

Title (en)
INDUCTIVE SENSOR

Title (de)
INDUKTIVER SENSOR

Title (fr)
DETECTEUR INDUCTIF

Publication
EP 1789757 A2 20070530 (EN)

Application
EP 05769737 A 20050809

Priority
• GB 2005003126 W 20050809
• GB 0417686 A 20040809

Abstract (en)
[origin: WO2006016147A2] A sensor for sensing an external parameter such as temperature or the presence of an object, for example a human finger, comprises: (i) an excitation coil (68,70); (ii) a signal generator (41, 61, 62, 63) operable to generate an excitation signal and arranged to apply the generated excitation signal to the excitation coil; (iii) a sensor coil (74) that can be electromagnetically coupled to the excitation coil via an intermediate device or target (74), normally in the form of a passive resonant circuit, such that, in response to the excitation signal being applied to the excitation coil by the signal generator, an electric signal is generated in the sensor coil; and (iv) a signal processor that processes the periodic electric signal generated in the sensor coil to determine a value representative of the parameter being sensed. The intermediate device is sensitive to the parameter to be sensed, for example by including PTC or NTC resistors, or capacitors that are affected by the proximity of an object, so that the periodic electric signal generated in the sensor coil is affected by the parameter. Also the sensor can generate a further signal at substantially the same frequency as the excitation signal, for example by means of an additional resonant circuit in the intermediate devices and the signal processor determines the value of the external parameter from the periodic signal generated in the sensor coil and the further signal. The sensor can, for example, be employed in arrays of touch actuated components in order to detect when an operator touches them.

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