SIMTRUM

Halogen Light Source

HL-1000/2000/3000

LS-1

2022 V1

For customized projects please Contact us:

info@simtrum.com

HL1000 Tungsten Halogen Light Source

In order to offer a classic halogen light source, we have redesigned the HL1000's lifespan, color temperature and stability. Not only imported professional halogen bulbs are used, but also these high-performance components are concentrated in a palm-sized volume, and a metal casing made of aluminum alloy is selected.

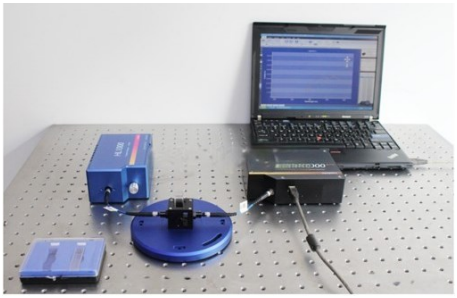
Features

- With a life span of more than 10,000 hours, HL1000 adopts spectral-grade special halogen bulbs with better filament packaging, which ensures the life of each halogen bulb and effectively reduces the frequency of bulb replacement;
- The bulb power can be selected (standard 5 watts), and the SIMTRUM's optical lens is used to couple to the SMA905 interface output ;
- The light intensity can be adjusted, and the adjustment range is 0~100%; in order to meet the needs of different samples in reflection and transmission spectrum measurement, HL1000 is designed to adjust the output light intensity;
- The wavelength range is wide, 360~2500nm; it can output a smooth spectral curve, suitable for various optical detection.
- Use an 85~250V AC power supply.
- The stability is better than 2‰, HL1000 adopts a higher-level power supply to ensure that the optical power output does not drift more than 2‰ per hour;
- Filament positioning accuracy higher than ±0.127mm is used as a standard radiation source. Each HL1000 has extremely high filament positioning accuracy, ensuring batch consistency;
- The size of the light source is 150mm x 75mm x 50mm

Applications

Reflection/Transmission Spectroscopy - The stability of the light intensity output of the light source affects the reliability of the results; in addition, the higher the color temperature, the better the short-wavelength signal-to-noise ratio.

Irradiance Calibration - In many applications, a standard radiation source is required; in general, the longer the life of the source, the more stable the light output, the better.



Cuvette Holder Transmission/ Absorption Application System

HL2000 High Power Halogen Light Source

The SIMTRUM halogen light source is a multi-purpose light source with high coupling efficiency, strong stability and long service life, which is specially used for imported optical instruments. It is most suitable for VIS-NIR (360nm-2000nm). The light source features the ability to connect to SMA905 connectors for maximum energy coupling with optical fiber.

Features

- Using SIMTRUM's Optoelectronics high-quality bulbs, halogen bulbs with a lifespan of up to 6000 hours (standard);
- Wide wavelength range, 360~2000nm;
- Adopt air-cooled heat dissipation, do not block the air inlet and outlet during use;
- Use 85~250V AC power supply;
- The bulb power can be selected from 1.5 to 20 watts (standard 10 watts), which is coupled to the SMA905 interface output by the SIMTRUM's optical lens;
- The size of the light source is 160mm x 85mm x 60mm;
- The light source bulbs are consumables, please replace them before the service life is reached.

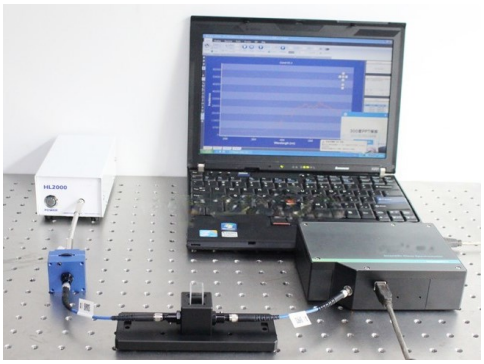
Ultra long-life halogen bulbs

Laboratory-grade halogen light bulb for spectrum, 6000 hours long life, 2915K high color temperature, bulb drift <0.15%/hr, to ensure the stability of the light source. This product uses a 10-watt bulb with a quartz focusing lens, which greatly improves the coupling efficiency of the fiber.
In order to apply to measurement experiments with strong special absorption, our company can also provide customized large-size optical fibers and optical fiber bundles and various optical measurement systems for customers.

