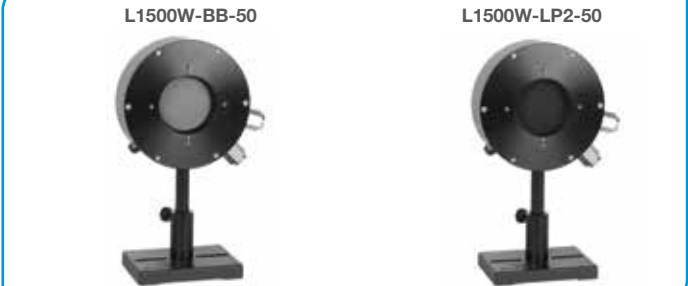


1.1.2.7 High Power Thermal Sensors

1.1.2.7.2 High Power Water Cooled Thermal Sensor

15W to 1500W

- Features
- High powers
 - Water cooled
 - Up to 1500W
 - Ø50mm aperture



| Model | L1500W-BB-50 | L1500W-LP2-50 |
|---|--|--------------------------------------|
| Use | General purpose and CO ₂ laser | High power densities and long pulses |
| Absorber Type | Broadband | LP2 |
| Spectral Range μm | 0.19 - 20 | 0.35 - 2.2 |
| Absorption | ~88% | >94% from 0.35 to 1.1μm |
| Aperture mm | Ø50mm | Ø50mm |
| Power Mode | | |
| Power Range | 15W - 1500W | 15W - 1500W |
| Power Scales | 1500W / 300W | 1500W / 300W |
| Power Noise Level | 700mW | 700mW |
| Maximum Average Power Density kW/cm ² | 7 at 1000W 4 at 1500W | 10 at 1000W 5.5 at 1500W |
| Response Time with Meter (0-95%) typ. s | 2.7 | 2.7 |
| Calibration Uncertainty ±% | 1.9 | 1.9 |
| Power Accuracy ±% | 4 ^(a) | 4 ^(a) |
| Linearity with Power ±% | 2 | 2 |
| Energy Mode | | |
| Energy Range | 500mJ - 200J | 500mJ - 200J |
| Energy Scales | 200J / 20J | 200J / 20J |
| Minimum Energy mJ | 500mJ | 500mJ |
| Maximum Energy Density J/cm ² | | |
| <100ns | 0.3 | 0.1 |
| 1μs | 0.4 | 0.9 |
| 0.5ms | 5 | 50 |
| 2ms | 10 | 130 |
| 10ms | 30 | 400 |
| Cooling | water | water |
| Minimum and Recommended water flow at full power ^(b) | 3.5 liter/min 6 liter/min | 3.5 liter/min 6 liter/min |
| Fiber Adapters | QBH-Fiber Adapter (see page 97) | QBH-Fiber Adapter (see page 97) |
| Accessories for High Power Sensors | See pages 97-101 | See pages 97-101 |
| Weight kg | 1.2 | 1.2 |
| Compliance | CE, UKCA, China RoHS | CE, UKCA, China RoHS |
| Version | V2 | |
| Part number | 7Z02752 | 7Z02772 |
| Notes: (a) | Calibrated for ~0.8μm, 1.064μm and 10.6μm For spectral range 0.35 to 1.1μm Water temperature range 18-30°C. Water temperature rate of change <1°C/min. Pressure drop across sensor 0.03MPa. The recommended flow rate can be lowered proportionately at lower than full power but should not be below the minimum. | |
| Notes: (b) | When used at full power with substantially below the recommended flow rate, the damage threshold may be as much as 20% lower. The response time will be optimum with the recommended flow rate. | |

L1500W-BB-50 / L1500W-LP2-50

