

# *New concept LED Controller*

Smallest dimensions in the class!!



Small !!

**1/12** of  
conventional one

Synchronization !

Control-input

& PWM

Best in the class !

Ratio of

Cost/Performance

# High performance function in the smallest size in the class !!

1,000 step (0~999)  
Digital display

Power and Output  
Indicator

Output mode Switch

Output terminal  
for LED(DC12V)



## Real size

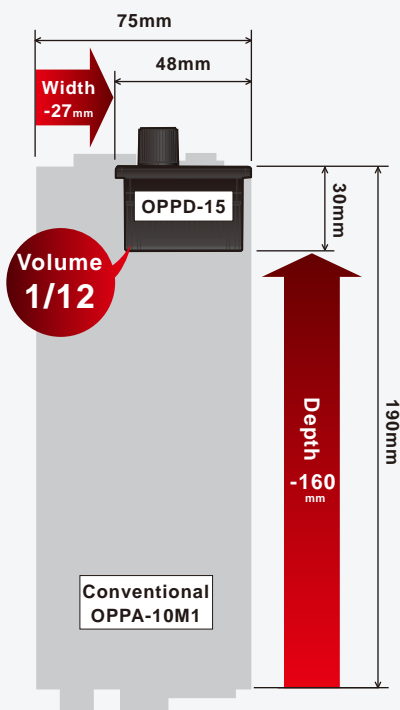
W48 \* H72 \* D30mm  
excluding rotary knob  
and connectors

Rotary knob with  
push switch built-in

Terminal block  
Power (DC24V),  
Control input

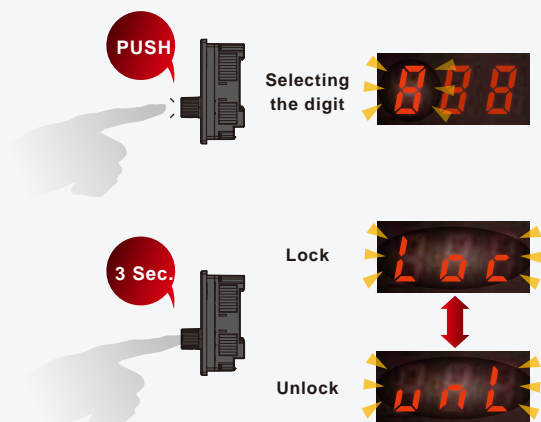
## Smallest size in the class

High density mounting and optimized heat dissipation design enabled palm size dimensions (W48 \* H72 \* D30mm). 12th of conventional digital LED power controller.



## 1,000 step adjusting with big digital display

1,000 step adjusting with Easy-to-see digital display and Easy-to-use rotary knob with push switch built-in. The digit to adjust can be selected easily by pushing the knob. Locking the knob can be executed easily by pushing the knob for 3 seconds as well.



## Involatile memory keeps setup

Internal EEPROM keeps the level setup even without power supply.

## Two way mounting saving space by panel mounting and DIN rail mounting

Mounting and dismounting on/from DIN rail can be done simply. Other tools or equipment are not needed.



Example of DIN rail mounting

Panel mounting can be done with optional bracket for panel mounting BKT-OPPD. It's useful when you have to adjust the brightness often.



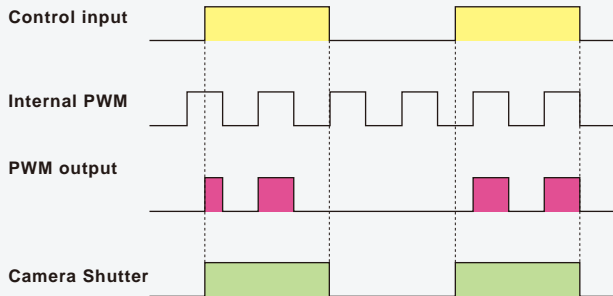
Example of panel mounting

## Stable brightness by synchronizing control input and PWM

Synchronization of control input and PWM enables stable brightness even for high speed capturing.

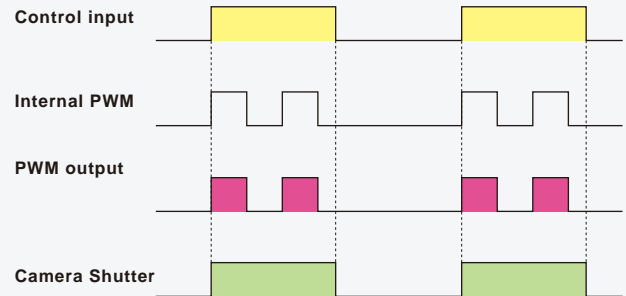
### Conventional

Brightness will be unstable when the shutter speed is very fast because they are not synchronized.



### Synchronization of control input and PWM

PWM start from the edge of the control input so the brightness averaged cumulatively won't be changed.



## Output mode

Logic of output versus control input can be switched by Output mode switch.

		Control input	
		OFF	ON
Output mode switch	ON	LED ON	OFF
	OFF	OFF	LED ON

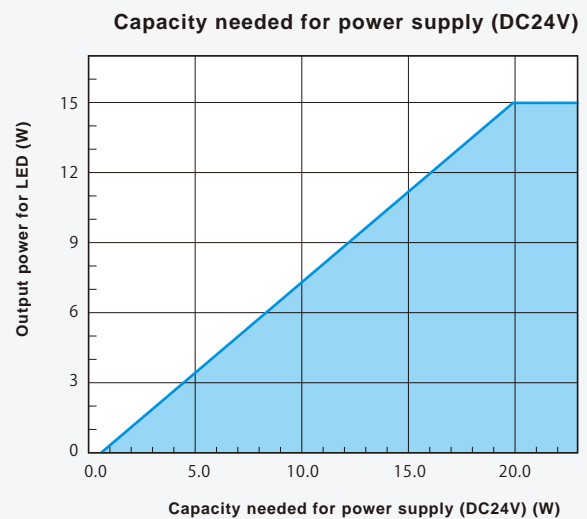
Response time is different between ON and OFF of Output mode switch. When Output mode switch is OFF, the speed of output getting OFF to ON is faster than it's ON.

