Rk-3260
Laser Power Meter

- **UV Enhanced Response 180 - 1100 nm**
- **pW - 1 W with Built-In Attenuator**
- **Fast Response Analog Meter**
- **Large Area Detector**

The Rk-3260 Laser Power Meter is a rugged, easy to use instrument ideal for laboratory or field measurement of near-UV to near-IR, low power light sources. It consists of a compact detector assembly, or head, and an analog meter power display. The large area, UV-enhanced silicon detector measures from 180 nm to 1.1 μm, covering many common laser wavelengths. The oversized, backlit analog meter displays cw or average power from picowatts to 1 Watt, with no time lag or overshoot.

The Rk-3260 is well suited to a number of tasks. It is simple to operate, making it an excellent teaching tool for university physics, optics, and holography programs. Use it on the production line to align laser optics, measure the throughput of filters and attenuators, or do QC on LEDs. Mate it with a UV-A or UV-B filter to do germicidal research. Other applications include laser diode development, and safety assurance for the laser entertainment industry. Field technicians will appreciate the system's sensitivity and fast response time when repairing or calibrating lasers. Use the Rk-3260 to measure HeNe, Argon, Nd:YAG, and other low to mid-power lasers. It works equally well with laser diodes, LEDs, and white light lamps.

The Rk-3260 probe is built around a state-of-the-art silicon detector. This large area (10 x 10 mm) detector provides unparalleled convenience and versatility while retaining the sensitivity normally associated with smaller detectors. The UV grade quartz window extends the spectral response below 200 nm without sacrificing performance in the near-IR, particularly at the Nd:YAG fundamental wavelength (1064 nm).

The system is calibrated for absolute accuracy at 632.8 nm (HeNe laser wavelength). Typical wavelength response curves for the detector, attenuator, and detector/attenuator combination are provided, in order to correct the measured data for wavelengths other than 632.8 nm. A 3 O.D.

LaserProbe inc.

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SPECIFICATIONS

Spectral response (see curve)	200 - 1100 nm
Maximum total power (with attenuator)	1 mW (1 W)
Max. average power density	5.0 mW/cm^2 (5 W/cm^2)
Noise equivalent power (with attenuator)	1 pW (1 nW)
Calibration accuracy	± 5%
Linearity	± 0.5%
Detector active area dimensions	10 x 10 mm (1.0 cm^2)
Full scale ranges (with attenuator)	11; 10 nW to 1 mW (10 μW to 1W)
Head dimensions (dia x depth)	6.0 cm x 4.6 cm (2.4" x 1.8")
Meter dimensions (h x w x d)	9.0 cm x 19.2 cm x 22.1 cm (3.6" x 7.6" x 8.7")
System weight (head and readout)	2.1 kg (4.5 lb)

attenuator is provided to extend the power handling capability to 1W, giving the system more than 11 decades of dynamic range.

The compact probe housing measures 2.35" (6.0 cm) in diameter by 1.8" (4.6 cm) deep. The side-mounted BNC connector requires no additional clearance in the optical path. Standard metric and English mounting holes and a 1" (25 mm) filter holder facilitate use, while the black anodized finish reduces unwanted back-reflection.

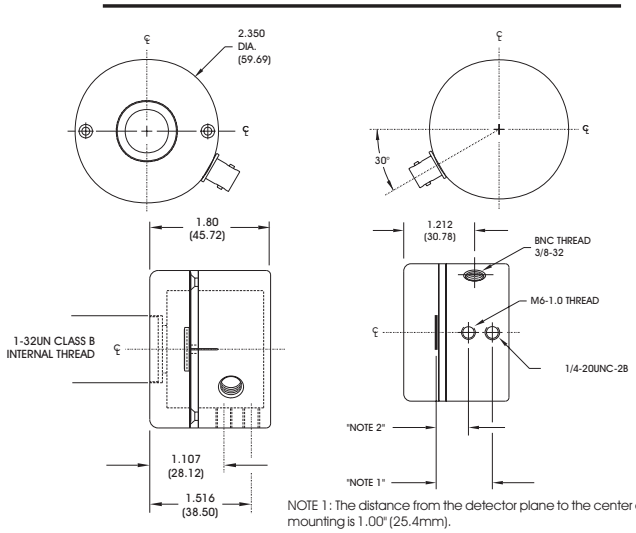
The Rk-3260 power meter features an oversized, backlit, dual-scale analog display. System response time is less than 2 seconds, resulting in smooth, real-time needle movement - none of the frustrating lag and overshoot associated with other meters that make it difficult to tweak a laser system.

