SURAGUS
Sensors & Instruments

# EddyCus® inline MT – Metal Thickness Monitoring

P_inlineMT_23




## Highlights

- Contact-free and realtime
- Accurate measurement
- High degree of vasatility and flexibility
  - In- and ex-vacuo solutions
  - Fixed sensor and traverse solutions
  - Single-lane and multi-lane solutions
- High sample rate up to 1,000 measurements per second

## Sensor Series

- Metal layer thickness (nm, µm)
- Metal substrate thickness (µm)
- Sheet resistance (Ohm/sq)
- Conductivity / resistivity (mOhm·cm)
- Electrical anisotropy (%)
- Weight (g/m²) and drying status (%)
- Permeability (H/m) *Beta*

## Applications

- Semiconductor industry
- Electronic industry
- Metallization in photovoltaics
- Batteries, fuel cells, capacitors
- Boards and panels (PCB, WLP, PLP)
- Mirrors and lenses
- Barrier films
- EMC/EMI Shielding
- Heating and de-icing films
- Medical applications

## Materials

- Metal films
- Metal meshes
- Metal substrates
- Alloy films
- Alloy substrates

SURAGUS GmbH
Maria-Reiche-Strasse 1
01109 Dresden
Germany

For further questions:
+49 351 32 111 520
sales@suragus.com

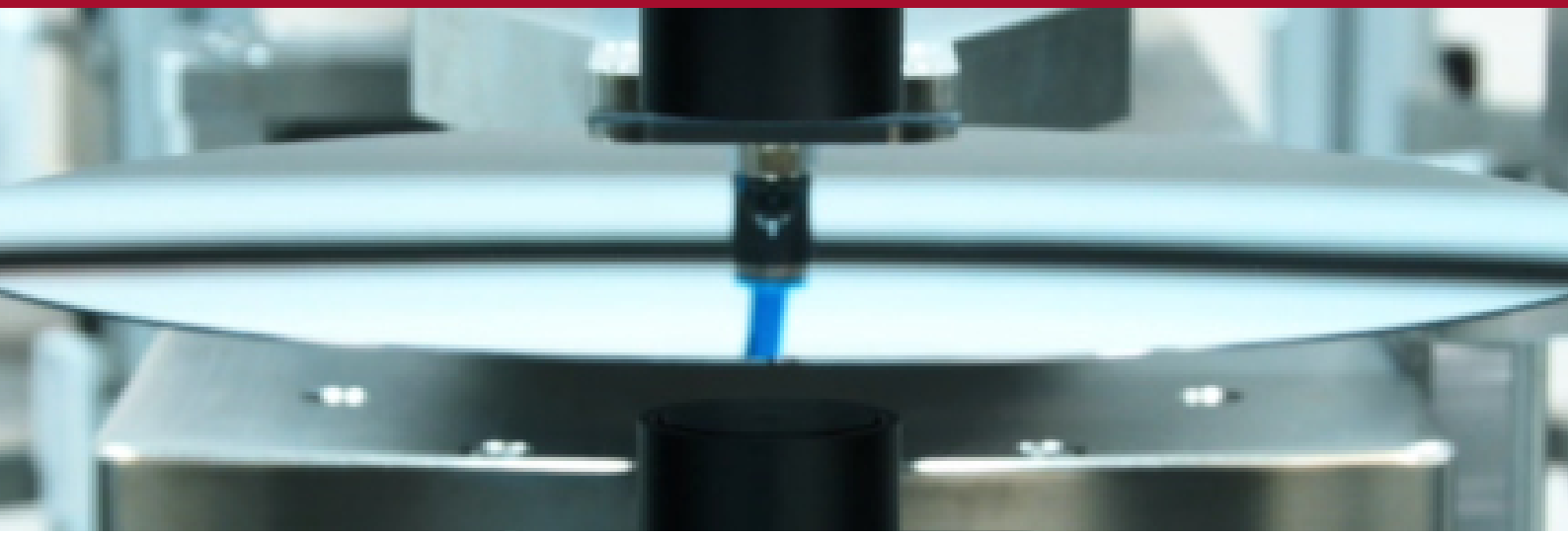
Visit us at:
www.suragus.com
www.suragus.com/calculator
www.suragus.com/EddyCusInline

Engineered and Made in Germany

TÜV SÜD ISO 9001

JEC GROUP WINNER OF 2016 INNOVATION AWARD

# EddyCus® inline MT – Metal Thickness Monitoring



| | |
|---|---|
| Measurement technology | Non-contact eddy current sensor |
| Substrates | Foil, glass, wafer, etc. |
| Measurement gap size | 3 / 5 / 10 / 15 / 25 / 50 mm (other upon request) |
| Number of monitoring lanes | 1 – 99 |
| Sensor sizes (W x L x H) in mm | Sensor M: 80 x 100 x 66  Sensor S: 34 x 48 x 117 |
| Conductive layers | Metals |
| Metal thickness range<br>Accuracies depend on the selected setup and the type / conductivity of the metal (e.g. copper, aluminum, silver) | Low  1 – 10 nm; 2 – 5 % accuracy<br>Standard  10 – 1,000 nm; 1 – 3 % accuracy<br>High  1 – 100 µm; 0.5 – 3 % accuracy |
| Metal thickness calibration | Direct thickness calibration / sheet resistance conversion |
| Other integrated measurements | Temperature (for integrated temperature drift compensation for long term measurements) |
| Environment | Ex-vacuo / in-vacuo @ T < 60°C / 140°F (higher upon request) |
| Sample rate | 1 / 10 / 50 / 100 / 1,000  measurements/s  (25,000 Hz upon request) |
| Hardware trigger | 24 V (5 or 12 V upon request) |
| Interfaces | UDP, TCP, .Net libraries, Modbus, Profinet, analog/digital, CSV, XML, other |
| Further available features / other tool configurations | Sheet resistance measurement / conductivity / resistivity / anisotropy / emissivity / permeability (*beta*) |

## Device Control and Software

- Several views and user levels
- Live view with upper and lower limits and alarm functions
- Analysis view providing statistics
- Can handle data of several thousands measurements per second
- Data storage into SQL database
- Customizable automated data export (csv, txt, xls,...)
- Several smart functions (automated DB cleaning, self-reference etc.)
- Parameterizable I/O modules (triggering of actions or alarms)