

Deuterium-Halogen Light Source

ATG1022

Features

- Full wavelength output: 200-1100 nm (185nm optional)
- Small size, low power consumption
- No preheating required
- Support intermittent working mode
- Energy repeatability is better than 0.1%
- Built-in electric shutter
- Long life: >2000 hours; when working intermittently, the life can be up to more than 3 years
- Fiber optic or free space output
- Optical fiber: It is recommended to use UV-resistant quartz optical fiber produced by Optosky

Application

- UV smoke analyzer
- Online water quality analyzer
- Other online monitoring instruments
- Portable Spectroscopic Instruments
- Scientific research laboratory
- Multi-parameter water quality analysis
- Environmental protection equipment

Description

Optosky's ATG1022 deuterium-halogen combination light source adopts the latest international element lamp technology and solves the problem that deuterium and halogen lamps need to be preheated for half an hour. The ATG1022 deuterium-halogen combination light does not require preheating and is stable as soon as it is turned on. It improves work efficiency and can meet the intermittent working needs of many online instruments.

ATG1022 adopts deuterium-halogen combination lamp technology, the energy output stability exceeds 0.1%, and supports intermittent output. Its performance far exceeds the pulse xenon lamp, and can completely replace the pulse xenon lamp (energy stability is about 2%).

ATG1022 deuterium-halogen combination lamp, the deuterium lamp and the halogen lamp can be turned on and off separately, or the dark current can be measured through the built-in electric shutter.

The service life of ATG1022 is up to 1000 hours. In intermittent working mode, the working time can be up to more than 3 years. It has the characteristics of long life, small light attenuation and high output power. It can be widely used in traditional portable spectrometer instruments and on-site online miniature spectroscopic instrument.

The ATG1022 deuterium-halogen combination lamp can be used with the optical fiber spectrometer generated by Optosky and is equipped with a cuvette holder to directly perform transmission and absorption of cuvettes or filters.

Model	Feature
ATG1022	Universal model
ATG1022-HP	High power model
ATG1022BT	Built-in battery, can output +5V/2A power supply
ATG1022BT-HP	High power, built-in battery, can output +5V/2A power supply



1. Parameter

	ATG1022	ATG1022-HP
Wavelength range	200-1100 nm	185-1100 nm
power	6W	10W
Bulb life	2000 hours	2000 hours
energy stability	<0.1% at 250nm	<0.1% at 250nm
output	SMA905 fiber output	SMA905 fiber output
Preheat time	No preheating required	No preheating required
Deuterium lamp independent control	yes	yes
Tungsten lamp independent control	yes	yes
Electric shutter	yes	yes
Operating temperature	5~35°C	
humidity	5-95% no condensation	
Voltage	12VDC±5%	12VDC±5%
current	1A	1.7A
size	80 mm x 175 mm x 50 mm	80 mm x 175 mm x 50 mm
weight	450g	650g

