

## CMI153<sup>®</sup>

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



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

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: 305 $\mu$ m, 12mils
- Accuracy:  $\pm$  (2 $\mu$ m + 3% of reading) or  $\pm$  (0.1mils + 3% of reading)

### Precision:

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

## Oxford Instruments Industrial Analysis

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