Electroplating metal

HITACHI
Inspire the Next

CMI243®

Accurate measurement of electroplating and galvanising for plated metals over ferrous substrates

ADVANCED METALLIC COATING MEASUREMENT

The CMI243® is an essential tool for any metal finisher. It has a flexible and easy-to-use design with the ECP-m probe which uses phase-sensitive eddy current technology.

With the CMI243® using the ECP-m probe it is possible to accurately measure metallic coatings over ferrous substrates - even on small, odd-shaped or rough surfaces.

This gauge is ideal for use on fasteners and transportation components, featuring user-friendly controls and performance that is comparable to X-ray fluorescence (XRF) instruments.

For added value, the CMI243® can be expanded with a magnetic induction probe for measuring paint and other coatings on magnetic substrates.

KEY FEATURES:

- Battery operated.
- Eddy current technology.
- Reliable and accurate.

HIGHLY ACCURATE COMPLEMENT TO XRF

We have been providing coating thickness products for the electroplating industry for over 40 years.

PHASE-SENSITIVE EDDY CURRENT TECHNOLOGY

More reliable than conventional eddy current and magnetic induction gauges, especially for small parts or parts with complex geometry. Accuracy within ±1% (with reference to standards) and precision within 0.3%.

ADVANCED ECP-m PROBE

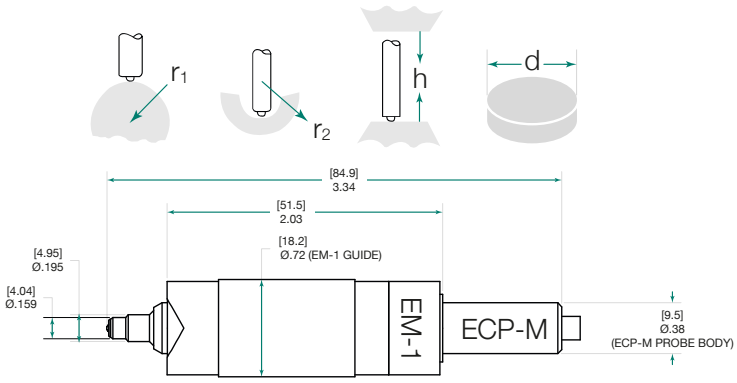
Our ECP-m probe was designed specifically for difficult metallic coating applications. This probe can measure metallic coatings, such as zinc, nickel, copper, chrome or cadmium, on ferrous substrates. Its tip provides easy measurement of small, odd-shaped or rough components.

PACKAGE CONSISTS OF:

- ECP-m Probe with guide.
- Zinc calibration standards.
- Optional: SMP-1 (magnetic probe) can be purchased separately.
- Accuracy: ±1% with respect to reference standards.

- **Precision:** 0.3%.
- **Resolution:** 0.01 mils (0.1 µm).
- **Eddy Current:** Conforms to methods DIN 50984, BS5411 Part 3, ISO 2360, ISO 21968 (DRAFT), ASTM B499, and ASTM E376.
- **Memory Capacity:** 26,500 readings.
- **Dimensions:** in: 5 7/8 (L) x 3 1/8 (W) x 1 3/16 (D).
  cm: 14.9 (L) x 7.94 (W) x 3.02 (D).
- **Weight:** 9 oz. (0.26 kg) including battery.
- **Units:** Automatic conversion between imperial and metric with a keystroke.
- **Display:** Three digit LCD display, 1/2" (1.27 cm) character height.
- **Battery:** 9 V Alkaline (65 hrs).

Minimum Radius on Cylinder Convex (r1)	Concave (r2)	Working Height (H)	Min Measurement Area (D)	Min. Base Thickness (mils)
0.045" (1.143 mm)	0.135" (3.429 mm)	4.0" (10.16 cm)	0.090" (2.286 mm)	12 (0.3 mm)



Operating Ranges:

Plating/Fe	Thickness Range	Probe
Zn	0.1–1.5 mil (38 µm)	ECP-m
Cd	0.1–1.5 mil (38 µm)	ECP-m
Cr	0.1–1.5 mil (38 µm)	ECP-m
Ni	0.1–1.5 mil (40 µm)	ECP-m
Cu	0.1–0.40 mil (10 µm)	ECP-m
Non-Mag/Fe	0.1–50 mil (1270 µm)	SMP-1

Our global network of service hubs offer a full range of technical support to keep you up and running. We are A2LA certified* for coating thickness calibrations and standards which ensures that your CMI243® will be compliant at audit to ISO 17025.

A2LA ACCREDITED CERT #3397.01

*A2LA accreditation is applicable to work performed by Hitachi High-Tech Analytical Science America, Inc.

If you'd like to learn more about the CMI243® gauge visit www.hitachi-hightech.com/hha or email one of our experts at contact@hitachi-hightech-as.com to book a demo.

Hitachi High-Tech Analytical Science

Part number: OIIA/243B/0413

Science for a better tomorrow