

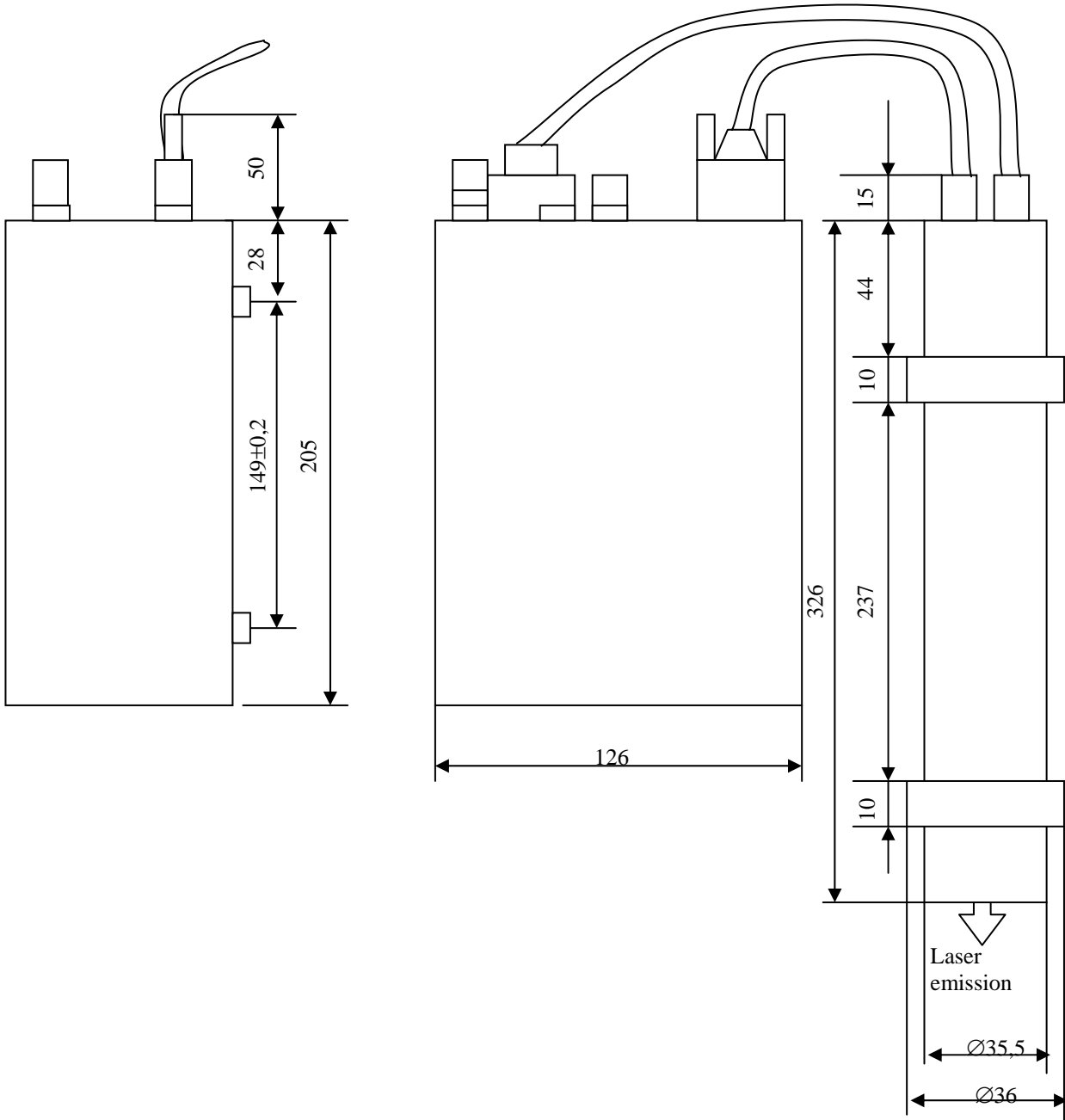
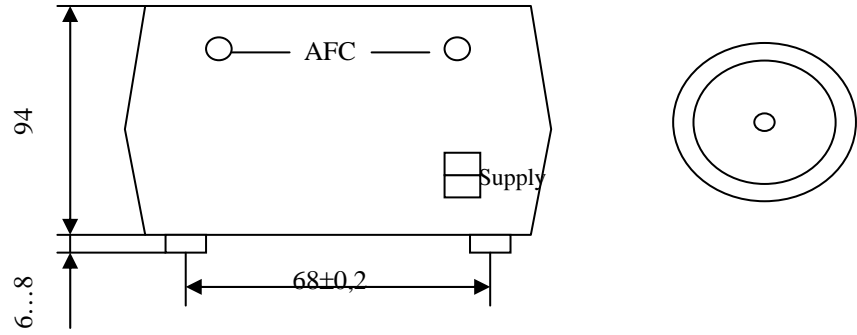
LGN-303, LGN-303-1 LASERS

He-Ne gas lasers of continuous operation mode with emission at two orthogonally polarized single-frequency components. Are intended to be used as a coherent emission sources in interferometry, optical location, fiber communication, technological and laboratory facilities. Operation modes: I — orthogonally polarized single-frequency components are divided spatially (LGN-303), II — superposition of orthogonally polarized single-frequency components (LGN-303-1), III — one high-frequency component with vertical vector of polarization on the laser output (LGN-303). Frequency stabilization is performed by means of thermal control of the resonator length.



Parameters	LGN-303	LGN-303-1
Wavelength, μm	0.63	
Spectral structure	single-frequency	double-frequency (differential frequency of the orthogonal components 640MHz) (double-beam or single-beam)
Output power, mW, not less	1.0	
Beam diameter, mm, not more	0.8	
Beam divergence, mrad, not more	2.5	
Relative power instability during 8 hrs of continuous operation, %, not more	2	
Relative optical frequency instability, arbitrary units, not more	1×10^{-8}	
Power supply	AC 220 V, 50 Hz	
Power consumption, W, not more	30	
Operating temperature range, $^{\circ}\text{C}$	+10 ... +40	
Mean time to failure, h, not less	2000	
Mean life, h, not less	10000	
Dimensions of laser head, mm, not more	$\varnothing 36 \times 330$	
Dimensions of power supply, mm, not more	225 \times 132 \times 102	
Mass of laser head, kg, not more	0.8	
Mass of power supply, kg, not more	2.5	

Dimensional drawing



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