Title (en)

MOVING PART EXTREME POSITION SENSING DEVICE

Publication

EP 0185945 B1 19890315 (DE)

Application

EP 85114945 A 19851126

Priority

DE 3445983 A 19841217

Abstract (en)

[origin: US4722313A] A method is disclosed for detecting an extreme value position of a movable part by means of a position detecting sensor. The method is especially suitable for detecting the idle position of the throttle flap of an internal combustion engine with the aid of a potentiometer. In this method, a stored value (extreme value) corresponding to the extreme position is corrected upon the detection of deviating measured values, provided that the deviating measured values lie within a correction range around the extreme value. The range of movement of the movable part has to lie within the range coverable by the position sensor. After a predetermined number of identical measured values are sensed in the correction range during an operating cycle, such a measured value is stored in memory as the new extreme value. For dynamic adaptation, this next extreme value is modified cyclically, preferably prior to each operating cycle, by a predetermined value away from the outermost position. While detecting the extreme position with a high accuracy, the method of the invention has a very small hysteresis, with the full function capability being restored after a short period, even under irregular operating conditions.

IPC 1-7

F02D 41/28; F02D 41/08

IPC 8 full level

F02D 35/00 (2006.01); **F02D 41/08** (2006.01); **F02D 41/24** (2006.01); **F02D 41/28** (2006.01); **F02D 45/00** (2006.01); **G01B 21/00** (2006.01); F02B 1/04 (2006.01)

CPC (source: EP US)

F02D 41/08 (2013.01 - EP US); **F02D 41/28** (2013.01 - EP US); F02B 1/04 (2013.01 - EP US); F02D 2250/16 (2013.01 - EP US)

Cited by

EP0297433A3; FR2616848A1; DE4335239C1; US5854545A; EP0210419A1; WO9011442A1; WO9104399A1; EP0264384B1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0185945 A2 19860702; **EP 0185945 A3 19870204**; **EP 0185945 B1 19890315**; DE 3445983 A1 19860619; DE 3568827 D1 19890420; JP S61145406 A 19860703; US 4722313 A 19880202

DOCDB simple family (application)

EP 85114945 A 19851126; DE 3445983 A 19841217; DE 3568827 T 19851126; JP 26162785 A 19851122; US 80901585 A 19851213