

# 1.1.2.7 High Power Thermal Sensors

## 1.1.2.7.2 High Power Water Cooled Thermal Sensors

L1500W-LP1-50

15W to 1500W

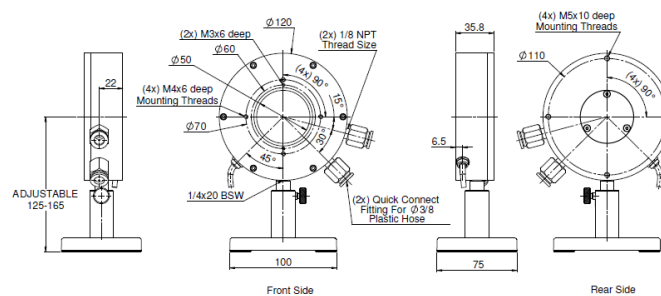
### Features

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



Model	L1500W-LP1-50
Use	High power densities and long pulses
Absorber Type	LP1
Spectral Range $\mu\text{m}$	0.35 – 2.2, 10.6
Aperture mm	Ø50mm
Power Mode	
Power Range	15W – 1500W
Power Scales	1500W / 300W
Power Noise Level	700mW
Maximum Average Power Density kW/cm <sup>2</sup>	14 at 500W 4 at 1500W
Response Time with Display (0-95%) typ. s	2.7
Power Accuracy +/--%	4 <sup>(a, c)</sup>
Linearity with Power +/--%	2
Energy Mode	
Energy Range	500mJ – 200J
Energy Scales	200J / 20J
Minimum Energy mJ	500mJ
Maximum Energy Density J/cm <sup>2</sup>	
<100ns	0.05
1 $\mu\text{s}$	0.3
0.5ms	20
2ms	50
10ms	200
Cooling	water
Minimum Water Flow Rate at Full Power	10 liter/min <sup>(b)</sup>
Fiber Adapters	Consult Ophir representative
Accessories for High Power Sensors	See pages 67, 68 & 69
Weight Kg	1.2
Version	
<b>Part Number</b>	<b>7Z02759S</b>
Notes: (a)	Calibrated for ~0.8 $\mu\text{m}$ , 1.064 $\mu\text{m}$ and 10.6 $\mu\text{m}$
Notes: (b)	Water temperature range 18-30°C. Water temperature rate of change <1°C/min. Pressure drop across sensor 0.03MPa.
Notes: (c)	LP1 sensors have relatively large spectral variation in absorption and have a calibrated spectral curve at all wavelengths in their spectral range to the above specified accuracy. Nova, Orion and LaserStar meters do not support this feature and when used with those meters, accuracy will be the stated accuracy for 1.06 $\mu\text{m}$ , 10.6 $\mu\text{m}$ , 0.8 $\mu\text{m}$ and an additional $\pm 3\%$ for other wavelengths in the spectral range 600 – 1100nm.

L1500W-LP1-50



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