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Stabilised Helium-Neon Laser LGN-303 Series

These single-frequency stabilized lasers are emitting either at one frequency or at two orthogonally polarized components with 640 MHz difference. Due to the ability to operate in two regimes (modes) - spatial separation and alignment of orthogonally polarized radiation components - lasers of this series are successfully utilized in multichannel telecom systems. Frequency stabilization is implemented by thermal control of the resonator length. Unique constructional features provide for constant optical parameter performance even under unfavourable mechanical and environmental conditions.

For lasertube replacement no additional adjustments or recalibration are required. Extended cable lengths from 500 - 1500 mm are available on request for the models LGN-303-1 and 303A-1.

Laser	LGN - 303	LGN - 303-1	LGN - 303A	LGN - 303A-1
Gasfilling	HeNe			
Output power	> 1 mW	> 2 mW	> 3 mW	> 4 mW
Wavelength	632,991			
Transversal mode structure	TEM00			
Spektral composition	single frequency			
Frequency difference	640 MHz (orthogonally polarized components)			
Rel. frequency stability	1×10^{-8} / 8 hrs.			
Polarisation	1 : 1 (orthogonally)			
Divergence	< 1,85 mRad			
Beam diameter	1 mm			
Pointing stability	0,025 mRad/ hr.			
Power stability	5%/ 8 hrs.			
Noise	0,5 %			
Warranted lifetime	> 5000 hrs.			
Average lifetime	> 10000 hrs.			
Operating temperature	+ 10° - +40° C			
Laser head dimensions	Ø 36 x 330 mm			
Laser head weight	0,7 Kg			
Mains supply	230 VAC +/- 10%, 50 Hz			
Power consumption	< 55 VA			
Power supply dimensions	225 x 132 x 102 mm			
Power supply weight	2,5 Kg			