		Control input	
		ON to OFF	OFF to ON
Output mode switch	ON	LED to ON 65µs	LED to OFF 18.5µs
	OFF	LED to OFF 65µs	LED to ON 18.5µs

## Output power vs. Supply power

Define capacity of power supply from the chart that shows supply power needed for providing output power.

\*\* Maximum output for LED: 15W



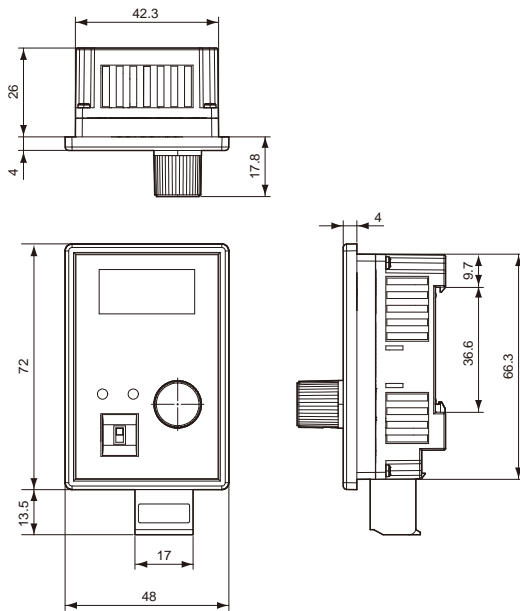
### Caution:

Please consider power consumption of other equipment. Capacity of power supply to be defined double normally considering peak power dissipation of all equipment connected.

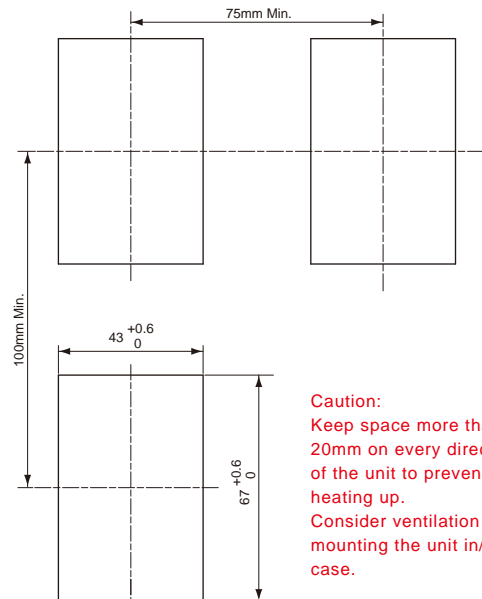
# Specifications

Part Number	OPPD-15
Supply Voltage	DC24V±10%
Power Consumption	Max. 0.9A
Brightness Control	Method: PWM, Frequency: 100kHz, Control Step: 1,000
Adjustment	Rotary knob / push switch built-in, 7segment 3digit display
Output	DC12V, 15W Max.
Control Input Voltage	DC12-30V
Response Time (typ.)	24V Power supply: OFF to ON: 18.5µs, ON to OFF: 65µs 12V Power supply: OFF to ON: 22.0µs, ON to OFF: 65µs
Cable recommended for terminal block	Solid wire: ø0.8mm(AWG20), Twisted wire: 0.50mm <sup>2</sup> (AWG20) Acceptable cable: Solid wire: ø0.4-ø1.2mm(AWG26-AWG16) Twisted wire: 0.2-1.25mm <sup>2</sup> (AWG24-AWG16) Core wire: ø0.18mm Min., Strip length: 9mm
Operating Temp./Humid.	0-50°C / 35-85%/RH without condensation
Storage Temp./Humid.	-20-70°C / 35-95%/RH without condensation
Vibration Resistance	10-55Hz 1.5mm X, Y, Z 2hours
Shock Resistance	Approximately 10G X, Y, Z 3 times
Material	PC
Weight	Approximately 60g excluding accessories
Conformity	CE (EN55022 class-A, EN61000-6-2), RoHS
Accessories	A terminal for power supply and a terminal block for I/O
Option	Bracket for panel mounting: BKT-OPPD

# Dimensions



# Hole for panel mounting (67 x 43mm)

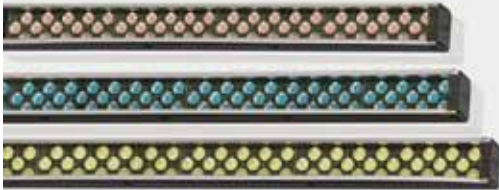


**Caution:**  
Keep space more than 20mm on every direction of the unit to prevent heating up.  
Consider ventilation when mounting the unit in/on a case.

## Cost effective LED lighting for machine vision

### OPB Series

**Line-up** Length: 50-300mm, Color: White, Red, Blue, Green



#### 3 times brighter! 30% cost down!

Brightness is drastically improved from conventional products. Good for high speed capturing and high resolution machine vision. Power consumption / brightness ratio can be halved.

#### New original technology "FALUX" installed

It adjusts and makes brightness stable even temperature changes.

#### Newly developed lens optimized for machine vision

It provides better brightness and lighting direction for longer distance.



Phone 800-280-6933  
www.optex-ramco.com



600-8815 Kyoto, Shimogyo, Chudoji Awata 93, Japan  
TEL. +81-(0)75-325-2920 FAX. +81-(0)75-325-2921  
http://www.optex-fa.com