McPHERSON

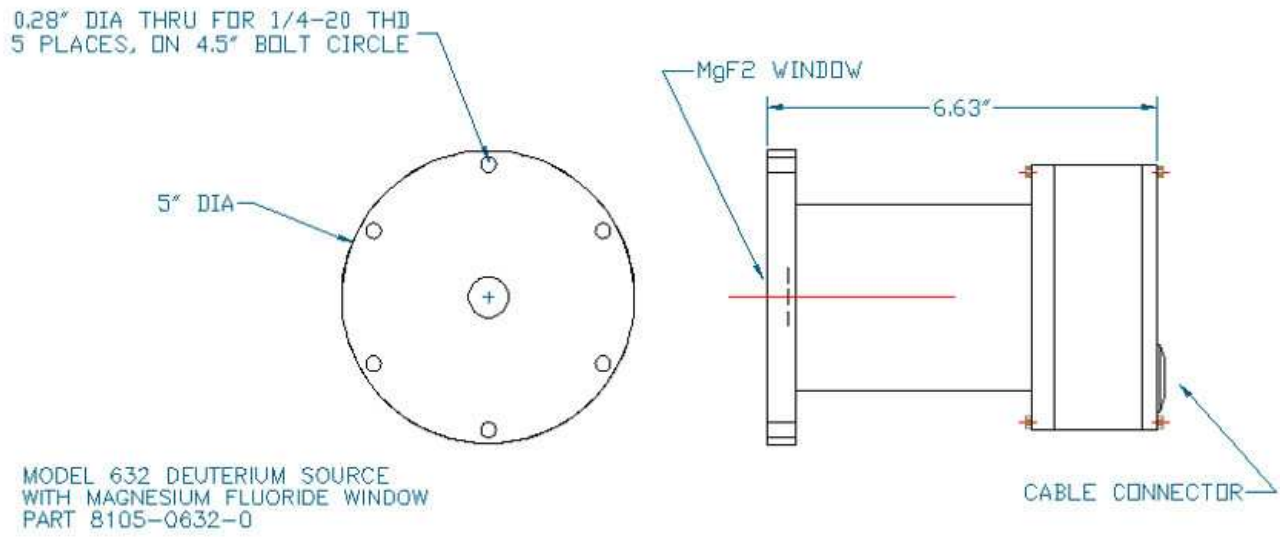
Deuterium Source with MgF2 Window

The Model 632 Deuterium lamp is our most popular light source for vacuum UV and deep ultraviolet. It is easy to use, and does not require flowing gas or water-cooling. Emission at wavelengths longer than 165 nm is continuous. Molecular emission lines dominate the spectrum below 165nm. The lamp features a Magnesium Fluoride window and has an end-on, cylindrical envelope. This allows maximum distance between the plasma and window for longer lamp life. The source has an emitting area of ~1mm diameter and emission through the window is ~f/7. This lamp comes complete with a power supply and all required cables. The housing has an integral passive heat sink and fits directly to the slit assemblies of McPherson monochromators.

The Model 632 Deuterium lamp is available as a calibrated standard of spectral radiance. The calibrated Deuterium source comes with complete documentation. Source emission is measured every nanometer from 115 to 400nm.

115nm to the Visible | Strong Lyman-Alpha source | Calibration available | Fits McPherson 5" Slits

Source	Deuterium
Source size	1mm diameter
Window	polished c-cut MgF2
Wavelength range	115nm to Visible
Source Emission	Continuum and emission lines
Emission	f/7 cone angle
Lifetime	1000 hours
Power Supply	includes Model 732
Weight	5 lbs



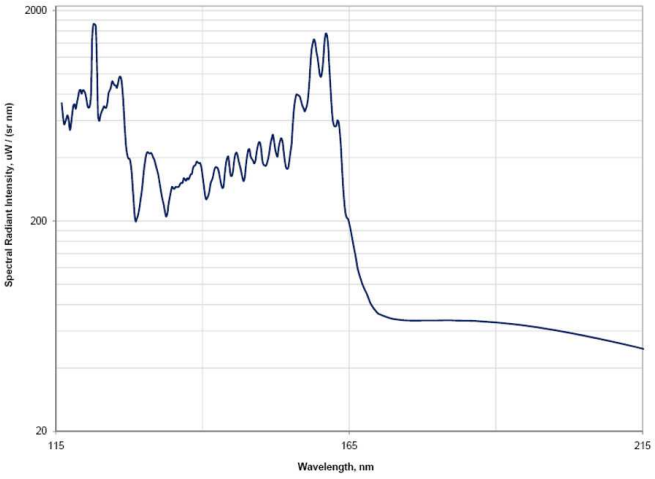
Ordering Information

Part Number 8105-0632-0 = Model 632 Deuterium source with MgF2 window, 110V (-1 for 220V)

Useful References:

Reference Wavelengths for Strong Lines of Atomic Hydrogen and Deuterium

Joseph Reader



Wavelengths of the individual fine-structure components of the n 5 1–2 (Lya), n 5 1–3 (Lyb), n 5 1–4 (Lyg), n 5 1–5 (Lyd), n 5 1–6 (Ly«), n 5 1–7 (Lyz), n 5 2–3 (Ha), n 5 2–4 (Hb), n 5 2–5 (Hg), n 5 2–6 (Hd), and n 5 2–7 (H«) transitions of H and D are determined from theoretical values for the binding energies. Theoretical line strengths are used to obtain recommended values for the peaks of unresolved blends of these components as likely to be observed with discharge light sources and spectrometers with low to moderate resolution.