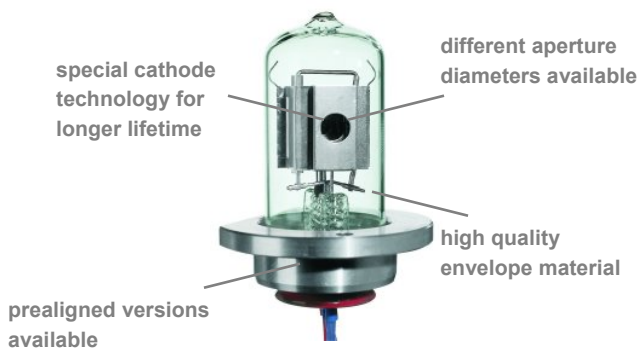


Selection Guide for Heraeus Deuterium Lamps



Heraeus' broad range of deuterium lamps fulfills all of the needs of instrument manufacturers: standard or extended lifetime, quartz glass or UV glass envelopes, optional see-through versions and many specialist lamps e.g. for very short wavelengths (vacuum UV) or boosted output.

Our selection guide helps you to find the right deuterium lamp in terms of materials, geometry and operating parameters.

Power Consumption	Feature	Heater/Filament Rating	Main Lamp Model
30 Watt	High Stability 2000 h	2.5 V	DX 202 R
		3.0 V	PR 39055A
		10 V	PR 39052
		12 V	DX 246
	Standard 1000 h	2.0 V	DO 802
		2.5 V	DS 222
		3.0 V	WL 23882
		10 V	WL 23881
	See-Through 1000 h, 2000h	12 V	DS 246/05
		2.0 V	DO 660/05 J
		2.5 V	DS 270 J
		3.0 V	PR 39018
	VUV lamps	10 V	PR 38011
		DO 680 J	
		V01	
200 Watt	Water cooled type	6 V	D 200 F

High Stability Deuterium Lamps – Lifetime 2000 hours*

Heraeus long-life deuterium lamps combine a guaranteed lifetime of 2000 hours with unmatched stability of the output over the entire life. This sets them apart from many other long-life lamps on the market and makes them the ideal choice for high-end HPLC instruments. Both, quartz and UV glass types are available.

Lamp Code	Window Material	Spectral Range (nm)	Aperture Diameter (mm)	Strike Voltage (V)	Anode Current (mA dc)	Anode Voltage (V)	Output Stability		Filament Rating				Part Number
							Noise % p-p	Drift %/h	Warm-up		Operation		
									Voltage V dc	Current A dc	Voltage V dc	Current A dc	
DX 202 R	Fused silica	185-400	1.0	350	300	80	0.005	± 0.5	2.5	5.8	0	0	80001131
DX 201/05 RJ	Fused silica	185-400	0.5	350	300	80	0.005	± 0.5	2.5	5.8	0	0	80008685
DX 223	Fused silica	185-400	1.0	350	300	80	0.005	± 0.5	2.5	4	0	0	80006631
DX 226/05	Fused silica	185-400	0.5	350	300	80	0.005	± 0.5	2.5	4	0	0	80033068
DX 227/05 J	Fused silica	185-400	0.5	350	300	80	0.005	± 0.5	2.5	4	0	0	80035276
PR 39055A	UV glass	185-400	0.5	400	300	80	0.005	± 0.5	3.0	3.2	1	1	80022436
PR 39052	UV glass	185-400	0.5	350	300	75	0.005	± 0.5	10±1	0.8-1.0	6-7	0.5-0.6	80022432
DX 246	Fused silica	185-400	1.0	350	300	80	0.005	± 0.5	12	0.9	3-6	0.3-0.45	80006934
DX 246/05 J	Fused silica	185-400	0.5	350	300	80	0.005	± 0.5	12	0.9	3-6	0.3-0.45	80013440

* The guaranteed lifetime is defined as the time in which the radiant power of the lamp has dropped to 50% of its initial value measured at 230nm and 300mA operating current.

High Stability and Standard Deuterium Lamps – Lifetime 1000 hours*

The standard deuterium lamps from Heraeus are based on the same technology as the Heraeus Longlife lamps which ensure the highest quality of analytical results. Their guaranteed lifetime is 1000 hours. UV glass lamps are an economical alternative for standard instruments or for applications that need to cut out wavelengths below 200 nm to avoid ozone generation.

Lamp Code	Window Material	Spectral Range (nm)	Aperture Diameter (mm)	Strike Voltage (V)	Anode Current (mA dc)	Anode Voltage (V)	Output Stability		Filament Rating				Part Number
							Noise % p-p	Drift %/h	Warm-up		Operation		
									Voltage V dc	Current A dc	Voltage V dc	Current A dc	
DO 802	Fused silica	185-400	1.0	350	300	80	0.05	± 0.5	2	5.8	0	0	56069695
DO 902	Synthetic Silica	160-400	1.0	350	300	75	0.05	± 0.5	2	5.8	0	0	56069127
DO 946	Synthetic Silica	160-400	1.0	350	300	80	0.05	± 0.5	2	5.8	0	0	56069136
DS 222	Fused Silica	185-400	1.0	350	300	75	0.005	± 0.5	2.5	4	0	0	80025275
DS 227/05	Fused silica	185-400	0.5	350	300	85	0.005	± 0.5	2.5	4	0	0	45002067
PR 18048A	UV glass	185-400	0.5	350	300	80	0.05	± 0.5	3	3.2	1	1	80022304
WL 24444C	UV glass	185-400	1.0	350	300	80	0.05	± 0.5	3	3.2	1	1	80022497
WL 23882	UV glass	185-400	1.0	350	300	80	0.05	± 0.5	3	3.2	1	1	80022460
WL 23881	UV glass	185-400	1.0	350	300	75	0.05	± 0.5	10±1	0.8-1.0	6-7	0.5-0.6	80022453
J12	UV glass	185-400	1.0	350	300	75	0.05	± 0.5	10	1.5	7	1	80013705
R07	Synthetic Silica	160-400	1.0	350	300	80	0.05	± 0.5	10	1.0	7	0.7	80013769
R47	Synthetic Silica	160-400	0.5	350	300	75	0.05	± 0.5	10	1.5	7	1	80013793
DS 245	Fused silica	185-400	1.0	350	300	80	0.005	± 0.5	12	0.9	3-6	0.3-0.45	80012427
DS 246/05	Fused silica	185-400	0.5	350	300	80	0.005	± 0.5	12	0.9	3-6	0.3-0.45	56070314

