

# Multipurpose EnergyMax Sensors

# High Damage Threshold, Large Area, Laser Energy Sensors for a Wide Variety of Uses

The Multipurpose EnergyMax measure laser pulse energy over a wide range of wavelengths (190 nm to 12  $\mu$ m), beam diameters, average power levels and repetition rates. The incorporate Coherent's unique MaxBlack coating, which offers high damage resistance and mechanical durability characteristics.

These sensors are compatible with Coherent LabMax-Pro SSIM, LabMax-TOP, FieldMax-TOP, and FieldMaxII-P meters. USB and RS-232 enabled models are also available.

### **FEATURES**

- MaxBlack coating delivers high damage threshold and mechanical durability
- Operate over the 190 nm to 12 μm range
- Enable pulse energy measurements from 300 nJ to 2 J
- Measure single shot to 1 kHz repetition rate

#### APPLICATIONS

- Medical
- Scientific
- Industrial



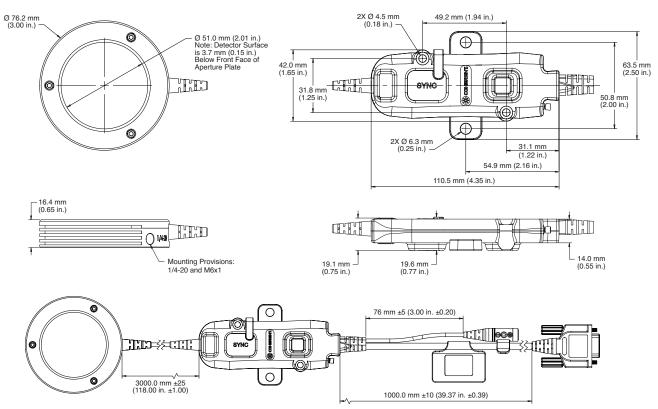
SPECIFICATIONS	J-50MB-HE	J-50MB-LE	J-25MB-HE	J-25MB-LE	J-10MB-HE	J-10MB-LE	
Energy Range	1 mJ to 2 J	250 µJ to 500 mJ	500 μJ to 1 J	25 μJ to 50 mJ	10 µJ to 20 mJ	300 nJ to 600 µJ	
Noise Equivalent Energy	<33 µJ	<8 µJ	<16 µJ	<1 µJ	<0.5 µJ	<20 nJ	
Wavelength Range (µm)	0.19 to 12						
Active Area Diameter (mm)	5	50		25		10	
Maximum Average Power <sup>1</sup> (W)	1	10		5		4	
Maximum Pulse Width (µs)	57		17				
Maximum Repetition Rate (pps)	30	00	1000				
Maximum Energy Density (mJ/cm <sup>2</sup> )	500 (at 1064 nm, 10 ns)						
Detector Coating	MaxBlack						
Diffuser	No						
Calibration Wavelength (nm)	1064						
Calibration Uncertainty (%) (k=2)	±2						
Energy Linearity (%)	±3						
Cable Length <sup>2</sup> (m)	2.5						
Cable Type	J DB-25						
Part Number	1110573 <sup>3</sup>	1110576 <sup>3</sup>	1110746 <sup>3</sup>	1110743 <sup>3</sup>	1110843 <sup>3</sup>	1110855 <sup>3</sup>	

1 Extend average power range with optional heat sink.

Cable lengths up to 10m possible. Contact factory.
1 Day Ship program: eligible for next business day shipment.

## **MECHANICAL SPECIFICATIONS**

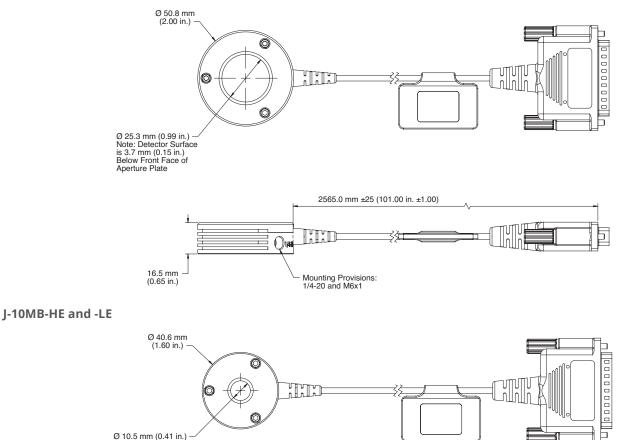
#### J-50MB-HE and -LE





#### **MECHANICAL SPECIFICATIONS**

J-25MB-HE and -LE



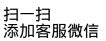
Ø 10.5 mm (0.41 in.) — Note: Detector Surface is 3.7 mm (0.15 in.) Below Front Face of Aperture Plate



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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 EnergyMax 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. MC-026-21-0M0821 Copyright ©2021 Coherent, Inc.