

Non-Destructive
Measurements

Measuring System QNIX[®] 8500


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A Modular Measuring System – Setting New Standards.



Innovation:
QNix[®] 8500 sat radio
control probe:
The new freedom of
coating thickness
measurement.



 QNIX[®]
QUALITY BY EXCELLENCE



QNix® 8500: A modular precision measuring system for maximum flexibility.

In close collaboration with practitioners from the handwork, industry and service sectors a new generation of a modular measuring system resulted that belongs to the best of its class.

Simply place and read.

Like other QNix® coating thickness gauges, the modular system of the QNix® 8500 is a perfect example of extremely simple and easy-to-use,

durable and reliable gauge with variable and versatile applications. Whether on lacquer or corrosion protection on metals. Whether on iron, aluminum, copper, zinc or steel.

With a simple probe change, all non-magnetic coatings on steel and iron and all isolating coatings on non-ferrous metals are measured accurately and non-destructively.

The image shows the QNix 8500 coating thickness gauge, a blue handheld device with a digital display showing '64.8' and 'Fe'. The device is labeled 'QNIX 8500' and 'AUTOMATIC DQ-NIX'. Several interchangeable digital probes are shown in the background. The QNIX logo and the slogan 'QUALITY BY EXCELLENCE' are visible in the background.

Modular Plug System

- Interchangeable digital probes (Fe, NFe, Dual)
- Adapter cable for external use of probe
- **NEW:** Fe-, NFe- and Dual radio control probes

Keypad

- Ergonomic and modern navigation system with illuminated keys
- Easy to use menu
- Bi-color LED to display measurements, data transfer and monitoring limits

Display

- Graphic display with high resolution
- All installed languages can be displayed
- Backlit display
- Flip display by 180 Grad

Robust Material

- Durable housing
- Probe head with protective ruby



QNix® 8500 Basic / QNix® 8500 Premium: A perfect measuring system.

With the modular measuring system QNix® 8500 the user has two gauge versions that are different in functionality and memory capacity.

Display of two readings.

Combine measurement is taken when, for example a coated Steel substrate has a thin zinc layer and painted. On a combined mode, the QNix® 8500 indicates separate values for the zinc and paint coatings (minimum substrate thickness is defined at 50µm -approximately, 1.97 Mil).

Calibration Options.

Besides the factory calibration, the measuring system QNix® 8500 allows for two calibration adjustments which are very helpful when measuring on curvature or small parts:

- with the one point calibration the probe is adjusted towards a known value.
- with a two-point calibration the accuracy of the probe is optimally adjusted (two values) to a defined thickness range to be measured.

Reliable measurements (also) on rough surfaces.


To measure on a rough surface, average the result of a reasonable number of zero measurements on the uncoated substrate and store the reference before measuring the thickness of the coating.

Averaging by varying coating thicknesses.

With a fluctuating paint thickness or to fulfil a certain norm, the QNix® 8500 can be adjusted so that the measured value is calculated from a previously defined number of single measurements.

Data management and documentation via Excel.

With the QNix® Software the data can be wirelessly transferred to an Excel sheet. Hence, the stipulated availability of statistical analysis in a quality system is given.

Menu Structure	Gauge Version 		BASIC	PREMIUM
Substrate Selection	Substrate Choice	Fe – NFe Fe/NFe automatic Combined measurements	■ ■	■ ■ ■
	Measurements	Single measurement Continuous measurements	■	■ ■ ■
	Upper-/Lower Limit Averaging		■	■ ■
Data Memory * max. 2000 measurements per batch	Number of readings Number of batches Batch Name –info-Upper-/Lower Limit		Up to 100 1	Up to 13000* 999 ■
Statistics	Mean/ Standard Deviation/Maximum/Minimum – also for the batch/batches		■	■
Calibration	Number of custom calibration (one-point/two-point) Average zero reference		1	100 ■
Setup	Display	Unit: µm/mil Resolution: Coarse/Normal/Fine Backlight: Auto/OFF Orientation: Normal/Flip	■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■
	Wireless Interface: ON/OFF Display System Info Language: up to 3, for example English, French, Spanish Signal generator: On/Off Date/Time			



The new freedom of coating thickness measurement - The unique radio control probe.

The QNix® sat is an innovative development that enunciates, in combination with QNix 8500®, a never known before freedom of coating thickness measurement.

QNix® sat, is not only the world's first and smallest precision probe for non-destructive Fe and NFe measuring of coating thickness. It extends the application scope with a wireless and trouble-free transfer of statistical data via radio frequency.

The radio control probe is the right answer to the demand of many end users for a gauge that fulfils norms in the paint and corrosion protection industries, especially allowing for measurements at difficult-to-access points. A freedom that creates extra safety.

