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Abstract

Apparatus and method for non-invasively measuring digit volumetric changes

The present invention provides an apparatus for non-invasively detecting and/or measuring volumetric changes of a digit comprising: (i) a detecting device comprising: a chamber for receiving a digit or a portion thereof; and a jacket comprising at least a resilient portion, wherein the chamber and the jacket are arranged such that when a liquid is placed between the chamber and the jacket, the liquid is sealed therein; and (ii) a means for detecting and/or measuring a volumetric change in the device. The apparatus may further comprise a liquid sealed between the chamber and the jacket. The present invention also provides a method for non-invasively detecting and/or measuring volumetric changes of a digit comprising the steps of: inserting a digit or a portion thereof into the chamber of the detecting device; adding a liquid such that the liquid is sealed between the chamber and the jacket of the detecting device; and detecting and/or measuring volumetric changes of the digit for a pre-determined period.

Fig. 1