Title (en)

METHOD AND APPARATUS FOR THE AUTONOMOUS CALIBRATION OF EXTENSION OR FORCE SENSORS

Title (de)

VERFAHREN UND VORRICHTUNG ZUM SELBSTTÄTIGEN KALIBRIEREN VON DEHNUNGS- ODER KRAFTAUFNEHMERN

Title (fr)

PROCÉDÉ ET DISPOSITIF D'ÉTALONNAGE AUTOMATIQUE DE CAPTEURS D'ALLONGEMENT OU DE FORCE

Publication

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Application

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Abstract (en)

[origin: WO2011098287A1] The invention relates to a method and an apparatus for autonomously calibrating extension (1) or force sensors comprising a strain gauge circuit (11) for converting a mechanical load into an electric output signal. In order to calibrate the sensor (1), a defined initial value is assigned in an evaluation circuit (13) in a first or unloaded operating state while a defined final value is assigned in the evaluation circuit (13) in a loaded operating state. In the operating state, the evaluation circuit (13) calculates corresponding displayable measured output values from the assigned initial and final values using a linear function. The invention is characterized in that the calibration is done autonomously in the permanently mounted operational sensor (1) by means of an evaluation circuit (13) that is integrated into the sensor (1). The initial value is stored in the evaluation circuit (13) using a controlled first switch signal, while the final value is stored in the evaluation circuit (13) using a controlled second switch signal, and the calibrated measured output values are calculated from said initial and final values according to the subsequent loads.

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