

High Power Water Cooled Thermal Sensors

› PRODUCT FEATURE AND SPECIFICATIONS:



- Very high powers
- Powers up to 11kW
- Water cooled
- Up to Ø45mm apertures

Performance		5000W-BB-50	10K-W-BB-45
Absorber Type		Broadband	Beam deflector + broadband absorber
Spectral Range	µm	0.19-20	0.8 2 10.6
Aperture	mm	Ø50	Ø45
Power Mode			
Power Range	W	20-5000	100-10000
Power Scales	W	5000/500	10000/6000/600
Power Noise Level	W	1	1
Maximum Average Power Density	kW/cm2	3 at 3kW 1.7 at 5kW	For Circular Beam Centered Within ¼ Of Beam Diameter. Improperly Centered Beam Can Cause Damage To Sensor. Maximum Tilt Angle ±5 Degrees. And See Table (1) Below
Response Time with Meter	typ.s	3	2.7
Calibration Uncertainty	%	±1.9	±1.9
Power Accuracy	%	±4*	±5*
Linearity with Power	%	±2	±2
Cooling		water	water
Fiber Adapters		QBH	QBH
Minimum Water Flow Rate at full power	liter/min	5/8	8
Cable Length	m	1.5	5
Weight	kg	2.8	4.5

*Notes: Calibrated for ~0.8µm, 1.064µm and 10.6µm Calibrated at 1.07µm and 10.6µm. For other wavelengths in the range 0.8 – 2µm add up to ±2% to the calibration error

Table(1):	Beam diameter <15mm 15 - 20mm	Max power density		Max energy density	
				1ms pulse width	3ms pulse width
		10kW/cm2	30J/cm2	60J/cm2	150J/cm2
		7kW/cm2	20J/cm2	40J/cm2	100J/cm2
	20 - 40mm	5kW/cm2	15J/cm2	30J/cm2	70J/cm2
	40 - 45mm	4kW/cm2	12J/cm2	25J/cm2	60J/cm2

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› DIMENSIONS

