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*Title: CONTACTLESS STRAIN MEASUREMENT SENSOR BASED ON AMORPHOUS FERROMAGNETIC MICROWIRES.*

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*Category: C*



# Catalog 3<sup>rd</sup> International Exhibition

## InventCor

15-17.12.2022 – Deva, Romania

CORNELIUGROUP  
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**Description:** *The contactless strain sensor consists of at least two segments of amorphous ferromagnetic microwires – a sensitive wire and at least one reference wire, mounted on a solid body. When an alternating magnetic field is applied, the sensor responds with impulses induced at the remagnetization. The hysteresis loop and coercive force of sensitive microwire with high positive magnetostriction increase with tensile strain.*

*The parameters of reference microwire do not depend on the deformation. Comparing the magnetic characteristics of the hysteresis loops, the magnitude of deformation is determined. The sensor can be applied in condition-based monitoring of bodies/equipment subjected to mechanical stress.*

*State of development: Laboratory level.*

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**Presentation link:** [www.utm.md](http://www.utm.md)