

Coating thickness  
measurement

**MiniTest Series 70**  
**MiniTest 70F/70FN**



**Versatile coating thickness gauges**

- for fast and precise measurements of
  - non-magnetic coatings on steel  
0 ... 3,000  $\mu\text{m}$
  - insulating coatings on non-ferrous metals  
0 ... 2,500  $\mu\text{m}$
- automatic identification of the substrate material
- built-in sensor
- proven measuring methods
- statistics function

# MiniTest 70 – Pocket-sized Coating Thickness Gauge

## Application

Designed for quick and easy non-destructive coating thickness measurement, the MiniTest 70 series is available in two models:

- **MiniTest 70 F** with built-in sensor for measuring non-magnetic coatings applied on steel
- **MiniTest 70 FN** with a built-in dual sensor for measuring nonmagnetic coatings applied on steel and insulating coatings on non-ferrous metals.

## Description

The MiniTest 70 Series are compact, pocket sized coating thickness testing gauges. The simple 4-button operation, clear display and built-in statistics displaying the number of readings taken, the minimum, maximum, mean values and standard deviation makes the MiniTest 70 Series ideal for on-site applications. With new simplified operation, no special training is required to operate these gauges. An audible signal confirms reading acquisition. The MiniTest 70 Series are powered by a standard single AA battery and when the battery gets low, a BAT symbol appears to indicate that the battery needs to be changed.

Special feature of the MiniTest 70 FN model: It incorporates a dual sensor for automatic identification of the substrate material. The gauge upon contact with the surface automatically switches to the suitable measuring principle based on your application: magnetic-induction or eddy currents.

## Scope of delivery

- MiniTest 70 F or FN
- Steel test plate (for model 70 F)
- Steel and aluminium test plates (for model 70 FN)
- Calibration foils
- Operating instructions
- Gauge tether
- Storage case

Properties	Model	MiniTest 70 F	MiniTest 70 FN
Measuring range		0 ... 3 mm/120 mils	F: 0 ... 3 mm/120 mils / N: 0 ... 2.5 mm/100 mils
Measuring principle		magnetic-induction	magnetic-induction/eddy currents
Signal processing		Sensor integrated 32-bit signal processing (SIDSP®)	
Accuracy <sup>1</sup>		± (1.5 µm + 3% of reading) with 1-point calibration <sup>2</sup> / ± (0.06 mils + 3% of reading) with 1-point calibration <sup>2</sup> ± (1.5 µm + 2% of reading) with 2-point calibration <sup>3</sup> / ± (0.06 mils + 2% of reading) with 2-point calibration <sup>3</sup>	
Repeatability <sup>1</sup>		± (1 µm + 1% of reading) / ± (0.04 mils + 1% of reading)	
Low range resolution		0.5 µm; 0.02 mils	
Minimum curvature radius convex		5 mm; 0.2"	
Minimum curvature radius concave		40 mm; 1.60"	
Minimum measuring area <sup>3</sup>		Ø 20 mm	
Minimum substrate thickness <sup>3</sup>		F: 0.5 mm; 0.02" / N: 0.04 mm; 0.0016"	
Measuring units		metric/imperial switchable	
Calibration modes		1-point calibration, 2-point calibration	
Statistics		n, $\bar{x}$ , s, Min, Max	
Operating temperature range		-10°C ... +60°C, 14°F..140°F	
Storage temperature range		-20°C ... +70°C, -4°F..158°F	
Power supply		1 x AA (Mignon)-battery	
International standards		DIN EN ISO 1461, 2064, 2178, 2360, 2808, 3882, ASTM B 244, B 499, D7091, E 376	
Dimensions		approx. 157 mm length, Ø 27 mm; 5.2" length, Ø 1.06"	
Weight incl. battery		approx. 80 g, 2.8 oz	

<sup>1</sup> according to DIN 55350 Part 13

<sup>2</sup> if measuring on plane surfaces

<sup>3</sup> with calibration close to the thickness to be expected and related to ElektroPhysik calibration standards

**ElektroPhysik**  
 Pasteurstr. 15  
 D-50735 Köln  
 Tel.: +49 (0) 221 7 52 04-0  
 Fax: +49 (0) 221 7 52 04-67  
 www.elektrophysik.com  
 info@elektrophysik.com

**ElektroPhysik USA**  
 778 West Algonquin Rd.  
 Arlington Heights IL 60005  
 Tel.: +1 847 437-66 16  
 Fax: +1 847 437-00 53  
 www.elektrophysik.com  
 epusa@elektrophysik.com

**ElektroPhysik Nederland**  
 Borgharenweg 140  
 6222 AA Maastricht  
 Tel.: +31 (0) 43/3 52 00 60  
 Fax: +31 (0) 43/3 63 11 68  
 www.elektrophysik.com  
 epnl@elektrophysik.com

# ElektroPhysik

