








More Precision

capa**NCDT** // Capacitive sensors for displacement, distance & gap



Sensor system for precise thickness measurement of electrode coatings

combiSENSOR KSB6430

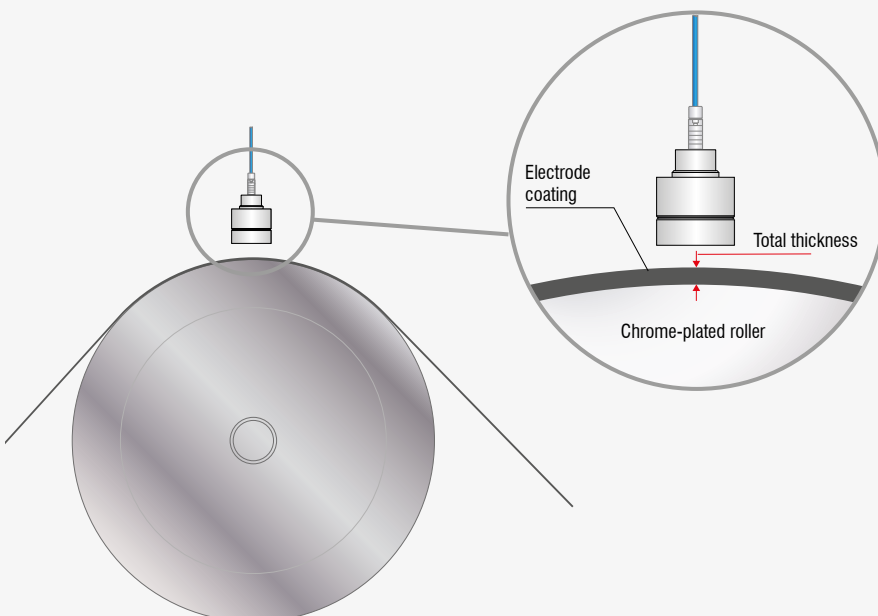
-  Extremely high-temperature resistance and stability from -10 °C to + 180 °C
-  **INTER FACE** PROFINET / EtherNet/IP, EtherCAT
-  One-sided thickness measurement with a target thickness from 5 μm to 3 mm
-  Repeatability from 0.5 μm
-  Measurement on steel rollers with chrome coating



The combiSENSOR KSB combines an eddy current sensor and a capacitive displacement sensor in a single housing, enabling precise, non-contact thickness measurement of electrode coatings on metallic surfaces.

Its high temperature stability allows for the combiSENSOR to provide constant measurement values even at fluctuating ambient temperatures. In addition, the sensor is resistant to soiling which makes it ideal for harsh industrial applications where reliability and precision are crucial factors.

| Controller | KSB6430 |
|-----------------------------|---|
| Sensor | KSH5(03) |
| Measuring range (thickness) | 5 μm ... 3 mm |
| Working distance | 2 mm ... 5 mm, best performance at 2.5 mm ... 4.0 mm |
| Resolution (100 Hz) | 0.02 μm |
| Repeatability | $\pm 0.5 \mu\text{m}$ |
| Frequency response (-3dB) | 1 kHz |



Measuring principle

The combiSENSOR KSB measures the coating thickness with a capacitive sensor to measure the distance from the coating and an eddy current sensor to measure the distance from the metal roller.

The difference between the two signals provides the total thickness of the medium, while mechanical influences are automatically compensated for.

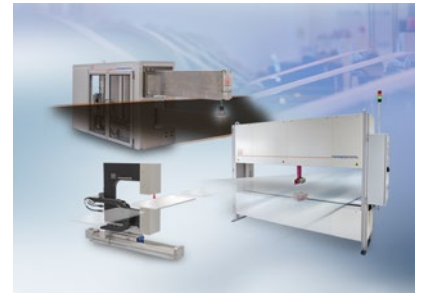
Sensors and Systems from Micro-Epsilon



Sensors and systems for displacement, distance and position



Sensors and measurement devices for non-contact temperature measurement



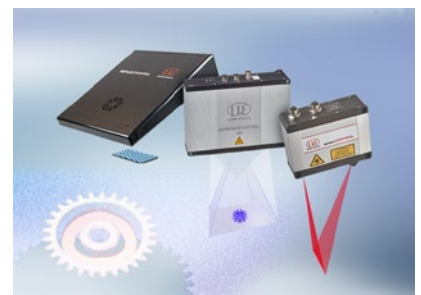
Measuring and inspection systems for metal strips, plastics and rubber



Optical micrometers and fiber optics, measuring and test amplifiers



Color recognition sensors, LED analyzers and inline color spectrometers



3D measurement technology for dimensional testing and surface inspection