This Sheet Has Been Replaced

Abstract:

Torsional actuator and method of manufacturing same.

A torsional actuator (10) of monolithic piezo-electric ceramic which is arranged so as to form a multilayer structure, comprising electrodes (22, 23, 24) which are situated at least between the layers (20), and comprising head contacts (30 to 34) which are accessible from the outside and which serve to supply control voltages to the electrodes (22, 23, 24), to cause the actuator (10) to at least be twisted about its longitudinal axis (16), the electrodes (22, 23, 24) extend parallel to each other and end at a distance from the edges of the parallel piezo-electric layers (20), said electrodes being interrupted along the longitudinal axis (16) and comprising connecting surfaces for each group of electrodes which surfaces extend as far as the edges of the piezo-electric layers (20) where they are provided with lateral head contacts (30 to 34) in such a manner that, with respect to the centre lines (19, 39) of the end face (18) the first adjoining electrode in the first and fourth or in the second and third quadrant is always at a positive potential, while the other electrodes are at a negative potential with respect to a reference voltage of a central electrode (22), when the adjoining layers (20) are orthogonally and unidirectionally polarized with respect to electrode (22).