

## Self-Contained HeNe Laser: 0.8 mW, Random, 230 VAC

**HNLS008R-EC**



### Description

Thorlabs' cylindrical, low-power, red (632.8 nm) Helium-Neon lasers are available with output powers from 0.8 to 2.0 mW. Thorlabs offers these 632.8 nm lasers with either linear (>500:1) or random polarization and beam divergences ranging from 1.3 to 1.7 mrad.

### Specifications

General	
Wavelength	632.8 nm
Minimum Output Power (TEM <sub>00</sub> )	0.8 mW
Minimum Polarization Ratio	-
Beam Diameter (TEM <sub>00</sub> , 1/e <sup>2</sup> points + 3%)	0.48 mm
Beam Divergence (TEM <sub>00</sub> , +3%)	1.7 mrad
Mode Purity (TEM <sub>00</sub> )	>95%
Longitudinal Mode Spacing	1090 MHz
Maximum Noise (RMS) (30 Hz to 10 MHz)	1.0%
Maximum Drift*	± 2.5%
Maximum Mode Sweeping Contribution	10%
Operating Voltage (± 100 V)	1250
Operating Current (± 0.1 mA)	4 mA
Maximum Starting Voltage	10 kV DC

\*With respect to mean power over 8 hours.

Physical / Mechanical	
Maximum Warm-Up Time (95% Power)	10 min
Storage Lifetime	Indefinite (Hard-Sealed)
Static Alignment	Approximately 1.75" from Base
Laser Weight	1.1 lbs (0.5 kg)

Environmental	
Operating Temperature	-40 to 60 °C
Non-Operating Temperature	-40 to 100 °C
Operating Altitude	0 to 10,000 ft
Non-Operating Altitude	0 to 70,000 ft
Relative Humidity (Non-condensing)	Non-Condensing
Shock	25 g for 11 ms
	100 g for 1 ms

Safety	
CHRH/IEC 60825-1 Class	IIIa/3R



## Drawings

