

## SXJ-A: Analog Joulemeter



### Features:

- ✓ **NIST Traceable calibration**
- ✓ **Spectral Range:**
  - Silicon: 0.2 to 1.1  $\mu\text{m}$
  - Pyroelectric: 0.1 to 1000  $\mu\text{m}$
- ✓ **Energy Range:**
  - Silicon: 2 pJ to 1  $\mu\text{J}$
  - Pyroelectric: 60 nJ to 1 mJ
- ✓ **Rep Rate > 40,000 pps**
- ✓ **Battery or AC operation**

### Fast, Analog Laser Joulemeter Probes

We've introduced a new line of Analog Joulemeter probes based on our unique Modular Instrument approach. We've combined state of the art Pyroelectric and Silicon Detectors with high performance SMT electronic circuits and a flexible, shielded housing to create a versatile, multi-range, Laser Joulemeter Probe.

Our probes are battery or AC powered and feature an optical front bezel that allows for use of ND filters, windows or optics. Using a 4-position DIP Switch that is accessed by removing the front bezel, you can select the Rv and RC Time Constant of the Joulemeter probe. You can choose between high Rv or low Rv and short or long RC time constant to easily accommodate any pulse width or energy.

Mate our **SXJ-A Joulemeter** to your standard oscilloscope and measure from fJ to  $\mu\text{J}$  with our Silicon probes and nJ to mJ with our Pyroelectric probes, and from 1 pulse to >40,000 pps. Our Joulemeter probe include precise calibration against a NIST traceable standard and a Calibration Certificate.

Spectrum Detector Inc.  
Detector solutions that cover the spectrum.

### SXJ-A Analog Joulemeter: Fast, Analog Laser Joulemeter Probes

	SPJ-A-8	SPJ-A-8-0B	SSJ-A-5	SSJ-A-10	Units & Notes
Sensor Type	Pyroelectric	Pyroelectric	Silicon	Silicon	
Detector Size	7.8 x 7.8	7.8 x 7.8	5	10	mm
Wavelength Range	0.1 to 1000	0.1 to 1000	0.2 to 1.1	0.2 to 1.1	$\mu\text{m}$
Energy Range: High Rv	0.1 $\mu\text{J}$ to 1mJ	60nJ to 600 $\mu\text{J}$	2pJ to 20nJ	2pJ to 20nJ	Switch Selectable
Energy Range: Low Rv	5 $\mu\text{J}$ to 50mJ	3 $\mu\text{J}$ to 30mJ	0.1nJ to 1 $\mu\text{U}$	0.1nJ to 1 $\mu\text{U}$	Switch Selectable
Responsivity (Rv) High	20 KV/J	30 KV/J	1 GV/J	1 GV/J	Switch Selectable
Responsivity (Rv) Low	400 V/J	600 V/J	20 MV/J	20 MV/J	Switch Selectable
RC Time Constant: Short	500 $\mu\text{sec}$	500 $\mu\text{sec}$	500 $\mu\text{sec}$	500 $\mu\text{sec}$	Switch Selectable
RC Time Constant: Long	5 msec	5 msec	5 msec	5 msec	Switch Selectable
Max Rep Rate	> 40,000	400	> 40,000	> 40,000	PPS
Max Average Power	1W/cm <sup>2</sup>	1W/cm <sup>2</sup>	1mW/cm <sup>2</sup>	1mW/cm <sup>2</sup>	
Max Energy Density	50 mJ/cm <sup>2</sup>	50 mJ/cm <sup>2</sup>	5 $\mu\text{J}$ /cm <sup>2</sup>	5 $\mu\text{J}$ /cm <sup>2</sup>	10 nsec
Coating Type	Chromium	Organic Black	n/a	n/a	
Power Supply: Battery	9	9	9	9	Volts
Power Supply: Battery Eliminator	Yes	Yes	Yes	Yes	

