

LIMO70-F200-SL808, 915, 940 or 980

70W-Industrial Laser System

LIMO
Lissotschenko Mikrooptik



illustrative example

Technical Data Supply Unit

General description	<ul style="list-style-type: none"> - rack-system, 19 inch, 9HU - mobile by (fixable) rolls - manual operation by control unit and / or remote operation by standard industrial interfaces - laser module separate in 2HU, 19"- housing, easy exchangeable
Size WxHxD (mm)	553x520x600
Input voltage of the complete system	1 phase + N +PE; 110-230V AC \pm 10%, 50/60 Hz, <16A; Schuko-plug
Operation/storage conditions (°C)	+5 to +40; max. humidity 90%, non condensing
Operating modes	<ul style="list-style-type: none"> - cw - pulsed (min. pulse width 100μs) - profile mode (single-, multi profile)
Control unit	<ul style="list-style-type: none"> - display - handwheel for menu navigation - key switch (3 modes: off, manual, remote) - start- / stop button for manual operation - emergency-stop-button
Interfaces	<ul style="list-style-type: none"> - pyrometer - can-bus - RS232 - SPS-Interface - interlock - emergency-stop - laser warning lights
Diode laser control	<ul style="list-style-type: none"> - laser power - laser temperature - pilot laser control

Technical Data Laser Module

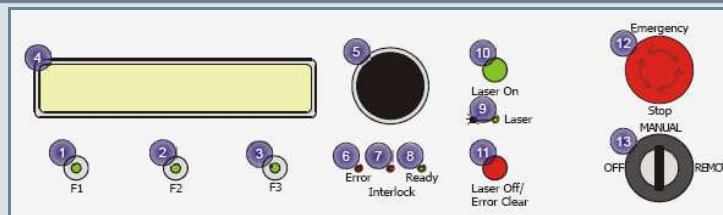
CW - output power (W)	> 70
Center wavelength λ (nm)	808, 940 or 980
Tolerance of λ (nm)	\pm 10 (optional \pm 3)
Fibre data (core diameter; N.A.; fibre-optic connector)	400 μ m; 0,22; SMA905
Typical operation current (start of lifetime) (A)	60
Typical threshold current (A)	6
Typical efficiency (%)	35
Expected lifetime (h)	20.000
Warranty (years)	1
Distinctive feature	- passive, microchannel-free watercooling

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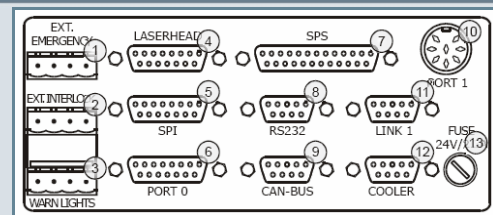
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LIMO70-F400-SL808, 915, 940 or 980 70W-Industrial Laser System

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Operation panel



Operation and control interfaces



Rear view with optional fiber break detection, plug control and fiber protection (energy chain adapter, i.e. for robot applications)

Product description

- Turnkey laser system, customer specific OEM-systems are also available
- Easy integration into production machines
- Manual or remote operation by machine interfaces
- Complete control of diodelaser operation, easy exchangeable laser module
- Optimized passive watercooling, no deionized water necessary
- Quasi maintenance-free, 1x /year inspection of cooling-water circuit (particle filter)
- Save operation by strict conformity to safety standards
- Optional equipment: optical fibres in different lengths / versions, working heads for laser processing, scanner systems

Considerations in Safety and Operation

The laser light emitted from this laser diode is invisible 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.

All data provided are typically measured with a diode heat sink temperature of 25 °C. All measurements are made with a LIMO reference fibre 400/480 µm, length 1.5 m, and non AR coated. Copyright © 2005 LIMO GmbH. All rights reserved. All LIMO products are patent pending. Subject to change without notice. May 2005

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