Title (en)

CAPACITIVE SENSORS FOR VEHICULAR ENVIRONMENTS

Title (de)

KAPAZITIVER SENSOR FÜR KRAFTWAGEN

Title (fr)

CAPTEURS CAPACITIFS POUR VEHICULES

Publication

EP 1192409 A2 20020403 (EN)

Application

EP 00914692 A 20000224

Priority

- US 0004765 W 20000224
- US 12165399 P 19990224
- US 13813999 P 19990608

Abstract (en)

[origin: WO0050261A2] Capacitive sensors used to detect force upon a transparency product for detecting and discriminating crash characteristics of a vehicle, as well as capacitive sensors used in conjunction with a conductive panel functioning as an airbag cover and ground plane for the capacitive sensors. The capacitive sensors are made up of electrodes, of which one may be a conductive coating. The capacitive sensors can be arranged upon a substrate and can include a reference sensor. Long term effects of temperature upon sensor output are compensated for with an algorithm comparing constant desired sensor output to low frequency drift due to temperature effects. Moisture upon a transparency product is distinguished from a nearby object due to the capacitance sensed. A sleep detection algorithm detects when a vehicle operator is drowsy. A capacitive sensor array having a nested circle sensor and L-shaped sensors, along with a dummy sensor is used in a sunroof-equipped vehicle for sensing occupant head position.

IPC 1-7

G01B 7/16; B60R 21/01; G01N 27/22; G08B 21/08; B60K 28/06; G06K 9/00

IPC 8 full level

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