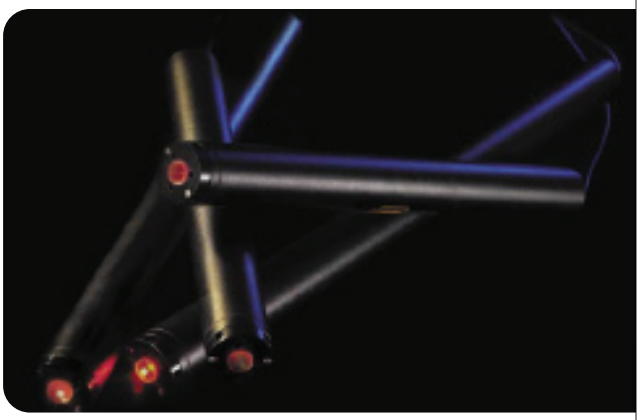
Low Power Red (633 nm) Cylindrical Helium-Neon Lasers



REO has been building lasers for over 20 years, and is now the world's leading manufacturer of high performance Helium-Neon lasers for applications such as confocal microscopy, ellipsometry, particle counting, food sorting and other demanding instrumentation applications.

REO has achieved this leadership position because we possess a combination of design and fabrication capabilities that are unique in our industry. For example, we are the only HeNe manufacturer to polish and coat our own laser mirrors in-house. This allows us to employ a variety of specialized techniques in both substrate polishing and thin film coating that minimize scatter and absorption, and yield very high reflectivity. Since the mirrors are the most critical components in a low gain laser like a HeNe, the result is maximum power for a given laser size, long operational lifetime, high stability and outstanding reliability.

In addition to providing a technically superior product, we're also focused on meeting the practical needs of OEM customers. This means supplying a product that meets your specific needs in terms of packaging, performance, functionality, delivery schedule and cost. We do this by leveraging the extensive technical expertise of our design and fabrication staffs, together with the use of flexible manufacturing processes.

If you need Helium-Neon lasers for performance critical applications, then ***think REO.***

Features:

- Long Lifetime
- Superior Beam Pointing Stability
- Excellent Power Stability
- High Thermal Stability

Low Power Red (633 nm) Cylindrical Helium-Neon Laser Head Specifications

	LHRR-0200	LHRP-0201	LHRR-0500	LHRP-0501	LHRR-1200	LHRP-1201	LHRR-1700	LHRP-1701
Optical								
Minimum Output Power (mW)	2	2	5	5	12	12	17	17
Maximum Output Power (mW)	5	5	10	10	15	15	25	25
Power 3 Seconds After Turn-On (%)	> 75							
Polarization								
Random	●		●		●		●	
Linear > 500:1		●		●		●		●
Mode Structure	TEM_{00} > 99%							
Beam Diameter (mm)	0.81	0.81	0.8	0.8	0.88	0.88	0.98	0.98
Beam Divergence (mrad)	1	1	1.01	1.01	0.92	0.92	0.82	0.82
Longitudinal Mode Spacing (MHz)	566	566	441	441	316	316	252	252
Beam Drift After 20 Minute Warm-Up (mrad)	< 0.2							
Long Term Beam Drift (mrad)	< 0.05							
RMS Noise (30 Hz - 10 MHz)	< 1%							
CDRH/CE Classification	IIIa/3R	IIIa/3R	IIIb/3B	IIIb/3B	IIIb/3B	IIIb/3B	IIIb/3B	IIIb/3B
Electrical								
Starting Voltage (kVDC)	< 10							
Operating Voltage (VDC)	1800	1800	2400	2400	3000	3000	3500	3500
Series Resistors in Housing (k Ω)	94							
Operating Current (mA)	5.25	5.25	5.25	5.25	6.5	6.5	7	7
Recommended Power Supply	32880	32880	32880	32880	32882	32882	32883	32883
Mechanical								
Weight (grams)	600	600	650	650	750	750	840	840
Shock	15 g for 11 msec							
Operating Temperature (°C)	-20 to +70°							
Non-Operating Temperature (°C)	-40 to +80°							
Operating Humidity (%)	≤80							
Non-Operating Humidity (%)	≤95							
Operating Altitude (m)	0 to 3,000							
Non-Operating Altitude (m)	0 to 6,000							

	Length		Diameter	
	mm	inches	mm	inches
LHRR-0200	330.2±1.0	13.00±0.04	44.5±0.5	1.75±0.02
LHRP-0201	330.2±1.0	13.00±0.04		
LHRR-0500	425.5±1.0	16.75±0.04		
LHRP-0501	425.5±1.0	16.75±0.04		
LHRR-1200	533.2±1.0	21.00±0.04		
LHRP-1201	533.2±1.0	21.00±0.04		
LHRR-1700	660.4±1.0	26.00±0.04		
LHRP-1701	660.4±1.0	26.00±0.04