Applications

HL2000 is a product for wide-spectrum spectral measurement and irradiance calibration. It has the characteristics of a broader spectrum, more stable, higher power, and longer life It is suitable for fields that require high-power and high-stability spectral analysis, such as:

- Diffuse reflection integrating sphere measurement
- Thin film transmittance analysis
- Absorbance analysis
- Colorimetric analysis
- Solar cell reflectance analysis, etc.



HL3000 Tungsten Halogen Light Source

The SIMTRUM HL3000 halogen tungsten light source is integrated for various purposes. It is mainly divided into standard type, adjustable light intensity type-VL, and shutter type-TTL. Choose from different models for different optical applications! It is suitable for fields that require high-power and high-stability spectral analysis, such as spectral analysis system integration, remote control, AI intelligent monitoring, thin film transmittance analysis, absorbance analysis, colorimetric analysis, and solar cell reflectance analysis, diffuse reflection integrating sphere measurement, etc.!

Features

- This product has 3 different configuration models, divided into standard type, light intensity adjustable type-VL, with shutter type-TTL.
- Each model has different optical powers to choose from, including 5W, 10W, and 20W.
- Using imported high-quality light bulbs for instruments, halogen bulbs with long life;
- The light source adopts an advanced power control system, and its output spectrum is stable;
- Wide wavelength range, 360~2500nm;
- Air-cooled heat dissipation is adopted, and the fan is installed at the bottom of the fuselage;
- Use 12V DC power supply (with power adapter);
- The power of the bulb is 5~20 watts (standard 5 watts), which is coupled to the SMA905 interface output by the SIMTRUM optical lens;
- The size of the light source is 150mm x 55mm x 40mm;
- The light source bulbs are consumables, please replace them before the service life is reached.

Application

Reflection/Transmission Spectrum - Whether the light intensity output of the light source is stable or not affects the reliability of the results; in addition, the higher the color temperature, the better the short-wave signal-to-noise ratio.

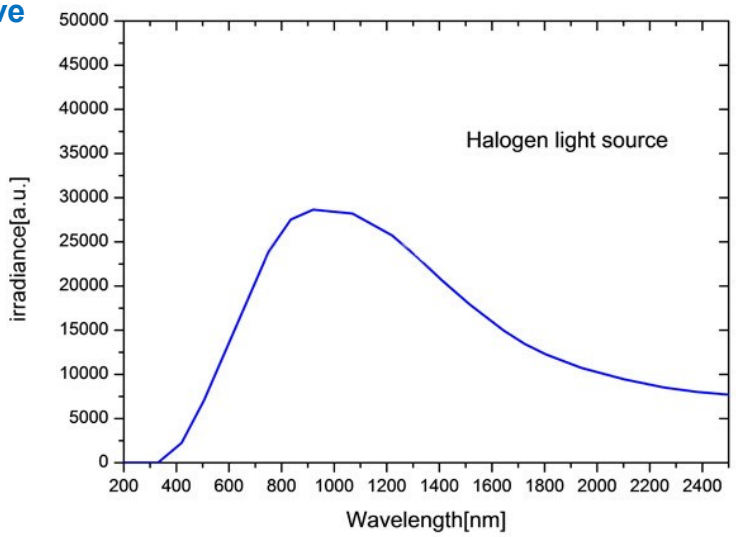
Irradiance Calibration - In many applications, a standard radiation source is required; in general, the longer the life of the source, the more stable the light output, the better.

