



Sensing Bar Lighting

OPB-S Series

Built-in sensor allows brightness monitoring and feedback control for long-term stability

- “FALUX sensing” enables monitoring of brightness and feedback control.
- Easily adjust multiple lighting elements at the same brightness using default brightness data and standard brightness data stored internally.
- Adopts brightness fluctuation correction and high optical quality of the popular OPB Series.



Specifications

Model	Illumination Area [mm]	Weight [g]	Power Consumption [W]	Outline Drawing
OPB-S5015W	50 × 15	60	3.1	①
OPB-S10015W	100 × 15	85	6.2	②
OPB-S15015W	150 × 15	110	9.0	③
OPB-S20015W	200 × 15	145	12.0	④
OPB-S25015W	250 × 15	175	14.7	⑤
OPB-S30015W	300 × 15	205	17.6	⑥

Illumination color	White
Color temperature	7,000 K
Input voltage	12 VDC
Degradation of LED	For brightness to drop 10% after 10,000 hours (Dimming value setting = 100%, 30°C) *Typical values
Classification (IEC62471: 2006)	Risk Group 1 (Low-Risk)
Applicable regulations/standards	EMC (2014/30/EU), RoHS (2011/65/EU, MIIT Order No.32) / EN 61326-1:2013
Protection rating	IP40 (IEC 60529: 1989 / A1: 1999 + A2: 2013)
Ambient temperature/humidity	0 to 40°C, 35 to 85% RH (no condensation)
Storage temperature/humidity	-20 to 70°C, 35 to 95% RH (no condensation)
Vibration resistance	10 to 55 Hz; amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions
Shock resistance	Approximately 10 G, 3 times in each of the X, Y, and Z directions
Material	Housing: Aluminum and PBT, Lens: PC (UV-resistant)
Options	Diffusion plate (60% or 80%), transparent cover, polarizing plate, bracket

• See P. 69 for spectrum distribution diagrams.



Features

■ Built-in “FALUX sensing” technology

The built-in photodiodes make it possible to detect LED brightness. This allows for accurate measurement of LED brightness not only during continuous illumination but also with short period illumination. “FALUX sensing” also makes it possible to measure both the LED brightness of lighting and the internal temperature, and then to monitor those measurements on the power supply side.

Based on the monitored values, feedback control can also be performed from the OPPF Series controller.



Patent registered

■ Absolute brightness for simple instrumental error adjustment of multiple lighting elements

The factory default brightness and model-specific absolute brightness is stored in the internal memory and can be referenced from OPPF Series products.



This not only allows monitoring of changes in brightness but also enables easy instrumental error adjustment of multiple lighting elements by comparing the absolute brightness.

■ Succeeding the popular OPB Series in performance

Even with built-in sensor circuitry, the OPB-S Series adds only 3.5 mm in height. In addition to excellent optical properties, users will appreciate brightness fluctuation correction made possible by “FALUX sensing” technology.

Patent registered

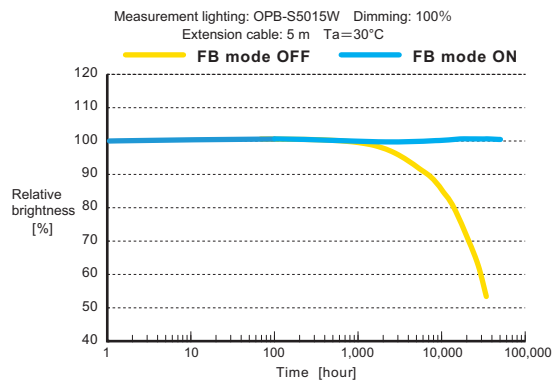
Input voltage-dependent constant current circuit + Temperature compensation circuit



