



Model No. FCL-976-P-XWD-YZ

976nm HIGH POWER FIBER COUPLED INFRARED DIODE LASER SYSTEM UP TO ~100W

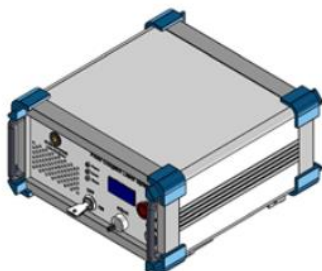
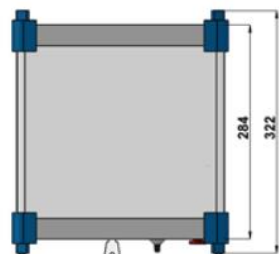
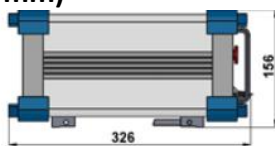
The FCL-series 976 nm high power fiber coupling infrared diode laser system has integrated laser diode, fiber coupling optics, laser power supply, LD current and temperature control in one box. Its compact dimension and convenient functions, including but not limited to the power adjustment, temperature control and LED display make it very suitable for pumping, scientific research, industrial and medical applications.

SPECIFICATIONS

A. For Output Power less than ~50W:

Model No.	FCL-976-P-XWD-YZ	
Wavelength (nm)	976±3	
Output power	~25W (X=25), ~30W (X=30)	
Fiber connector	SMA905	
Fiber length (m)	2.0	
Fiber core diameter (µm)	400	
Fiber Numerical aperture	0.22	
Output power control	0-100%, adjustable by knob	
Power stability (rms, over 4 hours)	<1%	
Operating mode	CW operating mode (Y=C); CW with external TTL modulation: 1Hz-1kHz (Y=T1), 1kHz-10kHz (Y=T2), 10kHz-30kHz (Y=T3); CW with external Analog modulation: 1Hz-1kHz (Y=A1), 1kHz-10kHz (Y=A2), 10kHz-30kHz (Y=A3).	
LED display	Laser diode current	
Red pilot light	No (Z=0); Yes (Z=1)	
Operating temperature (°C)	10~40	
Cooling way	Cooled by air, no water needed	
Power supply	Input voltage	90-240V AC, 50 to 60 Hz
	Dimensions	292(L) x326(W) x156(H) mm ³
Expected lifetime (hours)	10,000	
Warranty	10 months	
Remarks	The laser can be run from 0-30kHz. However, the laser will be adjusted such that the waveform and performance is good at the requested specified range.	

PACKAGE DIMENSIONS (unit: mm)



Note: The above specifications are subject to change without notice.



**B. For Output Power ~50W and higher:**

Model No.	FCL-976-P-XWD-YZ
Wavelength (nm)	976±3
Output power	~60W (X=60), ~100W (X=100)
Fiber connector	SMA905
Fiber length (m)	2.0
Fiber core diameter (µm)	400
Fiber Numerical aperture	0.22
Output power control	0-100%, adjustable by knob
Power stability (rms, over 4 hours)	<1%
Operating mode	CW operating mode (Y=C); CW with external TTL modulation: 1Hz-1kHz (Y=T1), 1kHz-10kHz (Y=T2), 10kHz-30kHz (Y=T3); CW with external Analog modulation: 1Hz-1kHz (Y=A1), 1kHz-10kHz (Y=A2), 10kHz-30kHz (Y=A3).
LED display	Laser diode current, temperature, frequency and pulse
Red pilot light	No (Z=0); Yes (Z=1)
Operating temperature (°C)	10-30
LD Temperature control range (°C)	18-45, adjustable by knob
Temperature stability (°C)	±0.1
Cooling way	Cooled by air, no water needed
Power consumption (KVA)	<0.5
Power supply	Input voltage 200-240V AC Dimensions 406(L) x370(W) x186(H) mm ³
Expected lifetime (hours)	10,000
Warranty	10 months
Remarks	The laser can be run from 0-30kHz. However, the laser will be adjusted such that the waveform and performance is good at the requested specified range.

PACKAGE DIMENSIONS (unit: mm)

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OPTIONAL ACCESSORIES

FIBER COLLIMATOR

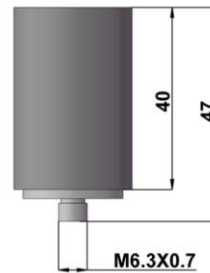
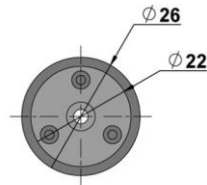
- **COLLIMATOR WITH SPHERICAL LENS**

The collimator with spherical lens is designed to connect to the end of the FC/PC or SMA905 connector and contains an AR-coated spherical lens. The distance between the spherical lens and the tip of the FC-terminated fiber can be adjusted to compensate for focal length changes, or to re-collimate the beam at the specific wavelength and distance of interest.

Model No. FC-SL-FC (for FC/PC connector)

Model No. FC-SL-SMA (for SMA905 connector)

Dimensions: $\phi 26\text{mm} \times 40\text{mm}$



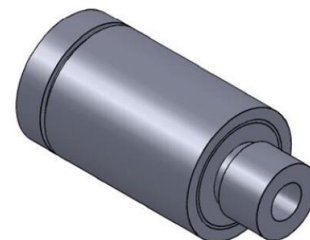
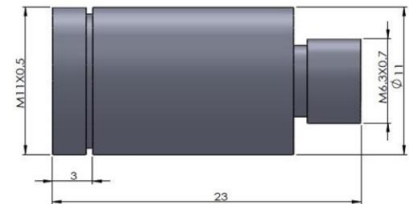
- **COLLIMATOR WITH ASPHERICAL LENS**

The collimator with aspherical lens is designed to connect to the end of the FC/PC or SMA905 connector and contains an AR-coated spherical lens. It is constructed with ultra-compact size and excellent performance, which is used to collimate the beam out of the fiber.

Model No. FC-AL-FC (for FC/PC connector)

Model No. FC-AL-SMA (for SMA905 connector)

Dimensions: $\phi 11\text{mm} \times 23\text{mm}$



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