

ABSTRACT

PIEZOELECTRIC MOTOR HAVING AN ARRANGEMENT WHICH PROVIDES INFORMATION RELATIVE TO THE ROTOR POSITION AND/OR THE ROTOR'S NUMBER OF REVOLUTIONS

Along the inner lying rotor trailing surface (21) of an annular rotor (20) are successively provided regions (26a-c) of small wall thicknesses (29) and regions (25a-c) of larger wall thicknesses, which differ with respect to the acoustic impedance spectrum. During the state of operation, i.e. when the rotor (20) turns, the mentioned regions (24a-c; 25a-c) are excited alternately by the piezoelectric excitor (15) of the stator (13). The acoustic impedance spectrum which changes periodically, influences the electrical impedance spectrum of the motor (10) in an analogue manner. These changes are measured via the voltage supply connections of the motor (10) and are interpreted as relative positional changes between the stator (13) and the rotor (20).

Figure 1 of the drawings should accompany the abstract when published.