



MARPOSS

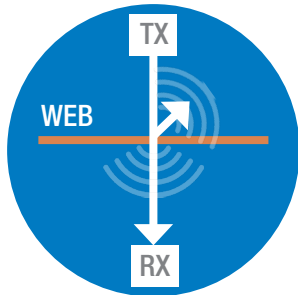
MESYS

BATTERIES
BASIS WEIGHT
MEASUREMENT

REDEFINING STANDARDS OF MEASUREMENT EXCELLENCE IN ROLL-TO-ROLL APPLICATIONS

Revolutionizing EV-Battery Production with MESYS Technology

MESYS stands as a pioneer in battery manufacturing technology, introducing a spectrum of revolutionary solutions that redefine excellence. With a proud history of innovation, we are credited as the first company to strategically adopt ultrasonic technology in this field, a groundbreaking contribution to the industry.



ULTRASONIC TECHNOLOGY

We offer a non-contact, non-invasive, non-destructive radiation-free measurement, contributing to the safety of operators and the environment.

We guarantee 100% control of electrode or other web materials being unaffected by composition or color and ensuring reliability across diverse material applications.

All our products are ready and easy integrate into industrial processes thanks to our dedicated, flexible software compliant with OPC/UA standards.



ABSOLUTELY RADIATION-FREE

In basis weight tests, the use of radioactive sources is common. We can measure all types of materials (Anode, Cathode and separators) without risks for both operators or the environment thanks to ultrasonic waves, which are absolutely radiation-free.



GREEN FOR GOOD

Say goodbye to Radiation!

We've adopted ultrasonic technology, to offer a greener and forward-thinking solution for monitoring your battery processes.

This way of measuring guarantees reliable measurements across diverse materials allowing manufacturers to maintain the highest standards of quality throughout the production line.

With us, not only do you enhance measurement precision and step into the future, but you also make a positive impact on the environment.



PIONEERING EXCELLENCE IN EV-BATTERY MANUFACTURING SOLUTIONS

EMPOWERING YOUR BATTERY MANUFACTURING JOURNEY

In the evolving field of electric vehicle (EV) manufacturing, MESYS stands as a reliable partner, offering practical solutions for the challenges faced by EV-battery manufacturers. Our focus is on providing concrete answers to real issues encountered in the production process of prismatic, cylindrical, pouch and button batteries.

