Press release

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**Precise measurement of battery films**

**Introducing the combiSENSOR KSB6430, Micro-Epsilon presents a precise sensor system for one-sided thickness measurement of electrode coatings in battery film production. This allows material thicknesses from 5 micrometers to be measured with sub-micrometer accuracy. The system is also extremely temperature-stable and insensitive to contamination.**

The combiSENSOR KSB6430 combines two different measuring principles and converts their advantages into precise thickness measurements. The measuring range of the sensor extends from 5 µm to 3 mm and is therefore designed for both very thin and thicker coatings. The housing contains both an eddy current sensor and a capacitive displacement sensor. These enable non-contact, one-sided, and high-precision thickness measurement of electrode coatings on metal substrates.

The sensor system detects the layer thickness on chrome-coated steel rollers that guide the material. The capacitive sensor provides the distance to the film coating, while the eddy current sensor detects the distance to the metal roller. The difference between the two measurement signals provides the exact coating thickness value with sub-micrometer accuracy.

The measurement takes place directly during the ongoing production process, which means that fast and reliable inline quality control can be performed. In demanding industrial environments, the system is insensitive to contamination and offers a high degree of temperature stability. It can be used in temperature ranges from -10 to +180 °C.

approx. 1,600 characters including spaces



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