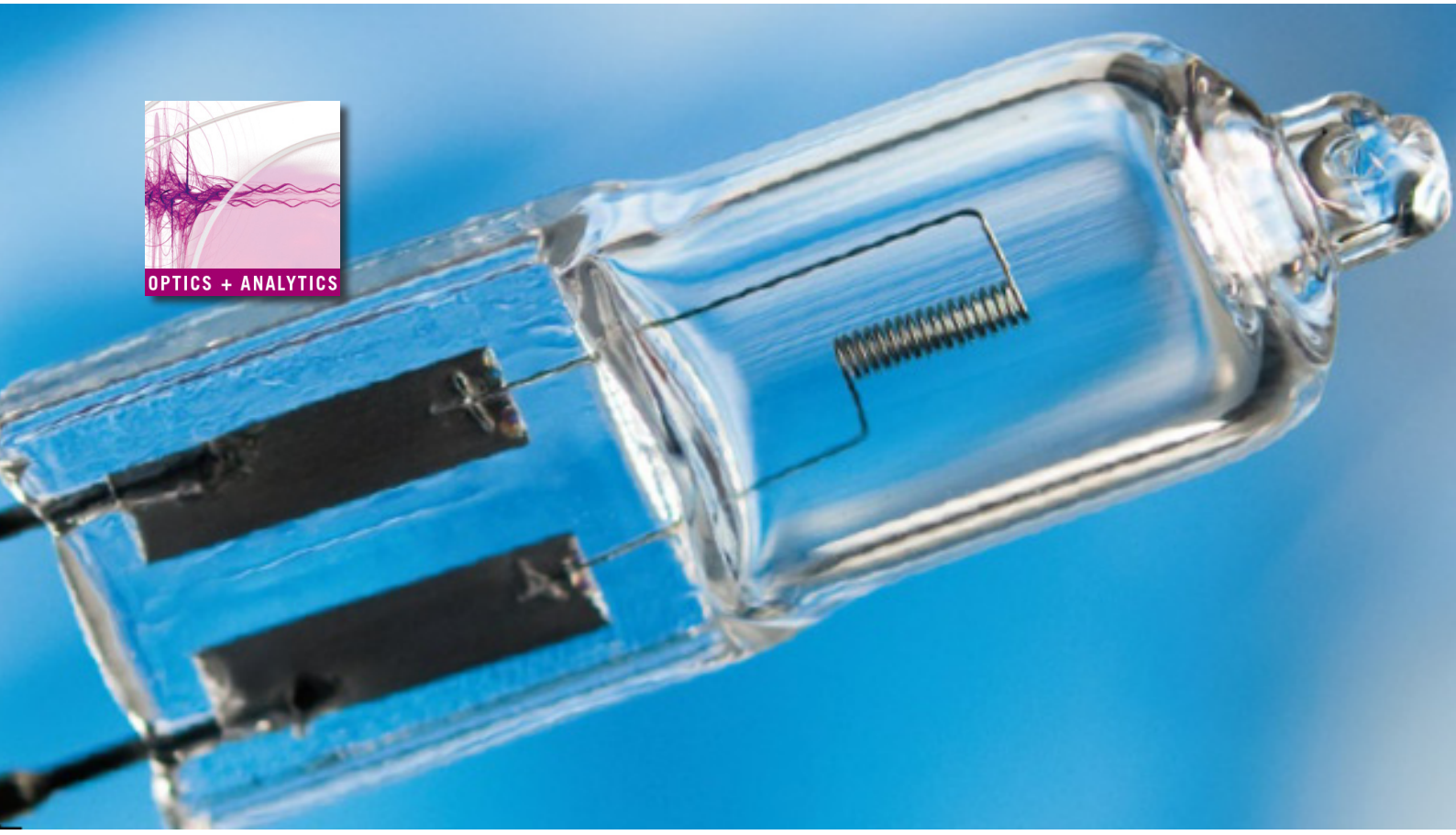
Heraeus



Heraeus Tungsten Halogen Lamps
for Analytical and Medical Instrumentation

Heraeus has designed a series of tungsten halogen lamps from 10-100 W specifically for use in analytical applications; non UV blocked quartz envelopes, together with carefully positioned filaments through controlled processing and alignment. In addition the lamps offer high colour temperature, luminous efficacy and long life.

