



Helium-Neon Laser GN-Series

Our He-Ne lasers GN-Series, emitting at the standard red line of 633 nm, provide output powers from 0,5 to 80 mW in single- or multi-mode operation, with random or polarized radiation. The laser heads feature coaxial construction with coinciding optical and geometrical axes, thermally resistant and hardcoated mirrors are hard-sealed to the lasertube ends resulting in an outstanding reliability. Highly efficient cathodes, resistant to sputtering in the discharge and thermal degradation ensure a long operating lifetime of the lasertubes, a novel fixation of the laser tube within the laser head housing provides endurance to vibration and mechanical shock. For laser output powers upto 10 mW, the power supply is optionally available as DC-input version.

Laser	GN - 0.5	GN - 1	GN - 2P	GN - 3	GN - 5	GN - 5P	GN - 5M	GN - 10M	GN - 15	GN - 15-1	GN - 25	GN - 25-1	GN - 40	GN - 50	GN - 80
Gasfilling	HeNe														
Output power	> 0,5 mW	> 1 mW	> 2 mW	> 3 mW	> 5 mW			> 10 mW	> 15 mW		> 25 mW		> 40 mW	> 50 mW	> 80 mW
Wavelength	632,8 nm														
Transversal mode structure	TEM00					TEMmn			TEM00				TEMmn		
Spektral composition	single mode					multi mode			single mode				multi mode		
Polarisation	1 : 1		100 : 1	1 : 1		100 : 1	1 : 1			100 : 1	1 : 1	100 : 1	1 : 1		
Divergence	< 1,7 mRad		< 1,3 mRad		< 1 mRad		< 3,5 mRad	< 3,6 mRad	< 1,2 mRad				< 2,5 mRad		< 3 mRad
Beam diameter	0,5 mm		0,6 mm		0,8 mm		2 mm		1,5 mm				3 mm		7 mm
Pointing stability	0,025 mRad/ hrs.												0,05 mRad/ hrs.		
Power stability	10%/ 8 hrs.		5%/ 8 hrs.		2%/ 8 hrs.								5%/ 8 hrs.		
Noise	0,2 %							0,5 %							
Warranted lifetime	> 10000 hrs.														
Average lifetime	> 25000 hrs.														
Operating temperature	+ 10° - +40° C														
Laser head dimensions	Ø 30 x 145 mm		Ø 35 x 255 mm		Ø 35 x 350 mm		Ø 35 x 280 mm	Ø 35 x 350 mm	Ø 56 x 685 mm		Ø 56 x 875 mm		Ø 56 x 915 mm	Ø 52 x 1480 mm	
Laser head weight	0,2 Kg		0,4 Kg		0,43 Kg		0,4 Kg	0,43 Kg	1,5 Kg		2 Kg			3 Kg	
Mains supply	230 VAC +/- 10%, 50 Hz														
Power consumption	< 10 VA		< 15 VA		< 25 VA		< 20 VA	< 25 VA	< 65 VA		< 80 VA			< 300 VA	
Power supply dimensions	150 x 60 x 165 mm								100 x 65 x 330 mm					400 x 150 x 170 mm	
Power supply weight	1,2 Kg								2,5 Kg					7 Kg	