2. Spectrum

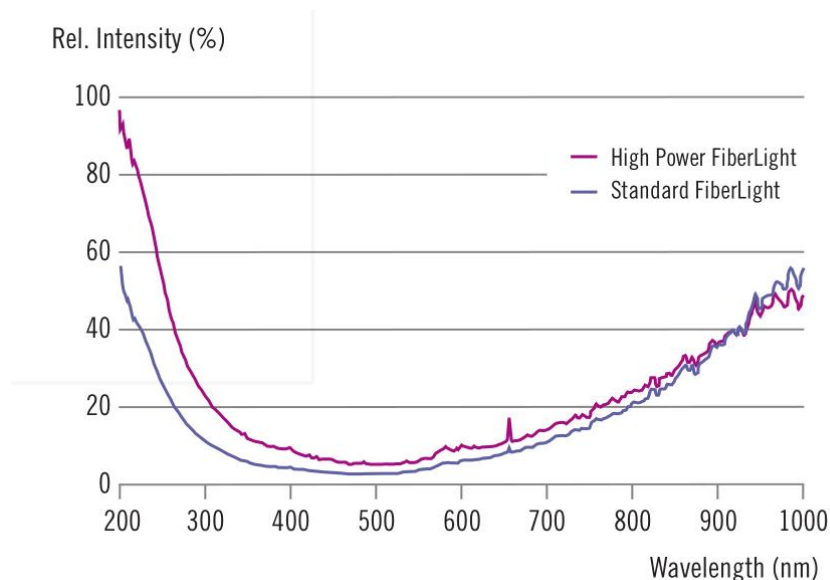


Figure 1 Comparison of output light energy intensity of ATG1022 and ATG1022-HP

Cyclic Operation

Cyclic operation at 230 nm / measuring time: 18 sec; off = 10 sec

Light Intensity

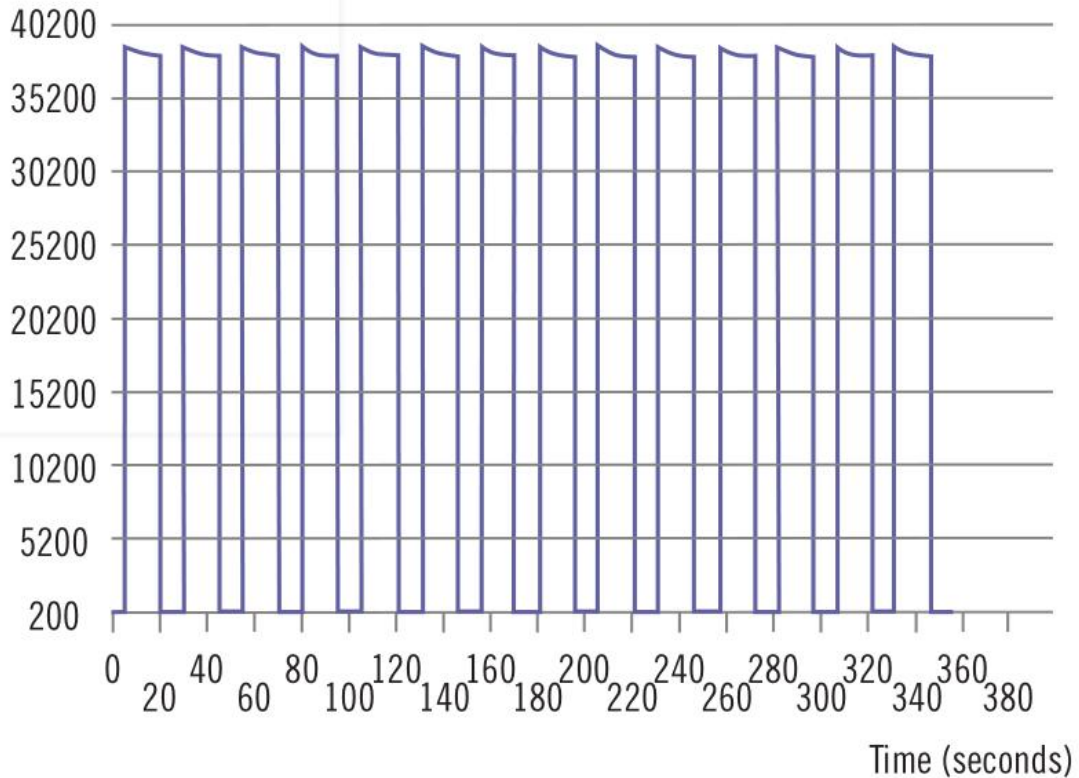


Figure 2 When working in intermittent mode, the stability of the output light energy of ATG1022 exceeds 0.1%. The picture shows the monitoring of light energy at a wavelength of 230nm. The working mode is: on for 18 seconds and off for 10 seconds.

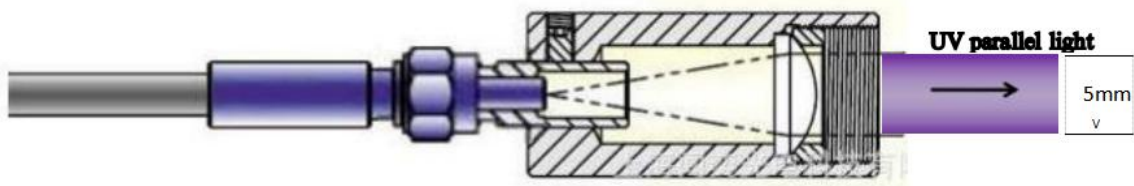
3. Other Accessories



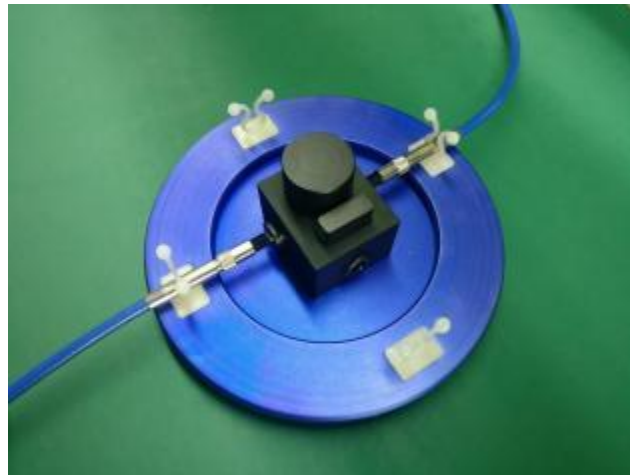
Pic. 1 Customized 1.5 m long 2-to- 1 anti-UV fiber



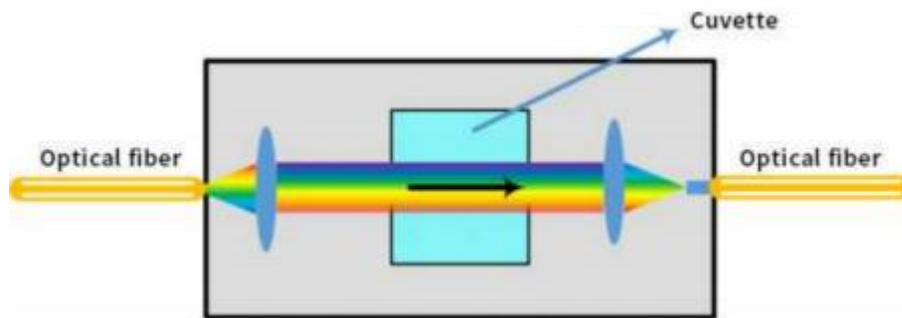
Pic. 2 Collimator for fiber



Pic. 3 Collimator for fiber



Pic. 4 cuvette holder



ATP0080 sample cell

