

Disinfection Module Solution

### Specification

CMW-FCC-CO1A



## Product Brief

### Description

- This module is designed for disinfection.

### Features and Benefits

- UVC LED
- Low thermal resistance
- Simple BOM
- Miniaturization
- Lead Free Product

### Key Applications

- Disinfection

Table 1. Product

Model	Input Current [mA]	$\Phi_e$ [mW]	Wp [nm]			Remark
			MIN	TYP	MAX	
CMW-FCC-CO1A	100	7.0	270	275	280	Constant current

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## Performance Characteristics

**Table 2. Electro Optical Characteristics at 100mA (Constant Current)**

 (T<sub>a</sub>=25°C RH=30%)

Parameter`	Symbol	Value			Unit
		Min.	Typ.	Max.	
Peak wavelength <sup>[1]</sup>	λ <sub>p</sub>	270	275	280	nm
Forward Voltage	V <sub>F</sub>	5	6	8	V
Power Consumption	P	0.5	0.6	0.8	W
Radiant Flux <sup>[2]</sup>	Φ <sub>e</sub> <sup>[3]</sup>	5.0	7.0		mW

### Notes :

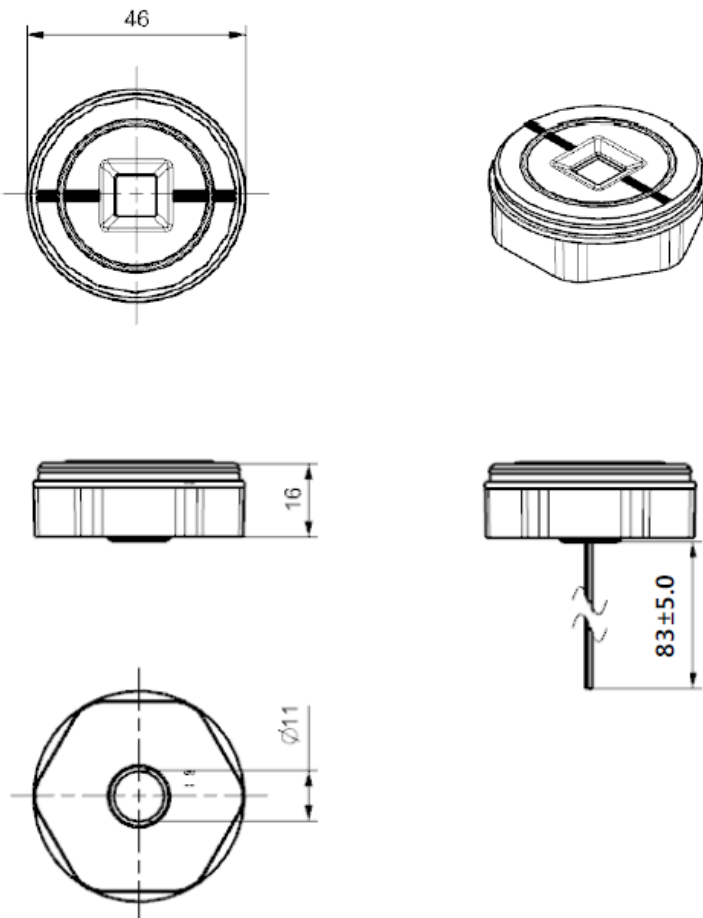
- (1) Peak Wavelength Measurement tolerance : ±3nm
- (2) Radiant Flux Measurement tolerance : ±10%
- (3) Φ<sub>e</sub> is the Total Radiant Flux as measured with an integrated sphere.
- (4) All measurements were made under the standardized environment of Seoul viosys

