# Advancing with Technology ElektroPhysik



### MiniTest 650 – Durability and High-Precision

#### Application

Designed for durability and highprecision, MiniTest 650 is the ideal tool for any measuring task in the finishing industry.

The rugged and easy-to-handle thickness gauge combines extended mechanical life on the one hand and high accuracy on the other hand to meet the requirements of any professional user in the shipbuilding, automotive, bridge building, construction or other industry.

According to model, MiniTest 650 is suitable to measure

- any non-magnetic coatings such as paint, enamel, chrome and zinc on steel
- any insulating coatings on nonferrous metals such as paint, anodising, ceramics on aluminium, copper, zinc die-cast, brass, etc.

#### Description

The battery-operated gauge features a backlit display and a one meter sensor cable. The newly developed one pole sensor is made of a wearand-tear resistant carbide material to ensure a virtually unlimited life cycle under normal condition use.

An optimal ram- and impact-protection is provided through the rubber rimmed casing. Via an USB interface, the MiniTest 650 can be connected to a PC for on-line measurements or display of the statistics.

MiniTest 650 is available in three different models:

- with a magnetic-induction sensor for measurements on steel substrates
- with an eddy currents sensor for measurements on non-ferrous metals

Technical specifications		
Measuring range	model F (steel)	03000 µm / 120 mils
	model N (non-ferrous metal)	$0\ldots 2000~\mu\text{m}$ / 80 mils
	model FN (dual sensor)	$0 \dots 2000~\mu\text{m}$ / 80 mils
Measuring uncertainty	$\pm$ (2 % of reading + 2 $\mu m)$ / $\pm$ (2 % of reading + 0.08 mils)	
Minimum curvature radius	5 mm / 0.2" convex	25 mm / 1" concave
Minimum measuring area	Ø 20 mm / 0.8"	
Minimum base thickness:	0.5 mm / 20 mils (F)	50 μm / 2 mils (N)
Display	4-digit screen data (11 mm / 0.44")	
Measuring units	$\mu$ m – mils user selectable	
Calibration	standard, 1-point and 2-point calibration	
Statistics	calculated from maximum 9.999 readings, mean value, standard deviation, number of readings, minimum and maximum	
Interface	USB	
Power supply	3 Micro AAA batteries (for more than 10,000 readings)	
Dimensions and weight	housing: 70 mm x 122 mm x 32 mm / 2.7" x 4.8" x 1.26" sensor: Ø 15 mm x 62 mm / Ø 0.60" x 2.44"; 225 grams / 7.93 ozs	
Ambient temperature	gauge: 0 to 50°C / 32° to 122°F sensor: –10° to 70°C / 14° to 158°F	

with a dual sensor for measuring on both, steel or non-ferrous metals

**Special feature of the FN model:** Its dual sensor identifies the substrate material. Upon contact with the surface, the gauge automatically switches to the suitable measuring principle based on your application. The measuring principle conforms to the DIN, ISO, BS, and ASTM norms and standards.

#### **Scope of delivery**

- Gauge with sensor and three batteries
- Control standard(s) and calibration standard(s)
- Operating instructions
- Soft pouch

#### **Recommended accessories**

- High-precision measuring stand for measuring small parts
- Data transfer program Msoft7000 basic edition
- Rechargeable batteries with battery charger
- USB connecting cable

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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 Phone: +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

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