

L50(300)A-IPL Power/Energy Sensor

Ophir P/N 7Z02780 (RoHS)

User Notes

This measurement sensor is specially designed for measuring IPL Intense Pulsed Light sources and simulates how these sources are used when coupled to the skin for treatment using gel or water.

The sensor has a very large aperture so that it can capture the widely divergent beam of the IPL. In addition, it has a window which is uncoated on the front and antireflection coated on the rear so that the user can simulate the use of the IPL by coupling the output to the glass with gel or water.

The calibration of this measuring sensor is somewhat dependent on the angular distribution of the light from the source but is designed to be minimally so. The calibration has been set to an average value for such devices so that for most types the calibration will be correct within $\pm 8\%$.

The primary use of this sensor is to simulate treatment with gel or water coupling to the skin but the sensor is also calibrated for use of the IPL source using coupling through the air without contact to the skin. The sensor is also calibrated for use with a YAG laser since many treatment systems have a laser as well as an IPL.

Operation:

With IPL – GEL coupled

1. Smear a quantity of gel on the window so that when the IPL is placed on the window, the tip will be covered with gel.
2. Connect the sensor to the meter and set to energy on the correct energy range. Set the wavelength to "GEL"
3. Place the IPL tip gently on the gel on the window and fire the IPL source. The reading will appear on the meter.

Note: the window can be scratched and the IPL tip can be damaged if the tip is scraped while in contact with the window.

With IPL – AIR coupled

1. Connect the sensor to the meter and set to energy on the correct energy range. Set the wavelength to "AIR"
2. Place the IPL tip about 1cm above the detector window and fire the IPL source. The reading will appear on the meter.

With YAG laser:

1. Since the output of the YAG laser is not divergent, it is not necessary to optically couple the laser tip to the window. Make sure, though, that the window is clean and free of gel or other obstruction.
2. Connect the sensor to the meter and set to energy on the correct energy range. Set the wavelength to "1.06"
3. Point the laser tip at the center of the sensor at a distance of ~10cm and fire the laser. The reading will appear on the meter.

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