**Table 3. Absolute Maximum Ratings**

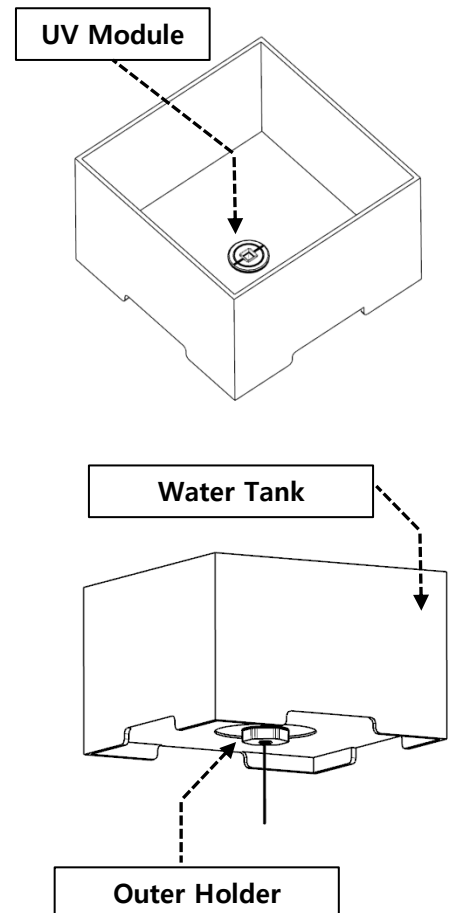
Parameter	Symbol	Unit	Value
Operating Temperature	T <sub>opr</sub>	°C	-20 ~ +40
Storage Temperature	T <sub>stg</sub>	°C	-20 ~ +60

## Mechanical Dimensions

Unit : mm



"UV Module" Assembly Guide



### Notes :

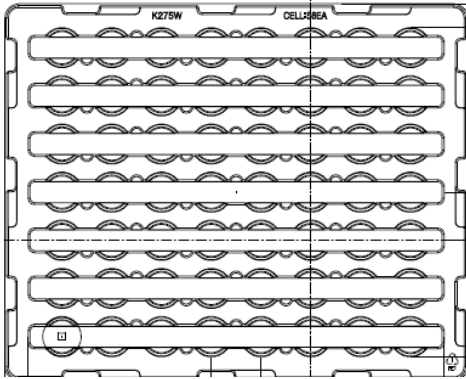
- "Outer Holder" When assembly, the torque varies depending on the material and thickness of the product. Test and use it to suit your environment.

[SVC does not guarantee about assembly failure for Outer Holder.]

- Module Dimensions of the indicated maximum value, and to allow a tolerance :  $\pm 0.5$  [mm]
- Wire Dimensions of the indicated maximum value, and to allow a tolerance :  $\pm 5$  [mm]

## Packing

### 1) 1 Tray = 56 pcs of products

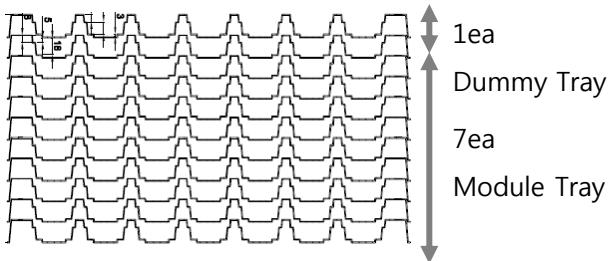


### 2) Stacking 8 Trays

(The top tray is an empty Tray)

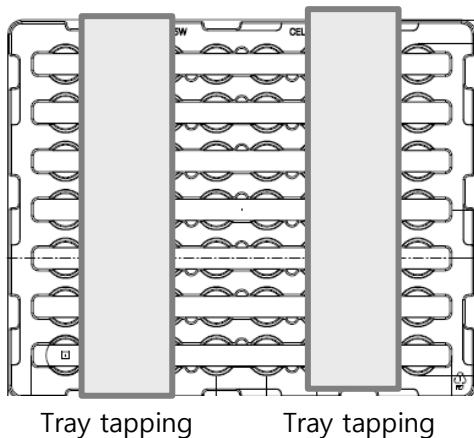
- 7 tray X 56 pcs = 392 pcs (1Tray=dummy)
- 1 tray pack 56 pcs
- Total Quantity : 392 pcs

#### Outer Guard 392 pcs

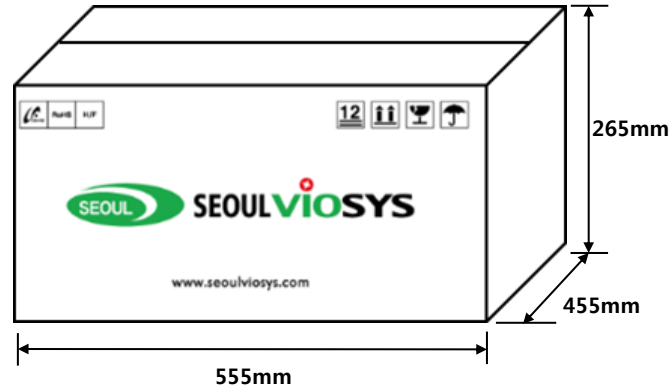


※ Packed with outer guard in one box.

