Title (en)

METHOD FOR ELECTRICAL CONTROL OF PIEZOELECTRIC OR ELECTROSTRICTIVE ACTUATORS IN DRIVE MECHANISMS FOR STEP-BY-STEP MOTION

Title (de)

VERFAHREN ZUR ELEKTRISCHEN ANSTEUERUNG VON PIEZOELEKTRISCHEN ODER ELEKTROSTRIKTIVEN AKTUATOREN IN ANTRIEBEN FÜR EINE SCHRITTWEISE BEWEGUNG

Title (fr)

PROCEDES DE COMMANDE ELECTRIQUE D'ACTIONNEURS PIEZO-ELECTRIQUES OU ELECTROSTRICTIFS DANS DES MECANISMES D'ENTRAINEMENT POUR MOUVEMENT PAS A PAS

Publication

**EP 0976164 A1 20000202 (DE)**

Application

**EP 99911599 A 19990213**

Priority

- DE 9900411 W 19990213
- DE 19806127 A 19980214

Abstract (en)

[origin: DE19806127A1] The invention aims at improving the method for electrical control of piezoelectric or electrostrictive actuators in displacement and positioning devices so that, for instance, objects can be positioned with greater accuracy in the nm range by varying the step size, whereby the regulated position is maintained in a currentless or idle state. This is achieved in that the electrical voltage signal for controlling the actuator has an appropriate combination of ranges with slow voltage changing speeds and voltage flanks, whereby the voltage ranges of the voltage flanks determine the step size for the voltage signal which can be regulated without varying the operating voltage. The methods are particularly suitable for piezoelectric inertia drives which should have a variable step size and high position accuracy in a currentless state.

IPC 1-7 (main, further and additional classification)

**H01L 41/04**; H01L 41/09

IPC 8 full level (invention and additional information)

**H01L 41/04** (2006.01); **H01L 41/09** (2006.01); **H02N 2/06** (2006.01)

CPC (invention and additional information)

**H02N 2/067** (2013.01); **H02N 2/025** (2013.01)

Citation (search report)

See references of WO 9941791A1

Designated contracting state (EPC)

CH FR GB IT LI

DOCDB simple family

DE 19806127 A1 19990826; DE 19806127 B4 20050630; EP 0976164 A1 20000202; WO 9941791 A1 19990819