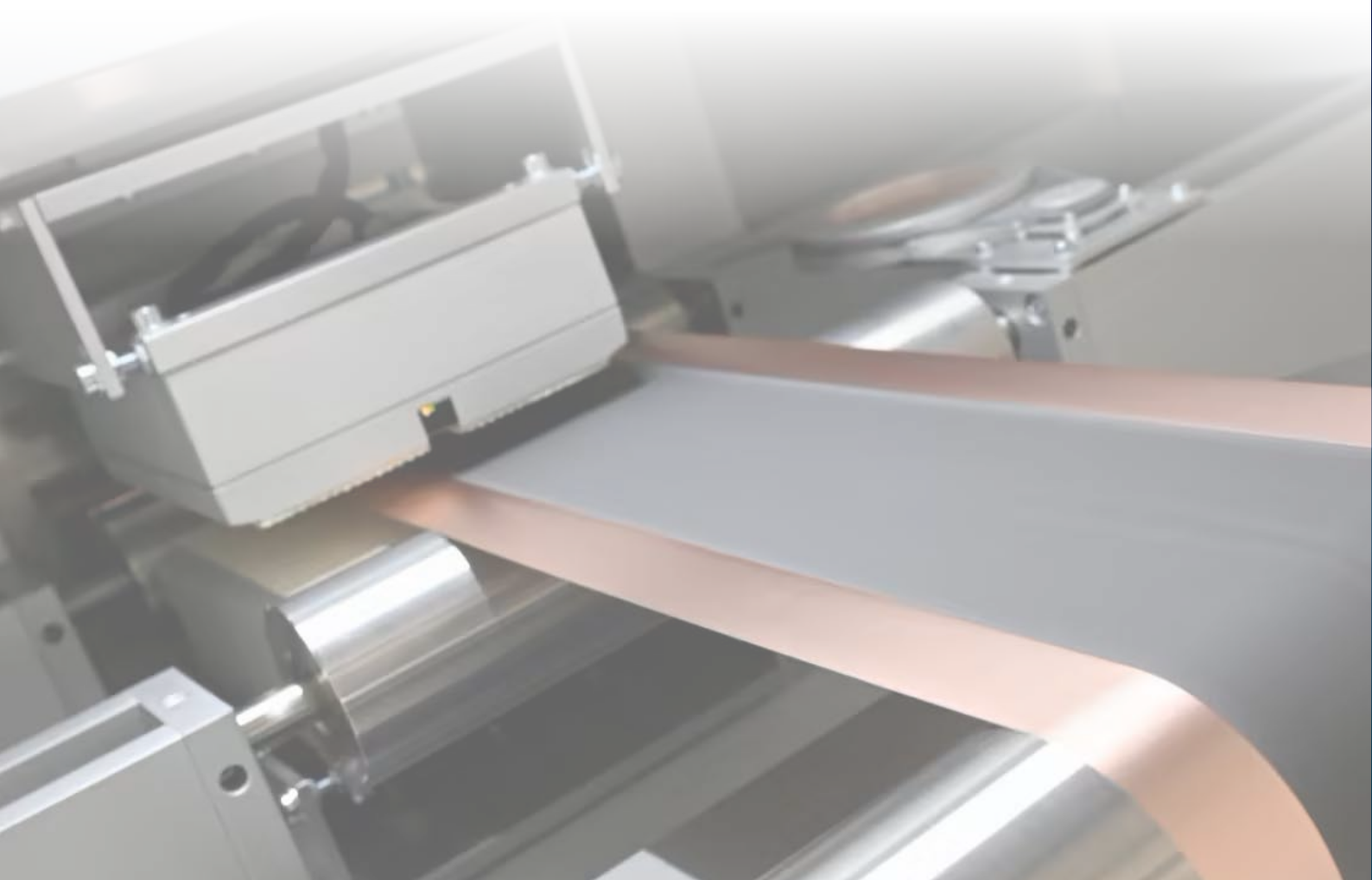
THE HEARTBEAT OF EVERY ELECTRIC VEHICLE

Batteries are the heartbeat of every electric vehicle, determining not only its range but also its overall performance and safety. The coating of electrode components involves a roll-to-roll application of an active material (slurry) onto a thin metal substrate. Ensuring homogeneity and uniformity in the coated electrode is a must to avoid potential dangers. MESYS employs basis weight sensors with patented technology offering precise measurements of coating basis weight and a way to keep track of your battery production quality. Our technologies are not limited to basis weight. Post-drying, electrodes undergo calendering to increase energy density by compressing the active material. Controlling deviations in thickness is vital, and this is why we also employ Chromatic confocal technology for measurement and cameras inspection during this critical step.

Marposs Group positions itself as a key player, offering a wide range of technologies and solutions for quality and process control in all the key processes of the Roll-To-Roll Battery industry.

We provide a diverse portfolio of solutions tailored to meet various needs, ensuring versatility and effectiveness across the entire production process.

From coating and drying, to calendering, slitting, separation or assembly, safety is our top priority in the EV-battery industry. This is why our technologies and products are designed not just to meet, but to redefine safety standards, creating a secure, advanced and reliable manufacturing environment for our customers.



MESYS | VERSATILE SOLUTIONS

UNISENSE



A single horizontal scanning sensor, available in C or O shapes.

O-Shape: Versatile and Ideal for all web measurement applications.

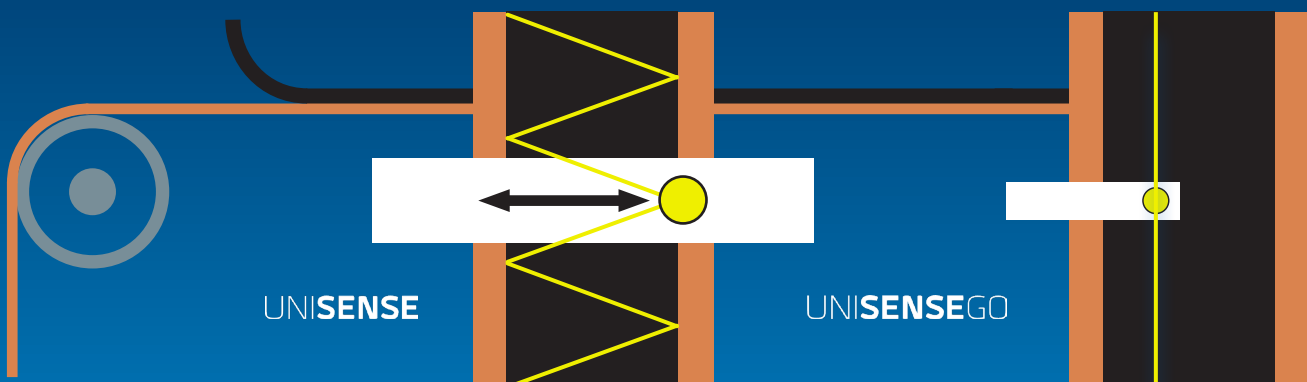
C-Shape: Ideal for narrower applications.

