Excimer Laser EnergyMax Sensors

Energy Range 90 µJ to 1 J

Coherent Excimer Laser EnergyMax sensors are specifically optimized for use with ArF lasers operating at 193 nm and with KrF lasers at 248 nm. Excimer Laser EnergyMax Series sensors feature high accuracy and large active area (up to 50 mm), and utilize a novel coating that delivers superior long-term damage resistance.

The Excimer Laser EnergyMax Series comprises four different models, two that are optimized for operation at 193 nm and two that are intended for 248 nm (although all models are capable of producing accurate measurements throughout the UV, visible and near IR). These sensors utilize our MaxUV coating,which delivers high damage threshold at deep UV wavelengths, as well as excellent resistance to long-term UV exposure, and enables operation at repetition rates of up to 500 Hz.

FEATURES

- Unique MaxUV coating delivers increased damage threshold, long term UV exposure resistance and high repetition rate operation
- Operate over the 190 nm to 2.1 µm range
- Enable pulse energy measurements from 90 µJ to 1 J
- Measure single shot to 500 Hz repetition rate
- Direct USB and RS-232 interfaces – PC Application Software included

APPLICATIONS

- Medical
- Scientific
- Industrial
- Excimer Laser Applications

COHERENT®
Superior Reliability & Performance

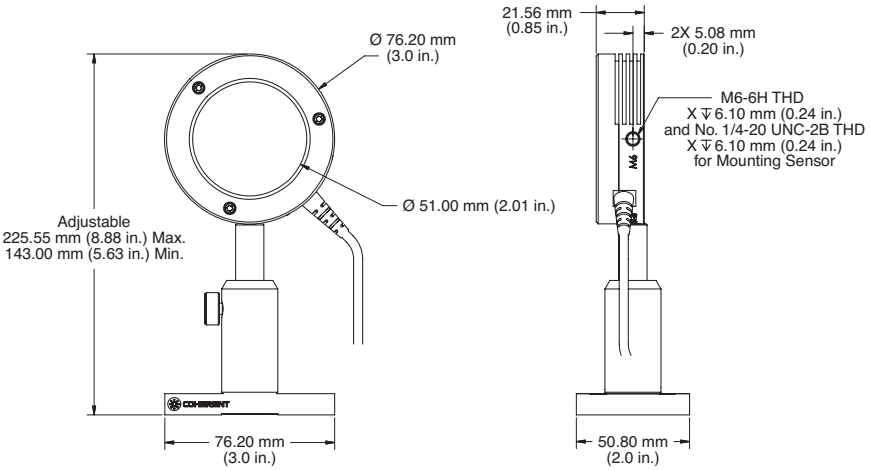
SPECIFICATIONS	J-50MUV-248 w/ Diffuser	J-50MUV-193 w/o Diffuser
Energy Range	800 µJ to 1 J	200 µJ to 250 mJ
Noise Equivalent Energy (µJ)	<80	<20
Wavelength Range (µm)	0.19 to 0.266	0.19 to 2.1
Active Area Diameter (mm)	50	50
Max. Average Power[1] (W)	15	10
Max. Pulse Width (µs)	86	86
Max. Rep. Rate (pps)	200	200
Max. Energy Density (mJ/cm^2)	520 (at 248 nm, 10 ns)	200 (at 193 nm, 10 ns)
Detector Coating	MaxUV	
Diffuser	DUV	No
Calibration Wavelength (nm)	248	193
Calibration Uncertainty (%) (k=2)	±3	
Energy Linearity (%)	±3	
Cable Length (m)	3	
Cable Type	USB	
Part Number	1191449	1289935

SPECIFICATIONS	J-25MUV-248 w/o Diffuser	J-25MUV-193 w/o Diffuser
Energy Range	200 µJ to 250 mJ	90 µJ to 100 mJ
Noise Equivalent Energy (µJ)	<20	<9
Wavelength Range (µm)	0.19 to 2.1	0.19 to 2.1
Active Area Diameter (mm)	25	25
Max. Average Power[1] (W)	5	5
Max. Pulse Width (µs)	43	43
Max. Rep. Rate (pps)	500	500
Max. Energy Density (mJ/cm^2)	260 (at 248 nm, 10 ns)	200 (at 193 nm, 10 ns)
Detector Coating	MaxUV	
Diffuser	No	No
Calibration Wavelength (nm)	248	193
Calibration Uncertainty (%) (k=2)	±3	
Energy Linearity (%)	±3	
Cable Length (m)	3	
Cable Type	USB	
Part Number	1378159	1191448

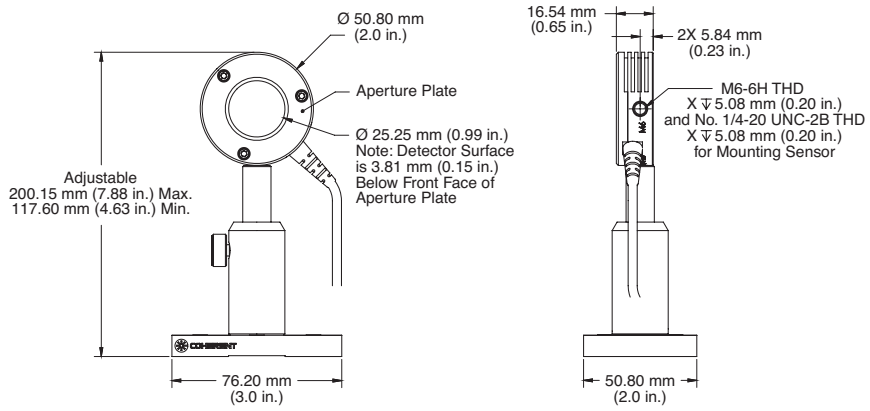
1 Extend average power range with optional heat sink.

MECHANICAL SPECIFICATIONS

J-50MUV-248



J-25MUV-193



COHERENT

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