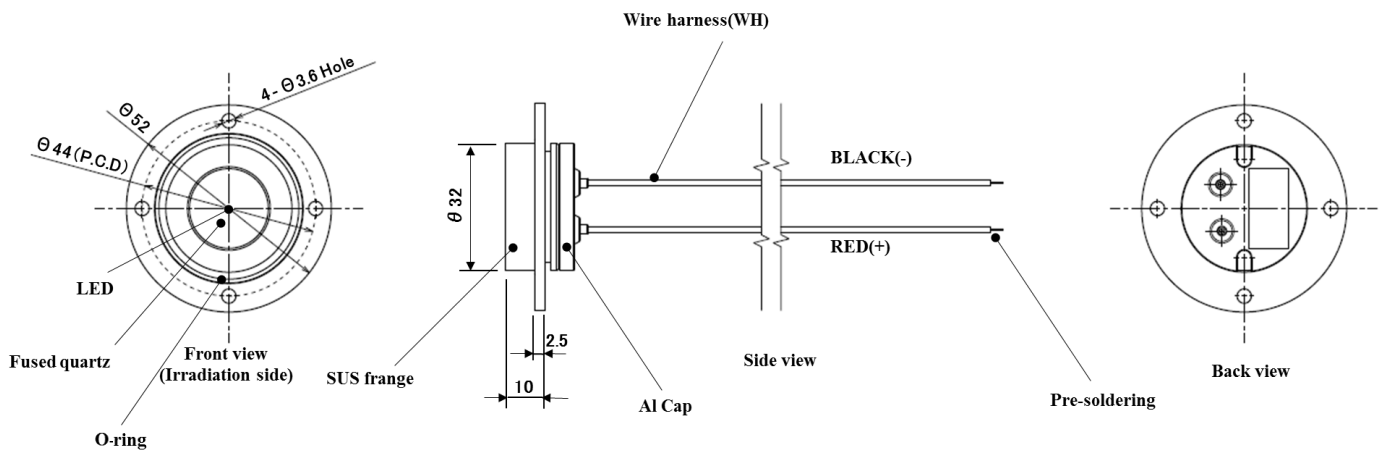


【Features】

- Equipped with 265nm UV-C LED that has high disinfection capability for viruses, bacteria, and chlorine-resistant pathogenic organisms (mercury free).
- Can utilize high disinfection effect immediately upon start up.
- Achieves high durability by adopting metallic housing, which does not affected by UV degradation.
- Compact size ,it can be easily mounted in a narrow space.
- The irradiation side has the waterproof of IPX7 equivalency.



【Outline Dimensions】



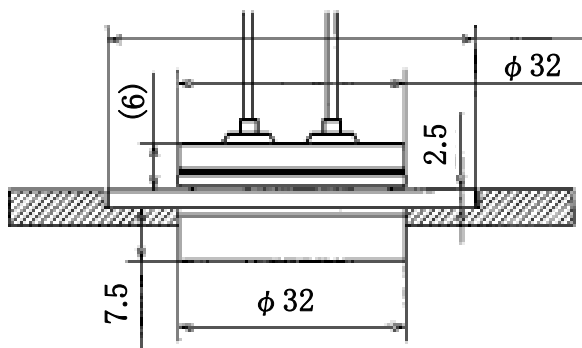
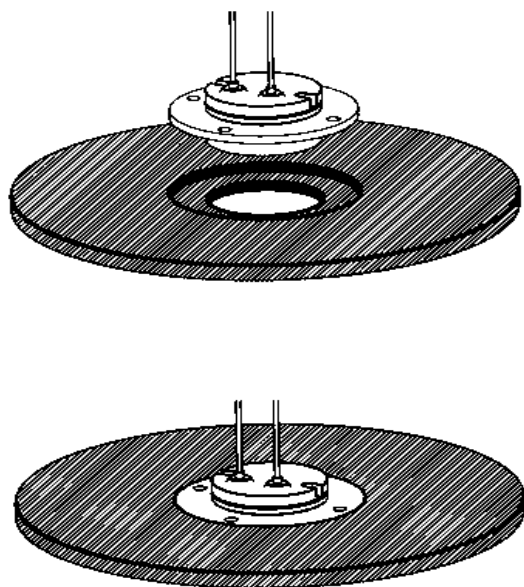
(Unit:mm)

【Recommended Applications】

Water disinfection for storage tank application (ex. Drink dispenser, Humidifier, etc.)

