

Variable Power Range

UV Sensor Probe GUVx¹⁾-T1x²⁾GC-x³⁾VR



Features

- Dial-type switch allows the user to select the desired measurement range on one probe (1/10/100/1000 mW/cm²).
- Applicable to all UV systems that can be applied in indoor air, such as UV curing systems, air purifiers, and sterilizers, etc.
- Sensors can be selected depending on measured wavelengths such as UVV/A/B/C/Visible.

Applications

Measurement of light intensity, Monitoring of light source,
Determination and test of uncertain measurement power range



Fig1. VR Probe

Case Dimensions

Parameter	Size (mm ³)	Window (mm)	No. of fixed hole	Hole to hole (mm)	Weight (g)
43 × 49 × 24	Al (Black anodizing)	12	2	35	104

Absolute Maximum Ratings

Parameter	Symbol	Value			Unit	Remark
		Min.	Typ.	Max.		
Storage Temperature	T _{st}	-40		90	°C	
Operating Temperature	T _{op}	-30		85	°C	

Electro-Optical Characteristics (at 25 °C)

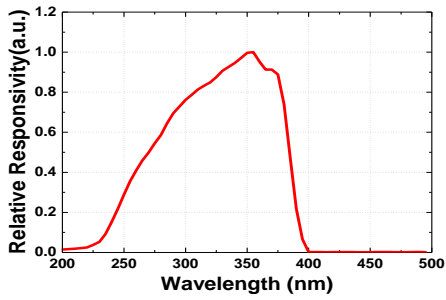
Parameter	Symbol	Value			Unit	Remark	
		Min.	Typ.	Max.			
Supply Voltage	V _{cc}		5		V	VR	
		9		24		2VR	
Supply Current	I _Q		0.05		mA	VR/2VR	
Detection Range	λ	GUVV-T10GC-xVR	230		395	nm	10% of Max.
		GUVA-T11GC-xVR	220		370		
		GUVB-T11GC-xVR	220		320		
		GUVC-T10GC-xVR	220		280		
		GUVL-T10GC-xVR	220		320		
		GVBL-T12GC-xVR	320		445		
		GVGR-T10GC-xVR	300		510		
Output Voltage	V _{out}	0		5	V	VR/2VR	
Detection Power Range	P			1	mW/cm ²	Ch1	
		1		10		Ch2	
		10		100		Ch3	
		100		1000		Ch4	
Response Time	T		10		ms		

1) Detection range(GUVx-UV, GVxx-Visible)

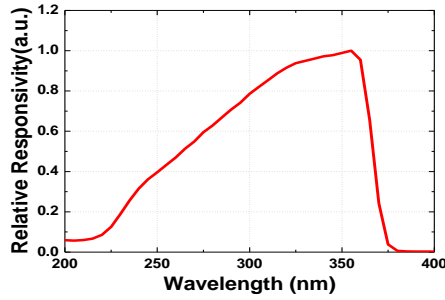
2) Serial No. of sensor

3) Output and Supply voltage (x : Voltage/5V, '2' : Voltage/9 ~ 24V)

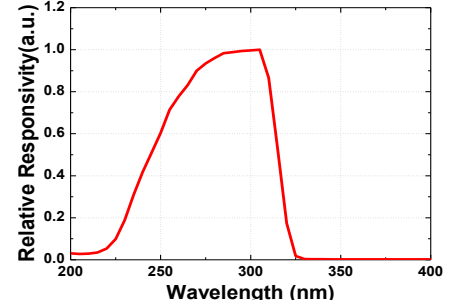
Responsivity Curve



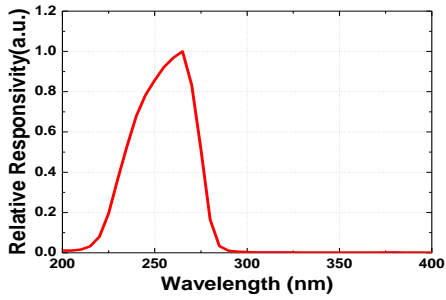
1) GUVV-T10GC-xVR



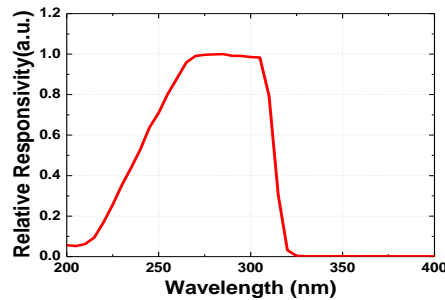
2) GUVV-T11GC-xVR



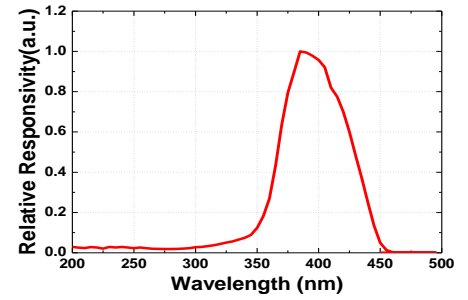
3) GUVB-T11GC-xVR



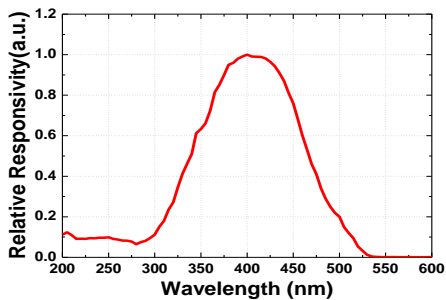
4) GUVV-T10GC-xVR



5) GUVL-T10GC-xVR



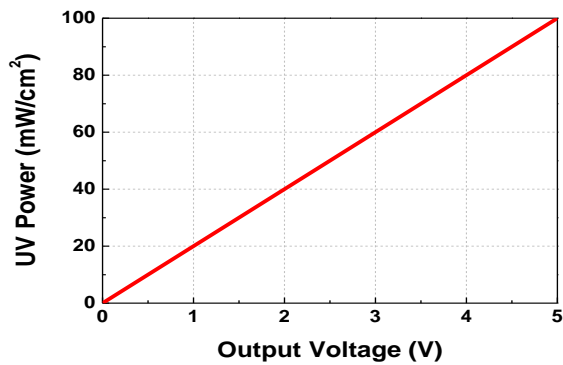
6) GVBL-T12GC-xVR



7) GVGR-T10GC-xVR

UV Power along Output Voltage (at 100 mW/cm²)

- Voltage



GUVx-T1xGC-VR/2VR

$$\text{UV Power (mW/cm}^2\text{)} = V_{\text{out}} \text{ (V)} \times 20$$

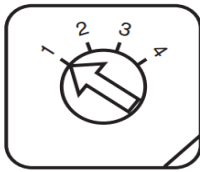
Wiring Connections



Color	Terminal	Remark
Red	Vcc	DC 5V or 24V
Black	GND	
Green	Vout	5V
White	GND	

- Black and White lines (GND) are connect to the internal Sensor probe.

Measurement Range by Switch



Switch	Measurement range (mW/cm ²)
1	0.1 ~ 1
2	1 ~ 10
3	10 ~ 100
4	100 ~ 1000