

Probe Application Guide lines for LO2/2.1 and LOHT series

1. Features of LO2/2.1 & LOHT series

- UV measuring in Air (and High temperature)
- Custom products can be supplied.
- Output type : DC 0~5 V or 4~20 mA
- Operation voltage : DC 5 V or 9~24 V
- NIST, KRISS traceable calibration possible

2. Applications

- UV curing system
- UV Exposure system
- Air treatment system
- Flame sensing

3. The features and advantages of the product

- Highly visible barrier : pure ultraviolet light (UVA, UVB, UVC) sensors using. No need for a separate filter
- Custom product supply available to meet customer orders
- Calibration service offers tailored to customers' requests
- Reliable implementation at an affordable price


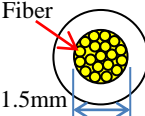

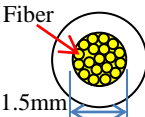

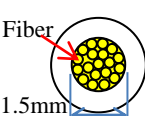
4. Advantage of using a UV sensor probe

- Can accurately measure the intensity values of the chamber inside
- UV lamp intensity control based on measure intensity
- Can be monitored ON / OFF status of a UV lamp
- UV light can be seen for lamp replacement time

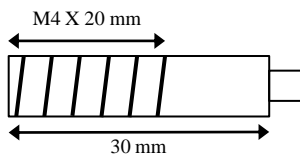
5. Point that must be taken into account in product selection

- Consider the Detection type (UUV/UVA/UVB/UVC/Visible, case for LO2/2.1)
- Select maximum detection power range
- Check the operating voltage (5 V or 9~24 V) and output type (Voltage or Current)
- The chosen cable length (5 m standard, customized available, Max. 10 m)
- The chosen fiber length (1.5 m standard, customized available)

6. Summary

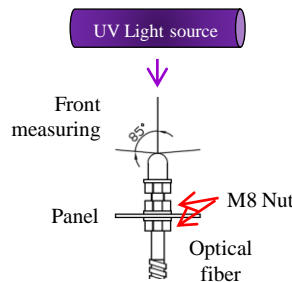
Product photos	Product Name	Measuring Direction	Configuration	Type of Fiber	Detection Wavelength	Fiber Temperature	Banding Radius
	LO2	Front (170°)	Sensor probe / Optical fiber	 Fiber 1.5mm	GVBL : 330 ~ 445 nm GVGR : 300 ~ 510 nm GUVS : 400 ~ 700 nm	Max. 250 °C	≥ 20
	LO2.1	Front (170°)	Sensor probe / Optical fiber	 Fiber 1.5mm	GUVV : 230 ~ 395 nm GUVA : 220 ~ 370 nm GUVB : 220 ~ 320 nm GUVC : 220 ~ 280 nm	Max. 250 °C	≥ 20
	LOHT	Lateral (360°)	Detecting head / Sensor probe / Optical fiber	 Fiber 1.5mm	220 ~ 390 nm	Max. 250 °C	≥ 20

7. Design of fiber screw (The other one SMA905)

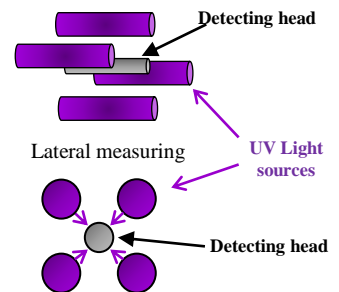


[LO Series]

8. Measuring direction



[LO2/2.1]



[LOHT]

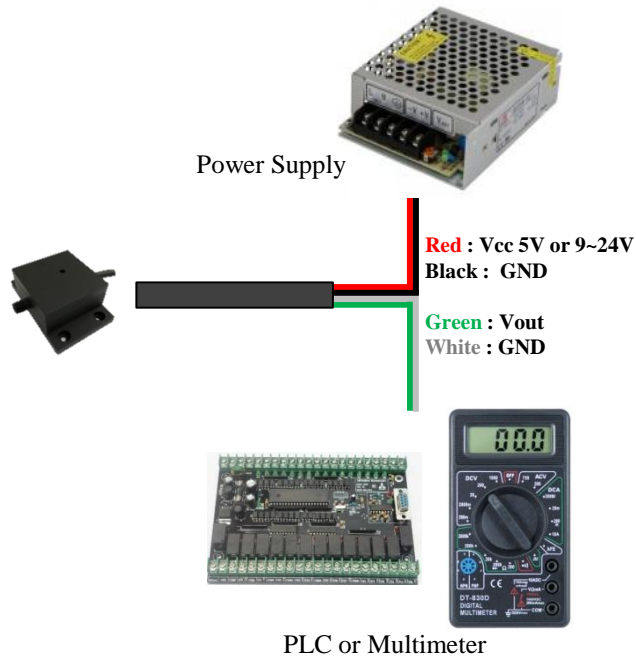
9. Wiring connections

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

color	terminals	Remark
Red	Vcc	DC 5V or 9~24 V
Black	GND	
Green	Vout	DC 0~5V or 4~20 mA
White	GND	

