

Title (en)

Movement monitor for a single or multiple panel door or gate

Title (de)

Überwachung der Bewegung eines antreibbaren, ein- oder mehrteiligen Tür- oder Torblattes

Title (fr)

Surveillance de mouvement d'un vantail de porte ou de portail entraîné, vantail en une plusieurs parties

Publication

EP 0771923 B2 20100303 (DE)

Application

EP 96111204 A 19960711

Priority

DE 19540620 A 19951031

Abstract (en)

[origin: EP0771923A2] The monitoring method involves interrupting the door (3) movement if an obstruction is encountered. A physical operating parameter is measured during door movement depending on the movement distance or time. A movement interruption signal is generated if the measured value for the actual movement deviates from the desired value by greater than a defined amount, the desired value having been measured and stored during unobstructed operation. The derivative of the movement parameter is formed against distance or time for each measurement value. An interruption signal is generated if the current value for the movement characteristic differs to a defined extent from the corresp. value of a desired movement characteristic.

IPC 8 full level

E05D 15/38 (2006.01); **E05F 15/00** (2006.01); **E05F 15/16** (2006.01); **E05F 15/41** (2015.01); **E06B 9/02** (2006.01); **E06B 9/80** (2006.01); **E06B 9/84** (2006.01); **G05B 19/4061** (2006.01); **G05B 19/42** (2006.01); **H02H 7/085** (2006.01)

CPC (source: EP US)

E05F 15/41 (2015.01 - EP US); **E05Y 2900/106** (2013.01 - EP US)

Citation (opposition)

Opponent :

- DE 4000730 A1 19910801 - BOSCH GMBH ROBERT [DE], et al
- ROLF ISERMANN: "Überwachung und Fehlerdiagnose", 1 January 1994, VDI VERLAG GMBH, DÜSSELDORF, ISBN: 3540621784

Cited by

US6133703A; US6051947A; FR2808300A1; US6400112B1; US6414454B1; EP1149451B1; US6172475B1; US6229276B1; US6239569B1; US6246196B1; US6278249B1; US6417637B2; US6456022B1; US6683431B2; US6710560B2; US6720747B1; US6744231B2

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE

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EP 96111204 A 19960711; AT 96111204 T 19960711; DE 19540620 A 19951031; DE 59610729 T 19960711; ES 96111204 T 19960711; JP 28770996 A 19961030; US 74187296 A 19961028