【Installing Method】

•Mounting structure



(Unit : mm)

•Driving method

1. Please connect the product to the tank and etc.
(Since the UV light will leak to the outside, please do not turn it on before connection)
2. Please connect the wire harness to DC power supply. Please connect as following,
 - Connect Red wire harness to “DC+”.
 - Connect Black wire harness to “GND”.
3. Please apply voltage to turn on the LED .
4. Please use a current value setting in the range of 100 to 300mA.

【Absolute Maximum Rating】

ITEM	SYMBOL	MAXIMUM RATINGS	UNITS	
Power Dissipation	Pd	4.6	W	
Forward current	I _F	300	mA	Note1
Tip surge forward current(10ms)	I _{FSM}	500	mA	Note2
Operating temperature	T _{opr}	0 ~ +40	°C	Note3
Storage temperature	T _{stg}	-30 ~ +85 (No dew condensation on this product surface)	°C	
Electrostatic discharge threshold "HBM" (Ta=25°C)	V _{ESD}	2	kV	Note4
Junction temperature	T _j	100	°C	Note5

Note1.2) Please control the DC power supply side so that the current exceeding absolute maximum rating forward current (300mA) does not input to this product when always lighting., and the current exceeding absolute maximum rating tip surge forward current (500mA) does not input to this product when ON/OFF lighting.

Note 3) Do not let the water freeze up.

Note 4) ESD testing method : EIAJ4701/300(304) Human Body Model (HBM) 1.5kΩ,100pF

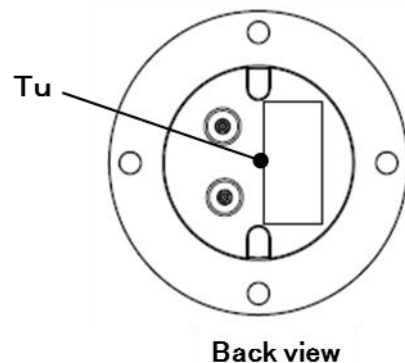
【Thermal Characteristics】

ITEM	SYMBOL	(Ta=25°C)			UNITS	
		MIN.	TYP.	MAX.		
Thermal resistance (Junction - Back of LED Unit)	R _{th(j-u)}	-	9.6	-	°C/W	Note6

Note 5) The junction temperature can be calculated by the following formula.

$$T_j = T_u + R_{th(j-u)} \times (I_F \times V_F)$$

Note 6) The temperature measurement position of the LED Unit is at the back of the LED.(Tu)



【Electro-Optical Characteristics Reference Value】

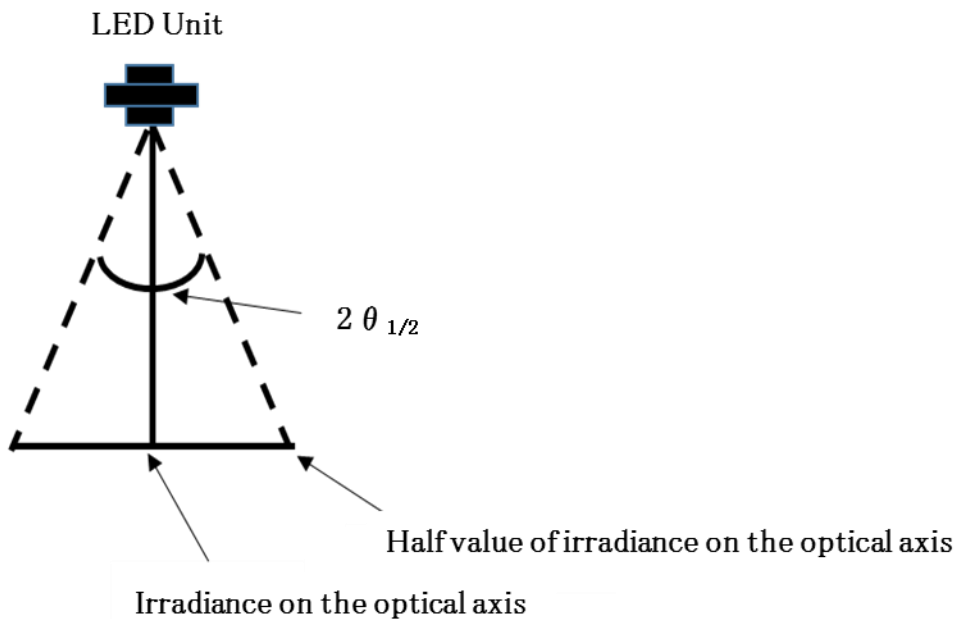
(Ta=25°C)

ITEM	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS	
Total Power	P_O	$I_F = 250\text{mA}$	10	20	-	mW	Note7
Peak wavelength	λ_p	$I_F = 250\text{mA}$	259	265	269	nm	Note8
Spectral half width	$\Delta\lambda$	$I_F = 250\text{mA}$	-	11	-	nm	
Half UV rays irradiance angle	$2\theta_{1/2}$	$I_F = 250\text{mA}$	-	(60)	-	deg.	Note9
Forward voltage	V_F	$I_F = 250\text{mA}$	5.6	6.6	7.7	V	Note10

Note 7) Total Power is measured by integrating sphere, and the tolerance is $\pm 10\%$.