* The guaranteed lifetime is defined as the time in which the radiant power of the lamp has dropped to 50% of its initial value measured at 230nm and 300mA operating current.

See-Through Deuterium Lamp Types*

Heraeus offers see-through versions of Deuterium lamps.

Lamp Code	Window Material	Spectral Range (nm)	Aperture Diameter (mm)	Strike Voltage (V)	Anode Current (mA dc)	Anode Voltage (V)	Output Stability		Filament Rating				Life* (h)	Part Number
							Noise % p-p	Drift %/h	Warm-up		Operation			
									Voltage V dc	Current A dc	Voltage V dc	Current A dc		
DO 660/05 J	Synthetic Silica	160-400	0.5	350	300	85	0.05	± 0.5	2	5.8	0	0	1500	45002349
DS 270 J	Fused silica	185-400	1.0	350	300	85	0.005	± 0.5	2.5	4	0	0	1000	80000707
DS 270/05	Fused silica	185-400	0.5	350	300	85	0.005	± 0.5	2.5	4	0	0	1000	45006036
DS 270/05 J	Fused silica	185-400	0.5	350	300	85	0.005	± 0.5	2.5	4	0	0	1000	80006982
DX 277/05 J	Fused silica	185-400	0.5	350	300	85	0.005	± 0.5	2.5	4	0	0	2000	80013311
PR 39018	UV glass	185-400	0.5	350	300	80	0.005	± 0.5	10±1	0.8-1.0	6-7	0.5-0.6	2000	80024184
PR 38011	UV glass	185-400	0.5	350	300	80	0.05	± 0.5	10±1	0.8-1.0	6-7	0.5-0.6	1000	80022370
DO 680 J	Synthetic Silica	160-400	1.0	350	300	80	0.05	± 0.5	12	0.9	3-6	0.3-0.45	1500	80036302

* The guaranteed lifetime is defined as the time in which the radiant power of the lamp has dropped to 50% of its initial value measured at 230nm and 300mA operating current.

VUV Lamps – 30 Watt – Lifetime 500 hours*

Vacuum UV (VUV) lamps are deuterium lamps that are especially designed to supply deep UV light down to a wavelength of 115 nm. The spectral range covers 115 nm to 400 nm with especially high intensity between 120 nm and 160 nm.

Lamp Code	Window Material	Spectral Range (nm)	Aperture Diameter (mm)	Strike Voltage (V)	Anode Current (mA dc)	Anode Voltage (V)	Output Stability		Filament Rating				Part Number
							Noise % p-p	Drift %/h	Warm-up		Operation		
									Voltage V dc	Current A dc	Voltage V dc	Current A dc	
V01	MgF2	115-400	1.0	350	300	70	0.2	± 0.5	10	1.0	0	0	80017697
V02	Fused silica	160-400	1.0	350	300	70	0.2	± 0.5	10	1.0	0	0	80017698
V03	MgF2	115-400	1.0	350	300	70	0.2	± 0.5	10	1.0	0	0	80017699
V04	Fused silica	160-400	1.0	350	300	70	0.2	± 0.5	10	1.0	0	0	80017700
V05	MgF2	115-400	1.0	350	300	70	0.2	± 0.5	10	1.0	0	0	80020174
F03	Fused silica	160-400	1.0	280	300	65	0.05	± 2.28	10	1.0	0	0	80013064
F05	MgF2	115-400	1.0	300	300	65	0.05	± 2.28	10	1.0	0	0	80017478
J59	MgF2	115-400	1.0	300	300	80	0.005	± 0.01	10	1.5	7	1.0	80017520

* The guaranteed lifetime is defined as the time in which the radiant power of the lamp has dropped to 50% of its initial value measured at 230nm and 300mA operating current.

Water-cooled Deuterium Lamp – 200 Watt – Lifetime 1000 hours**

Heraeus is specialized on high power VUV lamps with up to 200 W. The D200 lamps come equipped complete with a cooling jacket for easy installation in water cooled operations

Lamp Code	Window Material	Spectral Range (nm)	Aperture Diameter (mm)	Strike Voltage (V)	Anode Current (A DC)	Anode Voltage (V)	Output Stability		Filament Rating				Part Number
							Noise % p-p	Drift %/h	Warm-up		Operation		
									Voltage V dc	Current A dc	Voltage V dc	Current A dc	
D 200 F	Synthetic Silica	160-400	1.0	500	0.9 to 1.8	110	0.05	± 0.5	6	4.5	3	2.5	56001671
D 200 F-HV	Synthetic Silica	160-400	1.0	500	0.9 to 1.8	110	0.05	± 0.5	6	4.5	3	2.5	45006278
D 200 VUV	MgF2	115-400	1.0	500	0.9 to 1.8	110	0.05	± 0.5	6	4.5	3	2.5	45006010

** The guaranteed lifetime is defined as the time in which the radiant power of the lamp has dropped to 50% of its initial value measured at 250nm and 0.9A operating current .

Examples of prealigned Replacement Deuterium Lamps



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

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