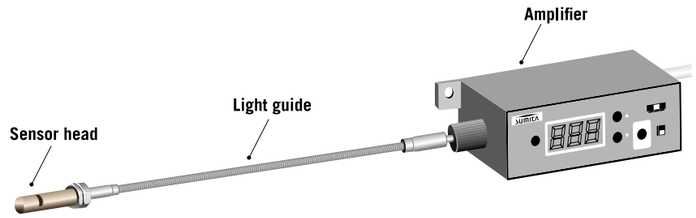
Ultraviolet Sensor UV-300K CE

An ultraviolet sensor for high-performance production lines Utilizing high-durability, ultraviolet-to-visible wavelength conversion glass

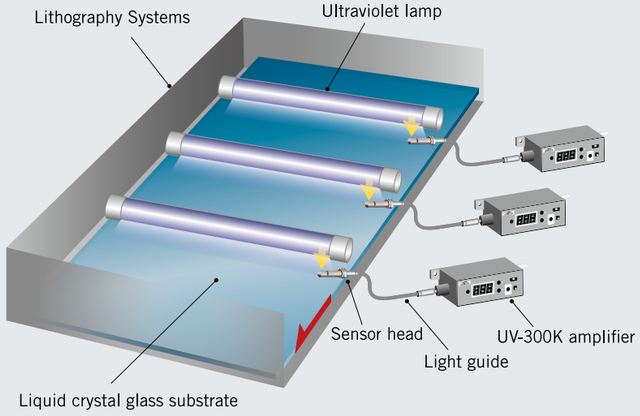
This is an ultraviolet sensor for continuous monitoring of light intensity. It monitors lamp degradation and lighting failure, which enables appropriate management of lamp replacement.
Lamp light intensity is stabilized by providing feedback on monitored intensity fluctuations.
Two operation modes are provided: light intensity mode and integral mode. Furthermore, it is equipped with analog output of 1-5V voltage and 4-20mA current as standard. It also has sensitivity setting using teaching, as well as an answer back function.

Applications	Semiconductor manufacturing devices, disinfection and sterilization, UV curing, lighting, air cleaning, 3D printing, medical applications

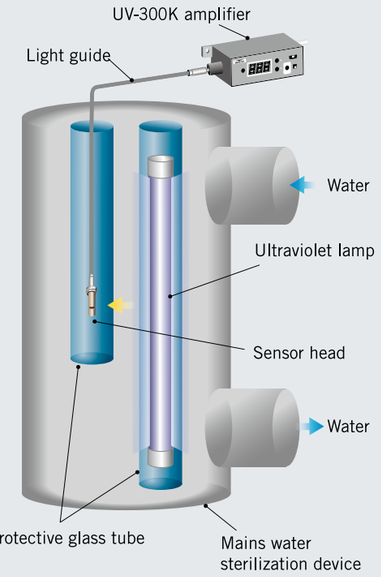


Examples of use

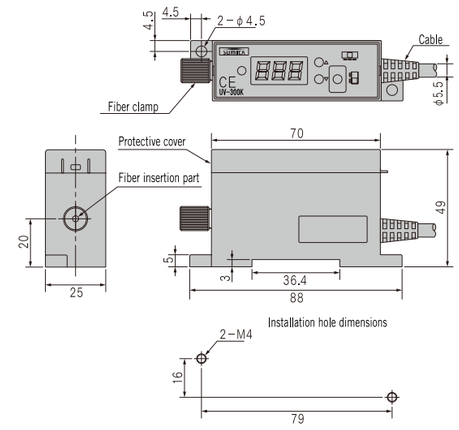
Lithography Systems



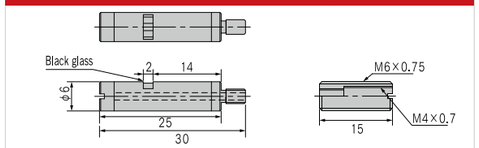
Disinfection, sterilization



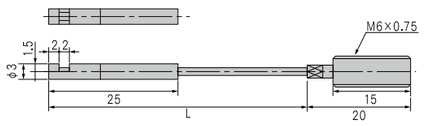
Amplifier [UV-300K]



