



# High-Peak-Power Thermopile Sensors

## Designed for Use With Pulsed High-Peak-Power, Low Repetition Rate

These sensors are designed for use with pulsed high-peak-power, low repetition rate, Q-switched Nd:YAG lasers. A volume-absorbing substrate mounted in front of the detector absorbs the bulk of the laser energy, thus preventing all of the laser energy from striking the front surface of the detector element. These sensors are intended to be used at relatively low repetition rates of approximately 10 pps.

The PM10V1 and PM30V1 utilize a volume absorber and have a damage threshold of 2 J/cm<sup>2</sup> at 1064.

A removable front aperture to allows easy replacement of the volume-absorbing substrate, should it be damaged. Replacements can be ordered separately (PMV1-KIT, part number 0011-8935).

### FEATURES & BENEFITS

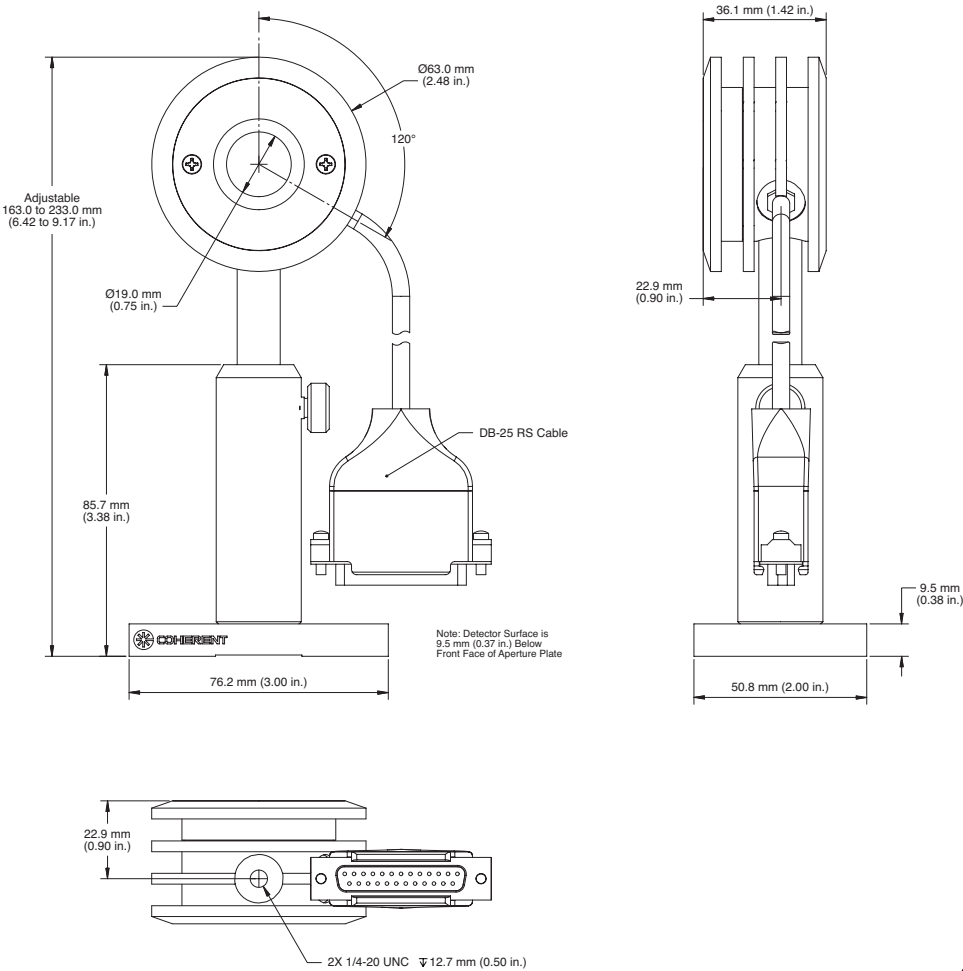
- Volume absorber
- High peak power handling capability
- 2 J/cm<sup>2</sup> at 1064
- 19 mm aperture
- RoHS compliant



