

LASERS OF HCCL SERIES (0.442 μm)

Helium-Cadmium lasers of HCCL series represent gas lasers of continuous operation mode with emission in visible band of optical spectrum at 0.442 μm , single- and multimode with emission power in range 10 mW to 25 mW, having polarized and non-polarized emission.

Helium-Cadmium lasers of HCCL series are intended to be used as a source of coherent emission in scientific and research activities, stereolithography, manufacturing of holographic optical elements, metrology, biochemistry and cytometry, polygraphy, medical diagnostics and therapy.

The lasers comprise of laser head and power supply. Nonadjustable laser tube is a design feature of the lasers. Cavity mirrors are rigidly fastened directly to the discharge tube. This feature allowed to avoid the usage of mechanical optics holder and to make the laser head design more compact and lightweight.



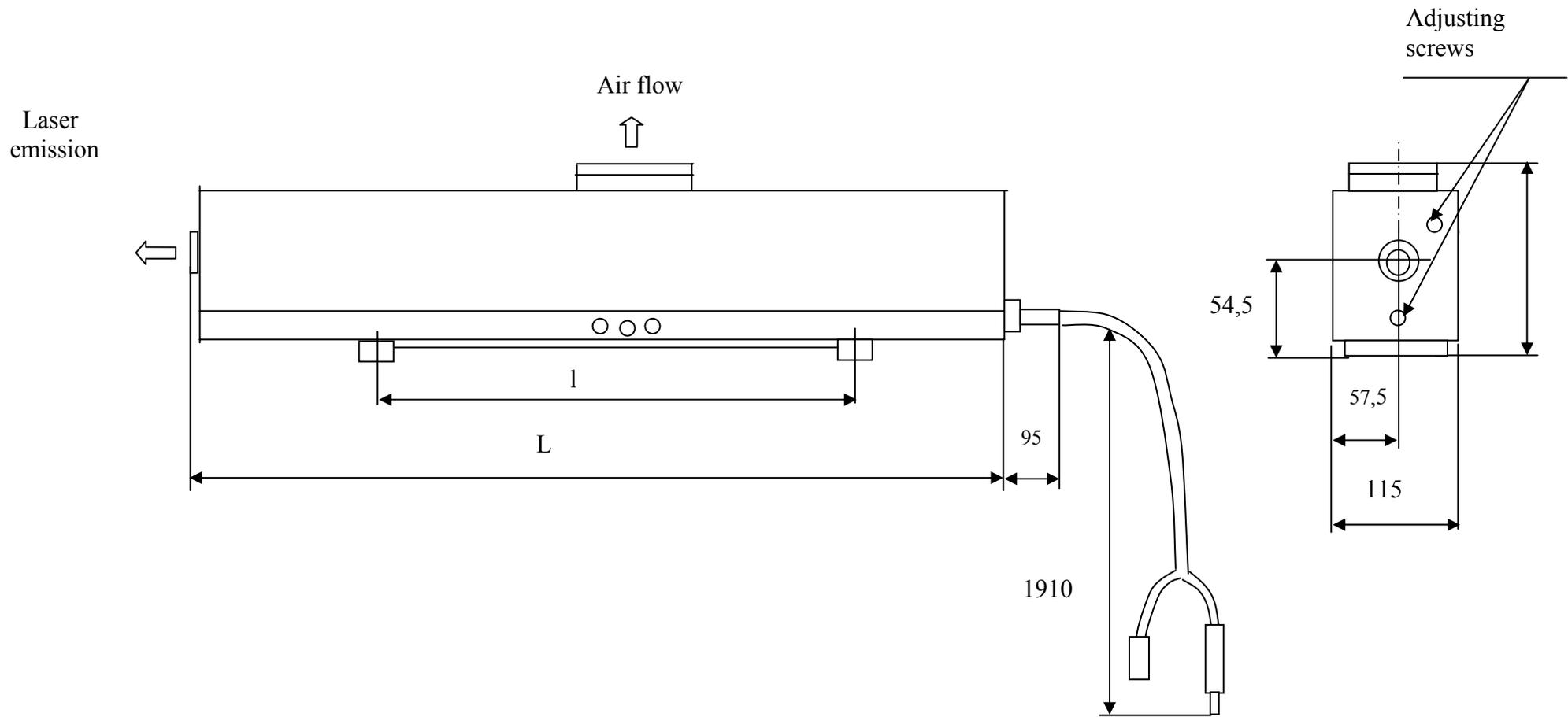
Parameters	HCCL-10V	HCCL-20V	HCCL-25V
Wavelength, μm	0.442		
Emission power (typical), mW	10	20	25
Spectral structure	TEM ₀₀	TEM _{mn}	TEM ₀₀
Polarization	100:1	1:1	100:1
Beam diameter, mm, not more	1.5	1.8	1.5
Beam divergence, mrad, not more	1.3	2.5	1.3
Power consumption, W, not more	350		500
Dimensions of laser head, mm, not more	600x115x140		865x115x140
Dimensions of power supply, mm, not more	365x380x150		
Mass, kg, not more (laser head/power supply)	3.5/8.0		5.0/8.0
Warranty lifetime, h, not less	2000		
Mean life, h, not less	4000		