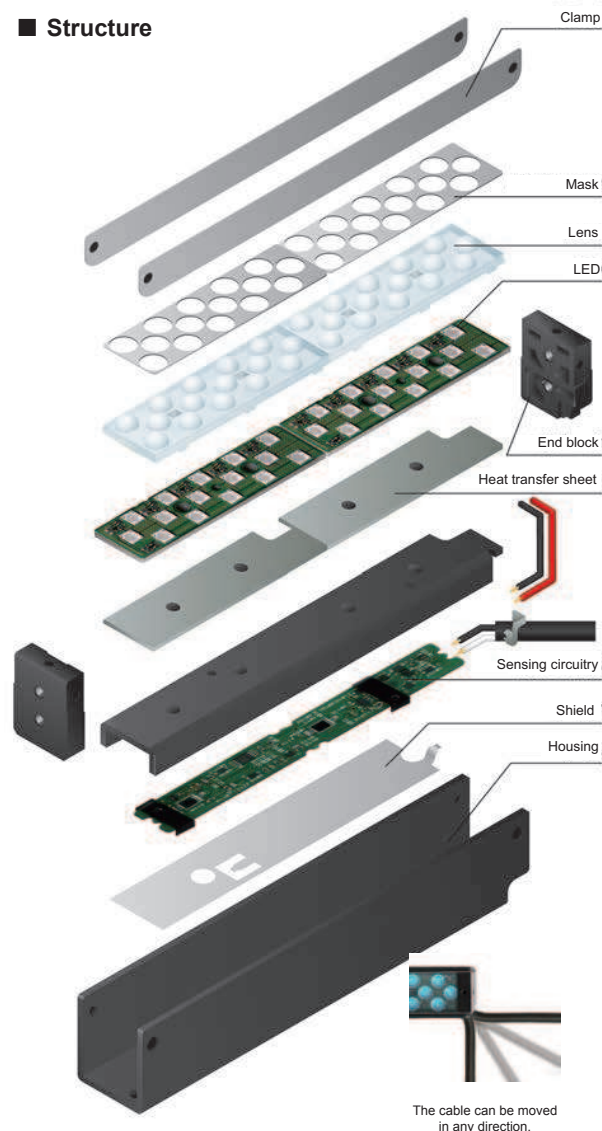
Patent registered

Thanks to its original lens, the light distribution characteristics have been optimized for image processing, and the lighting guide to the photodiodes makes highly accurate sensing possible.

Comparison of relative brightness with and without feedback control (estimated values)



■ Structure



Ring	OPR
	OPR-SF
Bar	OPB
	OPB-S
Backlight	OPF
Coaxial	OPX
Spot	OPS-S
Controllers / Power Supplies	OPPD
	OPPF
	OPPCW
Options	OP
	MDF

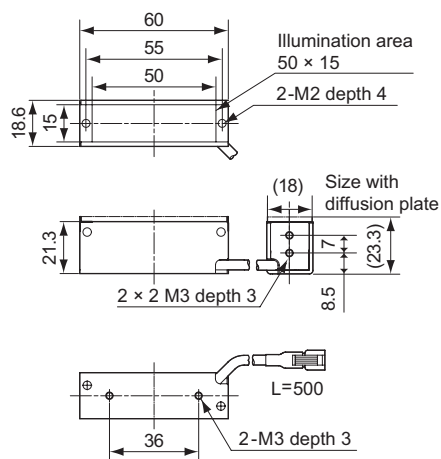
Options/Accessories

Same as OPB Series. See P. 17.