The output in the visible range of the spectrum ensures that tungsten halogen lamps are highly suitable for use in analytical instrumentation. Used in conjunction with deuterium lamps, they provide the wide ranging output required in UV/Vis Spectrophotometers and HPLC. Alone they are suitable light sources for simple visible spectrophotometers used in the analytical and medical market.

Heraeus Tungsten Halogen Lamps:

- Non UV blocked quartz envelope
- Good transmission below 380 nm
- Output in 315-380 nm supplements D2 output

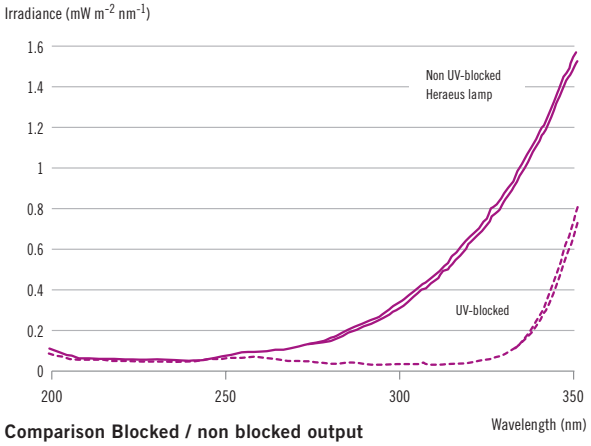
- Accurate positioning of filament
- Good alignment with instrument aperture
- Enables maximum light intensity into acceptance aperture

- Individual filament design
- Optimised optical and electrical properties
- Increased performance and life

Non UV blocked Tungsten Halogen lamps

Lamps supplied by other manufacturers may be UV blocked as they are designed for the commercial market where current legislation bans UV transmission.

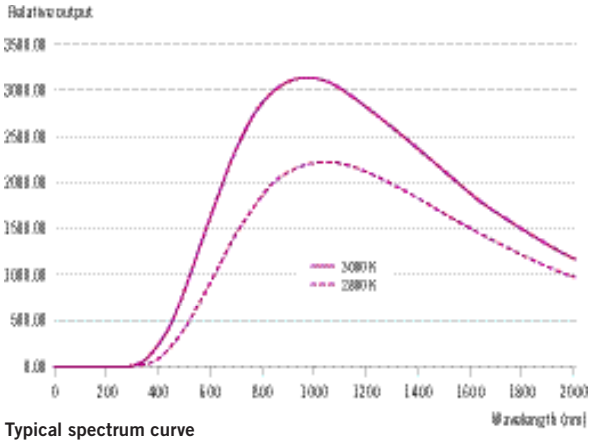
The UV is blocked below 380 nm which is important in spectrophotometer use as it increases the intensity in the 315–380 nm range where the intensity from the deuterium lamp is starting to decline. The extra intensity from combined lamps incereases sensitivity resulting in more accurate determinations.



Comparison Blocked / non blocked output

Colour Temperature and High UV Output

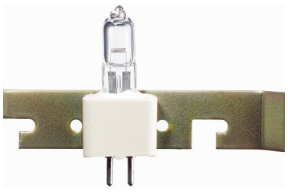
Light output is achieved by incandescence of the tungsten filament and is a function of the wattage, colour temperature and configuration of the filament coil. Efficacy of a lamp is important and defines the amount of light emitted per watt. Colour temperature is a measure of the filament temperature. Higher colour temperature will produce higher energy levels across the spectrum, especially in the UV region down to 315 nm.



Typical spectrum curve

Filament Positioning and Alignment

Accurate positioning of the filaments is of utmost importance in instrument applications. Heraeus Tungsten Halogen lamps are produced in small batches using a specialised hand laying of filament technique which ensures accurate positioning. Mouting into a bracket or reflector offers reproducible alignment. Heraeus can build, design and specify lamps to individual requirements.



Application Benefits

- Lamps can be designed and built according to OEMs specific requirements, such as colour temperature, wattage, voltage and mechanical tolerances.
  Each lamp fit for purpose, ready finished to drop into the instrument. No pre-selection required.

- Bundling with deuterium lamps. Many customers use tungsten halogen lamps in combination with deuterium lamps, why not offer the corresponding tungsten lamp at the same time.

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Technical data are subject to modification.
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