

ILLUMINANCE METER SERIES

IM-600 / IM-600M



High accuracy instrument IM-600 makes a significant contribution to comfortable environment.

TechnoOptis Illuminance meters is capable of measuring illuminance using in the Illumination design and electric work. IM series have three models, which are handy and are suitable for daily-use and experts-use.

Digital Illuminance meter

IM-600

The IM-600(EX) is capable of measuring wide range of illuminance and evaluating next generation illumination.

Conforms to the general AA class (JIS C 1609-1: 2006) and DIN class B (DIN 5032 Part 7 class B).

Compatible with PWM* controlled lighting.(SLOW mode)

*pulse width modulation.



- Capable of wide range measurement from low to high illuminance (0.005 to 999,000 lx / 0.005 to 92,807 fc)
 - Built-in Keyboard enable to calculate luminous intensity.
 - Response speed are selectable. flicker and waveform can be observed by connecting oscilloscope.
 - Extension cable (option) enable IM-600(EX) to detach Detector unit and Display unit.
- * Analogue output speed is a period of time which analogue output reach 90% of its maximum value from 10% of the maximum value.

Measurement range	1	2	3	4	5	6
Effective measuring range	0.005- 9.990	5.50- 99.90	75.0- 999.0	750- 9.990	7,500- 99.900	75,000- 999.000
Response speed (FAST mode 90%)	About 60 ms	About 6 ms	About 0.6 ms	About 0.6 ms	About 0.6 ms	About 0.6 ms

• IM-600(EX) Specifications and performance

Measurement range	0.005 to 999,000 lx (0.005 to 92,807 fc) Auto/manual 6-step range
Display	4-digit LCD Read
Linearity	±2% of rdg., ±1 digit (Auto range)
Cosine Response f _z	±3% or less
V(λ) Mismatch f _v	6% or less (Deviation from spectral luminous efficacy)
Temperature Dependence f _t	Within ±3% (-10 to 40°C, against 23°C)
Humidity Test f _h	Within ±3%
Analog signal output	0 - 1,998mV max
Interface	USB (Virtual COM port)
Power supply	AA battery x 2 : Separately sold parts
Operating conditions	Temperature: -10 to +40°C, Humidity: 85% R.H. or less
Dimensions	Approx. 188 x 65 x 34 mm (without protruding portion)
Weight	Approx. 200 g (excluding batteries)
Detection element	Silicon photodiode
Reference plane	Surface of the front case

• Measurement mode are selectable by Keyboard

- Correction factor (C.C.F.mode)
Inputting correction factor displays the post-correction data.
- Deviation measurement (Δ mode) /
Percentage measurement (% mode)
Deviation and percentage measurement displayed by inputting reference illuminance.
- Luminous intensity measurement (cd mode)
Inputting the distance between the photoreceptor and the light source displays the luminous intensity.
- Integral illuminance measurement (lx·h/fc·h mode) Integral illuminance and integral time alternated every 2 seconds. Maximum integral illuminance is 1,000,000,000 lx·h, and maximum integral time is 9,999 hours (approx. 1.2 years).



• Meaning of "of rdg." and "digit"

"of rdg" is for reading values. For example, "±2% of rdg" means ±2% of reading values.
±1 digit means reading values. "digit" means 1 count in digital and indicates that there may be error of one count in the last significant digit of the digital display.

Digital Illuminancemeter
Compact photoreceptor type

IM-600M

The IM-600M is an illuminance meter based on the digital illuminance meter IM-600(EX), with the Photoreceptor portion reduced in size to 14mm in diameter, allowing for illumination measurement in tight areas.



The capabilities are approximately the same as the IM-600(EX), giving you confidence in measurement.

- Conforms to the general AA class (JIS C 1609-1: 2006) and DIN class B (DIN 5032 Part 7 class B).
- Compatible with PWM* controlled lighting.(SLOW mode)
- Photo-receiving diameter:14mm
- Size of photoreceptor portion:16mm(D)x 21mm(H)
- Cord length:1m

*pulse width modulation.

