



# Electro Optical Components, Inc.

5464 Skylane Boulevard, Suite D, Santa Rosa, CA 95403

Toll Free: 855-EOC-6300

[www.eoc-inc.com](http://www.eoc-inc.com) | [info@eoc-inc.com](mailto:info@eoc-inc.com)



<Preliminary>

## High temperature·High power·Narrow space UV probe

### GUV<sup>x1</sup>-T1XGC-LO3(Supply Voltage: 5V, Voltage Output)



#### Features

- High Temperature Environment (under 300°C)
- Very Flexible Optical Fiber (Min. R20)
- High power front measurement
- UVV/UVA/UVB/UVC/Visible Detection
- 0 ~ 5V voltage output
- Narrow space measurement



#### Information

Part Name	Sensor Part	Optical Fiber
Image		 8mm 14mm Fixing hole Φ2*2ea
Dimension	57 * 37 * 21 mm	Cable : Φ5.0 / Core : 1.5 mm Head part : 8*14*5mm / Light-receiving unit(4*4mm)
Material	Al-60 / Black anodizing	Fiber : SUS 304 casing / Head part : Aluminium
Operating Temperature	-30 ~ 85 °C	- 30 ~ 300 °C
Cable Length	Standard : 5 m (the other length optional)	Standard : 1.5 m (the other length optional)
Radius of Curvature	-	Very flexible (Min. R20)
Output Type	Voltage or Current	-
Remarks	Includes cable	SMA905 connector / Φ2-2ea Fixing hole

#### Detection Range(Option)

Parameter	Product	Symbol	Value	Unit	Remark
Detection Range	GUVV-T10GC-LO3	λ	230 ~ 395	nm	10% of Max.
	GUVA-T11GC-LO3		220 ~ 370		
	GUVB-T11GC-LO3		220 ~ 320		
	GUVC-T10GC-LO3		220 ~ 280		
	GVBL-T12GC-LO3		330 ~ 445		
	GVGR-T10GC-LO3		300 ~ 510		

\*Refer to page 2 for responsivity curve

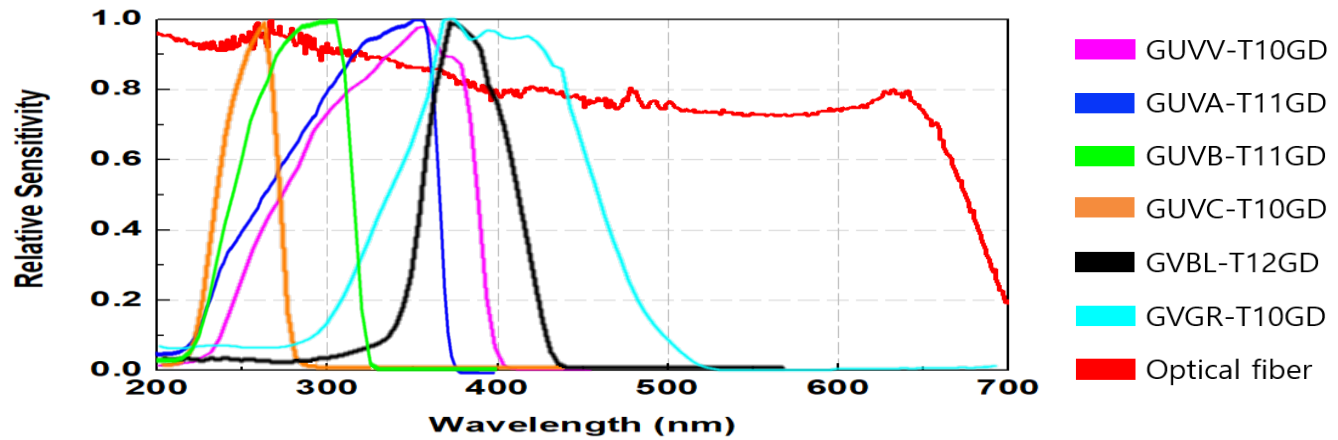
#### Electro-Optical Characteristics (at 25 °C)

Parameter	Symbol	Value			Unit	Remark
		Min.	Typ.	Max.		
Supply Voltage	V <sub>cc</sub>		5		V	
Supply Current	I <sub>Q</sub>		0.05		mA	
Output Voltage	V <sub>out</sub>	0		5	V	
Detection Power Range	P	0		100	mW/cm <sup>2</sup>	*Standard
Response Time	T		10		ms	

X<sup>1</sup> : Detection Range(GUVx-UV, GVxx-Visible)

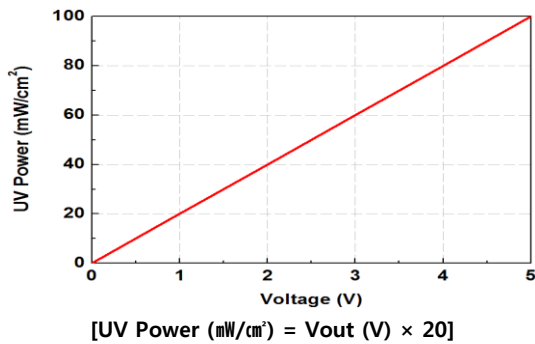
\* Customizing available (20, 50, 500mW/cm<sup>2</sup>, Max.10W/cm<sup>2</sup> etc), Please fill out the detection power range you want when ordering

