

Data Sheet Long-Life Deuterium Lamp DX Series

The long-life deuterium lamp with highly stable light output

The DX deuterium lamp from Heraeus is a quartz spectral light source for high-end HPLC instruments, capillary electrophoresis instruments, spectrophotometers and other analytical instruments. It emits an almost continuous light spectrum from 185 nm to the visible range (400 nm +) which is ideal for all kinds of absorption measurements.

The DX lamp combines best-in-class performance in all three areas that are important for the analytical performance of the instrument:

- Long lamp lifetime of 2000 hours for longer maintenance intervals
- Very high stability/ low noise of light output throughout the entire life of the lamp for better signal-to-noise ratio
- Low drift of light output

This performance is achieved through unique technologies that have been developed by Heraeus as the world leader for analytical light sources:

- Optimized cathode design and coating
- High-quality quartz glass made in-house
- Precise lamp body construction using a combination of metal and ceramic parts



Key features of the Heraeus DX deuterium lamp series:

- Available as OEM lamp or as pre-aligned replacement lamp
- Different lamp geometries available
- Optional shine-through version
- Continuous spectral emission from 185 nm to 400 nm
- Guaranteed lifetime ≥ 2000 hours
- Guaranteed noise level $\leq 2 \times 10^{-5}$ AU (approx. 5×10^{-5} p-p)
- Guaranteed drift $\leq \pm 0.5\%/h$

