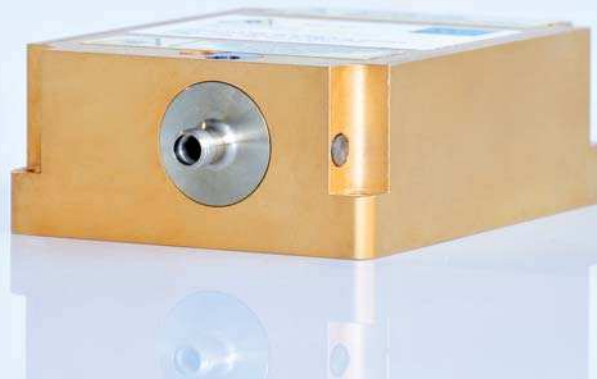




Fiber-Coupled Diode Lasers

cw, passively cooled, for medical applications



JOLD-30-FCM-12
JOLD-30-FCM-14

Design 432104924
Design 432105124

Features:

- High optical output power of 30 W cw
- Fiber core diameter: 200 μm | 400 μm (NA 0.22)
- Integrated pilot laser and power monitor
- Internal fiber detector (interlock)

Applications:

- Medical applications

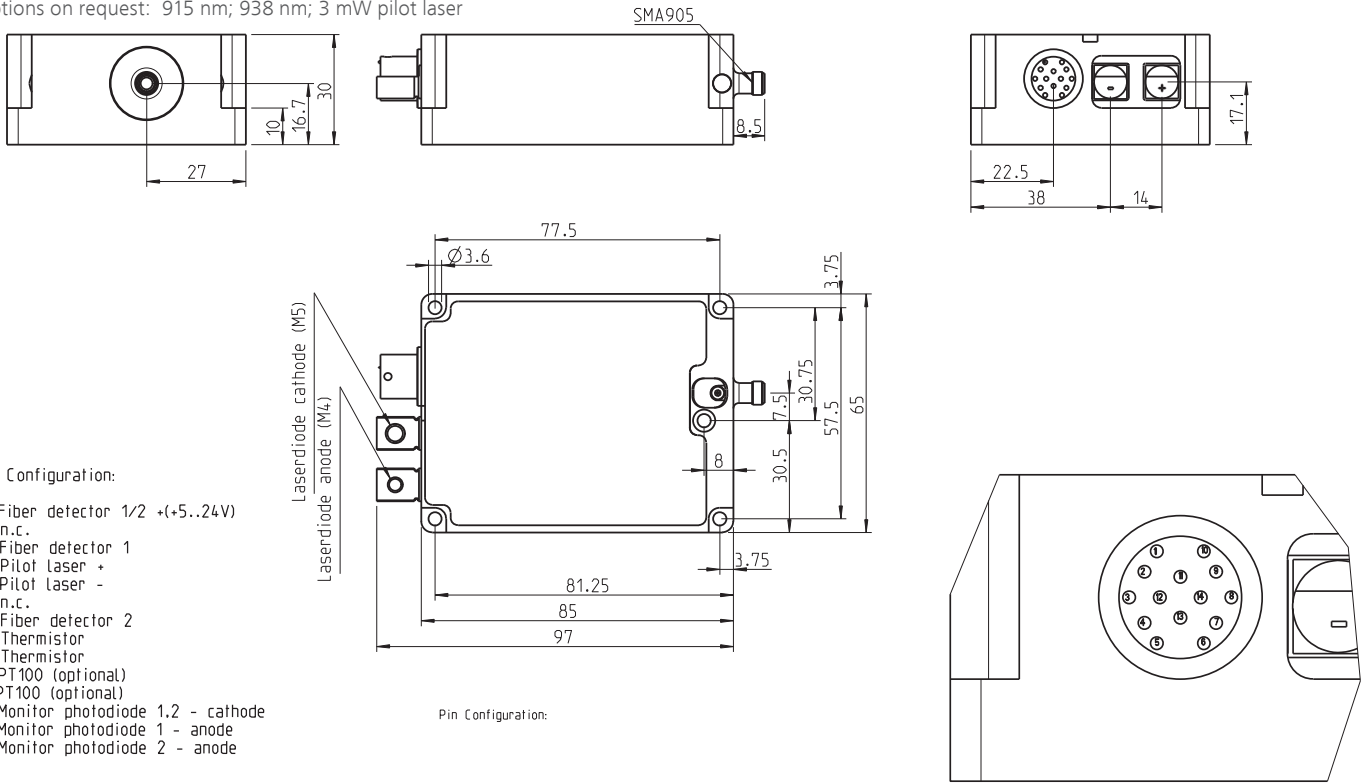
Fiber-Coupled Diode Lasers

cw, passively cooled, for medical applications

Specifications (Start of Life)

Product	JOLD-30-FCM-12, Design 432104924 / JOLD-30-FCM-14, Design 432105124		
Operation Mode	cw, power modulation only between threshold and maximum current		
Maximum Optical Output Power	30	30	W
Center Wavelength at 25 °C	808	976	nm
Center Wavelength Variation at 25 °C	10	10	nm
Typical Operation Current	41	44	A
Maximum Operation Current	45	47	A
Typical Threshold Current	7	6	A
Maximum Threshold Current	10	9	A
Typical Slope	0.90	0.80	W/A
Minimum Slope	0.75	0.70	W/A
Maximum Operating Voltage	2.2	2	V
Fiber Core Diameter, Numerical Aperture	JOLD-30-FCM-12, Design 432104924 , 200 µm, NA 0.22 JOLD-30-FCM-14, Design 432105124 , 400 µm, NA 0.22		
Fiber Centricity	< 10 µm		
Fiber Connector	F-SMA 905, free standing fiber towards the module		
Fiber Watch Dog	2 inductive fiber detectors		
Protection Glass	Externally exchangeable protection glass		
Power Monitor	2 photo diodes (Infineon, SFH 229): 100 ... 700 µA @ maximum optical output power		
Pilot Laser	1 mW, 635 nm ± 10 nm, 5 V, 100 mA		
Signal Connector	LEMO B-Series Fxx.1B.314.Cxxxx		
Anode, Cathode Connectors	M4, M5 (case isolated)		
Operation Conditions	Non-condensing atmosphere		
Expected Lifetime	> 5,000 h (constant current)		
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	NTC 10k, 3988 k (PT100 on request)		

Options on request: 915 nm; 938 nm; 3 mW pilot laser
See General User Information!



- Pin Configuration:
- 1- Fiber detector 1/2 +(+5...24V)
 - 2- n.c.
 - 3- Fiber detector 1
 - 4- Pilot laser +
 - 5- Pilot laser -
 - 6- n.c.
 - 7- Fiber detector 2
 - 8- Thermistor
 - 9- Thermistor
 - 10- PT100 (optional)
 - 11- PT100 (optional)
 - 12- Monitor photodiode 1.2 - cathode
 - 13- Monitor photodiode 1 - anode
 - 14- Monitor photodiode 2 - anode

Specifications may change in compliance with our quality management system.
12/2010