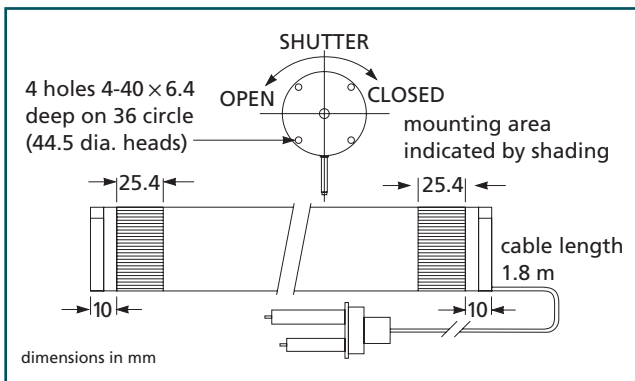


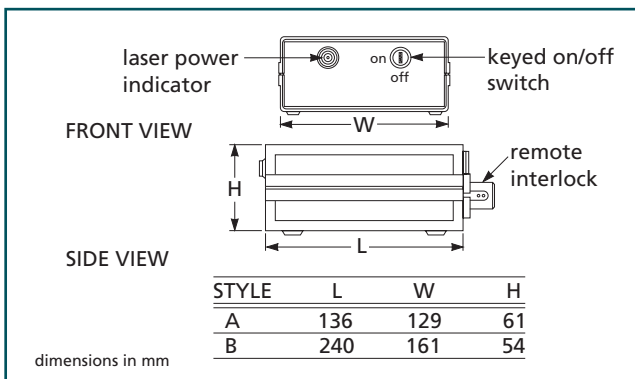


- Red, green, yellow, orange, or near infrared output
- Complete systems, including power supply
- CDRH, IEC, and CE (230 Vac only) compliant

Melles Griot manufactures a wide variety of cylindrical HeNe laser systems, only the most popular of which are represented here. All laser heads are mounted in rugged aluminum housings and come with a matched power supply. All systems meet CDRH and IEC requirements for laser equipment, and 230-volt versions are CE compliant. Lasers are available in randomly polarized or linearly polarized (>500:1 extinction ratio) versions. For custom OEM designs and alternative wavelengths, contact your nearest Melles Griot sales office.



Cylindrical helium neon laser head



Cylindrical helium neon laser power supplies

Cylindrical Helium Neon Laser Systems

SPECIFICATIONS:

CYLINDRICAL HELIUM NEON LASER SYSTEMS

M^2 : <1.05

Transverse Mode: TEM₀₀

Bore-Sight Error: <1 mrad

Beam Centration: ±0.25 mm

Long-Term Drift: ±2% per 8 hours

Noise (rms): <0.5%

Noise Frequency: 30 Hz to 10 MHz

Input Voltage:

100 Vac, 115 Vac, or 230 Vac ± 10% (specify)

Input Frequency: 50–60 Hz

Shock: 25 G for 11 msec

Operating Temperature: –20°C to +40°C

Nonoperating Temperature: –40°C to +80°C

Operating Humidity: 0% to 90% non-condensing

Nonoperating Humidity: 0% to 100%

CE Compliance: Compliant (230-Vac version only)

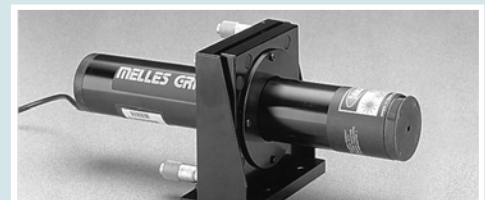
Do you need ...

ADJUSTABLE CYLINDRICAL LASER HOLDER

Our precision cylindrical laser holders combine sturdy clamping with precise angular adjustment.

- Micrometer (07 HLC series) or thumbscrew (07 HLB series) drives
- 6 degrees of angular adjustment (θ_y and θ_z)
- Use with 44.5-mm laser heads

For a complete description of the precision cylindrical laser holders, go to page 22.22.



