

FIBER LASER CAVITIES

WAVELENGTH REGION – 1064nm

WAVELENGTH REGION – 1555nm

WAVELENGTH REGION – 1970nm

Fiber optics laser cavities FOLR is a part of the fiber laser which used to produce single-mode laser radiation in a continuous generation mode.

The fiber cavities includes an active double-clad fiber and mirrors based on Refractive Index Fiber Bragg gratings recorded on optical fibers, which welded to the active fiber from both sides to form a feedback.



To create a full-fledged laser, it is required to connect a pump source in the range of 907-970 nm.

CAVITIES SPECIFICATIONS	FOLR-1064-WTR	FOLR-1555	FOLR-1970
Central wavelength, nm	1064 ± 1	1560 ± 1	1975 ± 1
Differential efficiency from 20 W pumping (under normal conditions), %	≥ 60	≥ 15	
Mode composition of radiation	Single main mode, TEM00		
Spectral line width , nm	1 ÷ 1.5		
Output fiber type	Nufern 1060	SMF 28	SM-306-ini
The numerical aperture of the output fiber	0.14		
Cladding diameter of the fiber for pumping, μm	125		
The aperture of the first optical waveguide cladding for pumping	0.42		
Wavelength of pump source, nm	907 - 970		
Threshold pump power, W	≥ 1.5		
Maximum pump power, W	≤ 40		
Operating temperature, °C	-50 ÷ +65	+15 ÷ +30	+15 ÷ +30
Storage temperature, °C	-50 ÷ +70	-20 ÷ +40	-20 ÷ +40
Dimensions (L x W x H), mm	210 x 148 x 13		
Weight, kg	≤ 0.65	≤ 1	≤ 1

The configuration can be changed at the customer's request. The parameters specified in this specification can be changed in accordance with the terms of reference.