

# 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

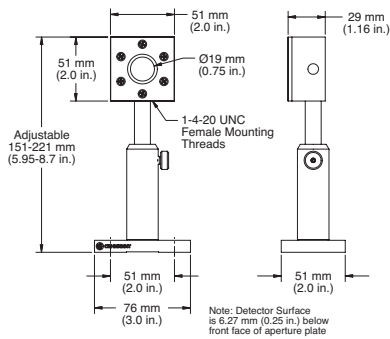


SPECIFICATIONS	PM10-19C	PM150-19C	PM150-50C	PM300
Wavelength Range ( $\mu\text{m}$ )	0.25 to 11			
Power Range (water-cooled)	10 mW to 10 W	300 mW to 150 W	300 mW to 150 W	1 W to 300 W
Maximum Intermittent Power (W) (<5 min.)	5 <sup>1</sup>	20 <sup>1</sup>	80 <sup>1</sup>	450 <sup>2</sup>
Long-Pulse Joules Range (J)	0.5 to 10	1 to 150	1 to 150	–
Resolution (mW)	1	30	30	100
Maximum Power Density ( $\text{kW}/\text{cm}^2$ )	6			
Maximum Energy Density ( $\text{mJ}/\text{cm}^2$ )	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)	$\pm 1$			
Calibration Wavelength ( $\mu\text{m}$ )	514			
Cooling Method	Water-cooled			
Cable Type	PM DB-25			
Cable Length (m)	2			
Part Number	1098397	1098444	1098412 <sup>3</sup>	1141474

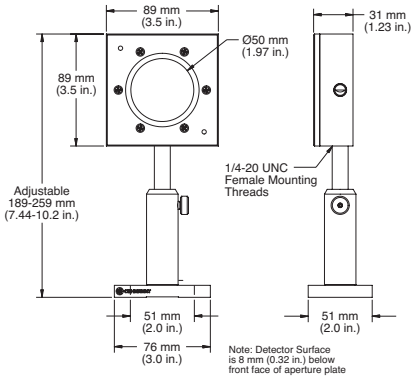
1 This intermittent power rating is for when the sensor is used without water-cooling.  
2 This intermittent power rating is for when the sensor is used with water-cooling.  
3 1 Day Ship program: eligible for next business day shipment.

## MECHANICAL SPECIFICATIONS

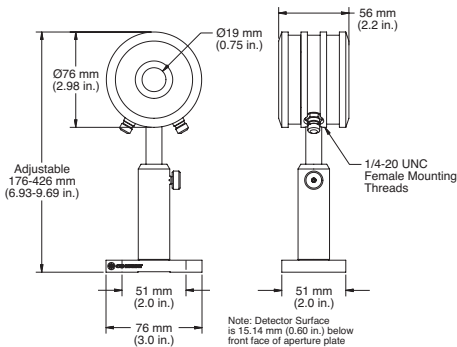
### PM10-19C/PM150-19C



### PM150-50C



### PM300



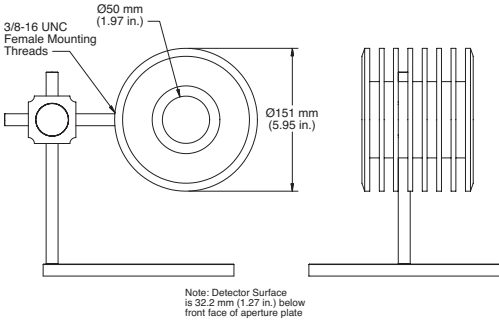
Water-Cooled Thermopile Sensors to 5 kW Datasheet

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/cm²)	6	
Maximum Energy Density (mJ/cm²)	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	1098443¹

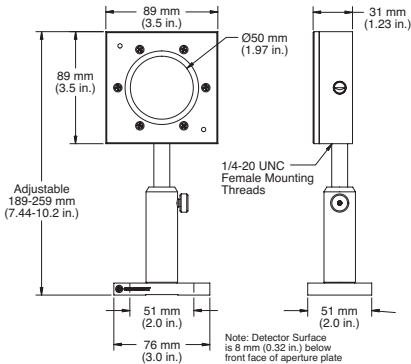
¹ Water fittings are included with PM150-50XC.

MECHANICAL SPECIFICATIONS

PM150X



PM150-50XC



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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](http://www.coherent.com) or contact your local Sales or Service Representative.  
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