LIMO 1470 Compact Series
Version 1.1
HIGH-POWER DIODE LASER

- **Hermetically sealed laser head in potential- free housing**
- **Compact dimensions**
- **Exchangeable protection window at the SMA905 connector**
- **2 temperature sensors (NTC/PT100)**

Optical data[1]	
CW – nominal output power (W)	12
Centre wavelength λ (nm)	1470
Tolerance of λ (nm)	± 20
Spectral width (FWHM) (nm)	< 12
Temperature drift of λ (nm/K)	~0.4
Fibre data	
Fibre core diameter (µm)	200
Numerical aperture	0.22
Fibre-optic connector	SMA905
Electrical data	
Typical operation current (start of lifetime) (A)	47
Max. Operation current (start of lifetime) (A)	54
Max. Operation current (end of lifetime) (A)	65
Typical threshold current (A)	10
Typical efficiency (%)	11
Typical slope efficiency (W/A)	0.3
Operation voltage (V)	< 2
Reverse voltage	0
Thermal conditions	
Diode operation temperature[2] (°C)	+15….30
Storage temperature (°C)	-20….+60
Recommended heat sink capacity (W)	> 80
Recommended heat sink thermal resistance (K/W)	< 0.1
Other specifications	
Expected lifetime[3] (hours)	5,000
RoHS 2002/95/EC and CE compliant	YES
Dimensions of laser head (connectors not included) (mm)	85x54x35
Weight (g)	600

[1]Optical data @ 25°C diode heat sink temperature, [2]Measured by NTC/PT100 on PIN 8 & 9 / 10 & 11 on LEMO connector, [3]According ISO 17526:2003(E);

Optional accessories (MED635) ready for medical application

Pilot beam	
Pilot beam output power (mW)	> 1
Pilot beam wavelength (nm)	635 ± 5
Pilot beam voltage (V)	3-5
Pilot beam current (mA)	< 120
2 Optional Fibre detection sensor	
Fibre detection sensor 1 & 2 voltage (V)	12
Fibre detection sensor 1 & 2 current (mA)	< 100 each
Fibre detection sensor 1 & 2 type	PNP

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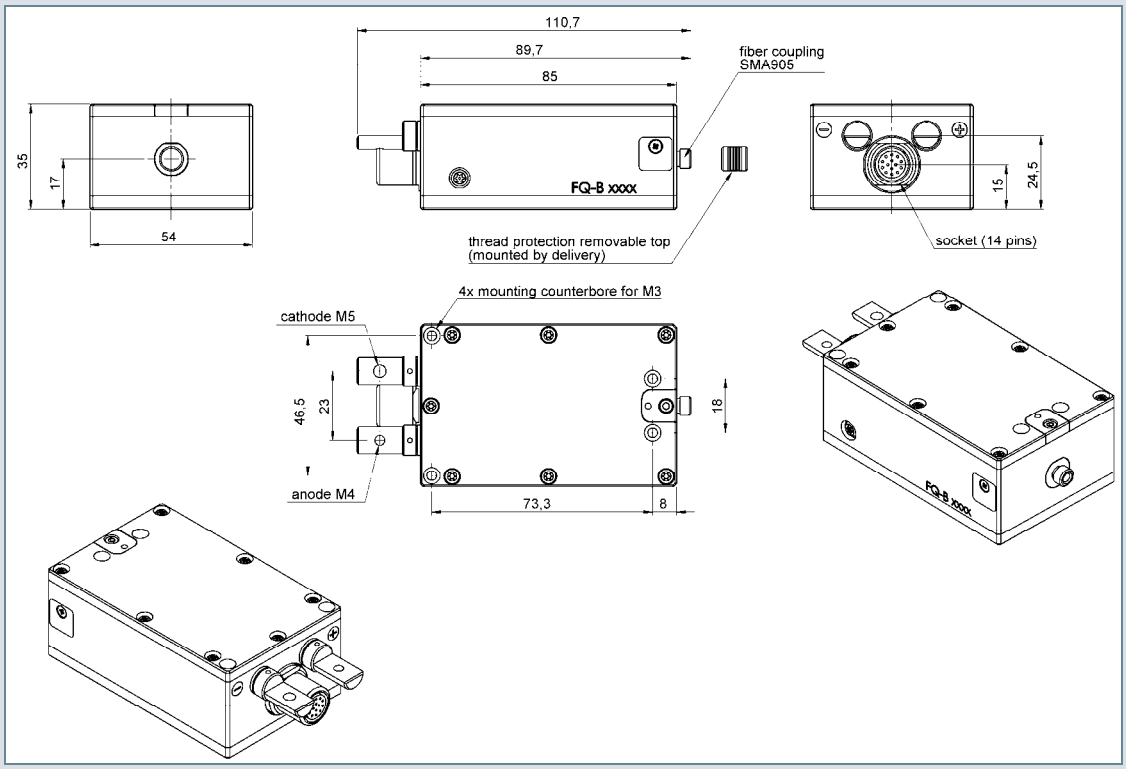

LIMO FQ- Serie

Product name identification:

LIMO__-F_____-DL_____(_____)-_____

Power	Fiber core diameter	Wavelength	Features	Wavelength Tolerance
12	200	1470	BASIC	T0=±20nm
			MED635	

Example: LIMO12-F200-DL1470(BASIC)-T0

Accessories

- Fibre LIMO-SMA905-F, 1.5m or 3m
- Laser Diode Driver and TEC-cooler
- Different beam shaping optics (focussing, collimating, fibre-fibre) available
- Installation service and personal introduction on request
- Turn-key systems available
- Customized laser modules and fibres on request

Considerations in Safety and Operation

This is a laser class IV product regarding CDRH regulations and a Laserklasse 4 product regarding DIN:EN60825-1. The laser light emitted from this laser diode is invisible and/or visible and may be harmful to the human eye. Avoid looking directly into the laser diode, into the collimated beam along its optical axis, or directly into the fibre when the device is in operation.

ESD PROTECTION – Electrostatic discharge is the primary cause of unexpected laser diode failure. Take extreme precaution to prevent ESD. Use wrist straps, grounded work surfaces and rigorous antistatic techniques when handling laser diodes.

Operating the laser diode outside of its maximum ratings may cause device failure or a safety hazard. Power supplies used with the component must be employed such that the maximum peak optical power cannot be exceeded.

Output powers in excess of specification will accelerate device aging.

Operation at higher temperatures will accelerate device aging.

Do not use thermal contact paste! LIMO provides appropriate carbon foil

All data provided are typically measured with a diode heat sink temperature of 25 °C. All measurements are made with a LIMO reference fibre 200/280 µm, length 1.5 m, and non AR coated. Subject to change without notice. August 2009

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