One-hand free measurement: Sure and precise.

The new miniaturize radio probe QNix® sat makes it possible to take precise measurements everywhere, even where in the past handheld gauges and probes on extension cables could not reach: Non-destructive measuring of coating thickness of lacquer and corrosion protection on buildings, restoration objects and safety projects for airplanes, ship and bridge inspections is made simple.

Q N I X 8500 sat



Radio Control Probe

- Thumb-size and only 30 gram
- Protective strip for safe one-hand free measurement
- Transfer of readings at a distance up to 20 meters
- Take up to 2000 measurements without recharging
- Blue LED signal confirms valid measurement



The Body Gauge

- Memory capacity, display and charging station for radio control probe QNix® 8500 sat.



Measure, where the thumb fits.

Measuring coating thickness at safety points is imperative, especially for restoration and inspection of buildings, bridges, ship, structural steelworks and airplanes. Not all gauges can be used for this purpose. Requirements for paint- and anti-corrosion protection gauges that measure at such safety points are high: Gauges must be simple and safe, durable, reliable and consistent in their long-term use. In extreme conditions, the probes must be small and be able to guarantee safe precise measurements. Furthermore, one must be able to transfer valid measurements through the statistics function to the PC for evaluation. In all of the above, the modular concept in the QNix® 8500 proves its uniqueness.



One-hand free measurement - when safety counts!

Over 40 years, easy to use, handy, precise and robust gauges are the synonyms and quality terms for QNix® coating thickness gauges. They are valued by practitioners in their daily use. The new, thumb-size wireless radio probe - QNix® sat

opens the possibility of measuring everywhere, especially where human safety is demanded as it allows for a problem-free one-hand operation and measurement in most extreme conditions.



Radio Control Probe

- with integrated protective rube
- with hand strip



Precise measurements, even under extreme conditions.

Shipyards, dockyards, engineer's offices, coating companies, paint applicators and paint manufacturers are particularly interested in high quality coatings and taking precise measurements at very narrow spots and under extreme conditions like boat bottoms. Where protective coatings and breathing masks are a necessity,

gauges and measuring probes for controlling the coating thickness should also be of high quality.

The new QNix® sat radio control probe with its extremely small dimensions takes precise measurements of lacquer and anti-corrosion protective coatings, even at hard to access safety points.

Coating thickness measurement on wide-stretching surfaces

Where coatings are applied on wide stretching surfaces, such as on airplanes and ship constructions, coating thickness gauges have to show proof of consistent precision measurements. Apart from measurements on large surfaces, the control of coating thickness on welded edges and narrow areas are interesting for safety tests. Due to the difficulty to access some of

these areas, paint is not always applied evenly on all surfaces. Inspectors are aware of this difficulty and are particularly interested in verifying such. The modular concept of the QNix® 8500 in combination with the only thumb-size radio control probe QNix® sat is ideal for taking measurements on such difficult to access surfaces.

The QNix® 8500 modular measuring system sets the standard.

As a pioneer in handheld coating thickness measurement gauges, it is our tradition to exceed customer expectation world-wide: with simple, easy to use, innovative products and individual services for quality assurance for the coating and surface technology industries. With these values the new modular measuring system in the QNix® 8500 sets the standard.

Contact us with your measuring problem – We provide you with the right solution.

Since we develop our coating thickness gauges and systems in close collaboration with end-users all over the globe, we understand what it takes to be "user-friendly".

- Simple, comfortable, easy to handle.
- No calibration required.
- Broad, variable and individual application spectrum.
- Memory and statistical analysis.
- Quality, precision and durable.

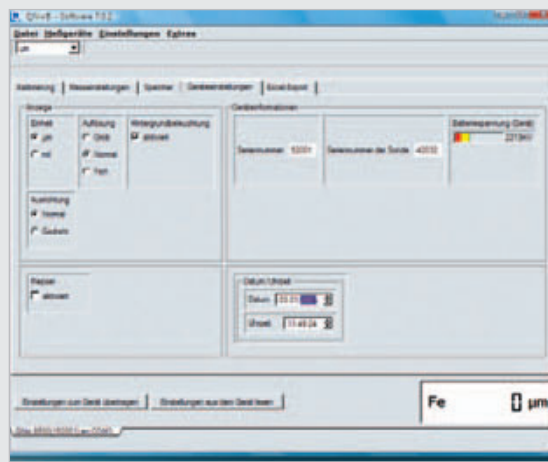
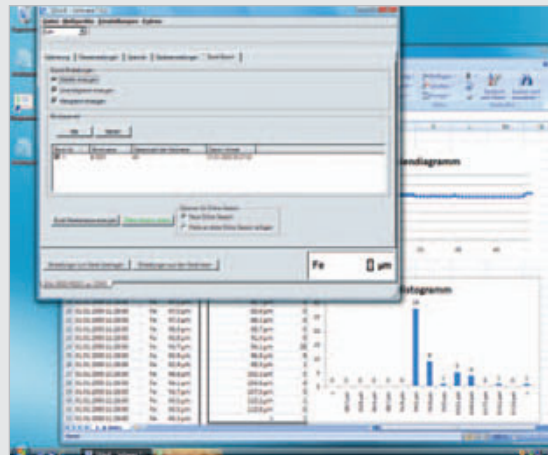