### Relative Sensitivity along Input Spectrum (Light source : Xe-lamp)



### Output along UV Power

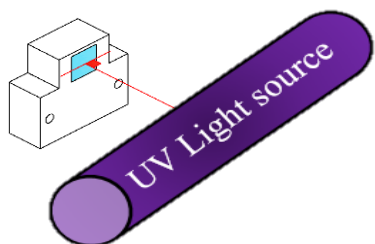
- Type Voltage



### Characteristics of Optical Fiber

Resistant Glass Fiber	
Core diameter	45 μm
Clad diameter	50 μm
NA	0.57
Operating Temp.	-60 ~ 250 °C (MAX. 300 °C)

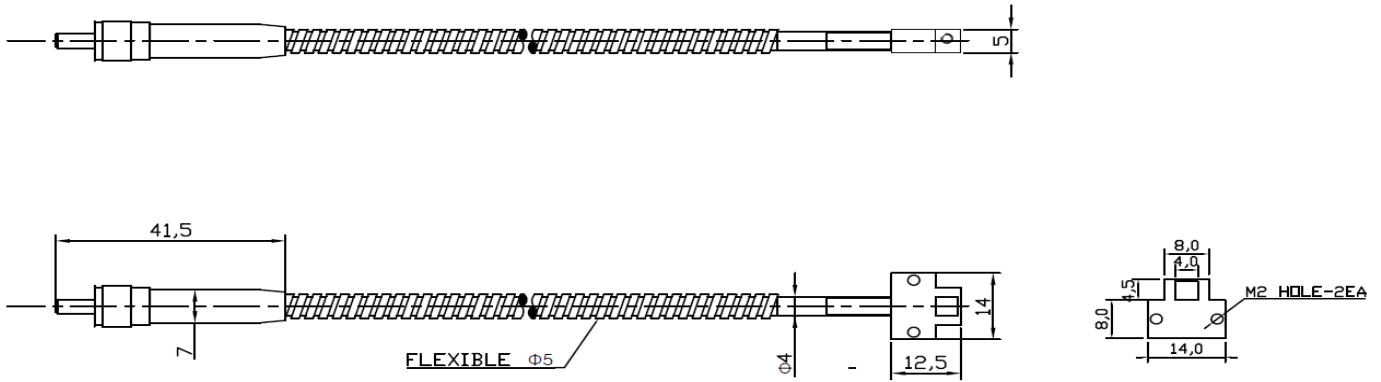
### How to install



Install so that it is perpendicular to the light source.

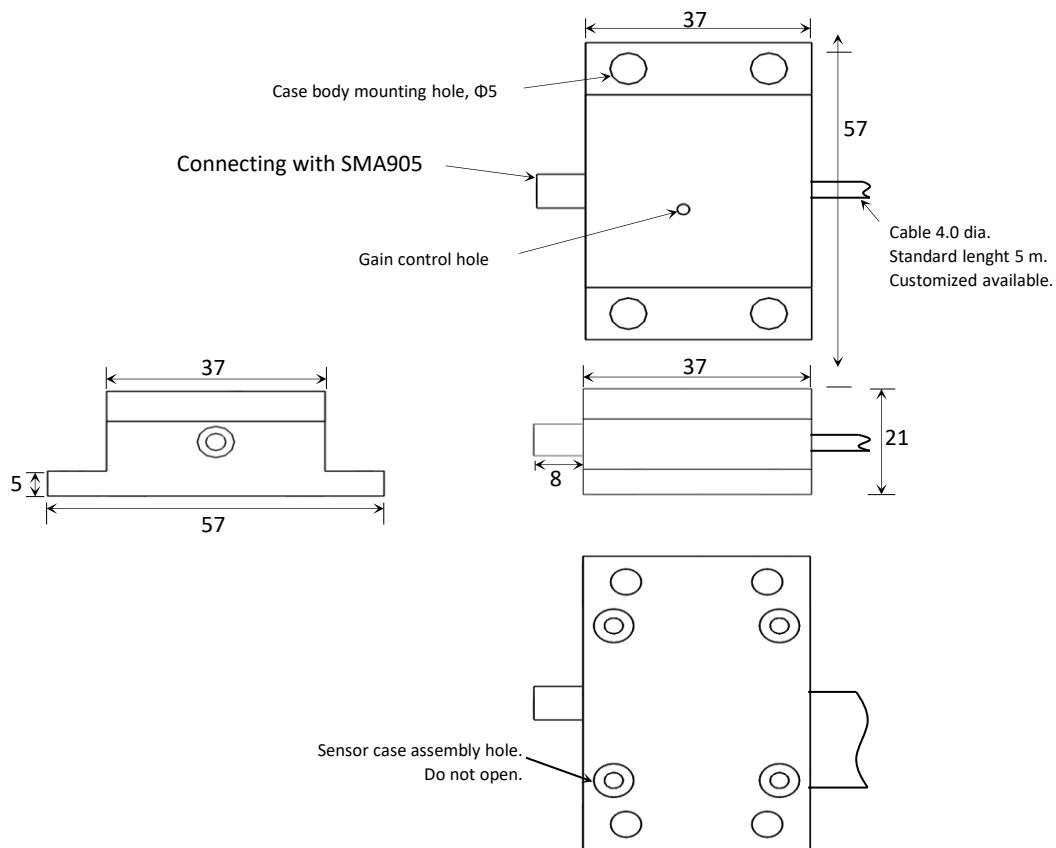
### Dimensions (Unit : mm)

