

Title (en)

MICROWAVE POSITION MEASUREMENT APPARATUS AND POSITION MEASUREMENT METHOD

Title (de)

MIKROWELLEN-POSITIONSMESSVORRICHTUNG UND POSITIONSMESSVERFAHREN

Title (fr)

DISPOSITIF DE MESURE DE POSITION HYPERFRÉQUENCE ET PROCÉDÉ DE MESURE DE POSITION

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Application

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Abstract (en)

[origin: WO2007128387A2] The invention relates to a position measurement method and a microwave position measurement apparatus for detecting the position of an actuator element (14) of an actuator (11), said element being arranged such that it can move in a movement area (12) of an actuator housing (13). The position measurement apparatus has a radio-frequency microwave antenna arrangement (34) for transmission of microwaves (43) of at least two frequencies (f1, f2, f3) that are different from each other into the movement area (12) and for reception of reflected microwaves (44) from the movement area (12) which are produced by at least partial reflection of the transmitted microwaves (43) on the actuator element, and evaluation means (42) for producing, on the basis of a measuring signal (50) produced by using the reflected microwaves (44), a position signal (52) which represents the respective position (x) of the actuator element (14). The microwave position measurement apparatus (30) is characterized in that the evaluation means (42), for producing the position signal (52), weights components (Ugl1a, Ugl2a, Ugl3a) of the measuring signal (50) which depend on the at least two frequencies (f1, f2, f3) that are different from each other depending on the respective position (x) of the actuator element (14).

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