

Title (en)
DEVICE FOR CONTROLLING AN ELECTRONICALLY-MONITORED ULTRASONIC PIEZOELECTRIC ACTUATOR, AND METHOD FOR USING SAME

Title (de)
ELEKTRONISCHE STEUERVORRICHTUNG FÜR EINEN PIEZOELEKTRISCHEN ULTRASCHALLAKTUATOR UND DEREN BETRIEBSVERFAHREN

Title (fr)
DISPOSITIF DE COMMANDE D'UN ACTUATEUR PIEZO-ELECTRIQUE ULTRASONORE PILOTE ELECTRONIQUEMENT, ET SON PROCEDE DE MISE EN OEUVRE

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Application
EP 02796864 A 20021122

Priority
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• FR 0115125 A 20011122

Abstract (en)
[origin: FR2832563A1] The invention concerns a device for controlling an ultrasonic piezoelectric actuator, electronically monitored from a computer controlling a continuous current voltage source. The invention is characterized in that it comprises a DC to DC converter, powered by the voltage source, delivering at least in output a direct current voltage ($V_{s<sb>s</sb>}$) between two end terminals ($B_{<sb>1</sb>}$, $B_{<sb>2</sb>}$) parallel to which is connected at least an arm, consisting of two alternately controllable series-connected bridge switches and whereof the midpoint is alternately connected to the two output terminals of the DC to DC converter by a load consisting of at least an actuator in series with a resonance inductor.
[origin: FR2832563A1] A direct current convertor (C) steps up the voltage of a vehicle battery (B) to output terminals (B1,B2). Piezoelectric injection actuators (I) are selected in turn by switches (K) and placed in series with an inductor (L), the combined circuit being connected to the convertor terminals in alternating forward and reverse senses at high frequency by pairs of switches (P1,P2) and (P3,P4)

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