Press release

No. 659e

**Strip stabilization in hot-dip coating lines**

**In hot-dip coating lines, steel strips are coated with liquid zinc, zinc alloys and aluminum alloys in a continuous process. Inductive sensors (eddy current) are used in electromagnetic systems for strip stabilization.**

In hot-dip coating lines, steel strips are coated with liquid zinc, zinc alloys and aluminum alloys in a continuous process. Vibrations occur due to the high speeds at which the strips travel. To minimize these vibrations, electromagnetic stabilization systems from the market leader EMG are used, in which 10 to 16 inductive EU40 sensors by Micro-Epsilon are installed.

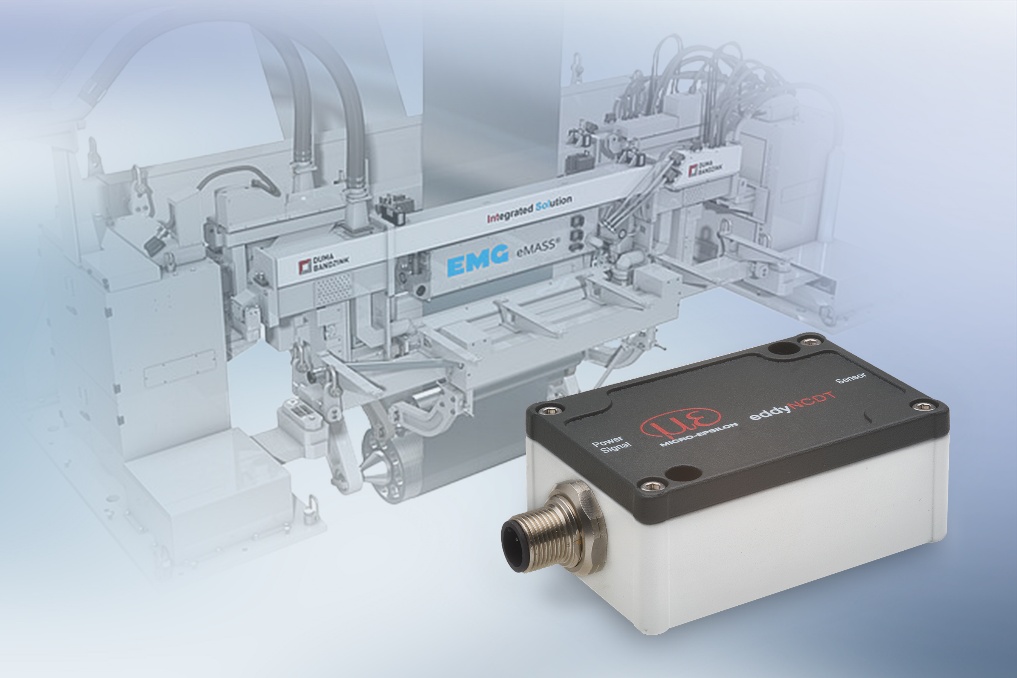
**Robust eddy current measuring system for demanding environmental conditions**

During the coating process, the sensors detect the vibrations as distance values without contact. These distance values are transmitted to the electromagnetic stabilization system, which enables continuous monitoring of the entire system and thus reliably reduces vibrations. The inductive sensors are extremely robust and can easily withstand the high temperatures and chemical and mechanical stresses of the line. They work with a large measuring range of 40 mm and are operated with the compact eddyNCDT 3020 industrial controller in a version adapted exclusively for the application and EMG (DT3029/EMG). The controller is also extremely robust and designed with a high IP67 protection class. Due to its compact design and high temperature resistance up to 105 °C, it can be integrated directly in the stabilization unit.

**Precise measurement results**

High EMC immunity ensures that the sensor-controller unit delivers stable measurement results even in the vicinity of electromagnets. Due to the short cable length of 1 m and the excellent temperature stability of the system, the precision and stability of the output signal is increased enormously. This output signal is transmitted to the control unit up to 50 m away via the analog current output.

*approx. 2,100 characters*

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