

## LGN-118-2V LASER

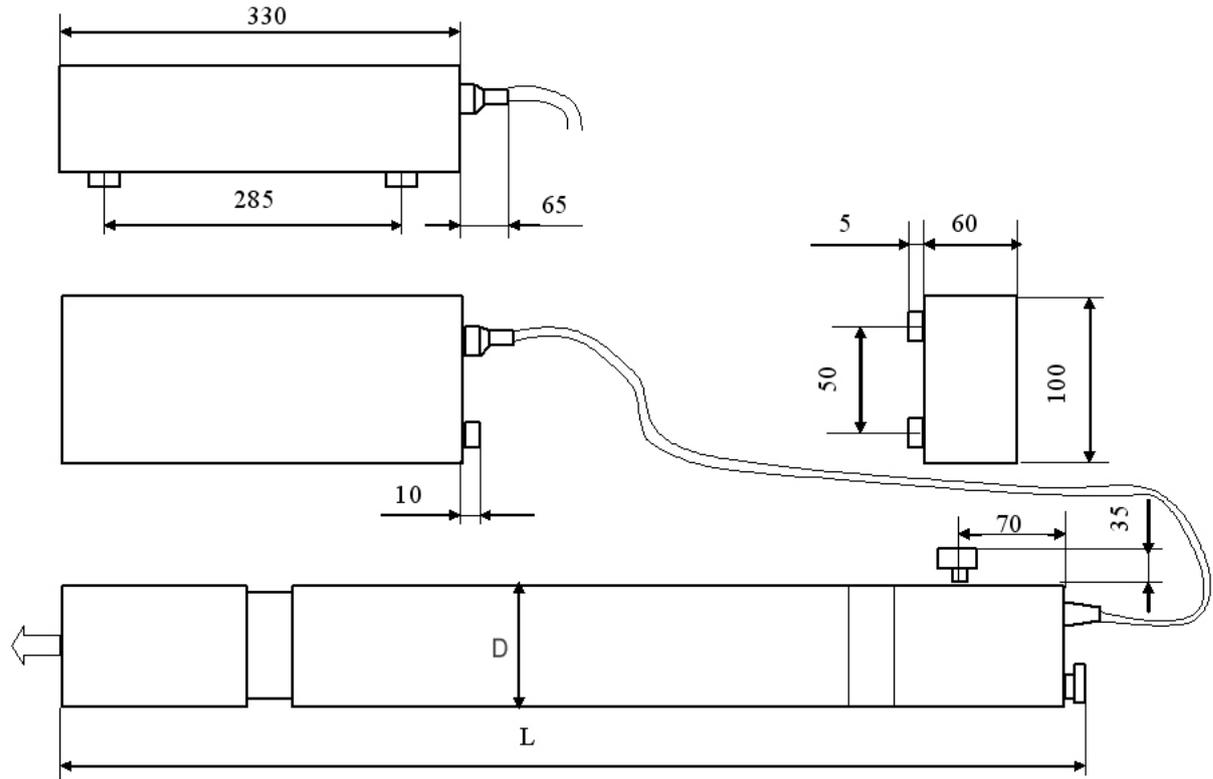
LGN-118-2V represents helium-neon double-wavelength laser, which can operate either in the mode of simultaneous emission at two lines – red 0.63  $\mu\text{m}$  and infrared 1.15  $\mu\text{m}$  or in the mode of emission at 1.15  $\mu\text{m}$ . The selection of corresponding optical band of emission is performed by switching optical filters in filter unit, which is located on the laser head output face. Specific optical feature of LGN-118-2V laser is defined by the fact that double-wavelength mode of operation is provided by usage of mirrors with complex optical properties. Optical properties of the mirrors are optimized for generating emission at 0.63  $\mu\text{m}$  and 1.15  $\mu\text{m}$  lines with sufficiently high output power.

Laser head structurally consists of coaxial glass-metal tube mounted into cylindrical metal housing. The usage of hard seal of optical mirrors and case, which is coaxially positioned respectively to operating capillary and acts as a holder of optics and ballast capacity, provides stable adjustment of mirrors and high laser lifetime. The usage of common mirrors in laser operation at two lines allows matching the courses of their beams at the laser head output with high accuracy. This fact is very important, for instance, during the adjustment of different IR optical systems.

Double-wavelength LGN-118-2V laser can be applied in various scientific and technical fields connected with IR technology including IR fiber optics, covert security alarm systems, lines of communication etc.

Parameters	LGN-118-2V
<b>Wavelength, <math>\mu\text{m}</math></b>	0.63 / 1.15
Output power, mW, not less	10.0 / 5.0
<b>Spectral structure</b>	TEM <sub>mn</sub>
<b>Polarization</b>	100:1
<b>Beam diameter, mm, not more</b>	3.0 / 3.5
<b>Beam divergence, mrad, not more</b>	3.5 / 4.0
<b>Supply mains</b>	220V, 50Hz.
<b>Power consumption, W, not more</b>	70
<b>Operating temperature, °C</b>	+10...+40
<b>Warranty lifetime, h</b>	5000
<b>Mean life, h</b>	25000
<b>Dimensions of laser head, mm, not more</b>	Ø56x875
<b>Dimensions of power supply, mm, not more</b>	100x65x330
<b>Mass, kg, not more (laser head/power supply)</b>	2.5 / 2.5

## Dimensional drawing



**JSC Research Institute of Gas Discharge Devices «PLASMA»**  
24 Tsiolkovsky Street, Ryazan 390023, Russia  
Phone: +7(4912) 24 90 62, Fax: +7(4912) 44 06 81.  
E-mail: sales@plasmalabs.com Http: www.plasmalabs.com