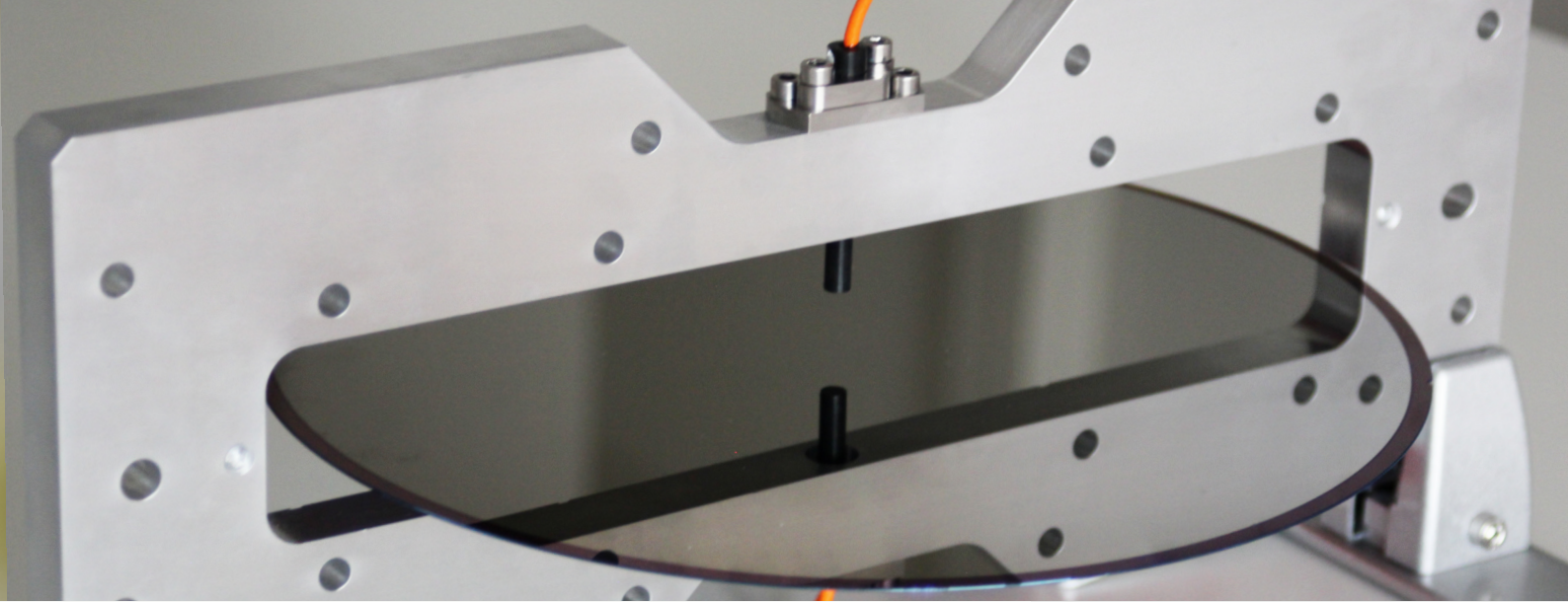


EddyCus® inline ICM – Interconnection Module for Quality Monitoring P_ICM_22



Highlights

- ▶ Non-contact and non-destructive
- ▶ Near-process monitoring
- ▶ High-speed and accurate
- ▶ High repeatability and long term stability
- ▶ Test directly on product wafers
- ▶ Easy integration into tools

Sensor Series

- ▶ Sheet resistance (Ohm/sq)
- ▶ Resistivity (mOhm·cm)
- ▶ Metal layer thickness (nm, µm)
- ▶ Metal substrate thickness (µm)
- ▶ Uniformity / homogeneity
- ▶ Defects and effects

Applications

- ▶ Wafer testing
- ▶ Thin film layer characterization
- ▶ Material characterization
- ▶ Imaging and mapping
- ▶ Defect detection
- ▶ Integrity assessment
- ▶ Material sorting
- ▶ Sputter target wear level monitoring