SPECIFICATIONS	PM10V1	PM30V1
Wavelength Range (nm)	0.25 to 3	
Power Range	10 mW to 10 W	100 mW to 30 W
Noise Intermittent Power (<5 min.) (W)	15	50
Resolution (mW)	1	10
Maximum Avg. Power Density (W/cm <sup>2</sup> )	50	
Maximum Pulse Energy Density (J/cm <sup>2</sup> )	2 (10 ns, 1064 nm)	
Response Time (sec.)	3	
Detector Coating	Volume Absorbing	
Active Area Diameter (mm)	19	
Calibration Uncertainty (%) (k=2)	±1	
Calibration Wavelength (nm)	514	
Cooling Method	Air	
Cable Type	PM DB-25	
Cable Length (m)	2	
Part Number	1098338	1098429

MECHANICAL SPECIFICATIONS

PM10V1

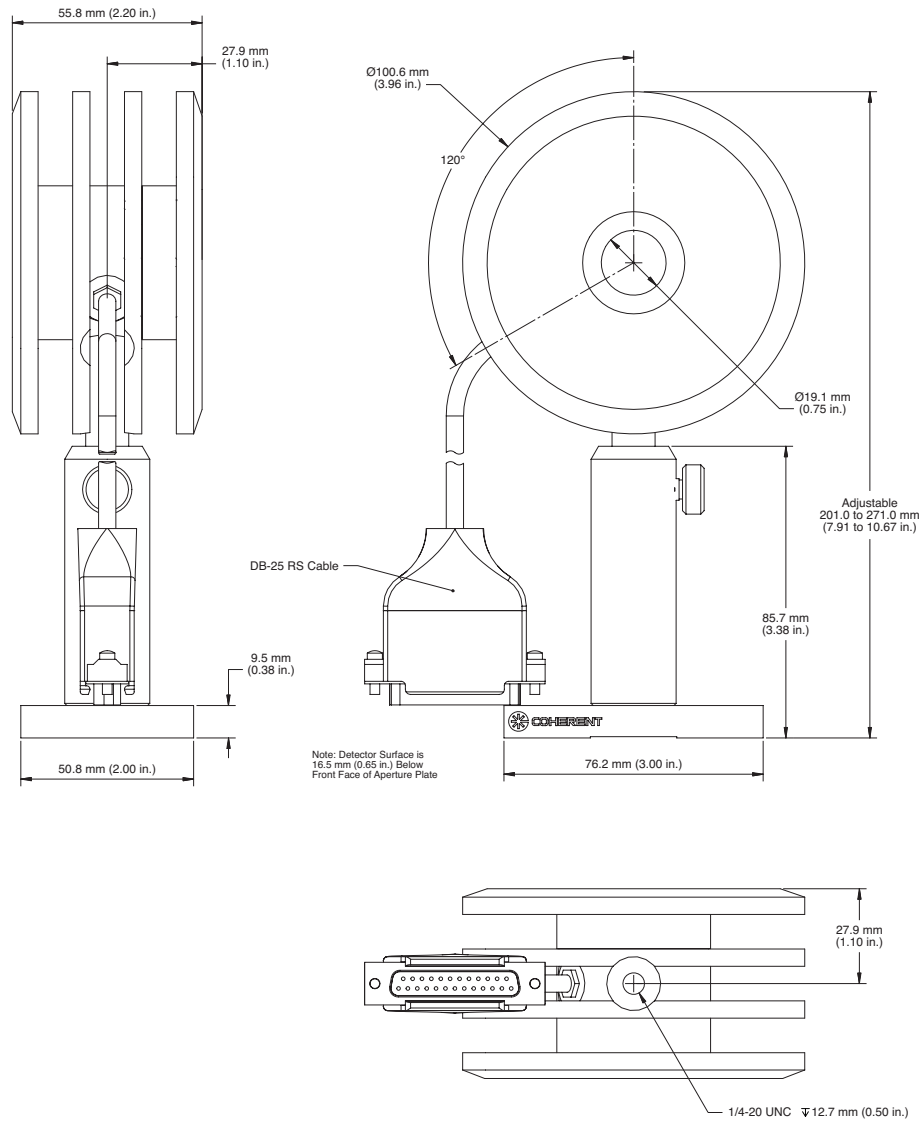




## High-Peak-Power Thermopile Sensors Datasheet

### MECHANICAL SPECIFICATIONS

#### PM30V1



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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 High-Peak-Power 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. MC-017-20-0M0621Rev.A Copyright ©2021 Coherent, Inc.