Heat Resistant Sensor Head [UV-T254,T405（no black glass）/ UV-T365]



Sensor Head [UV-S(L=50±1)/UV-L(L=100±1)]



Amplifier Unit Specification

Model	UV-300K
Operation indicator light	Red LED (lit when output detection is ON)
Measurement range in power*	UV-T254, UV-T365, UV-L, UV-S 【254nm】0.1 ～ 30mW/cm² 0.01 – 3 mW/cm² (high sensitivity head) 【365nm】3 ～ 900mW/cm² 0.3 – 90 mW/cm² (high sensitivity head) UV-T405 【405nm】300 ～ 9,000mW/cm²
External teaching input External reset input	ON:0 – 1.5 V (0 V short circuit current 1 mA or less) OFF:Open or 4 – 30 V
Light intensity value display (relative value)	3-digit LED Light intensity mode: 0 – 125% Integral mode: 0 – 200%
Detection output Answer back output	NPN open collector (DC 30 V, 100 mA or less)
Analog output	Voltage/current switching with a switch 1-5 V (0 – 100%, 6 V/125%) 4-20 mA (0 – 100%, 24 mA/125%)
Detection output Threshold value setting	Set % value by 1% with a switch Light intensity mode: 10 – 100% Integral mode: 10 – 200%
Sensitivity setting	Teaching sensitivity (set to 100%) Lowest sensitivity, highest sensitivity, zero-point setting
Cable	0.15 mm² shielded 7 core cabtyre cable 5.5 mm diam. ×2 m
Repeat accuracy	±2%F.S.or less
Temperature drift	0.1%F.S./℃ or less
Operating environment	−25 – +55℃ / 35 – 85%RH (no condensation or freezing)
Power supply voltage	DC12 – 24 V±10% (ripple P-P 10% or less)
Response time	300 ms or less
Current consumption	50 mA or less (excluding output current)
Weight	Approx. 140g

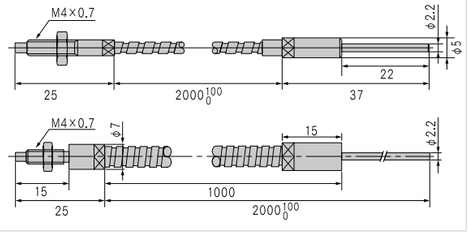
* 254 nm: Orc Manufacturing Co., Ltd. UV-MO2 (UV-25) 365 nm: Ushio Inc. UIT-101 (UVD-365PD)
405nm: Orc Manufacturing Co., Ltd. UV-42

Sensor Head Specification

Model	UV-T405	UV-T365	UV-T254	UV-L	UV-S
Features	Heat resistant			Long sleeve	Short sleeve
Measurement range in wavelength	200 ～ 330nm, 360 ～ 420nm 455 ～ 476nm, 517 ～ 600nm	300～380nm	170～380nm		
Temperature drift	−0.3%/ ℃ or less (at254nm), −0.1%/ ℃ or less (at365nm), −0.06%/ ℃ or less (at405nm)	−0.1%/℃ or less			
Operating environment	−40 - +300℃ / 35 – 85%RH (no condensation or freezing)			−40 – +150℃ / 35 – 85%RH (no condensation or freezing)	
Material	Ultraviolet-visible wavelength conversion glass, stainless steel				
accessories	M6 nuts, washers				

* UV-T365 and UV-T254 have high sensitivity heads UV-T365W, UV-T254W.

Light Guide [UV-H(upper)/UV-F(lower)]



Light Guide Specification

Model	UV-H	UV-F
Features	Heat resistant	Free cut
Operating environment	−40 – +300℃ / 35 – 85%RH (no condensation or freezing)	−40 – +70℃ / 35 – 85%RH (no condensation or freezing)
Storage temperature	−40～+70℃	
Total length	2m (Including UV protection tube)	2m (UV protection tube is mounted onto 1m from its end)
Material	Borosilicate glass, stainless steel	Acrylic, polyethylene, stainless steel

* Heat resistance temperature of the amplifier insertion part is+70℃