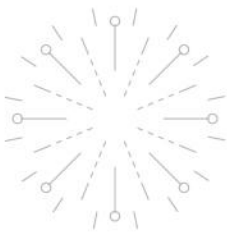


HOW TO SELECT UV SENSOR

Choose the Right UV Measurement
for Your Specific Needs



UV SENSOR PROBE



UV PHOTODIODE



UV RADIOMETER

Genicom Co., Ltd. is one of leading manufacturers in the field of UV sensor for various applications.

We have manufactured and supplied an UV sensor based on AlGaIn materials in the environment of ISO 9001, ISO 14001, and QS 9000. We have focused on every aspect of R&D and production of UV sensor. Furthermore, we are doing our best to support the practical technologies relating to UV sensor application such as UV Index monitoring, UV-lamp & UV-LED monitoring, Flame/Fire detection, UV absorption Spectroscopy, etc.

Our goal is one of the most companies in the field of sensor for human and environments. We are developing our future products including the special sensors for gas, chemical and bio application by adding new technologies like as MEMS, nano-scale materials. We are and will be best partner to support your success.

As a professional UV sensor manufacturer, we incorporate new technologies such as MEMS and nano-scale materials. These give rise to industry-leading products such as UV sensors with no required cut-off filters. Our specialty lies in GaN / AlGaIn-based sensors with unique features to suit a range of applications from UV index monitoring and flame detection to UV absorption spectroscopy and UV curing.

Recently, we have developed and launched UV radiometer with high accuracy and low price. This product can be widely used for UV sterilization (Water/Air) and UV curing in order to monitor the UV intensity and the life of UV lamp.

COMPANY HISTORY

- 2017 - Oct. Development **New multi Portable UV Radiometer**
- 2016 - Oct. Development 180° Wide-Angle UV Radiometer (No Power Supply)
- 2015 - Oct. Development Digital UV Sensor (UV Index)
- 2014 - Oct. Transfer to New Factory (273, Baeul 1-ro, Yuseong-gu, Daejeon, Korea)
- 2013 - Oct. Biz with Microsoft
 - Sep. Biz with Maxim integrated
- 2012 - Nov. Joint Development of UV LED launch with ETRI
 - Jun. EUREKA Project launch with the Czech, German Companies
- 2010 - Jun. Supply of UV Sensor to China mobile Company
 - May. Supply of UV Sensor to Samsung Electronics
- 2009 - Sep. Development portable UV radiometer (CE Certificate)
 - Mar. Development of AlGaIn-based Filter
- 2008 - Dec. Development of UVC Probe
 - Jan. Capital Investment from KDB
- 2007 - Dec. Development of UV Radiometer (CE Certificate)
 - May. Acquisition of CE Certificate (Outdoor UVI Meter)
- 2006 - May. Development of InGaIn-based UVA Sensor
 - Feb. Acquisition of ISO14001 Certificate
- 2005 - Oct. Development of AlGaIn-based UVC Sensor
 - May. Supply of UV Sensor to Agilent
- 2004 - Nov. Acquisition of ISO9001 Certificate
 - May. Initiation of Sensor Business
- 2000 - Jul. Establishment



UV Sensor General

UV Wavelength

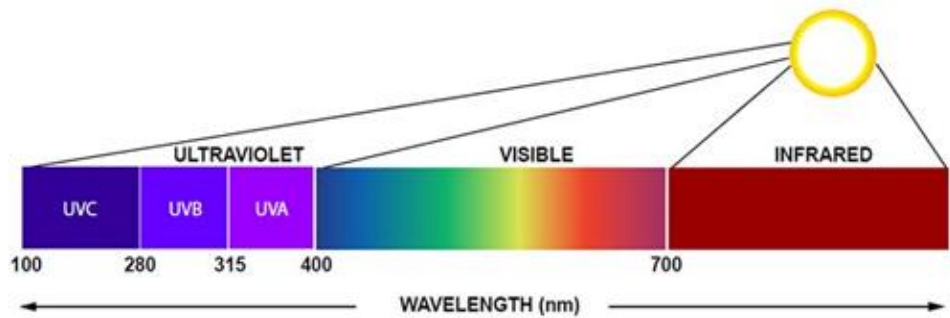
Definition

UV - **A** (315~400nm)

UV - **B** (280~315nm)

UV - **C** (200~280nm)

Visible (400~700nm)



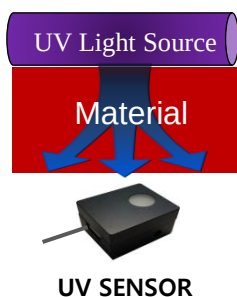
• Application of Genicom UV Range

UVV 230~395nm	UVA 230~370nm	UVB 220~320nm	UVC 220~280nm	VISIBLE 300~510nm
•UV Curing •UV Exposure •UV LED Monitoring •UV Lamp Monitoring	•UV Exposure •UV LED Monitoring •UV Lampe Monitoring •UV INDEX Monitoring	•Air Purification •Water Treatment •Ballast Water •Flame Sensing •UV LED, Lamp Monitoring	•UV Curing •3D Printer •UV LED, Lamp Monitoring	

