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 µm
  - insulating coatings on non-ferrous metals
    0 ... 2,500 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 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
- Belt pouch

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 [1]	± (1.5 µm + 2 % of reading) with 2-point calibration [2] / ± (0.06 mils + 2% of reading) with 2-point calibration [2]	
Repeatability [1]	± (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 [2]	Ø 30 mm ; 1.20"	
Minimum substrate thickness [2]	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	

[1] according to DIN 55350 Part 13
[2] 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

111-A2 10/2011 Specifications subject to change without notice