

PowerMax-USB/RS Sensors

10 mW to 25W



Models LM-45, LM-10, LM-3

Features

- Thermopile detector element for high power measurements
- Measures beam position on detector surface
- Noise equivalent power down to 0.4 mW
- Large 16 mm and 19 mm apertures



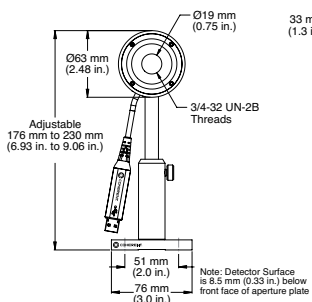
Thermopile sensors are a great all-purpose technology suitable for many lasers. They are used for measuring CW laser power, average power in pulsed lasers, and are often used to integrate the energy of long pulses. Thermopiles operate across a wide range of input powers, and unlike a photodiode-based sensor they will not saturate. These unique thermopiles incorporate a quadrant thermopile detector disk that enables them to sense the position of the laser beam on the detector surface while measuring the laser power. Fiber optic adapters are available on page 42.

Device Specifications	Model	LM-3	LM-10	LM-45
Wavelength Range (μm)			0.25 to 10.6	
Power Range		10 mW to 3W	10 mW to 10W	100 mW to 25W
Max. Intermittent Power (W)(<5 min.)		10	12	45
Long-Pulse Joules (J)		0.5 to 10	0.5 to 10	0.5 to 50
Noise Equivalent Power (mW)		0.4	0.4	2
Maximum Power Density (kW/cm ²)			6	
Maximum Energy Density (mJ/cm ²)			600 (10 ns, 1064 nm)	
Response Time (sec.)(0% to 95%)				
Speed-up On		2	2	3
Speed-up Off		4	4	4
Detector Coating			Broadband	
Detector Element			Thermopile	
Optic			None	
Detector Diameter (mm)		19	16	19
Calibration Uncertainty (%) (k=2)			±2	
Power Linearity (%)			±1	
Spectral Compensation Accuracy (%)			±1.5	
Long-Pulse Joules Accuracy (%)			±3	
Calibration Wavelength (nm)			10,600	
Cooling Method			Air	
Cable Type			USB and RS	
Cable Length (m)			2.5 (USB)/0.3 (RS)	
Part Number ¹		1168339 (USB)	1168340 (USB)** 1168341 (RS)	1168342 (USB)** 1211474 (RS)

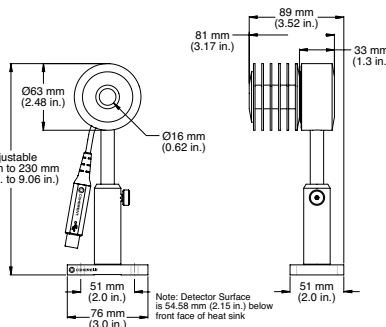
¹ Software and post stand included.

**C24 Quick Ship program: eligible for next business day shipment.

LM-3



LM-10



LM-45

