

940nm 400W High Power CW Micro-Channel Water-Cooled Horizontal Linear Diode Laser Array

Part No. LDH940C400WI

OVERVIEW

The LDH-series high power packaged bars provide OEM customers with scalable power up to kilowatts for pumping, industrial and medical applications. The packaged laser bars can be configured for enhanced brightness through stacking, scaled linearly or vertically for optimized light and material integration.

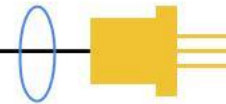
FEATURES

- 940nm Microchannel Water-Cooled Horizontal Array
- CW Operation
- High output power: 400W
- Spectral width: <5 nm
- High reliability, High efficiency
- Modular and compact design for ease of integration
- Packaged 10mm laser diode bar

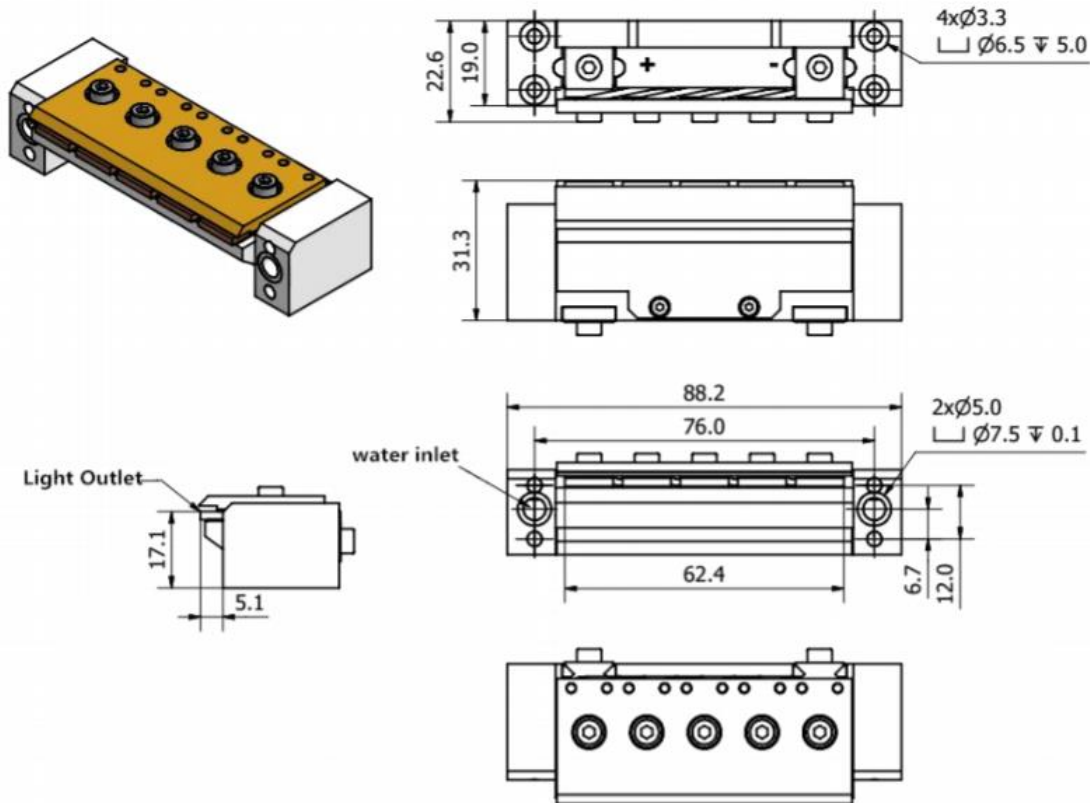


SPECIFICATIONS (T_c = 25°C)

| Item | Parameter | LDH940C400WI | Unit |
|----------------------|------------------------------|--------------|-------|
| Optical Parameter | Center wavelength | 940 | nm |
| | Operation mode | CW | - |
| | Output power | 400 | W |
| | Output power/bar | 80 | W |
| | Spectral width | <5 | nm |
| | Bar quantity | 5 | - |
| | Fast axis divergence | <39 | deg |
| | Slow axis divergence | <10 | deg |
| Electrical Parameter | Threshold current | <25 | A |
| | Operating current | <95 | A |
| | Operating voltage/Bar | <2.0 | V |
| Thermal Parameter | Max. inlet pressure | 65 | psi |
| | Cooling rate/bar | ≥0.3 | 1/min |
| | Cooling medium particle size | ≤15 | μm |
| | Cooling medium conductivity | 5 to 10 | μs/cm |
| | Operating temperature | 15 to 35 | °C |
| | Storage temperature | -10 to +60 | °C |



MECHANICAL OUTLINE (unit: mm)



Notes:

1. The above specifications are subject to change without notice.
2. Please make sure that the laser diode is operated under the temperature between 15 °C and 35 °C, as high temperature will increase threshold current, decrease exchange rate and accelerate the aging.
3. Please take measures to avoid condensation, which will cause aging of laser diode.