- Optical fiber



Material : Fiber-Stainless steel (SUS304), Head part-AL-60

- Sensor part



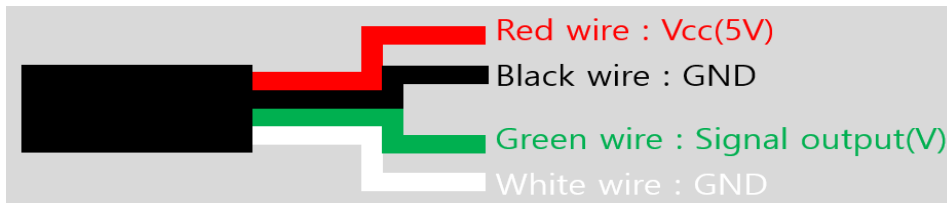
Material : Al-60 (Black anodizing)

## Wiring Connections

- To connect the wiring, check the connection terminals. The color-coded terminals are available as follows.

Color	Terminals	Remark
Red	$V_{CC}$	DC 5 V
Black	GND	-
Green	$V_{out} / I_{out}$	DC 0 ~ 5 V
White	GND	-

- Black and white lines (GND) are connect to the internal sensor probe.



※ If you connect wrong polarity it will cause the probe damaged or broken.□

## Trouble Shooting and precaution

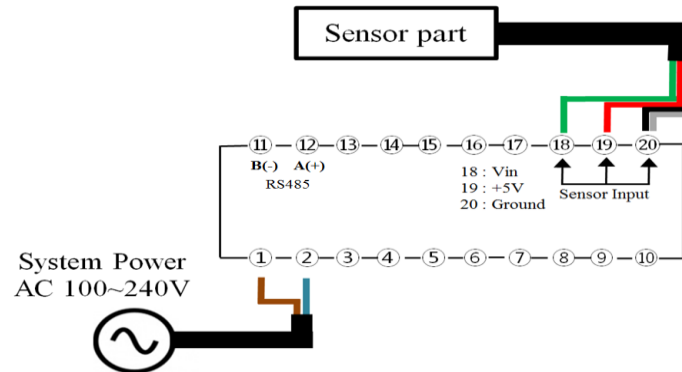
Please make sure that you understand the following before using.

- Do not use these units in locations with flammable or explosive gases.
- Do not use these units in the water.
- Do not attempt to disassemble, repair, or improve these products.
- Do not use AC power supply.
- Be sure that wiring of Sensor part is correct, such as the polarity of the power supply leads.
- Make sure that the power supply voltage is to match with operation voltage.  
The operating voltage is 5V.
- Output signal noise will be excessive if the power supply is not grounded.
- UV light is harmful, turn off the UV light source before installing the Head part.
- The analog output value will change due to temperature drift.
- The gain control hole of Sensor part is not protected against UV exposure.
- The SMA905 connector of optical fiber is connect with sensor part, please fix using the  $\Phi 2$ -2ea fixing hole of Head part

## Connections with Genicom's Radiometers

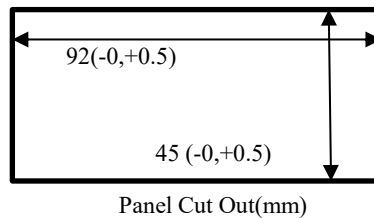
- **MG-05/05.1 ( $V_{out}$ )**

- Connection AC power to #1 and #2.
- Connect Green wire to #18 ( $V_{in}$ ), Red wire to #19 ( $V_{cc}$ ), Black & White wires to #20 (GND).



## Panel Cutting Size

- MG-05, MG-05.1 have same panel cutting size.



## A/S Request in Case of Product Failure

- Should any failure is found in product, please call the sales company or customer center for A/S.
- Product warranty period is 1 year from the date of procurement with no charge.

However, failure which is caused by user's misuse or carelessness within warrant period or any failure after the warrant period shall be chargeable for it's A/S.

- Product inquiry and on-line customer service

Tel : +82-42-862-3982, Fax : +82-42-862-2982, □

E-mail : [uvsensor@geni-uv.com](mailto:uvsensor@geni-uv.com), Website : <http://www.geni-uv.com>