

Coating thickness  
measurement

**MiniTest 70 Series**

**MiniTest 70F/70FN**



**Versatile coating thickness gauges**

- for fast and precise measurements of
  - non-magnetic coatings on steel  
0 ... 3000 µm
  - insulating coatings on non-ferrous metals  
0 ... 2500 µm
- 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 70F with built-in sensor for measuring non-magnetic coatings applied on steel
- MiniTest 70FN with a built-in dual sensor for measuring non-magnetic 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 70FN 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 70F or MiniTest 70FN
- Steel test plate (for model 70F)
- Steel and aluminium test plates (for model 70FN)
- Calibration foils
- Operating instructions
- Gauge tether
- Storage case

MODEL	MiniTest 70F	MiniTest 70FN
<b>Properties</b>		
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>	$\pm (1.5 \mu\text{m} + 3\% \text{ of reading})$ with 1-point calibration $\pm (0.06 \text{ mils} + 3\% \text{ of reading})$ with 1-point calibration $\pm (1.5 \mu\text{m} + 2\% \text{ of reading})$ with 2-point calibration <sup>2</sup> $\pm (0.06 \text{ mils} + 2\% \text{ of reading})$ with 2-point calibration <sup>2</sup>	
Repeatability <sup>1</sup>	$\pm (1 \mu\text{m} + 1\% \text{ of reading}) / \pm (0.04 \text{ mils} + 1\% \text{ of reading})$	
Low range resolution	0.5 $\mu\text{m}$ ; 0.02 mils	
Minimum curvature radius convex	5 mm; 0.2"	
Minimum curvature radius concave	40 mm; 1.60"	
Minimum substrate thickness	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	1x 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, $\varnothing$ 27 mm; 5.2" length, $\varnothing$ 1.06"	
Weight incl. battery	approx. 80 g, 2.8 oz	

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

<sup>2</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) 221 752 04-0  
 Fax: +49 (0) 221 752 04-67  
 www.elektrophysik.com  
 info@elektrophysik.com

**ElektroPhysik USA**  
 778 West Algonquin Rd.  
 Arlington Heights IL 60005  
 Phone: +1 847 437-6616  
 Fax: +1 847 437-0053  
 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

