



SWDC SERIES

Ultraviolet (UV) sterilization technology destroys micro-organisms with instantaneous high-power ultraviolet ray emissions, featuring high efficiency sterilization, no resurrecting micro-organisms and no side effects.

**SWDC-T306-
DNN-U1930**

Specifications are subject to change without notice.

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SWDC-T306



The SWDC-T306-DNN-U1930 uses a deep ultraviolet LED as the UV-C light source combine with a storage type water tank to sterilize the water stored in the tank. The irradiance of ultraviolet LED can reach over 0.8 mW/cm^2 . For any 5L water tank, measured sterilization rate in the water tank can reach over 99% after 40 ~ 50 mins irradiation.

- **Product Features:**

1. Sterilization efficiency over 99%^①
2. Working life of 7,000 hours or more
3. Working voltage 24V typical value (If you need other voltage drive, please contact us)
4. Low standby operating current : < 0.1 uA
5. Lead-free environmentally friendly RoHS compatible
6. Waterproof level up to IP68^②

① In the laboratory working environment, using the standard E. coli method to count the difference before and after sterilization;

② Please refer to the test standard of IEC60529/GB4208

● **Product Specification:**

1. Module Spec:

Spec	Symbol	SWDC-T306-DNN-U1930
Wavelength	nm	265-285
Radiance	Min	5.0
	Typ.	6.0
Voltage	V	24
Power	W	0.3
Consumption ^③		Max
Housing Type		Pitch 2.5/ 3Pin
Signal Detection		LED open circuit
Life Cycle	hrs	7,000 ^④
Weight	g	26±10%

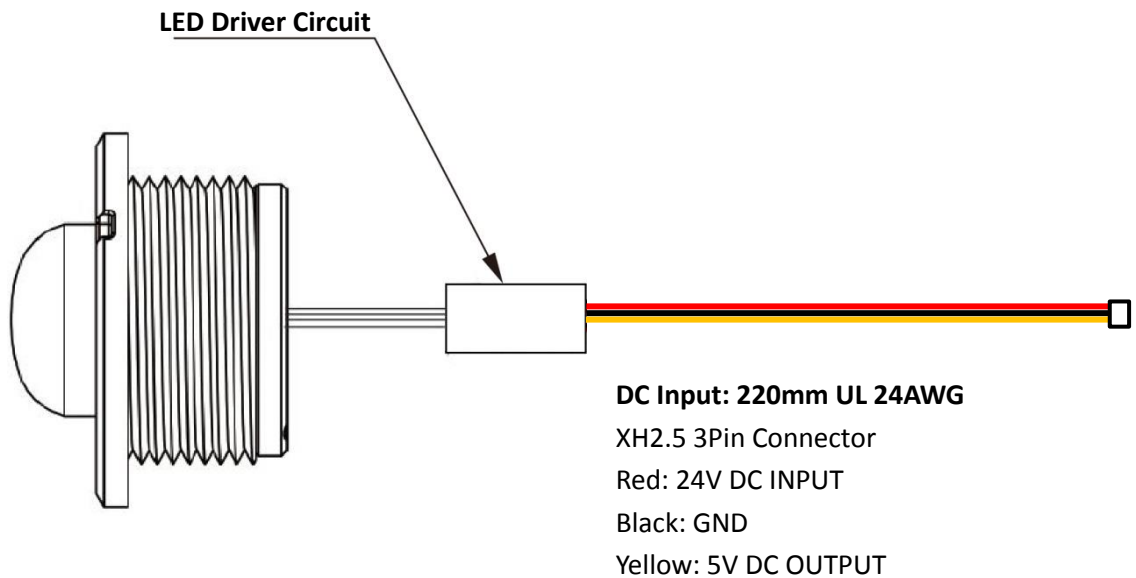


Fig. 1 Wire Schematic

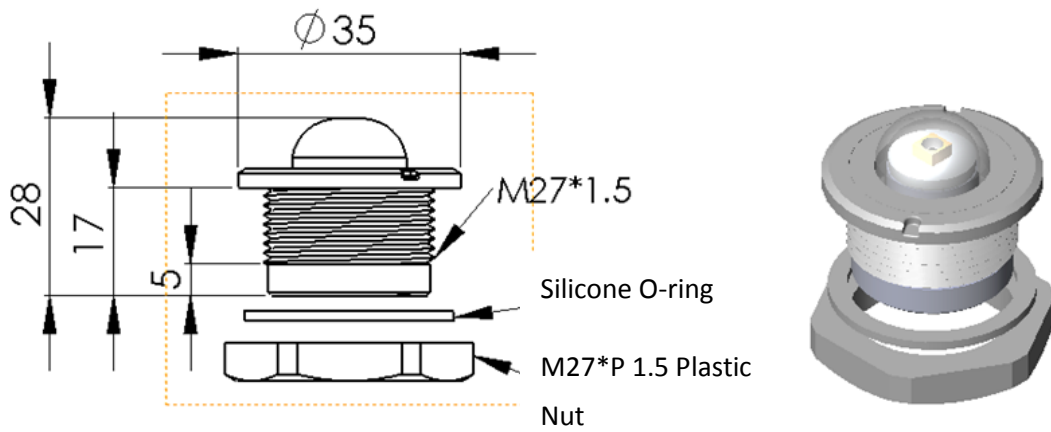


Fig. 2 Module Dimensions

- ③ Power Capacity above 5W
- ④ IESNA (Illuminating Engineering Society of North America) LM80 experimental method, 70% Lumens depreciation evaluation standard

● Recommended installation Method

Our sterilization module should be placed against the water tank wall, with the UV-C LED located in the center of the upper water tank, allowing the UVC light to diverge along the cross section of the water tank. The LED beam divergence of 125° , will allow the light to reach the top and bottom of the water tank with a conical area of 35mm (10 mm axial distance) of its irradiance. This will meet the National Standard regulation requirement of $30\text{mJ}/\text{cm}^2$, in about 10 minutes.

