Press release

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**Thickness and structure measurement of solar wafers**

**For quality monitoring after the sawing process, solar wafers require reliable thickness and structure measurement. The capacitive displacement sensors in the capaNCDT series measure reliably and with high precision. For this purpose, six capacitive sensors are positioned in pairs opposite each other on the conveyor belt. These evaluate a total of three thickness tracks. In addition to the thickness signal, the respective distance signal is also output. This allows the surface quality to be evaluated at the same time.**

The production of solar wafers starts with the raw wafers that are sawn from the so-called ingots. These must comply with a specified thickness of about 180 µm to be processed further as a good part.

Six capacitive sensors therefore measure the blanks on a conveyor belt. Two sensors are arranged opposite each other, so that a total of three thickness tracks can be evaluated. A multi-channel controller with integrated calculation directly determines the precise thickness signal, based on which the parts are evaluated as OK/NOK. In addition, the respective distance signal is also output and evaluated with regard to the surface quality or possible unevenness.

The solution with capacitive sensors has the advantage of precise and stable thickness measurements. Compared to optical systems, capacitive sensors are much more accurate here. The capaNCDT 6200 multi-channel system with integrated calculation option can also be used to output both the distance and thickness signals.

approx. 1,600 characters including spaces



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