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(54) **TACTILE SENSOR**

(75) Inventors: **Peer Schmidt**, Bochum (DE); **Eric Maël**, Berlin (DE); **Rolf Würtz**, Bochum (DE)

(73) Assignee: **Rubitec Gesellschaft für Innovation und Technologie der Ruhruniversität Bochum mbH**, Bochum (DE)

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*Primary Examiner*—N. Le

*Assistant Examiner*—Walter Benson

(74) *Attorney, Agent, or Firm*—Collard & Roe, P.C.

(57) **ABSTRACT**

The invention relates to a tactile sensor in which a fiber (1) is linked with an instrument transformer (4) which is configured as a capacitor in such a manner that if the free end of the fiber is touched by an object, the touch is converted to electric signals. The force acting between the object and the sensor is kept at a minimum by using soft, elastic fibers. The inventive tactile sensor is especially useful for applications in robotics since due to the appropriate arrangement of the sensor on the contact surface of the robot gripper the sensor function is independent of any forces that might occur during the manipulation of objection. Another advantage of the tactile sensor is that it allows the dynamic registration of touches, thereby making it possible to determine the relative speed between the sensor and the object and to detect gliding or slipping movements on the basis of detected vibrations.

**13 Claims, 4 Drawing Sheets**



