QNIX® Software

The measuring system QNix® 8500 is complemented with user-friendly PC software, which incorporates many options for practical data analysis and configuration of the body gauge. Readings are transferred from the body gauge memory via wireless interface into the software.

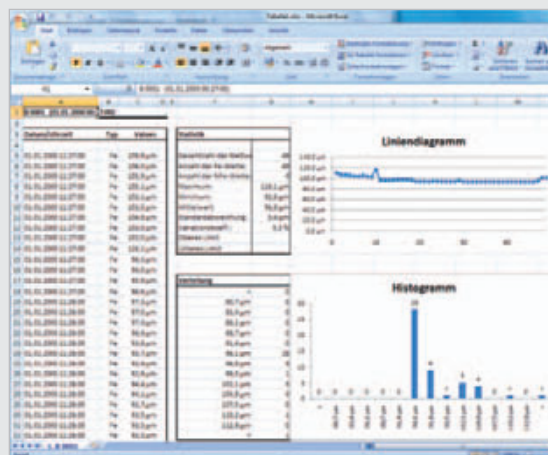
When readings are exported into an Excel sheet, the user has many options of statistical analysis and graphical presentation, hence a provision for documentation of measurements in quality management, appraisals and other use. With a simple and intuitive operation of the gauge the desired result is achieved. The body gauge can be configured with the software. Almost all operational changes that are carried out on the body gauge are also possible with the PC software.

All together, the QNix® Software is the basis for adapted applications with which a quality assurance system can be supported.



Advantages that create value for the customer:

- Wireless communication between PC and body gauge.
- View memorized readings from the body gauge.
- Export readings into Excel sheet.
- Configure the body gauge.
- Online measurement.
- Adaptable to individual evaluation system.



Body Gauge	QNix® 8500
Probe Type	Interchangeable
Unit	µm/mil
Resolution	0,1 µm in the range below 100µm, 1 µm in the range from 100 µm to 999 µm, 0,01 µm in the range above 1000 µm



Interchangeable Probes Probe -Type	8500 Fe 2000 µm (80 mil)	8500 Fe 5000 µm (200 mil)	8500 NFe 2000 µm (80 mil)	8500 Dual Fe/NFe 2000 µm (80 mil)	8500 Dual Fe/NFe 5000/ 2000 µm (200/80 mil)
Measuring Principle	Magnetic Flux Hall Effect (Fe*)	Magnetic Flux Hall Effect (Fe*)	Eddy current (NFe*)	Magnetic Flux Hall Effect (Fe*) Eddy current (NFe*)	Magnetic Flux Hall Effect (Fe*) Eddy current (NFe*)
Standard & Specification	DIN EN ISO 2808, DIN 50981 ISO 2178, BS 5411 (11), BS 3900-C5, ASTM B 499, ASTM D 1186,ASTM D 7091	DIN EN ISO 2808, DIN 50981, ISO 2178, BS 5411 (11), BS 3900-C5, ASTM B 499, ASTM D 1186, ASTM D 7091	DIN EN ISO 2808, DIN 50981, BS 3900-C5, ASTM D 7091, DIN 50984, BS 5411 (3), ISO 2360, ASTM D 1400	DIN EN ISO 2808, DIN 50981, DIN 50984, ISO 2178, BS 5411 (3 & 11), BS 3900-C5, ASTM B 499, ISO 2360, ASTM D 1400, ASTM D 1186, ASTM D 7091	DIN EN ISO 2808, DIN 50981, DIN 50984, ISO 2178, BS 5411 (3 & 11), BS 3900-C5, ASTM B 499, ISO 2360, ASTM D 1400, ASTM D 1186, ASTM D 7091
Measuring range	0 - 2000 µm (0 - 80 mil)	0 - 5000 µm (0 - 200 mil)	0 - 2000 µm (0 - 80 mil)	Fe/NFe: 0 - 2000 µm (0 - 80 mil)	Fe: 0 - 5000 µm (0 - 200 mil) NFe: 0 - 2000 µm (0 - 80 mil)
Measuring interval	1500 ms	1500 ms	1500 ms	1500 ms	1500 ms
Accuracy – in accordance with Automation's Standard	± (1 µm + 2% of reading)	± (1 µm + 2% of reading) in the range of 0 - 2000 µm ± 3,5% of reading above 2000 µm	± (1 µm + 2% of reading)	± (1 µm + 2% of reading)	± (1 µm + 2% of reading) in the range of 0 - 2000 µm ± 3,5% of reading above 2000 µm
Minimum Area measured (mm x mm)	20 x 20	20 x 20	20 x 20	20 x 20	20 x 20
Minimum Curvature	Concave: 5 mm, Convex: 30 mm	Concave: 5 mm, Convex: 30 mm	Concave: 5 mm, Convex: 30 mm	Concave: 5 mm, Convex: 30 mm	Concave: 5 mm, Convex: 30 mm
Minimum substrate thickness	0,2 mm	0,2 mm	0,05 mm	Fe: 0,2 mm, NFe: 0,05 mm	Fe: 0,2 mm, NFe: 0,05 mm
Wireless Interface	NA	NA	NA	NA	NA
Temperature range	0 - 50 °C	0 - 50 °C	0 - 50 °C	0 - 50 °C	0 - 50 °C
Storage Temperature	-10 °C - 60 °C	-10 °C - 60 °C	-10 °C - 60 °C	-10 °C - 60 °C	-10 °C - 60 °C
Power Supply	from body gauge	from body gauge	from body gauge	from body gauge	from body gauge
Dimensions (L x W x H in mm)	60 x 26 x 22 Without connector	60 x 26 x 22 Without connector	60 x 26 x 22 Without connector	60 x 26 x 22 Without connector	60 x 26 x 22 Without connector
Weight, incl. Batteries	approx. 12 g	approx. 12 g	approx. 12 g	approx. 12 g	approx. 12 g

