632.8nm HeNe laser 1.2mw

Product Description

Our 1.2mW red (632.8nm) cylindrical HeNe lasers are designed in a tube, which makes them easy to install in almost all optical systems. The lasers of these lasers are linearly polarized light (200:1) or randomly polarized. The linearly polarized light is polarized in the vertical direction relative to the cable at the rear of the laser housing, and comes with an external power supply and power cord. The laser of the B-type intracavity HeNe laser is separated from the power supply. Turning the laser power switch will not affect the adjusted optical path. The laser is covered with an alloy aluminum tube with a plastic-sprayed surface. This makes the laser sturdy and beautiful. The power supply uses a switching power supply and a metal housing. The power housing is grounded, and the laser is connected to the power supply with a silicon high-voltage wire. Our HeNe lasers are suitable for mainland China and are equipped with a domestic mains socket, which can be plugged in and used.

Part Number

HENE012B-P

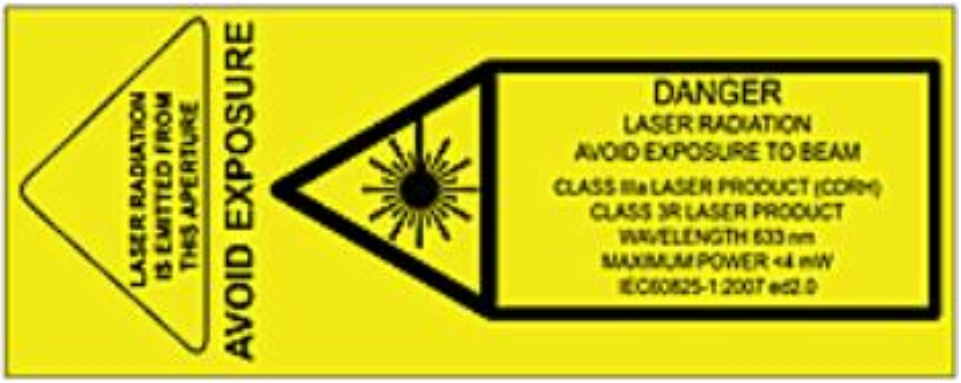
Product features

Red light (632.8 nm) output 1.6 mW、 Linear (200:1 polarization ratio) or random polarization、 External power supply included

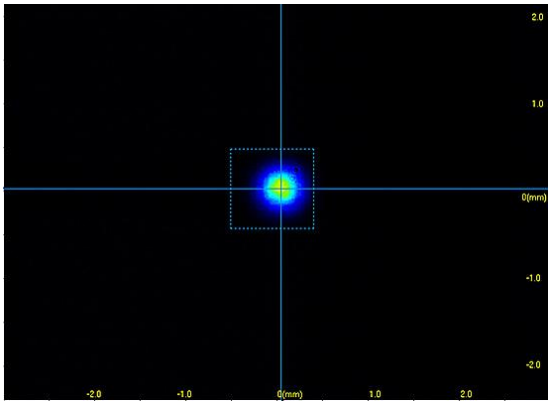
Parameters

PN#	HENE005B	HENE010B	HENE016B	HENE016B-P
Operating wavelength	632.8nm	632.8nm	632.8nm	632.8nm
Output power	≥0.5mW	≥1mW	≥1.6mW	≥1.6mW
Output power stability	≤±5%/hr			
Polarization (note)	random			200：1
Transverse mode	TEM00			
Beam diameter	≤0.9mm			
Light divergence angle	≤1.8mrad			
Laser power supply	Switching circuit laser power supply (220V direct voltage doubler and rectifier low-end laser power supply composed of non-diode and capacitor)			
Laser weight (kg)	0.2	0.22	0.26	0.3
Power supply size (mm)	220×75×45			
Maximum starting voltage	10KVDC			
Operating current	6.5mA			
Power supply weight (kg)	0.8			
Power supply power consumption	30W			
Vibration resistance	25 g for 11 ms;　100 g for 1 ms			
Laser level	IIIa/3R			
Operation time	Can run continuously 24 hours a day all year round			

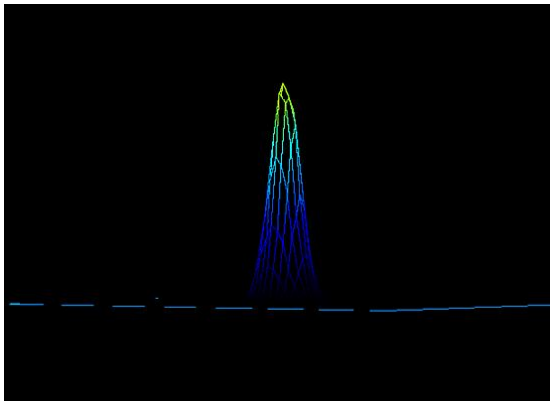
Note:
Some experiments (such as laser interference, holography, etc.) require splitting a laser beam into two laser beams. If you choose randomly polarized laser beam splitting, the light intensity of the two laser beams after splitting is unstable. If you choose linearly polarized laser beam splitting, the light intensity of the two laser beams after splitting is much more stable. The larger the extinction ratio of polarization, the more stable the light intensity of the two laser beams after splitting. The better the experimental effect.