The penetration depth of 265-285nm ultraviolet radiation is about 100mm in water.

The LED module is controlled by an external circuit. This solution is specially designed for high-power UV LEDs. This can ensure the long-term stable operation of the LED, and will not affect the lifetime of the LED due to overheating.

The main body consists of three parts:

1. Quartz glass waterproof and dust proof casing
2. UV-C LED mounted on aluminum substrate
3. Base platform. The UV-C LED on aluminum substrate is encapsulated in a quartz glass sealed to isolate water and other pollution, and the base is used to fix the integral module on the upper cover of the water tank.

Note: If there is air between the UVC LED module and the water, the sterilization efficiency will be reduced.

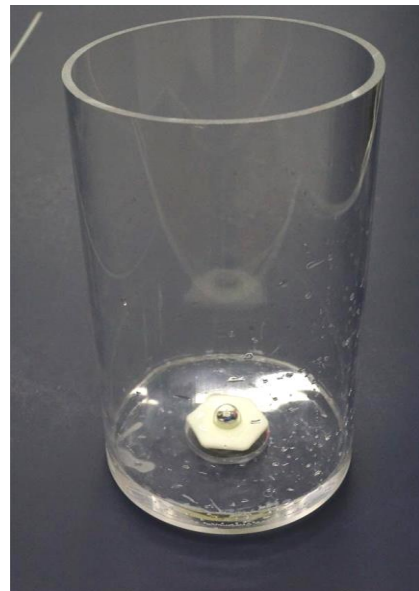
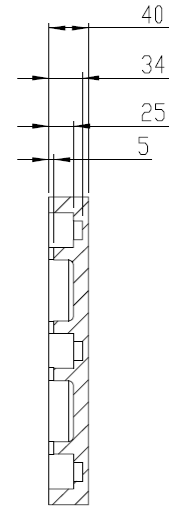
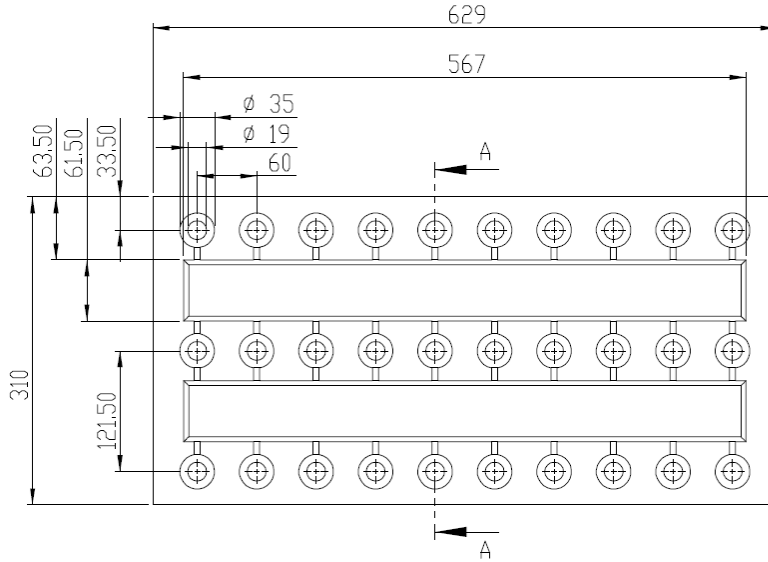


Fig. 3 4L cylindrical water tank installation diagram

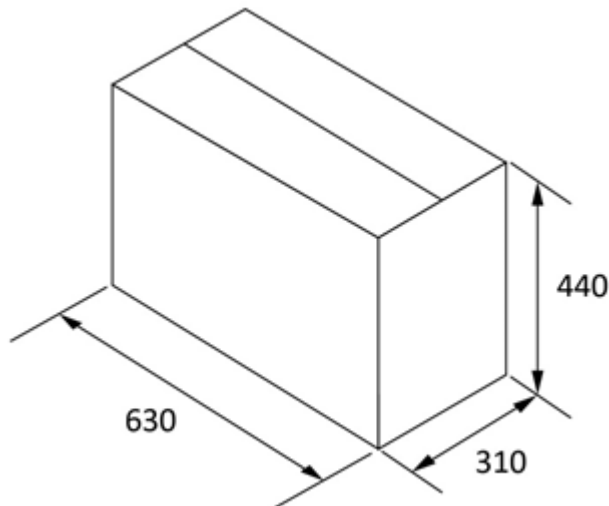
● **Packaging:**

1. Protective Foam Dimension: 629 x310 x40 mm
Quantity: 30 pieces/ layer



Section A -A

2. Outer Carton Box Dimension: 630 x310 x440 mm
Quantity: 10 layers/ box



*Unit: mm

*Tolerance: +/- 10mm

