



Excimer Laser EnergyMax Sensors

Energy Range 50 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 tolong-term UV exposure, and enables operation at repetition rates of up to 400 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 50 μJ to 1 J
- Measure single shot to 200 Hz repetition rate

APPLICATIONS

- Medical
- Scientific
- Industrial
- Excimer Laser Applications





SPECIFICATIONS	J-50MUV-248 w/o Diffuser	J-50MUV-248 w/ Diffuser	J-50MUV-193 w/o Diffuser	J-50MUV-193 w/ Diffuser
Energy Range	500 μJ to 1 J	500 μJ to 1 J	125 µJ to 250 mJ	125 µJ to 250 mJ
Noise Equivalent Energy (µJ)	<16	<16	<4	<4
Wavelength Range (µm)	0.19 to 2.1	0.19 to 0.266	0.19 to 2.1	0.19 to 0.266
Active Area Diameter (mm)	50	50	50	50
Max. Average Power¹ (W)	10	15	10	18
Max. Pulse Width (µs)	86	86	86	86
Max. Rep. Rate (pps)	200	200	200	200
Max. Energy Density	260 (at 248 nm, 10 ns)	520 (at 248 nm, 10 ns)	200 (at 193 nm, 10 ns)	400 (at 193 nm, 10 ns)
Detector Coating	MaxUV			
Diffuser	No	DUV	No	DUV
Calibration Wavelength (nm)	248	248	193	193
Calibration Uncertainty (%) (k=2)	±3			
Energy Linearity (%)	±3			
Cable Length ² (m)	2.5			
Cable Type	J DB-25			
Part Number	1146243	1110572³	1146237	1110575

SPECIFICATIONS	J-25MUV-248 w/o Diffuser	J-25MUV-193 w/o Diffuser		
Energy Range	125 µJ to 250 mJ	50 µJ to 100 mJ		
Noise Equivalent Energy (µJ)	<4	<2		
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	260 (at 248 nm, 10 ns)	200 (at 193 nm, 10 ns)		
Detector Coating				
Diffuser	No	No		
Calibration Wavelength (nm)	248	193		
Calibration Uncertainty (%) (k=2)	±3			
Energy Linearity (%)	±3			
Cable Length ² (m)	2.5			
Cable Type	J D	J DB-25		
Part Number	1110745³	1110741		



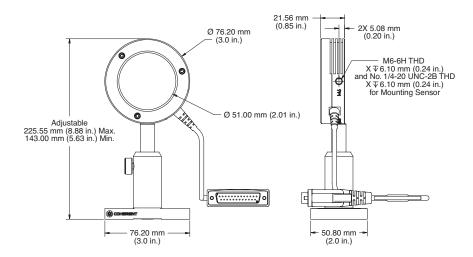
Extend average power range with optional heat sink.
Cable lengths up to 10 m possible. Contact factory.
1 Day Ship program: eligible for next business day shipment.



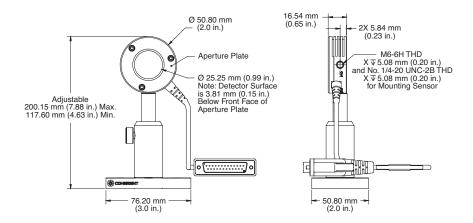
Excimer Laser EnergyMax Sensors Datasheet

MECHANICAL SPECIFICATIONS

J-50MUV-248 and -193



J-25MUV-248 and -193





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