Advancing with Technology ElektroPhysik

Coating thickness measurement

MiniTest 70 Series

MiniTest 70 F / 70 FN



Versatile coating thickness gauges

- for non-magnetic coatings on steel
  0 ... 3,000 µm
- for insulating coatings on non-ferrous metals
  0 ... 2,500 µm
- automatic identification of the substrate material
- built-in sensor
- proven measuring methods
- statistics function

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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 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 make 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. If the battery gets low, a BAT symbol appears to indicate 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. Upon contact with the surface of the measuring object, the gauge automatically switches to the suitable measuring principle according to 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	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

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