



Water-Cooled Thermopile Sensors to 5 kW

Compact, Water-Cooled Laser Power Sensors

These compact sensors are particularly useful when space is an issue. They must be water-cooled to achieve the full power rating, and they can also be used air-cooled (stand-alone or mounted to a heat sink) for stand-alone intermittent application of power.

FEATURES

- Compact designs
- Use water-cooled or air-cooled
- 19 mm and 50 mm apertures

APPLICATIONS

- Medical
- Scientific
- Industrial
- General Laser Power Measurement to 5 kW



Water-Cooled Thermopile USB/RS Sensors to 5 kW Datasheet

SPECIFICATIONS	PM10-19C	PM150-19C	PM150-50C	PM300
Wavelength Range (μm)	0.25 to 11			
Power Range (water-cooled)	10 mW to 10 W	300 mW to 150 W	300 mW to 150 W	1 W to 300 W
Maximum Intermittent Power (W) (<5 min.)	5 ¹	20 ¹	80 ¹	450 ²
Long-Pulse Joules Range (J)	0.5 to 10	1 to 150	1 to 150	–
Resolution (mW)	1	30	30	100
Maximum Power Density (kW/cm ²)	6			
Maximum Energy Density (mJ/cm ²)	600, 1064 nm, 10 ns			
Response Time (sec.)	2	2	5	5
Detector Coating	Broadband			
Active Area Diameter (mm)	19	19	50	19
Calibration Uncertainty (%) (k=2)	±1			
Calibration Wavelength (μm)	514			
Cooling Method	Water-cooled			
Cable Type	PM DB-25			
Cable Length (m)	2			
Part Number	1098397	1098444	1098412 ³	1141474

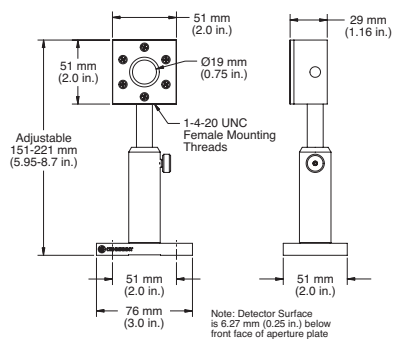
¹ This intermittent power rating is for when the sensor is used without water-cooling.

² This intermittent power rating is for when the sensor is used with water-cooling.

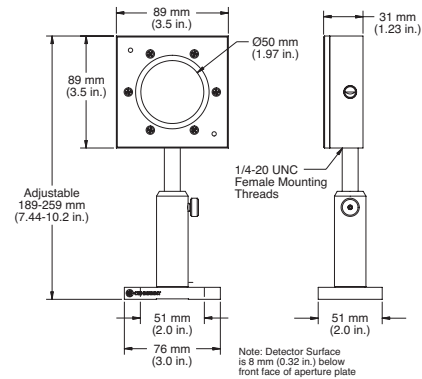
³ 1 Day Ship program: eligible for next business day shipment.

MECHANICAL SPECIFICATIONS

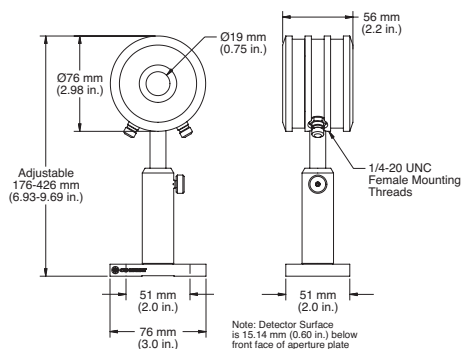
PM10-19C/PM150-19C



PM150-50C



PM300



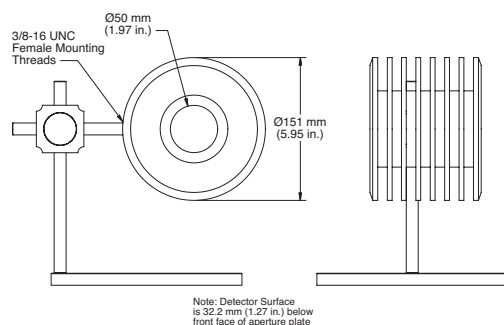
Water-Cooled Thermopile USB/RS Sensors to 5 kW Datasheet

SPECIFICATIONS	PM150X	PM150-50XC
Wavelength Range (μm)	0.15 to 1.064	
Power Range	300 mW to 150 W	
Maximum Intermittent Power (W) (<5 min.)	300	80 (air-cooled)
Long-Pulse Joules Range (J)	1 to 150	
Resolution (mW)	30	
Maximum Power Density (kW/cm^2)	6	
Maximum Energy Density (mJ/cm^2)	600, 1064 nm, 10 ns	
Response Time (sec.)	5	
Detector Coating	UV	
Active Area Diameter (mm)	50	
Calibration Uncertainty (%) ($k=2$)	± 1	
Calibration Wavelength (μm)	514	
Cooling Method	Air-cooled	Water-cooled
Cable Type	PM DB-25	
Cable Length (m)	2	
Part Number	1098455	1098443 ¹

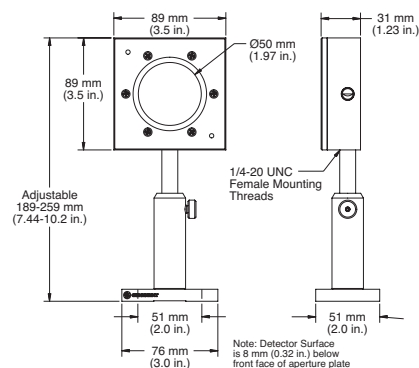
¹ Water fittings are included with PM150-50XC.

MECHANICAL SPECIFICATIONS

PM150X



PM150-50XC



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Thermopile Sensors. For full details of this warranty coverage, please refer to the Service section at www.coherent.com or contact your local Sales or Service Representative.
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