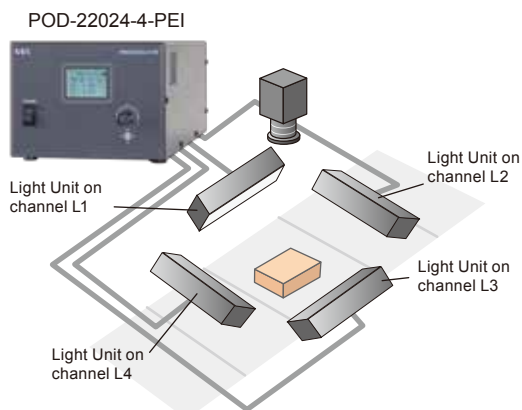
This saves time and is useful in changing the system setup for inspections.

Up to 10 scenes are storable.

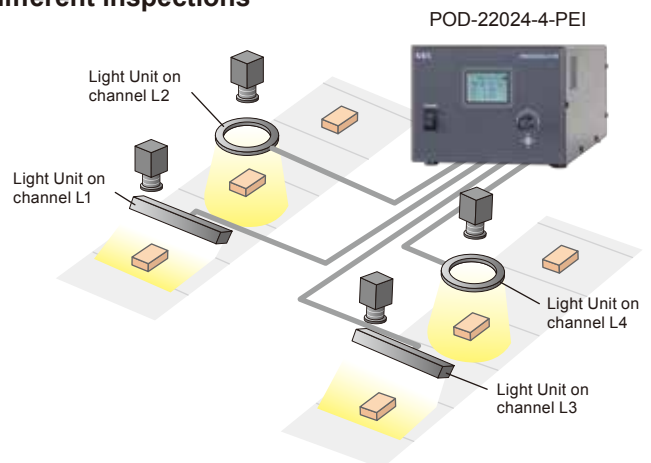
## **NEW** A new function added to the 4-channel model for implementing varied lighting style

**Trigger Link Function** You can make the Light Units on multiple channels turn ON (or OFF) with a single trigger signal that is input through one of the pins of the trigger input connector.

### Simultaneous control of Light Units installed in four directions



### Individual control of multiple Light Units for different inspections



## Specifications

Model name	POD-5024-2-PEI, POD-22024-4-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 <sup>*1</sup>	POD-5024-2-PEI: 2 channels, POD-22024-4-PEI: 4 channels		
Output ratings <sup>*2</sup>	POD-5024-2-PEI		POD-22024-4-PEI
	When both channels are in O/D Mode	Output current: 10 A max. (total for 2 channels)	O/D Mode (peak) Total for all channels: 50 A max. L1, L2: 15 A max./channel (SM connector: 10 A max.) L3, L4: 10 A max./channel
	When both channels are in PWM Mode	Output power: 45 W max. (total for 2 channels)	
When the channels are used together with different lighting modes	Output current: 6.3 A max. and Output power: 36 W max. (total for 2 channels)	PWM Mode Total for all channels: 200 W max. L1, L2: 100 W max./channel (SM connector: 60W max.) L3, L4: 60 W max./channel	
PWM frequency	125 kHz		
Light control settings	Manual	Operation on the front panel	
	External	Command input via TCP/IP or UDP/IP communications	512 levels
Strobe time settings	Manual	Operation on the front panel	
	External	Command input via TCP/IP or UDP/IP communications	POD-5024-2-PEI: 1 to 1,000 $\mu$ s (in steps of 1 $\mu$ s) POD-22024-4-PEI: 1 to 3,000 $\mu$ s <sup>*3</sup>
Lighting delay settings	Manual	Operation on the front panel	
	External	Command input via TCP/IP or UDP/IP communications	0 to 1,000 $\mu$ s (in steps of 1 $\mu$ s)
		Signal input through parallel port	

\*1 The Light Units corresponding to each channel operate in the same way.