This ultrasonic sensor scanner is the simplest but accurate way to measure your batteries basis weight for both wet and dry films.

UNISENSEGO



Portable version featuring a single sensor, suitable for any environment. Unisense-GO is a versatile solution designed for integration into your battery electrode production lines or laboratory settings. This sensor offers immediate usability thanks to his lightweight body. It can be easily detached and taken wherever you need it, giving you a way to keep track of your production providing a convenient and versatile measurement experience without compromising on performance.



● Ultrasonic sensor for Basis Weight

◆ Chromatic confocal for Thickness

IONS TO SUIT YOUR NEEDS

MULTISENSE



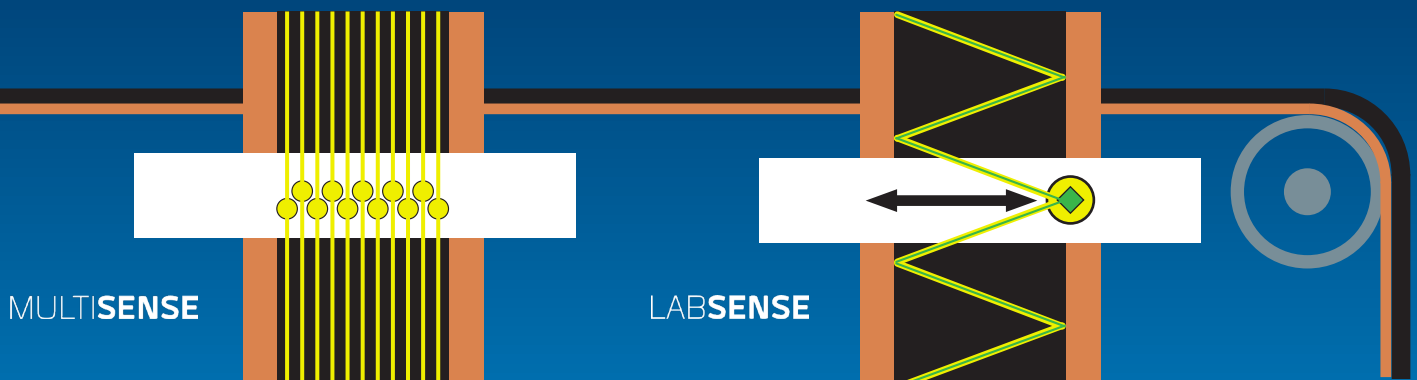
Multiple fixed patented sensors, designed as the premium choice in our product portfolio, offering unparalleled accuracy and reliability. It excels in providing exceptional precision and repeatability in both wet and dry film basis weight, as well as moisture measurement.

This system is ideal for customers aiming to measure 100% of their battery's basis weight, enabling optimal production monitoring without compromise.

LABSENSE



Specifically designed for Li-Ion Battery Analysis, Lab Sense combines different sensors able to precisely determine weight, thickness, and density. This system was born in response to the needs of our customers, who seek a complete quality control system. As ultrasonic technology pioneers for basis weight and confocal technology within Marposs Group, our solution is able to completely track the geometry of your battery foils providing a robust and accurate quality control system.



MEASUREMENT, INSPECTION AND TEST FOR QUALITY AND PROCESS CONTROL



worldwide present in

34
countries

offices worldwide

80

exports

94%

approx.

3,500
employees

1,240

Italy

1,110

Asia

810

Rest of
Europe

340

Americas

30

key acquisitions since 2000

8%

resources invested in R&D

MESYS GmbH, manufacturer of radiation-free, non-radiometric system solutions for web measurement of basis weight, thickness and moisture, is part of Marposs Group.

Marposs was founded in 1952 and since then has provided shop-floor solutions for the quality control in the production environment. Marposs' solutions include gauging equipment of mechanical components, before, during, and after the production process, monitoring solutions on machine tools, assembly, and testing systems, automatic machines, and checking stations for production lines.

Marposs is one of the main suppliers of the top automotive manufacturers, but operates as well in the aerospace, biomedical, hi-tech, glass and converting industries.

Marposs Group's employees are more than 3500, located around the world, with presence in 34 countries with more than 80 sales offices.




MARPOSS

**For a full list of address locations, please consult the Marposs official website or mesys.de
Specific requests for information about MESYS can be addressed to: office@mesys.de**

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