



## Heraeus Xenon Flash Lamps for Analytical and Medical Applications

Heraeus manufactures a wide range of cool running xenon flash lamps, devices which efficiently convert electrical energy stored in a capacitor into a high intensity light flash.

All the lamps use materials which are specially selected for high performance and long life. They are manufactured using high temperature and high vacuum processing, which ensures a high integrity product. Finally, each lamp is put through rigorous testing schedules to ensure that quality standards are consistently met.

The Heraeus Xenon Flash lamps can be run up to an average power of 16 Watt and they are designed specifically for use in photometric instruments.

### Heraeus Xenon Flash Lamps:

- UV or borosilicate glass window (190 or 300 nm)
- Low noise and excellent flash to flash stability due to precise triggering
- Precise electrode positioning
- Lifetime >  $10^9$  flashes
- EXE Long Life series – improved performance
- For use with external trigger transformer

## Applications for Xenon Flash Lamps

Whilst xenon lamps are suitable for many white light industrial applications the high quality, high performance range of Heraeus xenon lamps is expressly intended for photometric instrumentation applications such as:

- UV / visible spectrophotometry
- Fluorescence spectroscopy
- Liquid chromatography
- Photo-acoustic spectroscopy
- Colour analyzers
- Medical instrumentation

## Spectral Output

Xenon lamps have a spectral distribution which ranges from the ultraviolet through the visible to the infrared, making them one of the few wide band illumination sources available.

The spectral output, especially in the low UV, depends on the window material used. Spectral transmission ranges for available envelope/window materials are:

- UV glass: 190 - 3500 nm
- Borosilicate glass: 300 - 4500 nm

## Arc Lengths

Xenon flash lamps can be manufactured with any arc gap in the range 1.5mm to 10mm. Experimentation on lamps with different arc gaps indicates that optimal arc stability, leading to high signal to noise ratios, is achieved with arc gaps in the 2.0mm to 5.0mm range. Heraeus xenon flash lamps are offered within this range and utilise two or three trigger electrodes to stabilise the arc across the gap, combining high performance with significantly improved lifetime.

## Lamp Selection

Heraeus xenon flash lamps are available in two versions:

- The AX range are 16 W high output small bulb xenon lamps for use with a separate trigger transformer.
- The EX range are 16 W high output xenon lamps, similar to the AX range, but with an extended lamp envelope for longer lifetime and improved performance.



AXE-5-U + triggerboard



EXE-5-U + triggerboard



EXE-2-U

Europe, Middle East, Africa, Rest of World\*

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