

DATASHEET**Diode Lasers****FACTOR SERIES
FIBER-COUPLED DIODE LASER MODULE**

The FACTOR Series offers the highest efficiencies and best reliability for pump wavelengths in the range of 88x nm, 793 nm and 976 nm for pumping Nd^{3+} , Tm^{3+} and Yb^{3+} doped materials respectively. It is available between 1 and 22 single emitters, ranging from power levels of a few Watts up to 400 W.

**FEATURES**

- Robust package
- Fixed fiber
- VBG locking for wavelength stabilization
- Back reflection filter for 1050 nm laser light

APPLICATIONS

- Fiber laser pumping

**Coherent, Inc.**

5100 Patrick Henry Drive, Santa Clara, CA 95054
p. (800) 527-3786 | (408) 764-4983
f. (408) 764-4646

tech.sales@coherent.com www.coherent.com

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Parameter	MDL976FCSE400HS22.10FACTOR200VBG
Package	Fiber-Coupled Single Emitters
OPTICAL PARAMETERS ¹	
Center Wavelength Range (nm)	976 (note 3)
Center Wavelength Tolerance (nm)	±0.6 (note 3)
Output Power (W)	400 (note 2)
Operating Condition	CW
Spectral Width (90% power content) (nm)	≤1
Wavelength Locked Output Power Range	200W to 400W
Slope Efficiency (W/A)	≥19
Wavelength Temp. Coefficient (nm/°C)	~0.01
Numerical Aperture (NA)	≥90% in 0.16
FIBER PARAMETERS ⁵	
Fiber Core Diameter (μm)	202 ±2
Fiber Cladding Diameter (μm)	242 ±2
Fiber Coating Diameter (μm)	400±25
Fiber Loose Tubing Diameter (mm)	3
Numerical Aperture (NA)	0.215 ±0.005
Fiber Length (m)	≥2
Fiber Termination	Pigtail
ELECTRICAL PARAMETERS ¹	
Power Conversion Efficiency (%)	≥45
Threshold Current (I _{TH}) (A)	≤2
Operating Current (I _{OP}) (A)	≤25
Operating Voltage (V _{OP}) (V)	≤40
THERMAL PARAMETERS	
Operating Temperature Range ^{2,3,4} (°C)	+20 to +30
Storage Temperature Range ^{3,4} (°C)	0 to +55
Recommended Heatsink Capacity (W)	500
Maximum Soldering Temperature for Electrical Leads (°C)	320
Maximum Soldering Time per Lead (s)	10
MECHANICAL PARAMETERS	
Size (mm ³) [W x D x H]	97 x 76 x 12.5
Weight (kg)	0.65

Notes:

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1. Power and temperature dependent.
 2. Reduced lifetime if used above nominal operating conditions.
 3. Customization available upon request.
 4. Minimum ambient environment is required for storage and operation below the ambient dew point.
 5. Non-detachable fiber.

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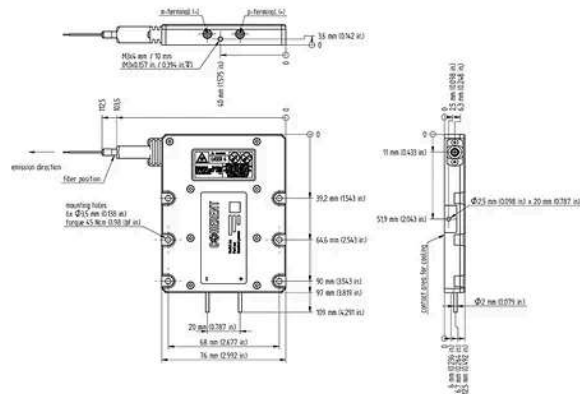
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