•IM-600M Specifications and performance

Measurement range	0.005 to 999,000 lx (0.005 to 92,807 fc) Auto/manual 6-step range
Display	4-digit LCD Read
Linearity	± 2% of rdg., ± 1 digit (Auto range)
Cosine Response f _z	±3% or less
V(λ) Mismatch f ₁	6% or less (Deviation from spectral luminous efficacy)
Temperature Dependence f ₂	Within ±3% (-10 to 40°C, against 23°C)
Humidity Test f ₃	Within ±3%
Analog signal output	0 - 1,998mV max
Interface	USB (Virtual COM port)
Power supply	AA battery x 2 : Separately sold parts
Operating conditions	Temperature: -10 to +40°C, Humidity: 85% R.H. or less
Dimensions	Approx. 188 x 65 x 34 mm (without protruding portion) Sensor: φ16 x 21mm, Cable: 1m
Weight	Approx. 230g (including sensor unit, excluding batteries)
Detection element	Silicon photodiode
Reference plane	The tip of detector window

*There are countries and regions that regulate the use of IM-600M. For further information, Please contact TechnoOptis.

• Measurement Program MT-100 (Standard accessory)

Standard optional software MT-100 can obtain measured data from IM-600 series. The MT-100 operates continuous measurement up to 99,999 times. Measured data can be stored with CSV format, which can be opened by spread sheet software.

OS	Windows® 10 Pro (32bit / 64bit) Windows® 11 Pro (64bit)
CPU	Intel® Core™ i3 2.4GHz or higher
Memory / HDD	1GB or more
Port	USB2.0 port (One port)
Display	1024x768 or more
Others	CD-ROM Drive

*Windows is trademark and registered trademark by Microsoft Corporation.

• USB interface

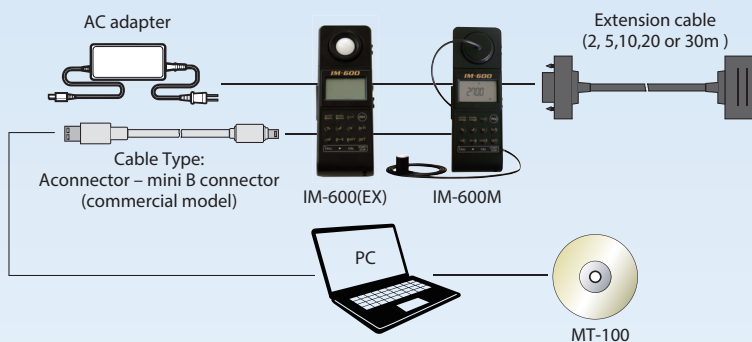
Measured data can be retrieved from IM-600 via USB.

Pin No.	Signal	Baud rate	38400
1	VBUS	Data length	7
2	D-	Parity	ODD (odd number)
3	D+	Spread bit	1
4	GND		
5	GND		

*USB cable is not included in IM-600 standard package.
*Mini USB series B connect mail (Spin)



System Diagram



• IM-600(EX) / IM-600M Standard Package



IM-600(EX) / IM-600M OPTIONAL EQUIPMENT

• AC adapter ZV-42

AC adapter is used in long time continuous measurement.



• Extension cable

Handy for using the photoreceptor and the display unit separately.

5 types available:

- 2m(ZV-21) / 5m(ZV-22)
- 10m(ZV-23) / 20m(ZV-24)
- 30m(ZV-25)



*Some screens are simulated.

*The specifications and external appearances of product in this catalogue may be changed without prior notice due to improvements.

*The catalogue includes products that are sold separately.

*The actual color of products may differ slightly from the catalogue due to lighting and printing conditions.

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SAFETY PRECAUTIONS



Make sure to carefully read the "Manual" to ensure that you use the product properly and safely.

- Always connect the instrument to the specified power supply voltage. Improper connection may cause a fire or electric shock.
- Be sure to use the specified batteries. Using improper batteries may cause a fire or electric shock.

For more information please visit our website.

<https://www.techno-optis.com/en/>