* Relative power instability $\pm 5\%$

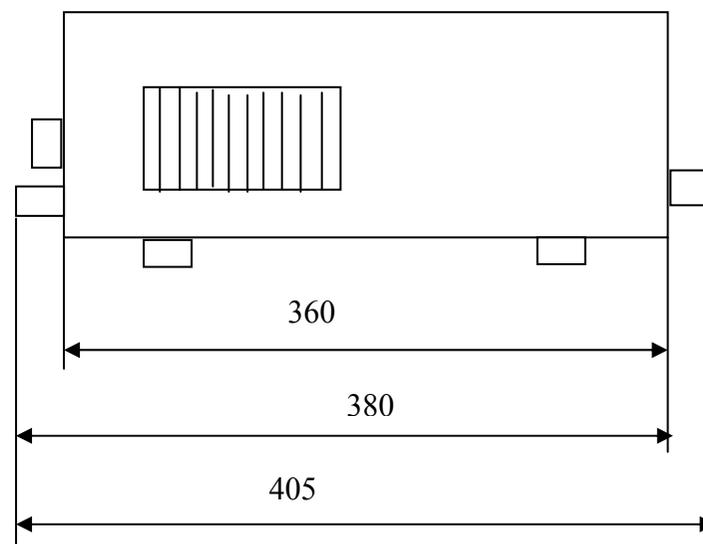
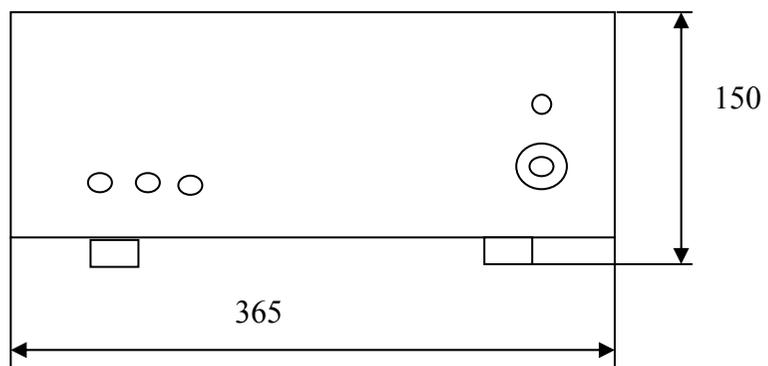
** Instability of directional pattern axis 0.25 mrad (during 3 hours)

*** Units with (I) index have coherence length 300 mm (without index – 100 mm)

Dimensional drawing of laser head



Dimensional drawing of power supply



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](http://www.plasmalabs.com)