Note 8) Peak Wavelength Tolerance is $\pm 3\text{nm}$.

Note 9) It is the value calculated by UV light quantity distribution measurement.



Note 10) Forward Voltage Tolerance is $\pm 3\%$.

【Appearance】

There shall be no failure like non-lighting when the LED is turned on.

There shall be no defect in appearance such as stains and scratches that impair product functionality.

There shall be no dew condensation on this product surface.

【Specifications of the water available】




The water which adapted to a quality of the water standard of the tap water.

The water which health care center that has jurisdiction over the area inspected and authenticated as drinking water.



【Caution on Safety】

In this instruction manual, safety-related cautions and warnings are given according to the following definitions. Please read this delivery specification after understanding the following definitions enough.






WARNING	The contents that you might be die or badly injured.
CAUTION	The contents that you might be injured or cause the product malfunction.







Graphic Symbol	Teams and meaning.
	「Caution graphic symbol」 It is used for alerting.
	「Prohibition graphic symbol」 It is used when there are prohibited items.
	「Instruction graphic symbol」 It is used when there are instruction matters.


【Warning】


-  This product emits strong UV rays when it is lit up. Please do not look directly into the light source and keep the reflected light out of your eyes. It may cause eye pain and visual impairment. Also, please do not expose your skin to UV rays directly or indirectly. It may cause skin irritation and sunburn.
-  Do not disassemble this product while the power is on. Also, do not turn on the power in the disassembled state. UV rays leak and adversely affect the human body and surrounding parts.


【Caution】


-  Shall not touch the product while it is lit or just after turned off, because the product becomes high temperature. It may cause burns.
-  Shall not dip this product in water. It may lead to electric leakage and electric shock If the back side of this product gets wet, turn off the power and remove the water sufficiently.
-  Shall not handle this product with bare hands.
Avoid attachments of dirt, oil, foreign objects, etc. to the product. It may cause a decrease in UV rays output.
-  The resin or wire harness that has been exposed to UV rays from our products, might be deteriorated. You need to take measures for UV rays.
-  This product uses glass. It might be broken by impact or shock, please be careful about the handling.

-  Please do not pull, bend or put weight on the wire harness more than necessary.
-  After chlorination of this product, please wash it with pure water to completely remove chlorine ingredient before use.
-  This product does not have a surge protection. We recommend that you take measures against surge current by ON/OFF lighting.
-  This product does not have a protection to noise and power ripple. Please note that a large ripple may cause LED failure.
-  Please note that if the connection between the input harness and the power supply is inadequate, electrical breakdown may occur, causing smoke or fire.
-  Be sure to turn off DC power supply, when you connect this product to DC power supply and remove it.

 Please control the DC power supply side so that the current exceeding absolute maximum rating forward current (300mA) does not input to this product when always lighting., and the current exceeding absolute maximum rating tip surge forward current (500mA) does not input to this product when ON/OFF lighting.

 The irradiated side of this product is made of SUS304, but it may rust due to the operating environment (adhesion of dirt and water, rust stains, salt adhesion, and electric corrosion), so please perform maintenance on a regular basis.

 When dew condensation is occurred in actual use environment, it may cause a decrease in UV rays output and cause a malfunction. You need to take measures for dew condensation.

 This product is not medical equipment.

【For Electric Discharge (ESD)】

1. Electric Discharge/Static Electricity Protection.

In order to avoid product (die) damage from static electricity caused by unprotected handling by operator and other charged materials coming in contact with the product, Stanley recommends taking the following precautions.

- ① Do not place electrified non-conductive materials near the product. (Avoid the product from coming in contact with metallic materials; should the metallic material be charged, sudden surge voltage will most likely damage the product.)
- ② Avoid working process which may cause the product to slide/rub against other materials.
- ③ Install ground wires for any equipment, which can be installed with such measures to avoid static electricity.
- ④ Operators should wear a protective wrist-strap.
- ⑤ Operators should wear conductive work-clothes, shoes and work on a conductive floor.

2. Working Environment

- ① Dry environment is more likely to cause static electricity. Although dry environment is ideal during storage state of products, Stanley recommends an environment with approximately 50% humidity.
- ② Stanley recommends static electricity level in the working environment is less than 150V, which is the same value as Integrated circuits.