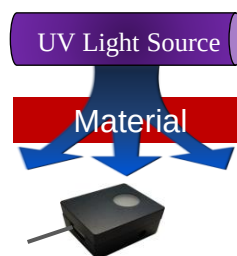


• Measurement Type of UV Sensor

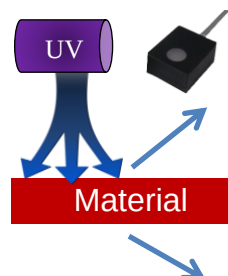
➤ Direct



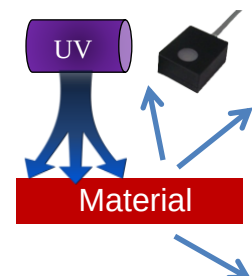
➤ Transmittance



➤ Reflectance



➤ Luminescence



* UV Light Source : LAMP, LED, etc.

* Material : Air, Water (Gas, Solid, Liquid)

UV Sensor Probe (LA / LO Series)

Description

Sensor Cable : Standard length of connection cable 5m. Custom order extend length Max. 10m(Vout).
Measuring light intensity range can be changed according to customer's request. (Ex. 10, 1000mW/cm²)

Detection Range along UV Sensor

Model No.	Detection Range	Model No.	Detection Range
GUVV -T10GC-xLxx	230 ~ 395 nm	GUVB -T11GC-xLxx	220 ~ 320 nm
GUVA -T11GC-xLxx	220 ~ 370 nm	GUVC -T10GC-xLxx	220 ~ 280 nm

Specifications

Supply Voltage [Vcc]	Output	Operating Temperature	Working humidity
5 VDC or 9~24 VDC	0 ~ 5 VDC or 4 ~ 20 mA	-30~85℃	35~85 %RH

LA & LO Series (Air Environment, AL-60)

Feature	Name	Size (W x H x D)	Window (mm)	Picture	Power	Output	Max. Power
General	LA2	55 x 30 x 16 mm ³	12		9~24 VDC	0~5 VDC	100 mW/cm ²
Small size, Separable Cable	LA5	36 x 30 x 16 mm ³	12		5 VDC	0~5 VDC	100 mW/cm ²
Adjustable output Gain	LA6	36 x 30 x 19 mm ³	12		5VDC 9~26VDC (Option)	0~5 VDC	100 mW/cm ²
High Intensity UV LED (20W)	LA8	36 x 30 x 21 mm ³	12		9~24 VDC	0~5 VDC	10,000 mW/cm ²
Portable Meter Sensor Probe	LA9	Ø35 x 20h	9		Connect with Portable meter(MG-07)		100 mW/cm ²
High Temperature ~ 200℃	LO1	Diameter : 20 mm Total Length : 56 mm Optical fiber: 1 m (L)	1		9~24 VDC	0~5 VDC	1,000 mW/cm ²

Connection Cable & Connector Type

					'L' Angled
LA2, LA9 (assembled)	LA5, LA6, LA8	LO (M12 5PIN General)	Connector (PCB, CABLE)		'I' shaped

UV Sensor Probe (LW Series)

Description

Sensor Cable : Standard length of connection cable 5m. Custom order extend length Max. 10m(Vout).
Measuring light intensity range can be changed according to customer's request. (Ex. 10, 1000mW/cm²)

Specifications

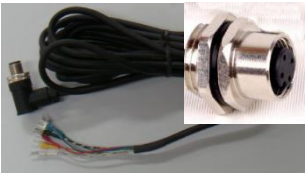
Supply Voltage [Vcc]	Output	Operating Temperature	Working humidity
5 VDC or 9~24 VDC	0 ~ 5 VDC or 4 ~ 20 mA	-30~85℃	35~85 %RH

LW Series (Water Environment, STS 316-L, IP68, 10~20bar)

