Laser Tissue Blood Flowmeter

OMEGAFLO Serise

Non-contact FLO-N1

Blood flow measurement without contacting the Probe

Blood flow value is averaged over wider area. Good reproducibility.

Contact FLO-C1

Conventional laser tissue blood flowmeter

Many kinds of probes are available.

Specialized probes can be ordered.

Continuously and non-invasively

Measurement without contacting the probe

FLO-N1

【Outline】

OMEGAFLO measures tissue blood flow, blood volume and flow velocity continuously and non-invasively. It is used for evaluation of the effect of drugs, transplantations and physiological research.

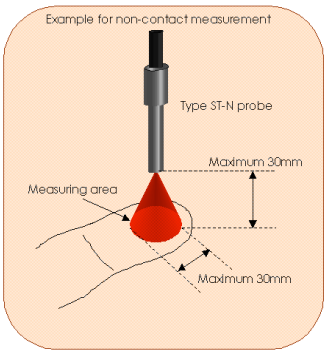
FLO-N1, the non-contact type, can measure- tissue blood flow without contacting the probe on tissue, and it allows measurment and operations on the tissue at the same time. The measurement depth- is about 1 mm from the tissue surface.

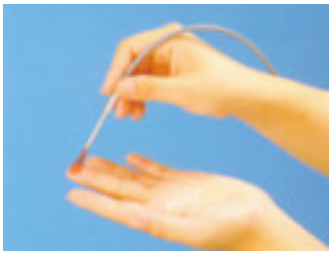
【Theory】

The tissue under study is irradiated by the laser light through the optical fiber probe, and the light is scattered many times in the tissue. Some of the photons are scattered by erythrocytes in the tissue, and light is shifted in frequency related to the moving velocity of the erythrocytes.

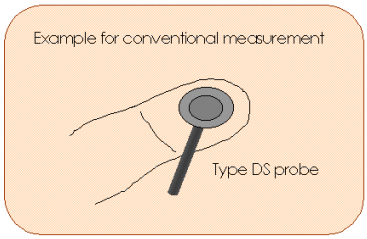
Also , the amplitude of the scattered light is propotional to the volume of the e rythrocytes in the tissue. The blood flow signals are obtained from the frequency shift and its amplitude.

[Type ST-N probe]





［Type DS probe］



Specification				
Model		ＦＬＯ－Ｎ１		ＦＬＯ－Ｃ１
Method		Non-contact		Contact
Laser Power at Probe		＜３ｍW		＜２ｍW
Measurement Area and Depth		Inside of the _15mmx1mm		about 1m ㎡ x1mm
laser		780nm		
Parameters		Tissue Blood Flow(FLOW) Tissue Blood Volume(MASS) Tissue Blood Velocity(VEL.)		
Indicator		FLOW, MASS, VELOCITY (Received Power)		
Output		FLOW, MASS, VELOCITY 0-10V Analog		
Time Constant		0.1/3.0/5.0 Sec		
Input Voltage		ＡＣ100-220V		
Size		256(W)_324(D)_69mm		
Weight		４ｋｇ		

OMEGAWAVE http://www.omegawave.co.jp

Head Office : Sun noble 2-20-3 katamachi, Fuchu, Tokyo, Japan