



# Position Sensing Water-Cooled Thermopile Sensors to 5 kW

## Sensors Useful for Non-Visible Beams

These unique position sensing thermopiles display the position of the incident beam on the sensor disk, in addition to measuring power when used with the LabMax and LabMax-Pro meters. This information allows the user to safely and precisely align the sensor and the beam being measured. This is particularly useful for non-visible beams.

Water-cooling and careful thermal management within these sensors enable them to deliver the ultimate in high power handling capacity. They can capably measure industrial CO<sub>2</sub> and Nd:YAG lasers at power levels up to 5 kW.

### FEATURES

- 100 W to 5000 W range
- Broadband coatings
- 0.25 to 10.6  $\mu\text{m}$  spectral range
- Compact water-cooled design
- Large 38 mm or 55 mm diameter aperture
- Excellent for high-power CO<sub>2</sub> and Nd:YAG lasers

### APPLICATIONS

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



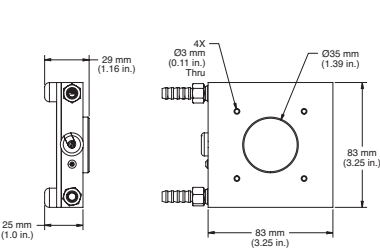
Position Sensing Water-Cooled Thermopile Sensors to 5 kW Datasheet

| SPECIFICATIONS   | BeamFinder          | LM-1000      | LM-2500     | LM-5000     |
|--|---------------------|--------------|-------------|-------------|
| Wavelength Range (µm)                                    | 0.3 to 10.6         | 0.25 to 10.6 |             |             |
| Power Range (W)  | 100 to 1000         |              | 100 to 2500 | 100 to 5000 |
| Resolution (W)   | 1                   |              |             |             |
| Maximum Power Density <sup>1</sup> (kW/cm <sup>2</sup> ) | 1 to 2.5            |              |             |             |
| Maximum Energy Density (mJ/cm <sup>2</sup> )             | 600, 1064 nm, 10 ns |              |             |             |
| Detector Coating   | Broadband           |              |             |             |
| Active Area Diameter (mm)                                | 35                  | 38           | 56          |             |
| Calibration Uncertainty (%) (k=2)                        | ±5                  |              |             |             |
| Calibration Wavelength (nm)                              | 10.6                |              |             |             |
| Cooling Method   | Water-cooled        |              |             |             |
| Cable Type   | LM DB-25            |              |             |             |
| Cable Length (m)   | 6                   |              |             |             |
| Part Number  | 1098427             | 1098409      | 1098437     | 1098421     |

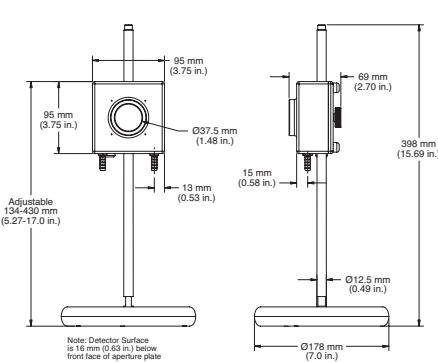
1 The damage resistance of the coating is dependent upon the beam size and profile, the average power level, and the water flow rate. Contact Coherent or your local representative for details related to your application.

MECHANICAL SPECIFICATIONS

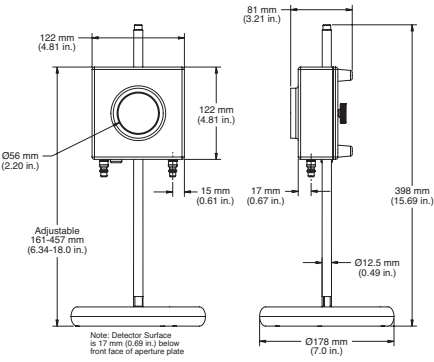
BeamFinder



LM-1000



LM-2500/LM-5000



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

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