Red (632.8 nm) Cylindrical Helium Neon Laser Systems

cw Output Power (mW)	Beam Diameter (1/e ²) (mm)	Beam Divergence (1/e ²) (mrad)	Maximum Mode Sweeping (%)	Polarization	Longitudinal Mode Spacing (MHz)	Laser Head Dimensions Length × Diameter (mm)	Power Supply Style	Safety Classification		PRODUCT* NUMBER
								CDRH Class	IEC Class	
0.5	0.46	1.77	10	Random	1063	177.8 × 31.8	A	II	2	25 LHR 213
0.5	0.46	1.77	10	Linear	1063	177.8 × 31.8	A	II	2	25 LHP 213
1.0	0.59	1.35	5	Random	687	271.8 × 44.5	A	IIIa	3R	25 LHR 111
1.0	0.59	1.35	5	Linear	687	271.8 × 44.5	A	IIIa	3R	25 LHP 111
2.0	0.76	1.06	5	Random	636	279.9 × 35.1	A	IIIa	3R	25 LHR 073
2.0	0.76	1.06	5	Linear	636	279.9 × 35.1	A	IIIa	3R	25 LHP 073
2.0	0.59	1.35	5	Random	687	271.8 × 44.5	A	IIIa	3R	25 LHR 121
2.0	0.59	1.35	5	Linear	687	271.8 × 44.5	A	IIIa	3R	25 LHP 121
2.5	0.52	1.53	10	Random	822	224.8 × 31.8	A	IIIa	3R	25 LHR 691
2.5	0.52	1.53	10	Linear	822	224.8 × 31.8	A	IIIa	3R	25 LHP 691
5.0	0.80	1.00	2	Random	438	396.2 × 44.5	A	IIIb	3B	25 LHR 151
5.0	0.80	1.00	2	Linear	438	396.2 × 44.5	A	IIIb	3B	25 LHP 151
7.0	1.02	0.79	2	Random	373	455.9 × 44.5	B	IIIb	3B	25 LHR 171
7.0	1.02	0.79	2	Linear	373	455.9 × 44.5	B	IIIb	3B	25 LHP 171
10.0	0.65	1.24	2	Random	341	483.9 × 44.5	B	IIIb	3B	25 LHR 991
10.0	0.65	1.24	2	Linear	341	483.9 × 44.5	B	IIIb	3B	25 LHP 991
17.0	0.96	0.84	2	Random	257	637.3 × 44.5	B	IIIb	3B	25 LHR 925
17.0	0.96	0.84	2	Linear	257	637.3 × 44.5	B	IIIb	3B	25 LHP 925

*Add the appropriate suffix to the product number to indicate input voltage: -249 for 115 Vac, -230 for 230 Vac.

Do you need . . .

LASER BEAM EXPANDERS

Our compact OEM beam expanders are designed to mount directly to any Melles Griot 44.5-mm helium neon laser head.

- $\lambda/2$ wavefront distortion at 633 nm
- Built-in focus adjustment
- Diffraction-limited focus spot size
- Two magnifications: 4 × (09 LBC 001) and 8 × (09 LBC 003)

For a detailed description of the OEM beam expanders, go to page 16.7.



Green, Yellow, Orange, and Near-Infrared Cylindrical Helium Neon Laser Systems

cw Output Power (mW)	Beam Diameter (1/e ²) (mm)	Beam Divergence (1/e ²) (mrad)	Maximum Mode Sweeping (%)	Polarization	Longitudinal Mode Spacing (MHz)	Laser Head Dimensions Length × Diameter (mm)	Power Supply Style	Safety Classification		PRODUCT* NUMBER
								CDRH Class	IEC Class	
Wavelength: 543.5 nm (green)										
0.20	0.63	1.26	14	Random	732	240.9 × 35.1	A	II	2	25 LGR 025
0.30	0.77	0.90	10	Linear	438	396.2 × 44.5	A	IIIa	3R	25 LGP 151
0.30	0.79	0.88	5	Linear	373	455.9 × 44.5	A	IIIa	3R	25 LGP 173
0.50	0.80	1.01	10	Random	438	396.2 × 44.5	A	IIIa	3R	25 LGR 151
0.80	0.79	0.88	5	Random	373	455.9 × 44.5	A	IIIa	3R	25 LGR 173
1.00	0.86	0.81	5	Linear	320	510.3 × 44.5	B	IIIa	3R	25 LGP 193
1.50	0.86	0.81	5	Random	320	510.3 × 44.5	B	IIIa	3R	25 LGR 193
2.00	0.86	0.81	5	Random	320	510.3 × 44.5	B	IIIa	3R	25 LGR 393
Wavelength: 594.1 nm (yellow)										
0.75	0.80	1.01	10	Random	438	396.2 × 44.5	A	IIIa	3R	25 LYR 151
2.00	0.75	0.91	5	Linear	373	455.9 × 44.5	A	IIIa	3R	25 LYP 173
2.00	0.75	0.91	5	Random	373	455.9 × 44.5	A	IIIa	3R	25 LYR 173
Wavelength: 611.9 nm (orange)										
2.00	0.75	1.05	5	Random	438	396.2 × 44.5	A	IIIa	3R	25 LOR 151
Wavelength: 1523 nm (near-infrared)**										
0.60	1.26	1.59	5	Linear	438	396.2 × 44.5	A	IIIb	3B	25 LIP 151
0.80	1.33	1.62	2	Linear	373	455.9 × 44.5	B	IIIb	3B	25 LIP 171
0.70	1.26	1.59	5	Random	438	396.2 × 44.5	A	IIIb	3B	25 LIR 151
1.00	1.33	1.62	2	Random	373	455.9 × 44.5	B	IIIb	3B	25 LIR 171

*Add the appropriate suffix to the product number to indicate input voltage: -249 for 115 Vac, -230 for 230 Vac.

**Noise unspecified for 1523-nm 25 LIR/P series.