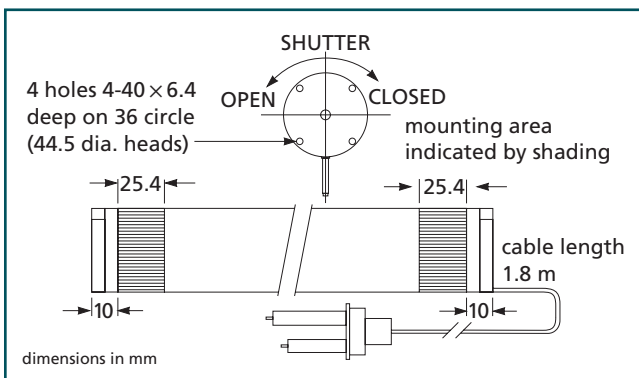


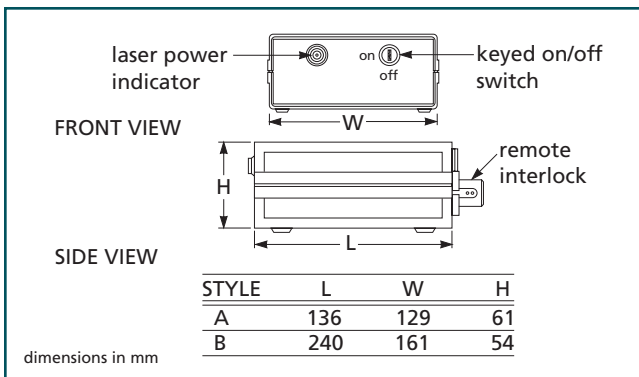


- Red, green or yellow output
- Complete systems, including power supply
- CDRH, IEC, and CE compliant (230 Vac only)

CVI 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 CVI 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

Beam Characteristics

Output Wavelength	633 nm
Transverse Mode	TEM ₀₀ (>90%)
M^2	<1.05

Stability Characteristics

Long-Term Power Drift	± 2% per hour
Pointing Stability	<0.03 mrad after 15 minutes
Amplitude Noise	<i>rms</i> <0.5% (30 Hz to 10 MHz)

Operating Characteristics

Warm-up Time	<15 minutes
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Environmental Requirements

Operating Temperature	− 20°C to + 40°C
Nonoperating Temperature	− 40°C to + 80°C
Operating Humidity	0% to 90%, noncondensing
Nonoperating Humidity	0% to 100%
Shock	25 G for 11 msec

Electrical Characteristics

Input Voltage	100 Vac, 115 Vac or 230 Vac ± 10% (specify)
Input Frequency	50–60 Hz

Safety and Regulatory Compliance

Regulatory Compliance	CE Compliant (230-Vac only)
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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



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		PART 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, >500:1	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, >500:1	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	0.79	1.06	5	Linear, >500:1	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, >500:1	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, >500:1	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, >500:1	438	396.2 × 44.5	A	IIIb	3B	25 LHP 151
7.0	1.02	0.79	2	Random	373	455.9 × 44.5	A	IIIb	3B	25 LHR 171
7.0	1.02	0.79	2	Linear, >500:1	373	455.9 × 44.5	A	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, >500:1	341	483.9 × 44.5	B	IIIb	3B	25 LHP 991

*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 CVI Melles Griot 44.5-mm diameter 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)



Green (543.5 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		PART NUMBER*
								CDRH Class	IEC Class	
0.20	0.63	1.26	14	Random	732	240.03 × 35.1	A	II	2	25 LGR 025
0.30	0.77	0.90	10	Linear, >500:1	438	396.2 × 44.5	A	IIIa	3R	25 LGP 151
0.30	0.79	0.88	5	Linear, >500:1	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, >500:1	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

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

Yellow (594.1 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		PART NUMBER*
								CDRH Class	IEC Class	
0.75	0.80	1.01	10	Random	438	396.2 × 44.5	A	IIIa	3R	25 LYR 151
2.00	0.83	0.91	5	Linear, >500:1	373	455.9 × 44.5	A	IIIa	3R	25 LYP 173
2.00	0.83	0.91	5	Random	373	455.9 × 44.5	A	IIIa	3R	25 LYR 173

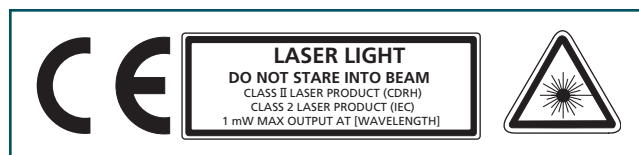
*Add the appropriate suffix to the product number to indicate input voltage: -461 for 100 Vac, -249 for 115 Vac, -230 for 230 Vac.



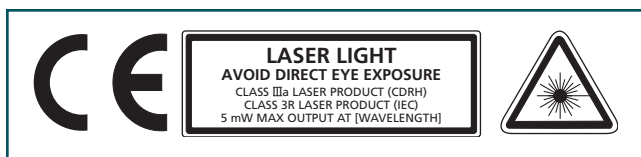
Helium Neon Laser Emission Compliance Labels

All CVI Melles Griot helium neon laser systems are designed, tested, and manufactured for compliance with applicable international and laser safety standards, including CDRH performance standard 21 CFR 1040 and European directives 89/336/EEC and 73/23/EEC. All systems designed for 230-Vac power input are fully CE compliant.

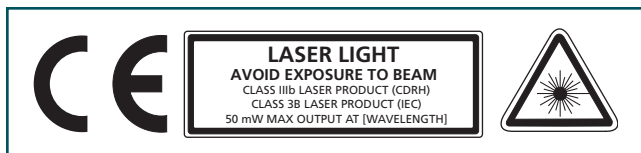
The labels below are attached, as indicated, to all complying product.



Laser safety label for all Class II helium neon lasers with visible output



Laser safety label for all Class IIIa helium neon lasers with visible output



Laser safety label for all Class IIIb helium neon lasers with visible output

**Note: Wavelength = 543.5 nm, 594 nm, or 632.8 nm*