

Title (en)

Apparatus to detect a changing operating parameter

Title (de)

Vorrichtung zur Erfassung eines veränderlichen Betriebsparameters

Title (fr)

Dispositif pour détecter un paramètre de fonctionnement variable

Publication

**EP 0457033 B1 19990707 (DE)**

Application

**EP 91105855 A 19910412**

Priority

DE 4015415 A 19900514

Abstract (en)

[origin: EP0457033A2] An apparatus for detecting a changing operating parameter of an internal combustion engine and/or of a motor vehicle, in particular for angular measurement is proposed, having at least two measuring devices which detect the respective operating parameter and have predetermined characteristics for the generation of signal variables which represent the operating parameter, the characteristics each having different forms, being linear over the value range of the operating parameter and the characteristic of at least one of the measuring devices deviating from those of the other measuring device or devices with respect to its gradient. Irregularities in the area of the common supply voltage of the measuring devices are then recognisable in that the signal variables of the measuring devices generated with deviating characteristics are placed in a relation with one another. <IMAGE>

IPC 1-7

**F02D 41/24; F02D 41/28; F02D 41/22; F02D 11/10**

IPC 8 full level

**B60R 16/02** (2006.01); **F02D 11/10** (2006.01); **F02D 41/22** (2006.01); **F02D 41/24** (2006.01); **F02D 41/28** (2006.01); **F02D 45/00** (2006.01)

CPC (source: EP US)

**F02D 11/106** (2013.01 - EP US); **F02D 41/28** (2013.01 - EP US); **F02D 2200/0404** (2013.01 - EP US); **F02D 2400/08** (2013.01 - EP US)

Citation (examination)

- DE 3510173 A1 19860227 - BOSCH GMBH ROBERT [DE]
- DE 3742592 A1 19890629 - PIERBURG GMBH [DE]

Cited by

DE10222467A1; DE19821682B4; DE10222468A1; US6302113B1; US6927566B2; US6948383B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 0457033 A2 19911121; EP 0457033 A3 19930303; EP 0457033 B1 19990707**; DE 4015415 A1 19911121; DE 4015415 B4 20040429; DE 59109138 D1 19990812; JP 3386824 B2 20030317; JP H04228853 A 19920818; US 5136880 A 19920811

DOCDB simple family (application)

**EP 91105855 A 19910412**; DE 4015415 A 19900514; DE 59109138 T 19910412; JP 10290391 A 19910509; US 69933191 A 19910513