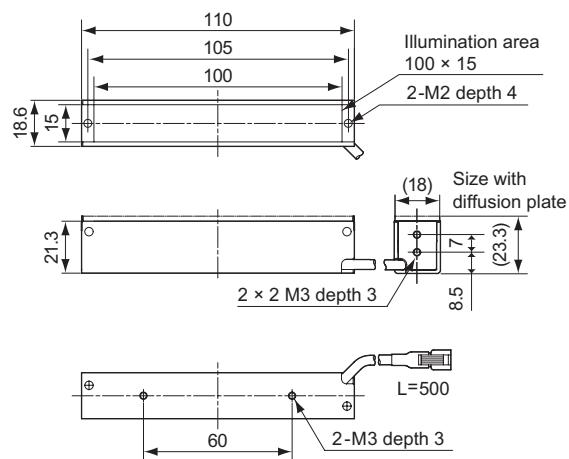


Dimensions

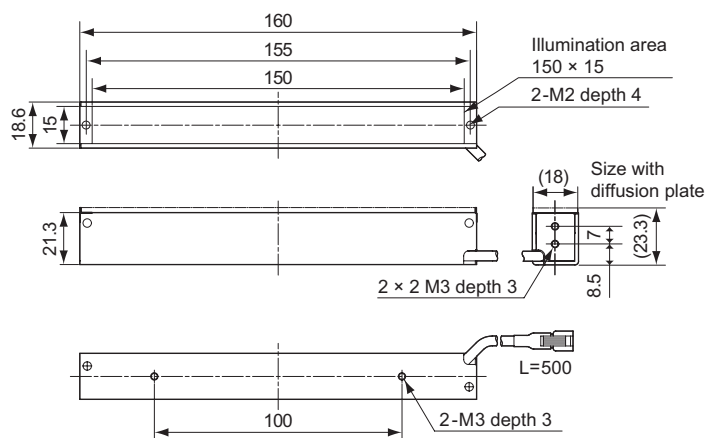
① OPB-S5015W



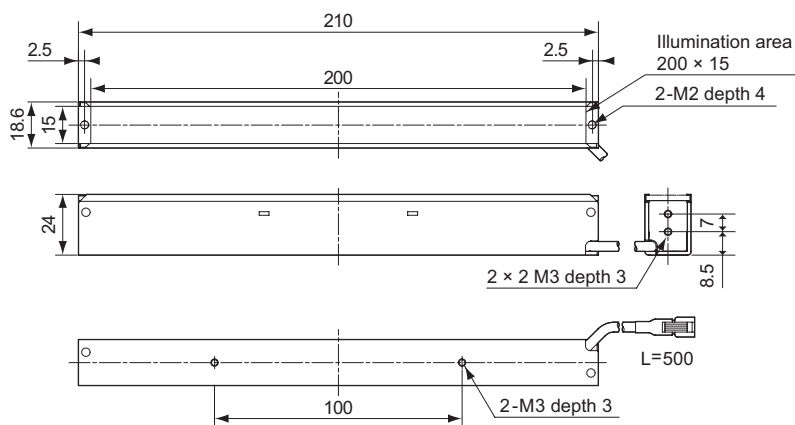
② OPB-S10015W



③ OPB-S15015W



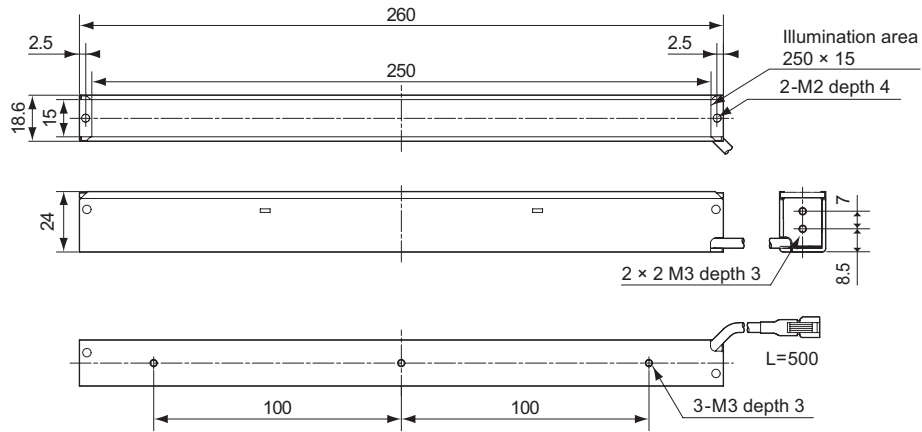
④ OPB-S20015W



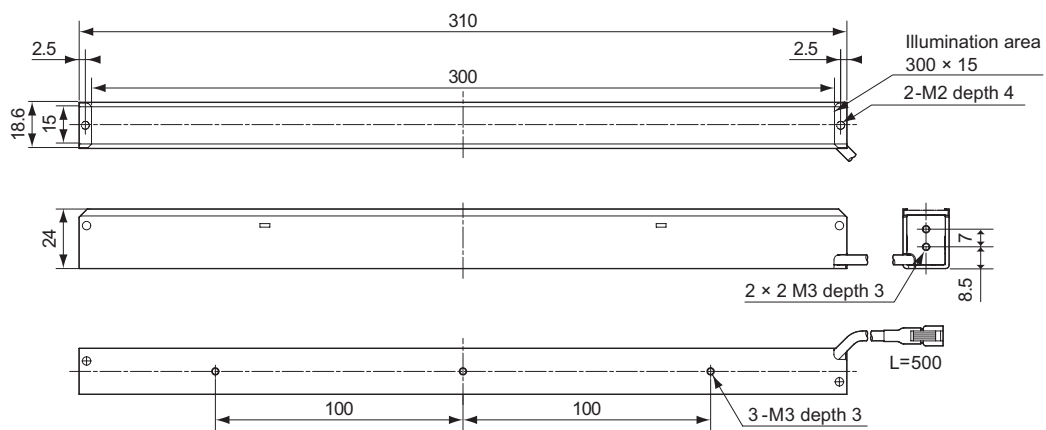


(unit: mm)

⑤ OPB-S25015W



⑥ OPB-S30015W



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	OPR-SF
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