

METRISON

NON-DESTRUCTIVE TESTING

Coating Thickness Gauge ULTRAMETR S100



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ULTRAMETR S100 - description

Coating Thickness Gauge ULTRAMETR S100 is a modern measuring instrument designed to perform precise, fast and non-destructive measurements of coating thickness applied to magnetic (e.g. steel, iron) and non-magnetic (e.g. aluminum, copper, others) metal substrates. The gauge is distinguished by its intuitive operation, color and easy-to-read display, wide measurement range of 0 μm - 1500 μm , advanced measurement functions: normal mode, continuous, alarm thresholds signaling exceeding the acceptable range of thickness, adopted in the conducted tests, memory allowing storing 500 measurement results with transfer to a computer and high resolution of the displayed measurement result. The gauge works with a probe allowing measurements on magnetic and non-magnetic substrates with automatic substrate recognition.

ULTRAMETR S100 operates in Fe mode - measuring non-magnetic coatings on metallic magnetic substrates and in NFe mode - measuring non-electrically conductive coatings on metallic non-magnetic substrates. The gauge allows measuring the thickness of the following coatings applied on magnetic metals - all kinds of paints and varnishes, plastics, bronze, zinc, tin, chromium, cadmium, copper, brass, lead, silver and other coatings. On non-magnetic metals - all kinds of paints and varnishes, plastics, anodes, etc.

ULTRAMETR S100 allows to perform calibration using the included reference foils and substrates, as well as on objects directly subjected to testing. The high resolution of the displayed result of 0.01 μm makes it possible to accurately assess the measurement of coating thickness on items of various shapes, flat, profiled, tubes and rods with diameters ≥ 3.0 mm, as well as on small parts with surfaces $\geq \varnothing 10.0$ mm.

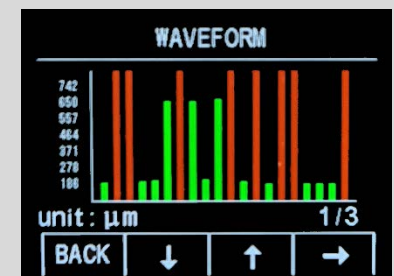
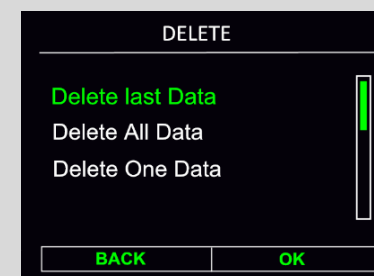
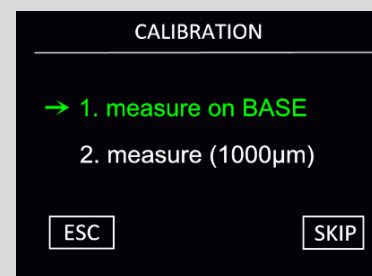
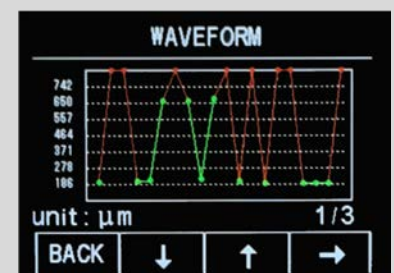
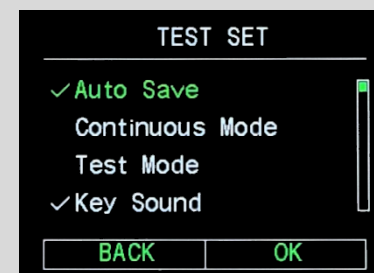
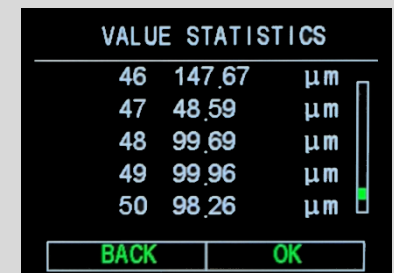
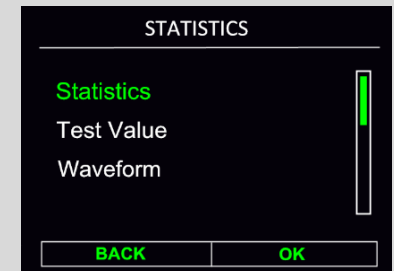
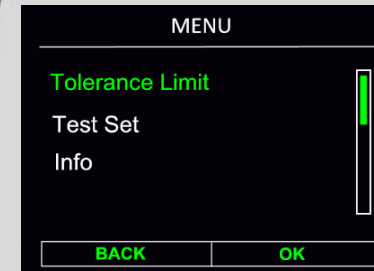
It is particularly useful to use the gauge to analyze the condition of coating thicknesses of e.g. tanks, pipelines, car bodies, steel structures, aluminum electroplated parts or on other parts made of non-ferrous metals. Thanks to its versatile measuring capabilities, the ULTRAMETR S100 is widely used in scientific and research units, laboratories, inspection cells and directly in production.

Accessories

ULTRAMETR S100 is equipped with useful accessories. A solid carrying case ensures safe transportation and storage. A set of calibration foils and two substrate standards (steel substrate and aluminum substrate) allow to calibrate or test the gauge. The kit also includes communication software and a USB cable for connecting the gauge to a computer.

Details of the gauge's equipment are available at

[Coating Thickness Gauge ULTRAMETR S100 Metrison Shop](#)



ULTRAMETR S100 – technical data

- measurement range 0 – 1500 μm and 0 – 59,06mils – (substrates Fe and NFe)
- measurement accuracy $\pm 2\% \pm 1 \mu\text{m}$ or $\pm 2\% \pm 0,04\text{mils}$
- user-selectable μm or mils measurement units
- resolution of the displayed measurement result: 1 μm , 0.1 μm , 0.01 μm or 0.01 mils
- minimum dimensions of objects on which the coating can be measured:
 - flat surfaces not smaller than the surface of the probe ($\varnothing 10 \text{ mm}$), thickness $\geq 0.5 \text{ mm}$ (Fe substrate)
 - flat surfaces not smaller than the surface of the probe ($\varnothing 10 \text{ mm}$), thickness $\geq 0.3 \text{ mm}$ (NFe substrate)
 - rods/tubes with a diameter $\geq 3.0\text{mm}$ (Fe and NFe substrate)
- One or two-point calibration on substrate standards (included) or substrates made from materials subjected to testing with reference foils (included)
- measurements in two operating modes: normal, continuous
- automatic recognition of substrate type or manual selection of substrate type
- two alarm thresholds with visual and audible signaling
- memory capable of storing 500 measurements, grouped into 5 files of 100 measurements each
- measurement statistics: number of measurements, average value, max value, minimum value, standard deviation, presentation of results in numerical and graphical form (graphs on the instrument display)
- data transfer to computer via USB, cooperation with communication software (included)
- color display with a resolution of 320 x 240 pixels
- 3-stage adjustment of display brightness
- automatic dimming of the display to save energy after a set period of inactivity
- automatic shutdown to save power after a set period of inactivity
- menu in English
- battery power supply 3 x AA 1.5V
- continuous operation time about 30h, operation time depends on the selected settings of the gauge
- design suitable for field use
- dimensions: 168 x 78 x 33 mm,
- temperature range of the gauge from $-10 \text{ }^\circ\text{C}$ to $+50 \text{ }^\circ\text{C}$
- weight with batteries approx. 250g

