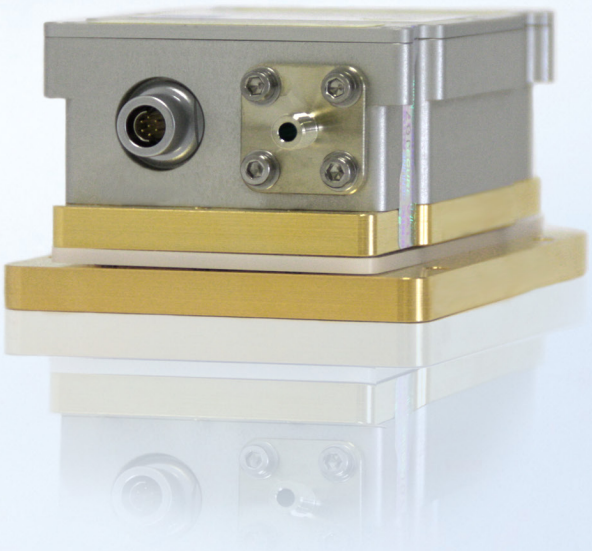


Fiber-coupled diode lasers: cw, passively cooled with integrated TEC JOLD-75-CPXF-1L

Design 04031100124

Features

- High optical output power of 75 W cw
- Wavelength: 976 nm
- Fiber core diameter: 400 µm (NA 0.22)
- Integrated power monitor
- Long Lifetime > 10,000 h, high reliability

Applications

- Pumping of solid-state lasers and fiber lasers
- Material processing
- Medical applications

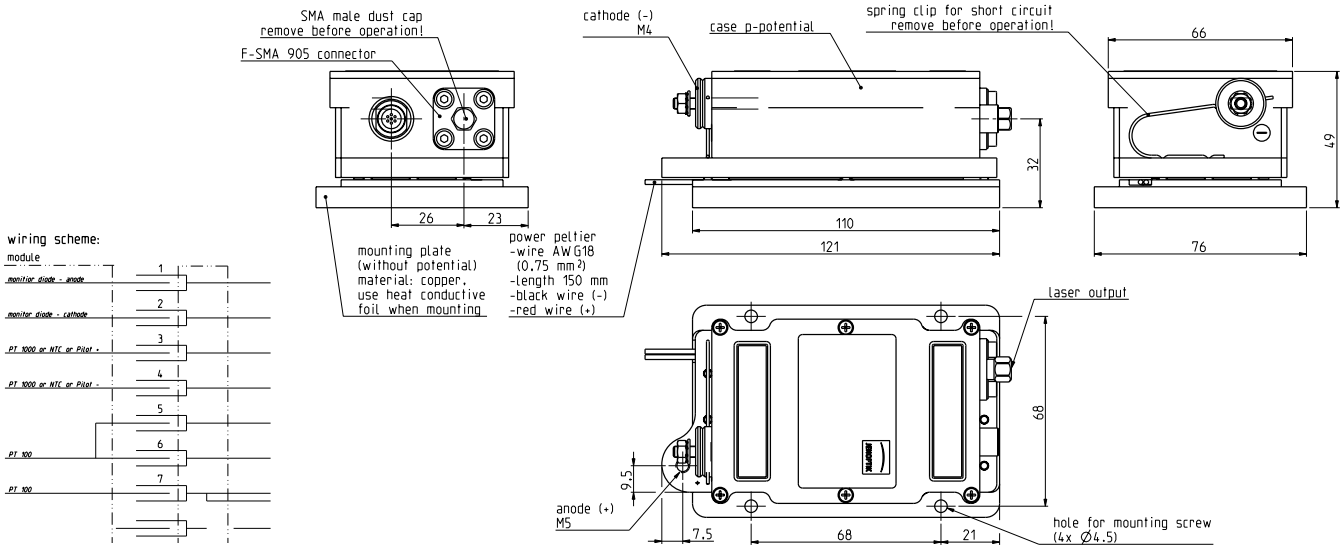
Fiber-coupled diode lasers | cw, passively cooled with integrated TEC

JOLD-75-CPXF-1L

Preliminary specifications	JOLD-75-CPXF-1L Design 040311-001-24	
Operation Mode	cw, power modulation only between threshold and maximum current	
Maximum Optical Output Power	75	W
Center Wavelength at 25 °C	976	nm
Center Wavelength Variation at 25 °C	3	nm
Typical Spectral Bandwidth (FWHM)	3	nm
Maximum Spectral Bandwidth (FWHM)	5	nm
Typical Operation Current	95	A
Maximum Operation Current	105	A
Typical Threshold Current	6	A
Maximum Threshold Current	10	A
Typical Slope	0.85	W/A
Minimum Slope	0.75	W/A
Maximum Operating Voltage	2	V
Fiber Core Diameter, Numerical Aperture	400 µm, NA 0.22	
Fiber Connector	HP-SMA 905, both ends free standing	
Power Monitor	Infineon, SFH 203	
Anode, Cathode Connectors	M5 (e.g. socket cap screw ISO 4762), M4 (threaded bolt and hex nut ISO 4032)	
Operation Conditions	Non-condensing atmosphere	
Expected Lifetime	> 10,000 h (constant current), under qualification	
Cooling		
Mounting	Via thermally conductive foil (thickness 25 ... 100 µm) on cooled surface	
Note	**Do not mount via any paste-like media!**	
Diode Laser Operating Temperature	15 ... 30 °C, measured with internal temperature sensor	
Temperature Sensor	PT 100 and PT 1000	
Integrated TECs	Connected in series, cold side at max. 30 °C	
Maximum Cooling Power	2 TECs x 173 W => 346 W	
Maximum TEC Voltage, Current	2 x 24.6 V => 49.2 V, 11.3 A	

See general user information!

Options on request: NTC 10 kOhm instead of PT 1000, Pilot Laser 0.5 … 3.0 mW & 658 nm
for additional designs or specifications please visit our website: www.jenoptik.com



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