Feature	Name	Thread/Length for Mounting	Diameter (mm)	Window (mm)	Length (mm)	Power (V)	Output	Max. Power
Small	LW5.0	PT 1/4", 12 mm	21	7	63	9~24 VDC	4~20 mA	100 mW/cm ²
o-ring	LW5.1	FT 1/4", 12 mm	21	7	63	9~24 VDC	4~20 mA	100 mW/cm ²
High pressure <20bar	LW5.2-M	PT 3/4", 11 mm	21	7	71	9~24 VDC	0~5 VDC	100 mW/cm ²
	LW5.2-G	PT 3/4", 11 mm	21	7	67	9~24 VDC	0~5 VDC	100 mW/cm ²
Vicinity	LW8.1	NPT 1/2", 12 mm	14	10	67	9~24 VDC	4~20 mA	100 mW/cm ²
Submerge	LW9	NPT 3/4", 11 mm	23	12	41.5	5 VDC	0~5 VDC	20 mW/cm ²
General	LW10	PT 3/4", 16 mm	30	7	62	9~24 VDC	0~5 VDC	100 mW/cm ²
4-direction	LW11	PT 1 1/4", 21 mm	42	24	81	9~24 VDC	0~5 VDC	100 mW/cm ²
Window tube	DVGW	G1", 34 mm	32	24	94	9~24 VDC	4~20 mA	1,000 mW/cm ²
Sensor Shaft			20	16	83			
Temperature & UV	TLW10	PT 3/4", 16 mm	30	7	62	9~24 VDC	0~5 VDC	100 mW/cm ²
	TLW5	PT 1/4", 12 mm	21	7	63	9~24 VDC	0~5 VDC	100 mW/cm ²



Connection Cable & Connector type (IP67, IP68 grade)

 General Type (M12 5Pin) LW5, LW5.1, LW5.2-M, LW8.1, LW10, TLW10, TLW5	 Special Type LW11(3Pin) 'L' Angled 'I' shaped DVGW LW9, LW5.2-G (IP68, waterproof <1m)
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UV Monitoring Radiometer (GUVD-MG0xS)

Description

Power cable and output cable (4-20 mA current output, 1-5V voltage output, relay) are not supplied.

Picture	Function & Display	Output	Probe Type
Product Number	Fixing method & Size	Power	Field of Use
	Absolute Power ($\mu\text{W}/\text{cm}^2$) Relative Power (%) Accumulative Time (hr)	Relay (NO/NC) 1~5 VDC, 4~20 mA (Depends on Relative Power)	LA2, LA5, LA6, LA8, LA9, LO1 LW5, LW9, LW10, LW11 (Only Voltage output)
GUVD-MG05S (General)	Panel Insertion	AC 85~265V (50/60Hz)	Water environment Air, Curing equipment
	96 × 48 × 112 mm ³		
	Absolute Power ($\mu\text{W}/\text{cm}^2$) Relative Power (%) Accumulative Time (hr) Dose display (mJ/cm ²) Max power, RS485	Relay (NO/NC) 1~5 VDC, 4~20 mA (Depends on Relative Power)	LA2, LA5, LA6, LA8, LA9, LO1 LW5, LW9, LW10, LW11 (Only Voltage output)
GUVD-MG05S.1 (General2)	Panel Insertion	AC 85~265V (50/60Hz)	Air, Curing equipment
	96 × 48 × 112 mm ³		
	Absolute Power (mW/cm ²) Relative Power (%) Cumulative Time (min)	Relay (NO/NC)	AC02 (Only Voltage output)
GUVC-T11GS0-AC02 (UVC Radiometer)	2 Fixing Hole	DC 9~24V *5V only(option)	Air Disinfection environment
	138 × 79 × 30 mm ³		
	Absolute Power (mW/cm ²) Relative Power (%) Cumulative Time (min)	0~5 VDC, 4~20 mA (Depends on Absolute Power)	LA2, LA5, LA6, LA8, LA9, LO1 LW5, LW9, LW10, LW11 (Only Voltage output)
GUVD-MG01S (Power Selection)	2 Fixing Hole	DC 9V 300mA Adaptor (AC220V 50/60 Hz)	Water environment Air, Curing equipment
	137 × 88 × 30 mm ³		
	Absolute Power (mW/cm ²)	Relay (NO/NC) 4~20 mA (Option) (Option) RS485 Comm.	LA2, LA5, LA6, LA8, LA9, LO1 LW5, LW8, LW9, LW10, LW11, DVGW (Voltage or Current output)
GUVD-MG02S (Current & RS485)	Panel Insertion	AC 100~240V (50/60Hz)	Air, Curing equipment
	96 × 48 × 108 mm ³		

Specifications

Operating Temperature	Working Humidity
0~50 °C	35~85 %RH

UV Monitoring Radiometer (GUVD-MG0xS)

Description

Power cable and output cable (4-20 mA current output, 1-5V voltage output, relay) are not supplied.

