

COATING THICKNESS MEASURING



COATING THICKNESS MEASURING TOP-CHECK



TOP-CHECK Coating thickness meters

With the integrated, world-wide unique 90° swivel-mounted probe of the **List-Magnetik TOP-CHECK** coating thickness meters, you always carry out precise measurements. The compact, lightweight devices are barely larger than a probe and are therefore ideal for on-site applications in areas that are difficult to access. For interference-free measurements in harsh environments, the handy metal housing is splash-proof, in accordance with IP 64. Optionally, we also offer coating thickness tester equipment with flow-water protection. The measuring probe has a wear-resistant ruby probe pole for a long service life with frequent measurement on rough surfaces.

The coating thickness gauges are very easy to use, with the press of a single button, and the self-explanatory multilingual menu.

TOP-CHECK Dual has a combined probe that measures insulating layers of paint, varnish, plastic, rubber, ceramics and galvanic coatings (except nickel) in a magnet-inductive measuring method. The device is used on iron and steel subsoil. It is also suitable for measuring insulating layers, using the eddy current method, on non-ferrous metals such as aluminum, brass, copper, bronze and non-magnetic stainless steels, according to ISO 2178 and ISO 2360. **TOP-CHECK FN** is the device version without data logger and Bluetooth interface.

TOP-CHECK Ferro is ideal for iron and steel substrates. The device measures layers of lacquer, paint, plastic, rubber, ceramic, zinc and galvanic coatings (except nickel) according to ISO 2178. **TOP-CHECK FE** is the device version without data logger and Bluetooth interface.

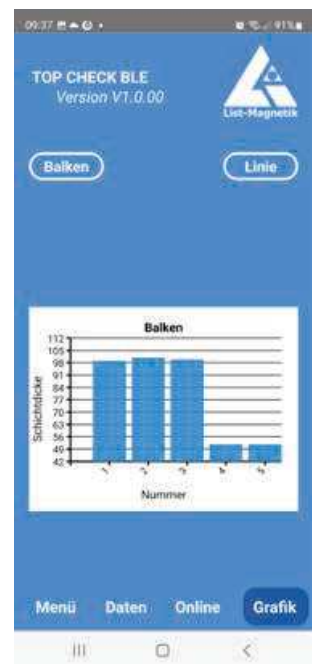


To further process your measurement data, you can couple your TOP-CHECK with mobile Android and iOS devices. Or you can communicate with a Windows PC. Bluetooth Low Energy (BLE) technology makes this possible. With the **TOP-CHECK BLE App** mobile device app, you can manage projects and assign measurement points on a photo. The measurement results can be statistically evaluated and graphically displayed. The app for Android, iOS and Windows is free.

TOP-CHECK Coating thickness meters



The **List-Magnetik TOP-CHECK Ferro-1000 / FE-1000** coating thickness gauges work with a precise springy sensing probe that requires little contact surface and low pressure. The compact, lightweight devices are barely larger than a measuring probe. The probe requires only a small contact area for its precise measurement. Especially for thin layers on uneven or complex surfaces, it is advantageous. **TOP-CHECK Ferro-1000** measures on iron and steel substrate according to ISO 2178. **TOP-CHECK FE-1000** is the instrument version without data logger and Bluetooth interface.



▲ TOP-CHECK APP records the measurement

Performance table and technical Data

TOP-CHECK

TOP-CHECK Dual	
Application:	Measurement of paint, lacquer, plastic and galvanic coatings on steel (ISO 2178) / insulating coatings on non-ferrous metals (ISO 2360; only with TOP-CHECK Dual/FN), Automatic detection of base material
Measuring probe:	swivels by 90°
Measuring range:	on steel and iron 0-5000 µm, on NFE metals 0-2000 µm
Smallest measuring area:	Ø 8 mm
Minimum radius of curvature:	concave 38 mm, convex 6 mm
Calibration value:	300 µm
Accuracy:	below 100 µm ± 1 µm, 100-1000 µm: ± 1 %, 1000-2000 µm: ± 3 %, > 2000 µm: ± 5 %
Resolution:	1-100 µm: 0.1 µm, 100-1000 µm: 1 µm, > 1000 µm: 10 µm
Measuring units:	µm and mils
Ambient temperature:	0 - 50° C
Display:	illuminated high-contrast graphic OLED display
Multilingual menu navigation:	German, English, for TOP-CHECK Dual/Ferro further language packages possible
Data logger:	4000 measured values flexibly divisible (TOP-CHECK Dual/Ferro only)
Statistics:	count / maximum / minimum / average / standard deviation (TOP-CHECK Dual/Ferro only)
Interface:	Bluetooth Low Energy interface for communication with Android, iOS and Windows (TOP-CHECK Dual/Ferro only)
App for Android, iOS, Windows:	free of charge via Google Play Store, Apple App Store, List-Magnetik website
Power supply:	1x 1.5 V AA Mignon
Operating time:	approx. 50 hours
Dimensions:	Ø 28 x 95 mm
Weight:	76 g (with battery)