Models Options

Model	Power Consumption	Bulb Voltage	Color Temperature	Life Span	Output Optical Power	Stability
HL1000	5W	5V	2800K	10000H	600um=3.0mW	<0.15%/hr
HL1000-20W	20W	12V	3000K	2000H	1500um=6.5mW	<0.20%/hr
HL1000-10W	10W	5V	2900K	6000H	1000um=5.5mW	<0.15%/hr
HL1000-8W	8W	5V	2800K	2000H	1000um=4.7mW	<0.15%/hr
HL1000-3W	3W	3V	2785K	14000H	600um=2.2mW	<0.15%/hr
HL1000-1.5W	1.5W	3.5V	2330K	10000H	600um=1.7mW	<0.15%/hr
HL2000	10W	5V	2900K	6000H	1000um=5.5mW	<0.15%/hr
HL2000-20W	20W	12V	3000K	2000H	1500um=8.5mW	<0.15%/hr
HL2000-5W	5W	5V	2800K	10000H	600um=3.0mW	<0.15%/hr
HL2000-8W	8W	5V	2800K	2000H	600um=4.7mW	<0.15%/hr
HL2000-3W	3W	3V	2785K	14000H	600um=2.2mW	<0.15%/hr
HL2000-1.5W	1.5W	3.5V	2330K	10000H	600um=1.7mW	<0.15%/hr
HL3000	3mW	5W	2800K	10000H	1000um=3.0mW	<0.15%/hr
HL3000-10W*	5.5mW	10W	2900K	6000H	1000um=5.5mW	<0.15%/hr
HL3000-20W	8.0mW	20W	3000K	2000H	1500um=8.5mW	<0.15%/hr
HL3000-VL	3mW	5W	2800K	10000H	1000um=3.0mW	<0.15%/hr
HL3000-10W-VL	5.5mW	10W	2900K	6000H	1000um=5.5mW	<0.15%/hr
HL3000-20W-VL	8.0mW	20W	3000K	2000H	1500um=8.5mW	<0.15%/hr
HL3000-TTL	3mW	5W	2800K	10000H	1000um=3.0mW	<0.15%/hr
HL3000-10W-TTL	5.5mW	10W	2900K	6000H	1000um=5.5mW	<0.15%/hr
HL3000-20W-TTL	8.0mW	20W	3000K	2000H	1500um=8.5mW	<0.15%/hr

* HL3000-10W Jumper port output power greater than 10 mW

Spectral Curve



LS-1 Small Volume Halogen Lamp

The SIMTRUM LS-1 small volume halogen lamp's main features are long life, small size, stable output spectrum, and suitable for application solutions such as device integration.

Features

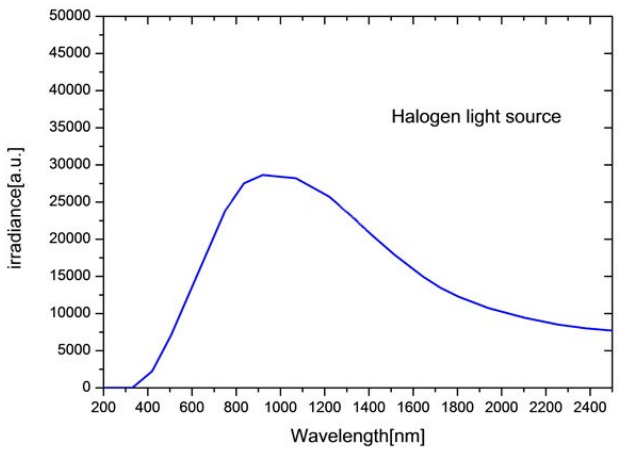
- Using imported high-quality light bulbs for instruments, halogen bulbs with a lifespan of up to 10,000 hours (standard);
- The output intensity of the light source can be adjusted by adjusting the filament current through the potentiometer, which is convenient for various experimental applications;
- Small size, size: 40mm x 70mm x 55mm; weight: 170g; the specific structure can be inquired;
- The wavelength range is wide, 360~2500nm; it is coupled to the SMA905 interface output by the SIMTRUM optical lens;
- Adopt air-cooled heat dissipation, do not block the air inlet and outlet during use;
- Powered by 5V 2A DC, equipped with a power adapter;
- The light source bulbs are consumables, please replace them before the service life is reached.

Model Options

Model	Power Consumption	Bulb Voltage	Color Temperature	Life Span	Output Optical Power	Stability
LS-1	5W	5V	2800K	10000H	600um=3.0mW	<0.15%/hr
LS-2	8W	5V	2800K	2000H	600um=4.7mW	<0.15%/hr
LS-3	3W	3V	2785K	14000H	600um=2.2mW	<0.15%/hr
LS-4	1.5W	3.5V	2330K	10000H	600um=1.7mW	<0.15%/hr

Application

Spectral Curve



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