Materials

- ▶ Semiconductors
- ▶ Si (mono, ply)
- ▶ WBG – SiC, SiSiC, GaN
- ▶ GaAs, GaP, InP, GaAsP etc
- ▶ Metals
- ▶ Alloys
- ▶ Graphite
- ▶ Graphene
- ▶ Compounds
- ▶ Composites

SURAGUS GmbH
Maria-Reiche-Strasse 1
01109 Dresden
Germany

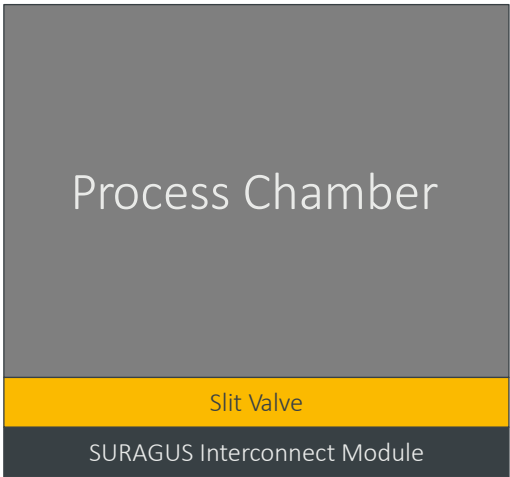
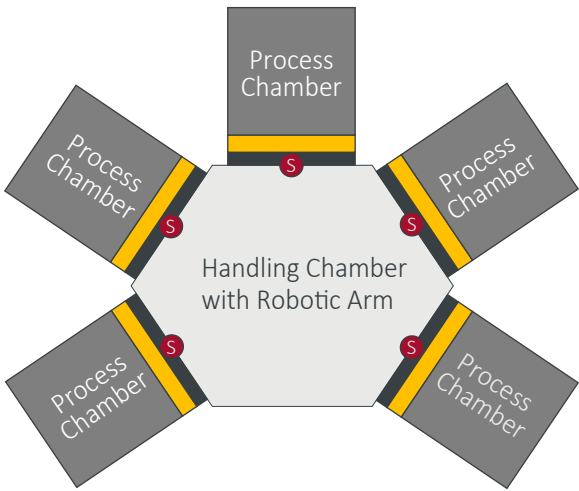
For further questions:
+49 351 32 111 520

sales@suragus.com

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

Engineered and Made in Germany 





 Eddy Current Sensor

Measurement technology	Non-contact high frequency eddy current sensor
Place of measurement	In-vacuo installation between handling area and slit valve
Substrates	Wafer, glass etc.
Measurement gap size	5 – 50 mm (depending on wafer handler)
Module sizes	150 / 200 / 300 mm
Conductive layers	Metals, alloys and other conductive layers
Sheet resistance measurement range	0.01 – 10 Ohm/sq
Thickness measurement of metal films (e.g. Cu, Al, Ag, Au, Ni, Ti, Ta, Pt, W)	5 nm – 2 mm (in accordance with sheet resistance)
Other integrated measurements	Sheet resistance, metal thickness, resistivity, wafer temperature
Environment	Ex-vacuo / in-vacuo @ T up to 220°C / 428°F
Sample rate	1 – 1,000 measurements per second for line scan
Hardware trigger	5 / 12 / 24 V
Interfaces	UDP, .Net libraries, TCP, Modbus, Profinet, analog/digital

Insights gained by near process monitoring

- ▶ Line profile of sheet resistance, metal layer thickness, resistivity
- ▶ Instant deposition data for new material configurations
- ▶ Measurement directly on process wafers
- ▶ Wafer-to-wafer and first wafer effects
- ▶ Chamber-to-Chamber effects
- ▶ Data for run-to-run control
- ▶ Effects of target lifetime
- ▶ Smart recipe control