### 3) Tapping 8 Tray to fix.



### Pack the tray in a box




\* 1BOX : 56 ea per tray x 7 Trays = 392 pcs

• TOTAL : 392 pcs per 1BOX

(Outer guards are packaged in bulk)

\* If it is not a full box, apply the buffer material to fix the product

## Label Information

<b>Model No.</b>	<b>CMW-FCC-CO1A (1)</b> 
<b>Type</b>	-
<b>Quantity</b>	<b>XXX</b> 
<b>Lot No.</b>	<b>YYMMDD-SVC-XXXX(2)</b> 
	<b>SEOUL VIOSYS CO.,LTD.</b>

### Reference

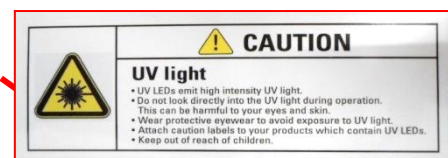
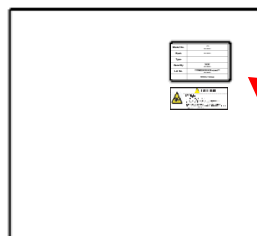
(1) It represent module part number.

(2) YYMMDD : Packing Date  
 YY : last 2digits of year(ex – 2018 → 18)  
 MM : Month(2digits)  
 DD : Date(2digits)  
 -  
 SVC : Supplier  
 -  
 XXXX : Packing box number

### Note

\* Affixed to the label space of the box

### \* Labeling



## Precaution for Use

### 1) Storage

- To avoid moisture penetration, we recommend storing UV-Module in a dry box with a desiccant. The recommended temperature and Relative humidity are between 5°C and 30°C and below 50% respectively.
- UV-Module must be stored properly to maintain the device. If the UV-Module is stored for 3 months or more after being shipped from SVC, a sealed container with a nitrogen atmosphere should be used for storage.
- Replace the remained UV-Module into the moisture-proof bag and reseal the bag after work to avoid those UV-Module being exposed to moisture. Prolonged exposure to moisture can adversely affect the proper functioning of the UV-Module.

### 2) Handling Precautions

- VOCs (Volatile organic compounds) emitted from materials used in the construction of fixtures can penetrate products and discolor them when exposed to heat and photonic energy. The result can be a significant loss of light output from the fixture. Knowledge of the properties of the materials selected to be used in the construction of fixtures can help prevent these issues.
- In case of attaching UV-Module, do not use adhesives that outgas organic vapor.
- Please do not use(or storage) together with the materials containing Sulfur.
- Do not use inflammable material nearby the products.
- Do not touch the products with wet hand
- Do not fix or remodel the products.
- Do not drop the machine, or give strong impact on the products.
- The UV-Module is encapsulated with special material for the highest flux efficiency. So it needs to be handled carefully as below
  - Avoid touching quartz glass parts especially with sharp tools such as Tweezers
  - Avoid leaving fingerprints cover parts.
  - UV-Module will attract dust so use covered containers for storage.
  - It is not recommend to cover the UV-Module with other materials (epoxy, urethane, etc)

### 3) Safety for eyes and skin

- The Products emit high intensity ultraviolet light which can make your eyes and skin harmful, So do not look directly into the UV light and wear protective equipment during operation.

### 4) Cleaning

- After assembly the product, empty the water and then wipe the UV-Module with a dry towel.

## Precaution for Use

### 5) Others

- Be sure to turn On / Off after module is connected.  
When connecting the module in the power on state, LED can be damaged by the influence of the inrush voltage / current.
- The driving circuit must be designed to allow forward voltage or current only when it is ON or OFF . If the reverse voltage is applied to UV-Module, migration can be generated resulting in LED damage.
- Do not handle this product with acid or sulfur material in sealed space
- Please handle using equipment that prevents static electricity.
- Do not touch unless ESD protection is used.
- Ionizer, grounding and keeping appropriate humidity are necessary for work environment.
- The appearance and specifications of the product may be modified for improvement without notice