2D/3D Beam Profiling

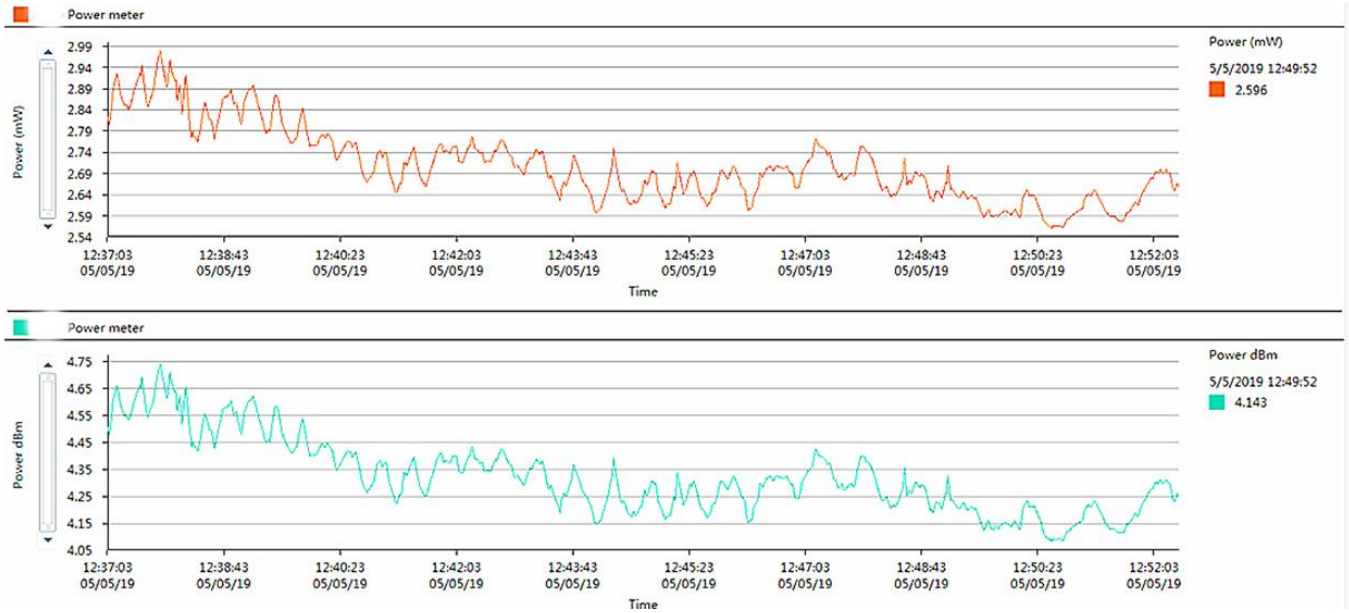


2D



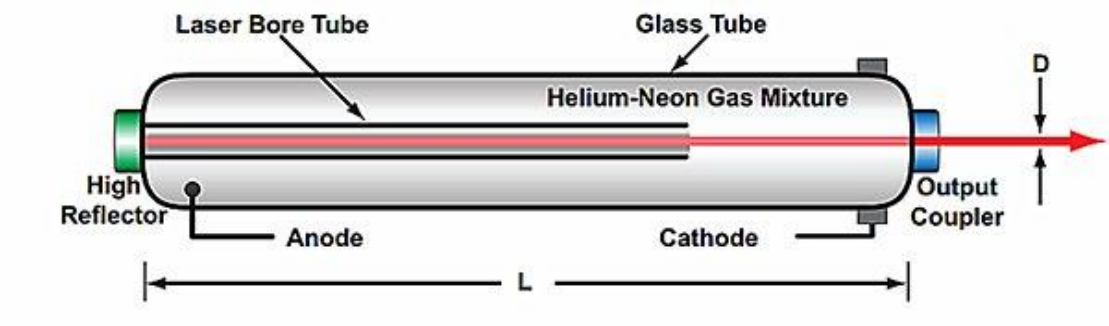
3D

Power Stability Testing:

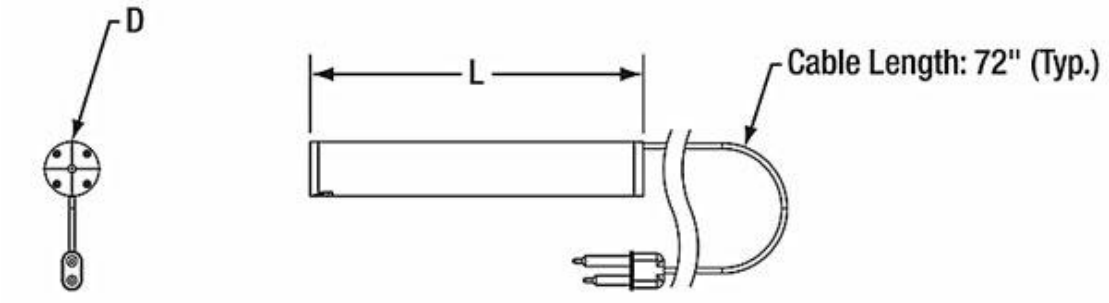


Laser power measurement diagram:

HENE laser structure:



Mechanical structure:



PN#	Diameter (D)	Length (L)
HENE005B	42mm	220mm
HENE010B	42mm	260mm
HENE016B	42mm	325mm
HENE016B-P	42mm	325mm