

## GNIK-1-1, GNIK-1-2, GNIK-5 LASERS

Lasers of GNIK type represent gas helium-neon lasers of continuous operation mode with emission in infrared band of optical spectrum at 1.15  $\mu\text{m}$ , 3.39  $\mu\text{m}$ , 5.4  $\mu\text{m}$  wavelengths, multimode with emission power in range 1.5 mW to 23.0 mW, having polarized and non-polarized emission.

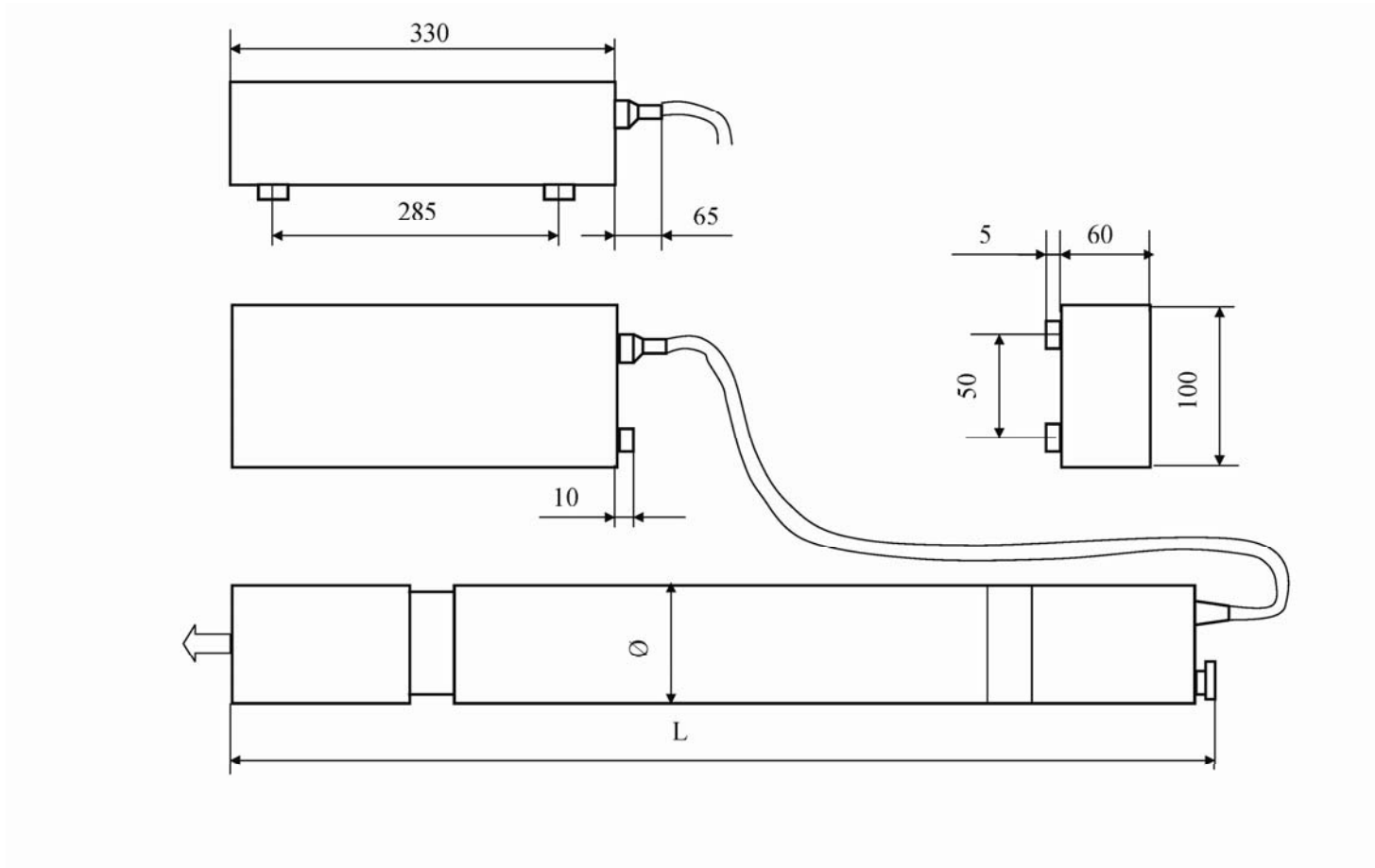
The lasers demonstrate all advantages of low-intensity and highly directional monochromatic emission at spectral lines, which are congruent with absorption lines of environment-damaging releases of industrial facilities, including methane, nitrogen oxide etc. Such matching allows taking them as a basis for development of highly effective gas analyzers and gas existence or leakage detectors. In addition, they may be used in covert alarm systems and fiber-optic communications.

Laser comprises of laser head and power supply. Coaxial tube, which at the same time represents a holder of cavity mirrors, is a basis of the laser head design. Coaxial tube has high working gas reserve in its ballast capacity, and this fact provides high life duration of such laser as a whole.



Parameters	GNIK-1-1	GNIK-1-2	GNIK-5
<b>Wavelength, <math>\mu\text{m}</math></b>	1.15		5.4
Output power, mW, not less	1.5	3.0	1.5
<b>Spectral structure</b>	TEM <sub>mn</sub>		
<b>Polarization</b>	1:1 / 100:1	1:1 / 100:1	100:1
<b>Beam diameter, mm, not more</b>	1.2	1.5	1.5
<b>Beam divergence, mrad, not more</b>	2.5		5.0
<b>Power consumption, W, not more</b>	35		65
<b>Dimensions of laser head, mm, not more</b>	Ø35x400	Ø45x500	Ø55x685
<b>Dimensions of power supply, mm, not more</b>	150x60x65	100x65x330	100x65x330
<b>Mass, kg, not more (laser head/power supply)</b>	0.5 / 0.5	1.0 / 2.5	2.5 / 2.5
<b>Warranty lifetime, h, not less</b>	5 000		
<b>Mean life, h, not less</b>	25 000		

## Dimensional drawing



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