

CMI153

Coating Thickness on Ferrous and Non-ferrous Substrates and Structures



Dual Technology Features Automatic Selection of Magnetic Induction or Eddy Current Measurement Techniques

Built upon our highly successful **CMI150** architecture the **CMI153** delivers an improved measurement probe with enhanced performance and superior substrate sensitivity.

Useful in a wide variety of settings, the **CMI153** measures non-conductive coatings over non-ferrous substrates and non-magnetic coatings over ferrous substrates.



Ideal Metrology Solution for:

- Paint & Powder Coaters
- Coating Inspectors
- Electroplating Plants
- Painting Contractors
- Automotive & Aerospace Finishers
- Automatically detects Ferrous or Non-ferrous substrates and auto-selects correct test method, eddy current or magnetic induction.

Eddy Current Technology for non-conductive over non-ferrous metals like aluminum, brass or copper:

- Teflon, Enamel, Epoxy, Anodize, Paint & Powder Coats

Magnetic Induction Technology for non-magnetic coatings over steel or ferrous substrates:

- Zinc, Cadmium, Paint & Powder Coats

The Business of Science[®]



Automatically selects Eddy Current or Magnetic Induction measurements to suit the substrate



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Industrial Analysis

This small but rugged, versatile, single-handed gauge equipped with a belt clip for portability is durably designed allowing its use in the harshest of conditions. No operator training is required as the **CMI153** features one-button operation and requires neither calibration nor resetting between measurements.

The unit is factory calibrated and only requires a swift base re-zero correction when measuring on different metallic substrates. The **CMI153** is a high-quality yet economically designed complete Coating Thickness measurement package.

Specifications:

- Automatic Substrate Recognition
- No User Calibration Required
- Magnetic Induction: Conforms to methods ASTM B499 & B530, DIN 50981, ISO 2178 and BS 5411 Parts 9 & 11
- Eddy Current: Conforms to methods ASTM B244 & B529, DIN 50984, ISO 2360 and BS 5411 Part 3
- Factory calibrated, only requires a swift base re-zero correction when measuring on different metallic substrates

Measurement Ranges:

- Ferrous Substrates, Magnetic Induction: 0.001-2.04mm (0.1-80mils)
- Non-ferrous substrates, Eddy Current: 0.001-1.52mm (0.1-60mils)
- Minimum ferrous and non-ferrous substrate thickness: 305µm, 12mils
- Accuracy: $\pm (2\mu\text{m} + 3\% \text{ of reading})$ or $\pm (0.1\text{mils} + 3\% \text{ of reading})$

Precision:

- Ferrous Substrates, Magnetic Induction: $\sigma = 0.8\mu\text{m}$ (0.03mils) for a 75µm (2.95mils) plastic standard on Steel
- Non-Ferrous Substrates, Eddy Current: $\sigma = 0.5\mu\text{m}$ (0.02mils) for a 75µm (2.95mils) plastic standards on Al

Dimensions:

- 3.75"x2"x1", 9.53cm x5.08cm x2.52cm

Weight:

- 2.5 oz (71 g)

Units:

- Automatic conversion between Imperial and Metric units with a keystroke

Battery:

- 2xAA
- Auto ON/OFF to extend Battery Life

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Part no: OIIA/055/A/0608



Certificate No FM29142

NDTzone • Non-Destructive Testing Equipment Specialists
Tel.: +1.877.363.4243 • eMail: sales@NDTzone.com • Web: www.NDTzone.com

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