\*2 For information on possible combinations of Light Units with a POD-series Control Unit, refer to our website. <http://www.ccs-grp.com/lnk/qr/pod>

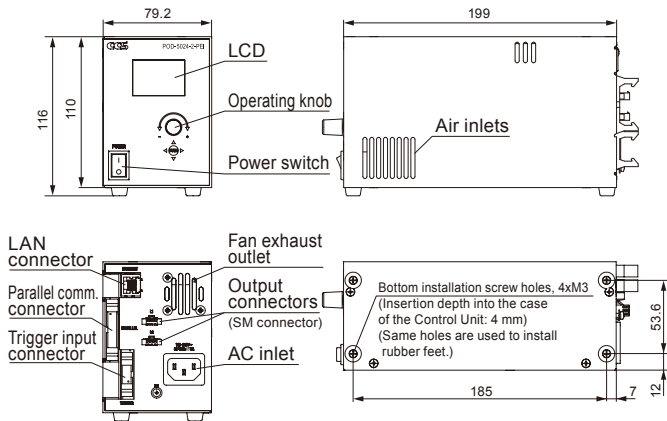
\*3 For manual control and Ethernet communications: 1 to 1,000  $\mu$ s (in steps of 1  $\mu$ s), 1,002 to 3,000  $\mu$ s (in steps of 3  $\mu$ s)

For parallel communications: 3 to 3,000  $\mu$ s (in steps of 3  $\mu$ s) for high strobe time range, 1 to 1,000 (in steps of 1  $\mu$ s) for low strobe time range

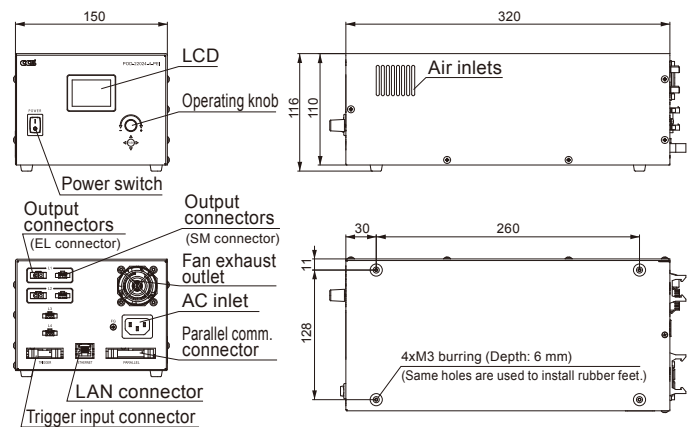
Input power	100 to 240 VAC (+10%, -15%), 50/60 Hz
Power consumption (typ.)	POD-5024-2-PEI: 65 VA, POD-22024-4-PEI: 260 VA
Inrush current (typ.)	POD-5024-2-PEI: 15 A (at 100 VAC), 36 A (at 240 VAC) from a cold start POD-22024-4-PEI: 17 A (at 100 VAC), 40.8 A (at 240 VAC) from a cold start
Ground leakage current	3.5 mA max. (264 VAC, 60 Hz, with no load)
Output voltage (ratings)	Overdrive (O/D) mode: 24 to 48 VDC PWM mode: 24 VDC
Insulation withstand voltage (input-output, input-FG)	1,500 VAC for one minute, Cutoff current: 10 mA, 500 VDC, 20 M $\Omega$ 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)
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	POD-5024-2-PEI: 1,500 g max., POD-22024-4-PEI: 3,300 g max.
Accessories	Instruction Guide x1, 2-m-long 3-prong AC power cord with ground terminal x1

## Dimensions (mm)

### POD-5024-2-PEI



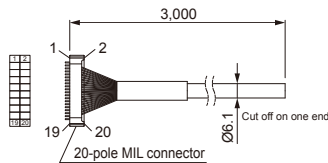
### POD-22024-4-PEI



## Optional Accessories (Sold Separately)

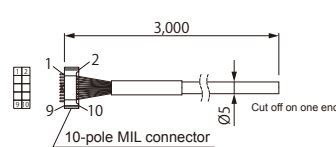
### Parallel Communications Cable

Model name: EXCB2-M20-3



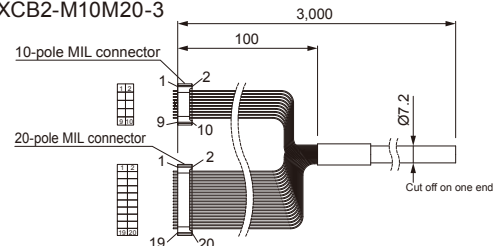
### Trigger Input Cable

Model name: EXCB2-M10-3



### Parallel Communications and Trigger Input Branch Cable

Model name: EXCB2-M10M20-3



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## CAUTION

- 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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