TOP-CHECK Ferro	
Like TOP-CHECK Dual, but without measurement on non-ferrous metals	
Application:	Measurement of paint, lacquer, plastic and galvanic coatings on steel
Measuring range:	0-5000 µm
Smallest measuring area:	Ø 4 mm
Minimum radius of curvature:	concave 38 mm, convex 4 mm

TOP-CHECK Ferro-1000	
Like TOP-CHECK Ferro, but optimized for small measuring area	
Measuring probe:	sensing device, springy
Measuring range:	on steel and iron 0-1000 µm
Smallest measuring area:	Ø 2 mm
Smallest curvature radius:	concave 6 mm, convex 1 mm

TOP-CHECK FN	
Low-cost model, measurement performance like TOP-CHECK Dual, but without additional language packages, without data logger, without Bluetooth Low Energy interface, without App	

TOP-CHECK FE	
Low-cost model, measurement performance like TOP-CHECK Ferro, but without additional language packages, without data logger, without Bluetooth Low Energy interface, without App	

TOP-CHECK FE-1000	
Low-cost model, measurement performance like TOP-CHECK Ferro-1000, but without additional language packages, without data logger, without Bluetooth Low Energy interface, without App	



List-Magnetik
Dipl.-Ing. Heinrich List GmbH
 Max-Lang-Straße 56/2
 D-70771 Leinfelden-Echterdingen

Phone +49 (711) 903631-0
 Fax +49 (711) 903631-10
 info@list-magnetik.de
 www.list-magnetik.de

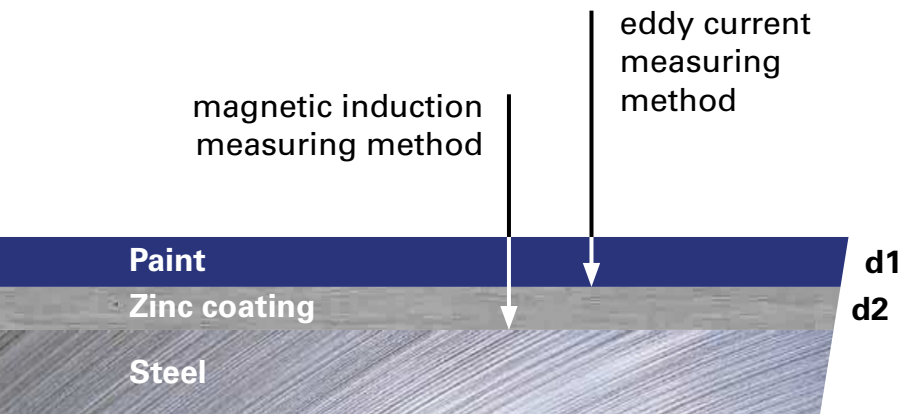


www.list-magnetik.de

COATING THICKNESS MEASURING MEGA-CHECK DX



COATING THICKNESS MEASURING on metallic substrate



Two measuring techniques are used to measure the thickness of layers over a metal substrate.

Firstly, the magnetic induction, that is, when the substrate is self-magnetizable (steel or iron), and, secondly, the eddy current method, that is, when the substrate is at least electrically conductive (other metals such as aluminum). We specialize in those two techniques, and we are sorry to say, we are unable to offer you equipment for the thickness measurement of ceramics, glass or plastic.

You will find a variety of probes to suit your specific requirements. Please note: The combined oscillating probe is designed for using both measuring techniques. You can work with both methods on all metals, with automatic detection of the substrate. The 90° pivotable probe allows you to measure even in the most difficult-to-reach corners and openings. All our coating thickness gauges are "Made in Germany".



MEGA-CHECK DX

Coating thickness meter

You can connect many specialized probes to the **List-Magnetik MEGA-CHECK DX** coating thickness meter.

Applications on particularly small openings, on thick coatings and on small measuring points are thus easily possible. Special functions such as scan measurement for rough surfaces and duplex measurement for galvanized and additionally coated steel round off the performance spectrum.

A completely newly developed probe technology allows very stable measurements due to its high sampling rate. For absolutely interference-free and precise measurement, the signals are already digitized in the probe. This results in very accurate, reproducible measurements.

At List-Magnetik you will find a wide range of probes for FE metals (iron and steel) and NFE metals (non-ferrous metals such as aluminum, brass, copper, bronze and non-magnetic stainless steel) as well as combined probes with automatic detection of the base material.

The magnetic induction method allows measurements of paint, varnish, plastic, rubber, ceramics, zinc plating and galvanic coatings on steel. The eddy current method allows you to measure insulating coatings (paint, lacquer, plastic, anodizing) on non-ferrous metals.