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

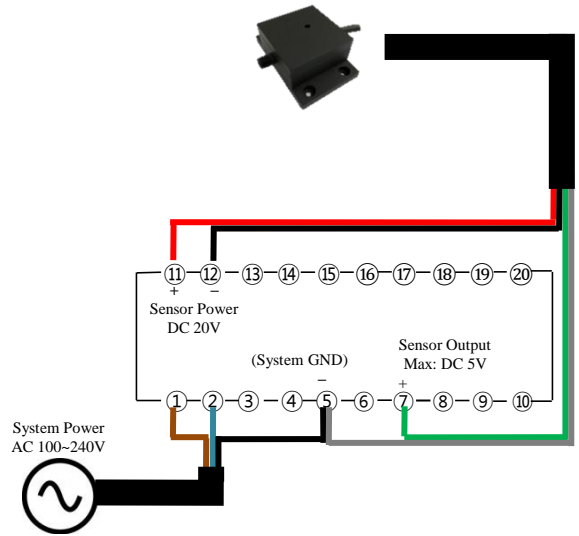
- How to connect



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

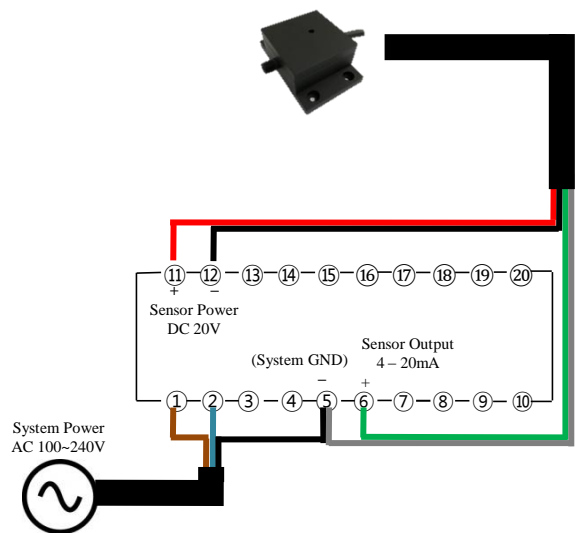
- GUVD-MG02S connections

- GUVD-MG02S Diagrams (Vout)



- Connect AC power to #1 and #2 , and connect GND wire #5.
- Connect Red wire to #11(Vcc) , Black wire to #12(GND) , White wire to #5(GND) , Green wire to #7(Vout)

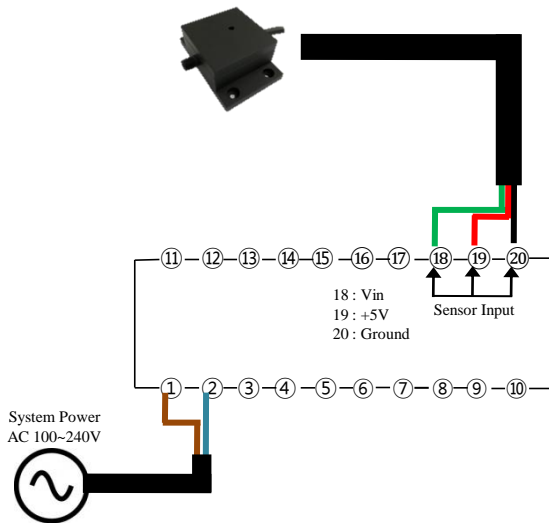
- GUVD-MG02S Diagrams (Iout)



- Connect AC power to #1 and #2 , and connect GND wire #5.
- Connect Red wire to #11(Vcc) , Black wire to #12(GND) , White wire to #5(GND) , Green wire to #6(Iout)

• Connection diagram of MG-05

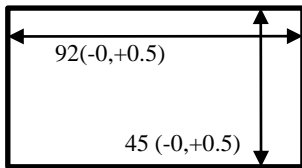
-GUVD-MG05S Diagrams



- 1) Connect Ac power to #1 and # 2
- 2) Connect Green wire to #18(Vin), Red wire to #19(Vcc = +5V) , Black & White wire to #20 (GND)

10. Panel cutting size

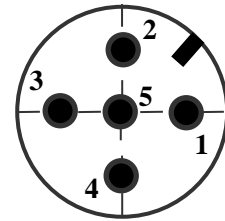
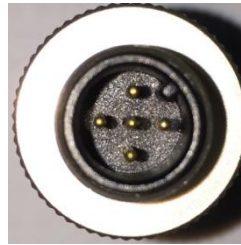
- GUVD-MG02S, GUVD-MG05S have same panel cutting size



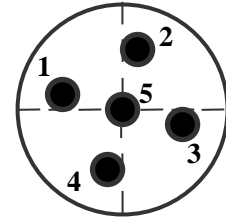
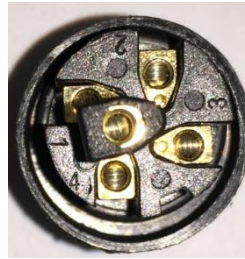
11. IP Grade

- IP grade of LO series is IP40. (Do not use underwater)

12. Connector Pin number (Lo Probe)



1 : GND
3 : Vcc
5 : Vout or Iout



1 : GND(Black)
3 : Vcc(Red)
5 : Vout or Iout(Green)

13. Trouble shooting when the output signal is not out

- 1) Make sure that wiring is properly wired
- 2) Supply voltage (5V or 9~24V) Check if supply is being properly
- 3) Check lighting of the light source (UV lamp)
- 4) Ensure that the connectors are not separated
- 5) Ensure that the UV Sensor probe is installed correctly
 - It has been installed correctly towards the direction of the UV lamp?
 - Detection Power range is set too high compared to the amount of irradiation
 - ex) The maximum measurement range is 1,000 mW/cm², and when the amount of irradiation 5 mW/cm² less
- 6) Check light source (UV Lamp type) and Sensor type

14. Product Handling Precautions



- Do not expose your eyes and skin, UV light is very dangerous
- Handling the UV lamp you should wear safety gear such as goggles



When you install the product ,
Turn off the Power source

15. A/S request in case of product failure

- 1) Should any failure is found in product, please call the sales company or customer center for A/S
- 2) Product warranty period is 1 year from the date of procurement with no charge. However, failure which 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
- 3) Product inquiry and on-line customer service :
uvsensor@geni-uv.com (<http://www.geni-uv.com>)