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Wallrafen

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(54) **MAGNETIC LENGTH MEASURING SYSTEM, LENGTH MEASURING METHOD AND METHOD FOR PRODUCING A MAGNETIC LENGTH MEASURING SYSTEM**

USPC 324/207.23, 207.24, 207.25
See application file for complete search history.

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(58) **Field of Classification Search**
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(57) **ABSTRACT**

A length measuring system includes a magnetic component having two helical magnetically conductive or magnetic elements which have first and second axial ends. The elements are arranged in an axially symmetrically manner relative each other along a common longitudinal axis such that a magnetic field can be formed between the elements, the angle of the field relative to the common longitudinal axis continuously rotating along a predetermined length. The length measuring system further includes a magnetic sensor which can be arranged between the two elements at a right angle to the common longitudinal axis of the elements and which is connected to an evaluation unit.

18 Claims, 2 Drawing Sheets