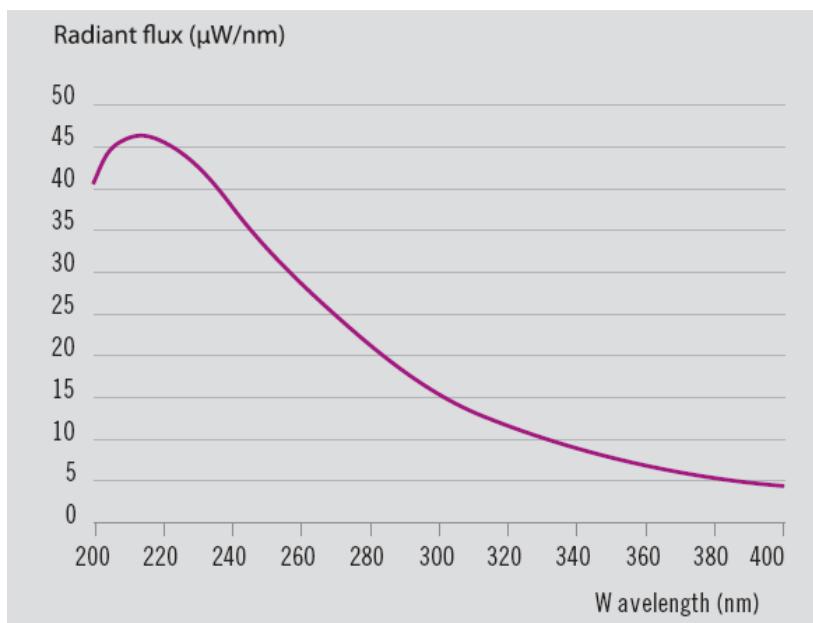
Technical data for some DX types

Other specifications available upon request

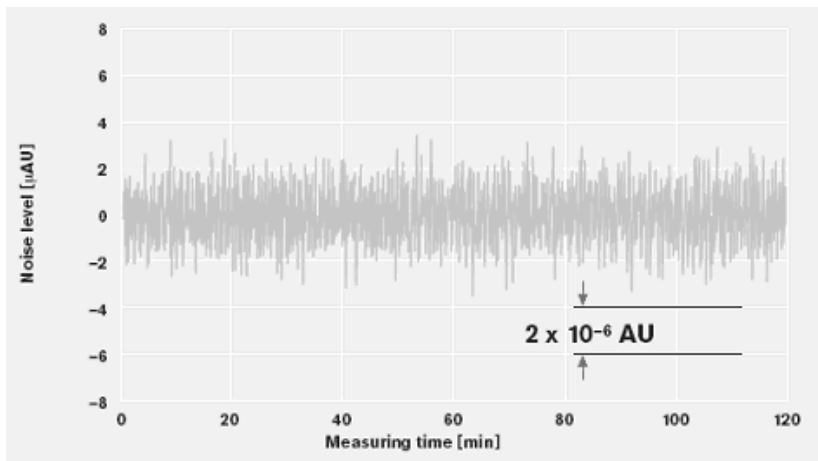
Version	Standard DX 201	Standard DX 201 R	Shine-through DX 260	Shine-through DX 260 R
Aperture size (mm)	1.0/ 0.5	1.0/ 0.5	1.0/ 0.5	1.0/ 0.5
Spectral output (nm)	185 - 600	185 - 600	185 - 600	185 - 600
Strike voltage (V)	350	350	350	350
Anode current (mA)	300	300	300	300
Anode voltage (V)	85	85	85	85
Noise (AU)	2x10 ⁻⁵	2x10 ⁻⁵	2x10 ⁻⁵	2x10 ⁻⁵
Drift (%/h)	+/- 0.5	+/- 0.5	+/- 0.5	+/- 0.5
Warm-up heater voltage (V)	2.0	2.5	2.0	2.5
Warm-up heater current (A)	3.8	3.8	3.8	3.8
Operation heater voltage (V)	0	0	0	0
Operation heater current (A)	0	0	0	0
Guaranteed life (h)*	2000	2000	2000	2000
Sleeve material	Quartz	Quartz	Quartz	Quartz

*: The end of lamp life is reached when the light output falls to 50% of its initial value at 230 nm or when output fluctuation exceeds the specified value.

Spectral emission

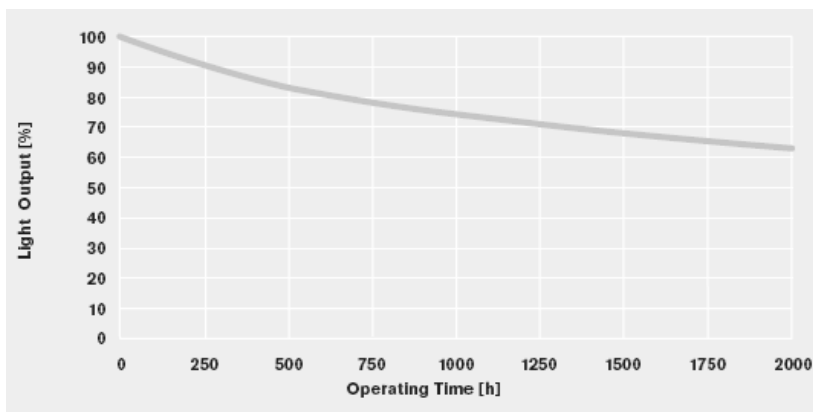


Light output stability



Measured at 250 nm and evaluated according to ASTM

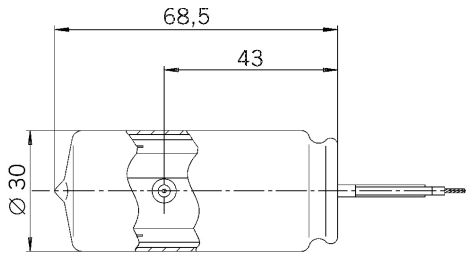
Radiant power



Measured at 230 nm

Dimensional outline of standard DX lamp types

Other specifications and pre-aligned replacement lamps available upon request



Replacement lamps



DX deuterium lamps are available in precisely pre-aligned versions as replacement lamps for almost all suitable instruments. To find the right lamp for your instrument, please use our online Lamp Finder at www.heraeus-noblelight.com/analytcs. You will also find a comprehensive list of approved replacement lamp distributors at www.heraeus-noblelight.com/analytcs.

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