Front panel controls include the Zero Adjust knob, Range Select knob, and Range Select switch. The Zero Adjust allows for compensation of unwanted background radiation, and to a lesser extent, wavelength responsivity of the detector. The Range Select knob selects the appropriate full scale range for the incident power level. There are two sets of ranges, clearly differentiated by color. The black values represent the full-scale ranges available for the probe alone; the blue values indicate the ranges available when the 3 O.D. filter is used. The two position Range Select toggle switch selects the proper set of full-scale range values.

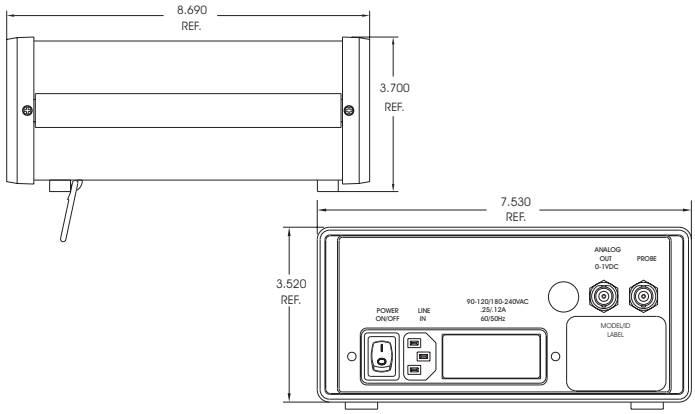
Rear panel features include the universal power entry module (90-240 V, 50-60 Hz input), Probe BNC, and Analog Out BNC. The Analog Output is 0-1 VDC, with 1 Volt corresponding to full scale for the selected range. Collapsible feet allow the viewing angle to be optimized to the experimental setup.

There are a number of options and accessories available for the Rk-3260, including a precision aperture, light baffle, and the kTA-141 support stand. Contact the factory for additional information.

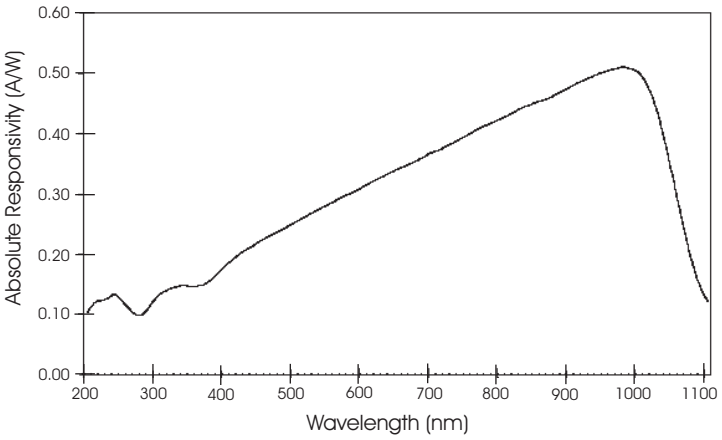
All Rk-3000 Series instruments are provided with a certificate of calibration showing traceability to the National Institute of Standards and Technology (NIST) and compliance with MIL-45662 and ANSI-Z540 Sections 7-18.



NOTE 1: The distance from the detector plane to the center of the ¼ - 20 mounting is 1.00" (25.4mm).
NOTE 2: The distance from the detector plane to the center line of the M6 mounting is .552" (14.02mm)



Spectral Curve



As a result of our ongoing commitment to product improvement specifications are subject to change without notice.

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