CMI243®

For plated metals over ferrous substrates

Accurate measurement, low cost of ownership, and dependable quality in a handheld unit

Oxford Instruments' **CMI**243 model is a flexible and easy-to-use system designed specifically for metal finishers. The **CMI**243 model requires only one probe to accurately measure metallic coatings over ferrous substrates – even on small, odd-shaped, or rough surfaces. This gauge is ideal for use on fasteners. Using phase-sensitive Eddy Current technology, this handheld instrument features user-friendly controls and measures with accuracy and precision comparable to X-ray Fluorescence equipment. To achieve a low total cost of ownership, the **CMI**243 eliminates the need for multiple probes, calibration standards, operator training, and ongoing maintenance. Oxford Instruments delivers dependable quality and stands behind its equipment with a responsive customer service team. Adding to its value, the gauge carries a 1-year warranty.

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Measurement technology

New phase-sensitive Eddy Current technology enables the **CMI**243 application to achieve accuracy within ±1% (with reference to standards) and precision within 0.3%. Lift-off methods, such as magnetic induction and conventional Eddy Current, don't achieve reliable readings due to the resulting base effect and interference from specimen shape and texture. Oxford Instruments' unique application of Eddy Current technology minimises the base effect, which enables exact measurements independent of a component's geometry. Moreover there is no need to calibrate on the bare part.

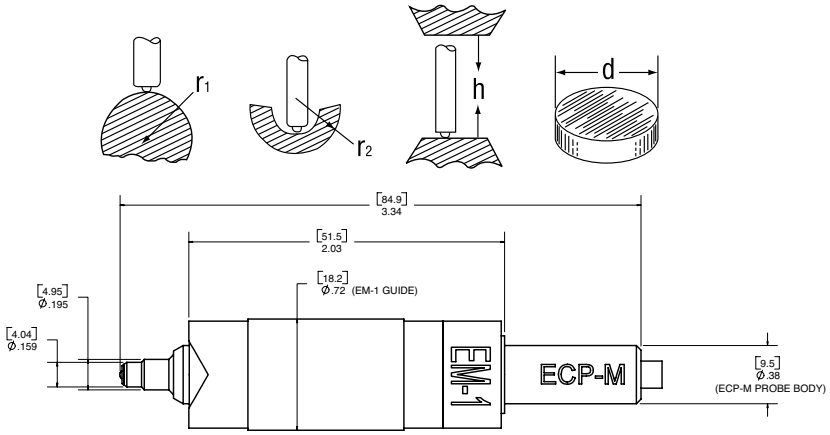
Advanced ECP-m probe

The ECP-m probe was designed specifically for difficult metallic coating applications. This single probe can measure metallic coatings, such as Zinc, Nickle, Copper, Chrome or Cadmium, on ferrous substrates. A small tip provides for easy measurement of small, odd-shaped or rough components.

Package consists of:

- ECP-m Probe with removable guide
- Zinc Calibration Standards
- SMP-1 (Magnetic Probe) can be purchased separately

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



Operating ranges:

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

Specifications:

Accuracy: ±1% with respect to reference standards

Precision: 0.3%

Resolution: 0.01mils (0.1µm)

Eddy Current: Conforms to methods DIN 50984, BS5411 Part 3, ISO 2360, ISO 21968 (DRAFT), ASTM B499, and ASTM E376

Memory Capacity: 26,500 stored readings

Dimensions: 5 7/8" (L) x 3 1/8" (W) x 1 3/16" (D) (14.9 x 7.94 x 3.02 cm)

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" (1.27cm) character height

Battery: 9V Alkaline

Battery Life: 65 Continuous hours

visit **www.oxford-instruments.com** for more information or email Industrial@oxinst.com

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