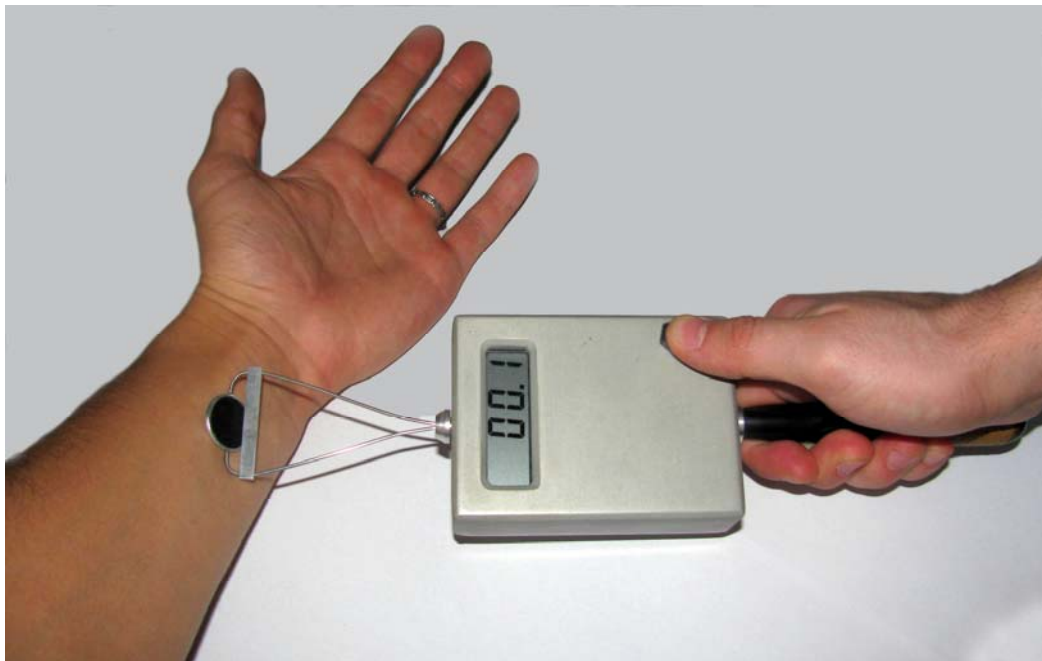




• The device is intended for measurement of heat flow density by contact method. It is used in medicine for the diagnostics of healthy and injured organs and tissue areas, control over treatment process, analysis of organism state under extreme conditions and determination of permissible physical loads.

• The operating principle of heat flow meter lies in heat flow conversion into electrical signal of equivalent value which is taken to digital display in the heat flow density units (W/cm^2).

Appearance of medical heat flow meter



• The device consists of primary heat flow converter (sensor) and electronic unit. The heat flow meter sensor is a densely packed battery of thermoelements made of high-performance semiconductor materials. The operating surface of the battery is sealed by epoxy compound layer. The sensor is connected to electronic unit that comprises signal converter and display for the indication of heat flow value.

• The advantages of this heat flow meter over the well-known analogs include enhanced resolution ($5 \cdot 10^{-4} W/cm^2$) combined with design simplicity of this device.

• The referred advantages enable one to detect inflammatory processes of human body at the early stages and to make express-diagnostics during mass examination of patients.

Parameters of medical heat flow meter

№	Parameter name, measurement unit	Value
1.	Range of heat flow measurement, W/cm ²	$5 \cdot 10^{-4} - 10^{-1}$
2.	Volt-watt sensitivity, V/W	2
3.	Time constant, s	1.5
4.	Operating temperature range, °C	10 – 70
5.	Sensor dimensions, mm	Ø20×2
6.	Device weight, kg	0.29

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