Laser Tissue Blood Oxygenation Monitor

BOM-L1TRSF

BOM-L1 TRSF is developed for measurement of blood volume and its oxygenation in a shallow part of tissue from the surface non-invasively and continuously.

BOM-L1 TRSF uses 3 red laser diodes, an optical fiber probe and a special algorithm.

BOM-L1 TRSF outputs the volume of oxy-Hb, deoxy-Hb and total Hb, and the oxygenation of the blood.

The measuring depth is about 2 - 5mm from surface, and it depends on the optical fiber separation.



Probe

8 L10mm





SPECIFICATION

Laser Diodes 635nm, 650 and 690nm

<2mW at the probe end

Probe Optical fiber

Output Tissue Oxygenated Blood Volume (Oxy-Hb)

Tissue Deoxygenated Blood Volume (Deoxy-Hb)

Total Tissue Blood Volume (Total Hb)

Oxygenation (StO2)

0-10V Analog

Indicator StO2, Total Hb, REFLEX(Received Power)

AVG 1, 2, 5 (sec) Select

Power requirement 100V, 120V or 240V AC, 0.2W

Size $257(W)\times98(H)\times324(D)$ mm

Weight 5kg

USE: Evaluation for brain condition after ischemia Muscle oxygenation measurement for small animals Evaluation for vasodilator

REF.: Susumu Kashima: Spectroscopic measurement of blood volume and its oxygenation in a small volume of tissue using red laser lights and differential calculation between two point detections, Optics & Laser Technology, 35, 485-489, 2003.



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