Picture	Function & Display	Output	Probe Type
Product Number	Fixing method & Size	Power	Field of Use
	Absolute Power (mW/cm^2) Relative Power (%) Accumulative Time (hr) (3 Color LED)	Relay (NO/NC) 4-20 mA	LA2, LA5, LA6, LA8, LA9, LO1 LW5, LW9, LW10, LW11 (Only Voltage output) *Connect with 3 Sensors
GUVD-MG04S (3 Channel)	Panel Insertion 96 × 96 × 111 mm ³	AC 200-240V (50/60Hz)	Air, Curing equipment
	Relative Power (%) Accumulative Time (hr)	Relay 4-20 mA	LA2, LA5, LA6, LA8, LA9, LO1 LW5, LW9, LW10, LW11 (Only Voltage output)
GUVD-MG06S (Mini)	Panel Insertion 48 × 48 × 107 mm ³	AC 85-265V (50/60Hz)	Water environment
	(option) 1. Absolute Power (mW/cm^2) 2. UV Index (0~11+)	(option) 1. Integrated Sensor 2. LA9 (separated)	LA9, LA9-H(Max.10W/ cm^2) (Only Voltage output)
GUVD-MG07S (Portable)	Handheld 135 × 70 × 25 mm ³	DC 9V Battery	Air environment
	Absolute Power (mW/cm^2) Dose display (J/cm^2) Max power	LA9 (separated)	LA9, LA9-H(Max.10W/ cm^2) (Only Voltage output)
GUVD-MG07S.1 (Multi-Portable)	Handheld 135 × 70 × 25 mm ³	DC 9V Battery	Air environment

✓ [Radiometer User Manual](#)

✓ General Sensor and Radiometer

✓ Instruction Video



click



MG02 & LW10 Probe



MG05 & LA5 Probe

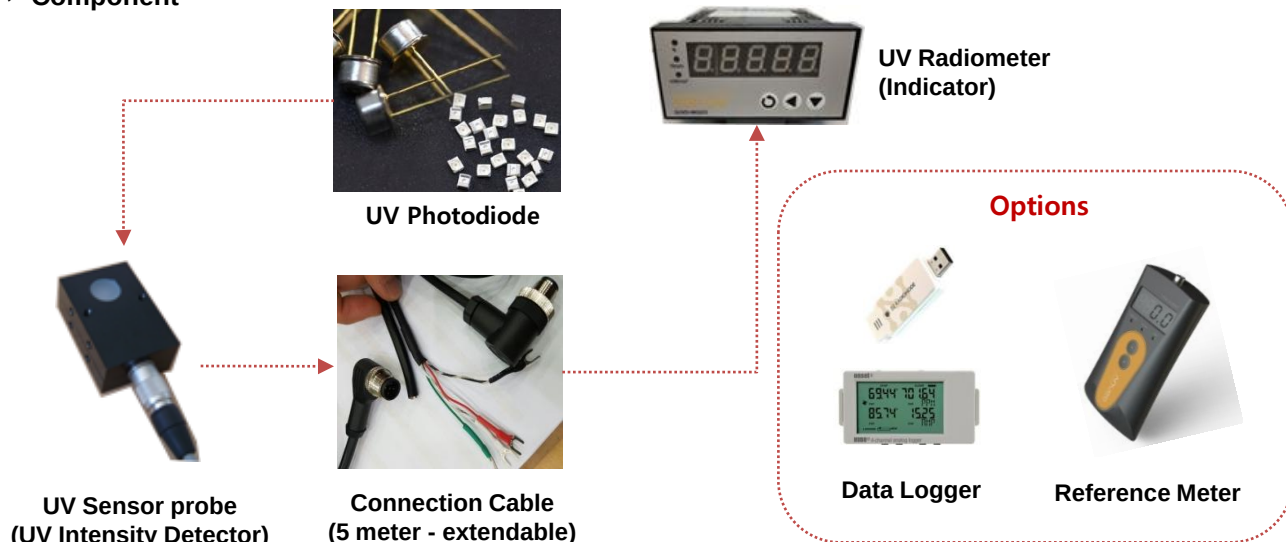


MG04 & LW5 Probe



MG01 & LA2 Probe

✓ Component



✓ Check your Installation conditions

1. User environment ?
 - Air or Water
 - Indoor or Outdoor
2. Optical power of UV Source(Lamp, LED etc.) ?
3. Distance of UV Source and Sensor ?
4. Operating Temperature ?
5. Output Type ?
 - Voltage (0~5V)
 - Current (4~20mA)

✓ Why Calibrate?

1. Typical recalibration is performed every 2 years
2. Balance the amount of UV the optics and detector “see” with the output signal from the detector
3. Compensate for changes in the optics over time
 - Solarization
4. Instruments used in harsh production & manufacturing environments
 - Irradiance levels:
 - Sunlight: +/- 20 mW/cm²
 - Production UV levels: 100's to 1000's mW/cm²
 - Physical damage to instrument :
 - Drop, crush instrument, scratch optics
 - Optics/instrument coated with ?
5. Electronics checkup
 - Physical and/or heat related damage
6. Calibration Service
 - Genicom self declaration (est. cost 100US\$)
 - by KRISS / NIST Directly or Proxy (est. cost 700~800US\$)