All interchangeable probes are also available as radio control probes QNix® 8500 sat, with the following additional features.



Radio Control Probe QNix® sat	
ISN Frequency Band	2,4 GHz
Radio Transmission Range	Max. 20 m
Power Supply	Lithium -Ion Accumulator, rechargeable via body gauge QNix® 8500
Accu Capacity	Max. 2000 readings
Charging Duration	5 Hours
Dimensions	61 x 28 x 28 mm
Weight	approx. 30 g

Fe* Measuring of non-ferromagnetic coatings on ferromagnetic substrate, for example measuring on steel- or iron-substrates.

NFe* Measuring of non-ferromagnetic and electrically non-conductive coatings (insulating coatings) on non-ferromagnetic and electrically conductive substrate, for example measuring on aluminium-, zinc-, brass- and certain stainless (high-grade) steel-substrates.

Technical data subject to change without notice



QNIX® 8500

QNIX® 8500 sat



Quality by Excellence.

World-wide – QNix® coating thickness gauges have become the reference for excellent quality "Made in Germany". This is confirmed in their simplicity, safety, comfortable operation and durability. Every one of our devices and systems is manufactured exclusively in Germany. According to strict quality standards, they are examined for durability and operator-safe usage.

We serve our customer.

For more than 4 decades AUTOMATION Dr. Nix has made it an obligation to manufacture innovative gauges and systems that will help customers produce and control high-quality coatings and create value – enhance quality and productivity.

Scope of supply

- Body gauge QNix® 8500 with optional probe.
- 2 Mignon batteries 1.5 V (AA) (Alkaline).
- Adaptor cable for external probe (not for radio control probe).
- Instruction manual.
- Test certificate for optional probe.
- Reference plates.
- Suit case belt clip.
- Gauge carrying case for safe transportation and storage.

Options:

QNix® Interchangeable Probes

With the measuring System QNix® 8500 you can interchange all available probes.

- Fe-probe 2 mm (80 mil).
- Fe-probe 5 mm (200 mil).
- NFe probe 2 mm (80 mil).
- Dual probe Fe 2 mm / NFe 2 mm (80/80 mil).
- Dual probe Fe 5 mm / NFe 2 mm (200/80 mil).

QNix® Radio Control Probes:

With the measuring System QNix® 8500 you can interchange all available radio control probes.

- Fe radio control probe 2 mm (80 mil).
- Fe radio control probe 5 mm (200 mil).
- NFe radio control probe 2 mm (80 mil).
- Dual radio control probe Fe 2 mm / NFe 2 mm (80/80 mil).
- Dual radio control probe Fe 5 mm / NFe 2 mm (200 mil/80 mil).

QNix® Software:

- QNix® Software for data transmission and evaluation with EXCEL and also to configure the body gauge*.
- USB wireless interface for bi-directional data exchange between body gauge and PC.

QNix® Calibration Foils (Shims)

- Calibration foils, Reference plates – also available as set.



* According to our terms of sale.

