

IL1700 Radiometer

Microprocessor controlled UV measurement device features 10 factor memory for multiple detector, filter and diffuser combinations



IL1700 Radiometer - Front



IL1700 Radiometer - Back

Features:

- May be battery powered for field measurement capability
- Analog output
- Data processing capability
- Integrate mode for pulsed sources
- Programmable for direct readout in any optical units
- Includes carrying case for portability

Specifications:

- Dynamic Range
From 1 x 10⁻¹² W/cm² to over 1 W/cm²
- Spectral Range
From 190 nm to 3.5 microns
- Current Accuracy
Full scale accuracy of +/- 0.2%
- Linearity
+/- 0.1% +/- 1 digit

When the **IL1700 Research Radiometer** is combined with its standard package of detectors, filters and input optics, this system provides a choice of over 200 different spectral and spatial measurement capabilities. Featuring microprocessor controlled circuitry, the IL1700 also incorporates continuous memory for storing ten sensitivity factors when using different detector, filter, diffuser combinations.

Ranging can be set for automatic or fixed, and provides direct reading on a 3-1/2 digit (plus exponent) display in the correct optical units appropriate for the sensor combination. "Auto 100%" offers direct transmission measurements using any stable light source as the reference. The "Auto Zero" function will zero the digital display within 2 seconds in the fixed or auto range mode. When Auto Ranging in the Integrate Mode, the user does not have to experiment to determine the correct range for flash measurements. Just touch "Auto Zero" to subtract ambient conditions, and then touch "Integrate" to capture the flash. "Hold" keeps a solid reading even after the room lights are turned on.

The IL1700 also features long-term integration accuracy. Accumulations over periods of weeks or months are possible without any degradation of accuracy. External signals can be used to either trigger the flash or to control the instrument from a remote source such as a computer. Data can also be sent out through an industry standard interface for data processing in off-the-shelf softwares. A user convenience switch configures the instrument to match up with either DTE or DCE equipment to get on line fast.

The versatility continues with field measurement capabilities by means of internal batteries or mobile power. Of course a.c. power input, standard in any country is compatible with the IL1700. Another innovation is the reverse bias mode. This increases the speed of most detectors and eliminates peak current saturation for flash measurements, for pulses as fast as 1 microsecond, yet gives you the choice of zero bias for low level work. The digital display is used to display the sensitivity factor as well as the detector output. The chart recorder output, with 2% resolution at 10% of full scale, is also auto ranging and provides a 1V full scale signal.

Item No.	Description
M007-001A	IL1700 RADIOMETER

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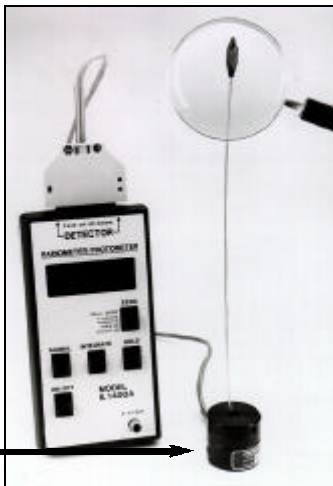


IL1700 Radiometer (back): with Photosensor & Power cables connected

1700 Sensor (Uncalibrated)

The IL1700 RADIOMETER system is designed for production line operation and development work to determine ideal exposure levels, times and wavelengths. The standard detector head can be used in production for monitoring relative lamp output. This S-5 response UV visible vacuum photodiode (uncalibrated) measures from 200 and 700 nanometers with good infrared rejection. It is mounted in a rugged aluminum housing with a 7 foot cable and connector.

Item No.	Description
M007-020B	1700 SENSOR (UNCALIBRATED)



Right Angle Probe

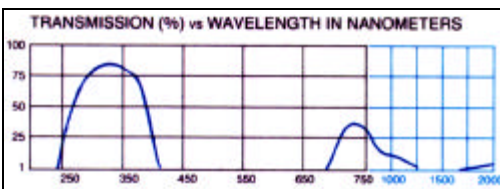
Right Angle Micro Probe & Right Angle Probe Adaptor

Compatible with the IL1700 Radiometer, the Right Angle Micro Probe makes short wave UV, visible and infrared measurements in hostile (high temperature) environments. It features a 90 degree viewing angle and a virtual sensing zone to quantize in the actual radiation application plane. This low profile probe fits into a 4 mm opening for use in a wide range of UV systems.

The Right Angle Micro Probe is designed to perform measurements from 200 to 2,000 nm in 350 degree F temperatures. A machined quartz head incorporated into a pure fused silica fiber within a stainless steel sheath measures 4 mm x 4 mm x 12.7 mm.

Available in 1, 2, and 3 ft lengths, the Right Angle Micro Probe can be installed into equipment permanently. The Right Angle Probe Adaptor is available for purchase separately.

Item No.	Description
M007-052	RIGHT ANGLE MICRO PROBE
M007-053	RIGHT ANGLE PROBE ADAPTOR



FILTERS

Neutral Density Filter

Quartz fiber optics and quartz rods are available to make measurements inside UV curing ovens. This 1 inch diameter, mounted quartz filter has an optical density of X. Narrow band filters and spectroradiometer detector heads can be used for research involving lamp spectral output. **Item No.** M007-018B.

Wide Band Filter

1 inch diameter mounted glass filter with peak transmission at 320 nm. Fits standard detector. **Item No.** M007-019B.

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