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FABER et al.(10) **Pub. No.: US 2022/0376691 A1**(43) **Pub. Date: Nov. 24, 2022**(54) **DEVICE AND METHOD FOR DETECTING A
HAND GRASP WITH A TWO-ZONE SENSOR
IN THE STEERING WHEEL****Publication Classification**(51) **Int. Cl.****H03K 17/96** (2006.01)**B62D 1/04** (2006.01)(52) **U.S. Cl.****CPC** **H03K 17/962** (2013.01); **B62D 1/046**
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(57)

ABSTRACT

A method of operating a capacitive sensing device that includes exactly two electrically conductive antenna electrodes, which are placeable in two layers at a vehicle steering wheel rim, and a current measurement circuit for determining complex electric currents in the antenna electrodes. The method includes at least the following steps for constituting a measurement cycle: operating each one of the exactly two antenna electrodes in loading mode and determine the complex impedance of the respective antenna electrode; and generating a classification signal that is indicative of a present scenario, based on a fulfillment of at least one predetermined condition concerning at least one characteristic quantity of the first complex impedance as well as of the second complex impedance.

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