1.1.2.7 High Power Thermal Sensors

1.1.2.7.3 High Power Water Cooled Thermal Sensors

1W to 2000W

Features

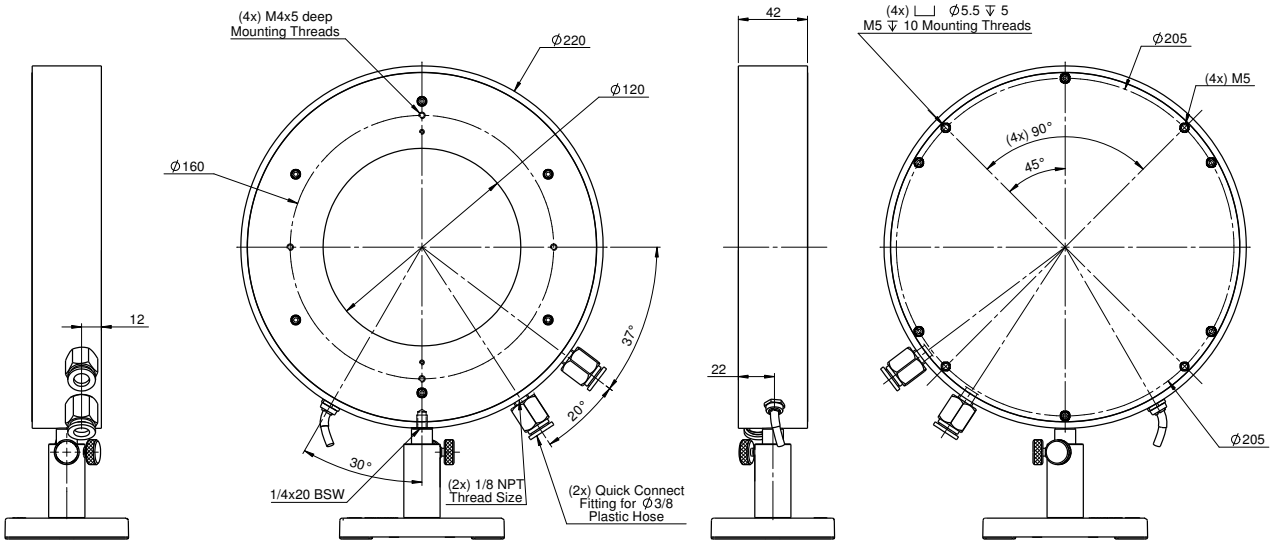
- Very large aperture
- Broadband or Pulsed absorber
- Up to 2000W
- Ø120mm aperture

L2000W-BB-120 / L2000W-PF-120

Model	L2000W-BB-120	L2000W-PF-120
Use	**Very large beams**	**Very large beams, short pulses, high average power**
Absorber Type	Broadband	PF volume absorber
Spectral Range µm	0.19 – 20	0.3 – 2.2
Aperture mm	Ø120mm	Ø120mm
Power Mode		
Power Range	1W – 2000W	1W – 2000W
Maximum Intermittent Power	NA	NA
Power Scales	2000W / 200W	2000W / 200W
Power Noise Level	50mW	50mW
Maximum Average Power Density W/cm²	700 at 1000W, 150 at 1500W, 60 at 2000W	600
Response Time with Meter (0-95%) typ. s	7	7
Calibration Uncertainty ±%	1.9	1.9
Power Accuracy ±%	3 [a]	3 [a]
Linearity with Power ±%	2	2
Energy Mode		
Energy Range	6J – 6000J	6J – 6000J
Energy Scales	6kJ / 600J / 60J	6kJ / 600J / 60J
Minimum Energy	6J	6J
Maximum Energy Density J/cm²		Single 10 – 50Hz [c]
<100ns	0.3	3 [d] 1.5
1µs	0.4	3 [d] 1.5
0.5ms	5	7 7
2ms	10	15 15
10ms	30	40 40
1s	4000	3000 NA
Cooling	Water	Water
Minimum and Recommended Water Flow Rate at Full Power	3.5 liter/min 6 liter/min [b]	3.5 liter/min 6 liter/min [b]
Fiber Adapters	Consult Ophir representative	Consult Ophir representative
Accessories for High Power Sensors	See pages 99-102	See pages 99-102
Weight kg	4.5	4.5
Compliance	CE, UKCA, China RoHS	CE, UKCA, China RoHS
Version		
Part number	**7Z02751**	**7Z02792**
Notes: (a)	Calibrated for ~0.8µm, 1.064µm and 10.6µm	Calibrated for 1.07µm. Max additional error at other wavelengths not specified above: ±1%
Notes: (b)	Water temperature range 18-30°C. Water temperature rate of change <1°C/min. Pressure drop across sensor 0.06MPa.	Water temperature range 18-30°C. Water temperature rate of change <1°C/min. Pressure drop across sensor 0.06MPa.
Notes: (c)		For 10-50Hz derate as follows: 1064nm not derated 532nm not derated 355nm 70% of stated value 266nm 15% of stated value 193nm 10% of stated value
Notes: (d)		Damage threshold 1.5J/cm² for wavelengths <500nm

* For drawings please see page 84

L2000W-BB-120 / L2000W-PF-120



Front Side

Back Side