The coating thickness gauge has a graphical LCD touch panel with an innovative operator guidance and a resolution of 320x480 pixels. The menu guidance is in German and English, further language packages can be installed. The blue silicone frame effectively protects the housing from damage.

With the flexibly divisible measured value memory, the freely definable calibration memories and the Bluetooth Low Energy interface to Windows, Android or iOS, you have all the possibilities to record and further process your measured values.



The scan function allows you to scan a workpiece over a rough surface and statistically evaluate the data. With the additional analog display, the visualization of the measured values is supplemented to recognize trends and peak values even from the corner of your eye.

The duplex function simultaneously records the single layer thickness when measuring insulating layers on galvanized steel parts.

Power can be supplied by 3 AA batteries or an external source connected via USB. Thus, you can operate the device with a power bank or on the AC adapter.

The probe cable, which can be plugged in at both ends, connects the display unit and probe and can be replaced effortlessly if the cable breaks.

All **List-Magnetik MEGA-CHECK** coating thickness gauges are high-quality products "Made in Germany".

MEASURING PROBES

for MEGA-CHECK DX

Type	FE or NFE	Model	Measuring range	Smallest area	Smallest curvature radius	
					convex	concave
DX52-D	magnetic inductive + eddy current	Dual probe with sliding sleeve and prism	FE 0-5.000 μm NFE 0-2.000 μm	\varnothing 8 mm	FE 4 mm NFE 6 mm	38 mm
DX52-DP	magnetic inductive + eddy current	Dual probe with sliding sleeve and prism, pivotable	FE 0-5.000 μm NFE 0-2.000 μm	\varnothing 8 mm	FE 4 mm NFE 6 mm	38 mm
DX5-F	magnetic inductive	Standard probe with sliding sleeve and prism	0-5.000 μm	\varnothing 4 mm	4 mm	38 mm
DX5-FP	magnetic inductive	Standard probe with sliding sleeve and prism, pivotable	0-5.000 μm	\varnothing 4 mm	4 mm	38 mm
DX1-F	magnetic inductive	Spring-loaded probe for small parts and complex surfaces	0-1.000 μm	\varnothing 2 mm	1 mm	6 mm
DX30-F	magnetic inductive	Two-point probe for very thick layers	0-30.000 μm	\varnothing 40 mm	15 mm	60 mm
DX1-FT	magnetic inductive	Transverse rod probe for small interiors and tubes	0-1.000 μm	\varnothing 2 mm	2 mm	16 mm
DX3-FT	magnetic inductive	Transverse rod probe for small interiors and tubes	0-3.000 μm	\varnothing 3 mm	2 mm	8 mm

Performance table and technical Data

MEGA-CHECK DX

Application:	Depending on the selection of the probe, measurement of paint, lacquer, plastic and galvanic layers on steel, measurement of insulating layers on non-ferrous metals with automatic recognition of the base material	Scan function:	for accurate measurement on rough or blasted surfaces
Standards:	ISO 2178, ISO 2360, BS 5411, ASTM	Duplex function:	for exact determination of single layer thickness when measuring insulating layers on galvanized steel parts (zinc layer must be > 60 μm)
Measuring probe:	measuring range depending on probe on steel and iron up to 30 mm (30.000 μm), on NFE metals up to 2 mm (2000 μm), minimum area, minimum radius of curvature and calibration value are also depending on probe	Measured value memory:	10,000 measurements, flexibly divisible
Accuracy:	below 100 μm : \pm 1 μm , 100-1000 μm : \pm 1 %, 1000-2000 μm : \pm 3 %, > 2000 μm : \pm 5 %	Statistics:	count / maximum / minimum / average / standard deviation
Resolution:	1-100 μm : 0.1 μm , 100-1000 μm : 1 μm , > 1000 μm : 10 μm	Calibration memory:	flexible number of calibration configurations storable
Measuring units:	μm and mils	Interface:	Bluetooth Low Energy interface for communication with Android, iOS and Windows App for Android, iOS, Windows: free of charge via Google Play Store, Apple App Store, List-Magnetik homepage
Ambient temperature:	0 - 50° C	Power supply:	3x 1.5 V AA Mignon. External power supply can be connected via USB-C
Display:	LCD touch panel color 320x480 pixel	Operating time:	approx. 25 hours
Multilingual menu:	German, English, other language packages available	Dimensions:	150 x 85 x 35 mm
		Weight:	320 g with batteries



List-Magnetik
Dipl.-Ing. Heinrich List GmbH
 Max-Lang-Straße 56/2
 D-70771 Leinfelden-Echterdingen

Phone +49 (711) 903631-0
 Fax +49 (711) 903631-10
 info@list-magnetik.de
 www.list-magnetik.de



www.list-magnetik.de