Made in Germany

QNix® 9500

The coating thickness gauge to measure the thickness of coating on metal

QUALITY „MADE IN GERMANY“

AUTOMATION Dr. NIX

QNix® 9500
The coating thickness gauge

SAFETY BY PRECISION AND TRUENESS
For valid results in quality assurance

- High measuring trueness over the entire range
- Very high repeatability of measured results
- Temperature compensation directly in the sensor
- Precise measurements even on curvatures and small parts
- Easy adjustment on rough, smooth or curved substrates

ROBUSTNESS AND RESISTANCE
For long and reliable use,
even under harsh conditions

- Fibreglass reinforced, 5 piece casing with IP65 dust and splash water protection
- Three layer protection to absorb shocks
- LCD glass providing resistance against scratches and chemicals (Level H6)
- Operational temperature from -20 °C to +70 °C
- Stainless steel probe with dust protection membrane (IP65)

TIME SAVING BY ERGONOMICS
Fast and fatigue proof work even with continuous use

- Direct feedback from limit indicator in display and RGB-LED on the probe
- Luminosity IPS-LCD24°, colour, 600 lm, reading angle 70°
- Optimal readability of display even in direct sunlight, brightness can be adjusted automatically or manually
- Large haptic keypad and low centre of gravity
- Flip display 0°, 90°, 180°, 170°

FLEXIBILITY AND EXPANDABILITY
Future-proof by changeable probes

- Gauge body suitable for Fe-, NFe- and dual-probes
- Quick change to cable probe
- Integrated probe and cable probe available in one device
- Increased readiness for use by quick change of probes
- Fast adaption to different measuring tasks

COMPREHENSIBILITY AND USER-FRIENDLINESS
Intuitive operation saving time and money

- Easy adjustment
- Intuitive menu guidance for the gauge and software, report by 3 clicks
- Freely assignable key for individual fast access
- Pre-configured standards

The QNix® 9500 product family

		BASIC	PREMIUM	PREMIUM+
Basic functions	Colour LCD	x	x	x
	Adjustable diplay resolution	x	x	x
	Flip display 0°, 90°, 180°, 270° automatic or manual	x	x	x
	Automatic brightness adjustment	x	x	x
	Manual brightness adjustment	x	x	x
	Acoustic measuring confirmation, adjustable sound	x	x	x
	Change µm/mil	x	x	x
	Battery replacement without loss of settings, date and time	x	x	x
	Shows live statistics as values	x	x	x
	Shows statistics as a graphic	x	x	x
	Live measuring (measurement shown on PC)	x	x	x
	Assign Hotkey	Fix Start Just	x	x
	Accurate measurement (delayed measurement when placed on surface)	-	x	x
	Activate measurement with button (adjustable)	-	x	x
	Pin protection	-	x	x
Measuring	Automatic substrate switch	x	x	x
	Manual substrate switch	x	x	x
	Combined measuring (Fe and NFe coating with one measurement)	-	x	x
	Measuring speed	≥ 120	≥ 120	≥120
	Continuous measuring mode		x	x
Durability	Robust, fibre reinforced 5 piece casing	x	x	x
	IP class	IP65	IP65	IP65
	Operation temperature	-20 °C bis 70 °C	-20 °C bis 70 °C	-20 °C bis 70 °C
Interface	USB	x	x	x
	QN9-Software	x	x	x
Adjustment	Zero	x	x	x
	1-point	x	x	x
	2-point	x	x	x
	Individual (adjustment freely configurable)	-	x	x
	Adjustment memory in device (10 adjustments)	-	x	x
	ISO 19840 Zero Offset	-	-	x
	ISO 19840 2-point	-	-	x
	SSPC PA2 Zero Offset	-	-	x
	SSPC PA2 2-point	-	-	x
Memory	Switch from area to area	-	x	x
	Copy settings of jobs/areas	-	x	x
	Jobs	1	1	100
	Areas per job	1	100	100
	Spots per area	10,000	10,000	10,000
	Total memory	10,000	1,000,000	2,000,000
Limits	Adjustable limits	x	x	x
	Pass/fail warning of limit value with LED	x	x	x
	Define limits for each area	-	x	x
	Switching areas automatically	-	x	x
	Individual	-	x	x
	ISO 19840	-	-	x
	SSPC PA2 (80/120) (level 1-5)	-	-	x
	IMO PSPC (90/10)	-	-	x

The QNix® 9500 probe range modular – robust – flexible

The QNix® 9500 probes have been completely redesigned. The new QNix® standard probe is small and highly robust. There are Fe-, NFe- and dual probes available.

QNix 9500® interchangeable probe

- Stainless steel probe with a protective membrane, IP65 dust and water protection
- Resistant probe head with polished ruby
- Chemically resistant material, to clean with solvents (acetone, nitro dilution, ethanol)
- LED-limit indicator on the probe tip
- Probe adaptor cable made of drag chain compatible PUR

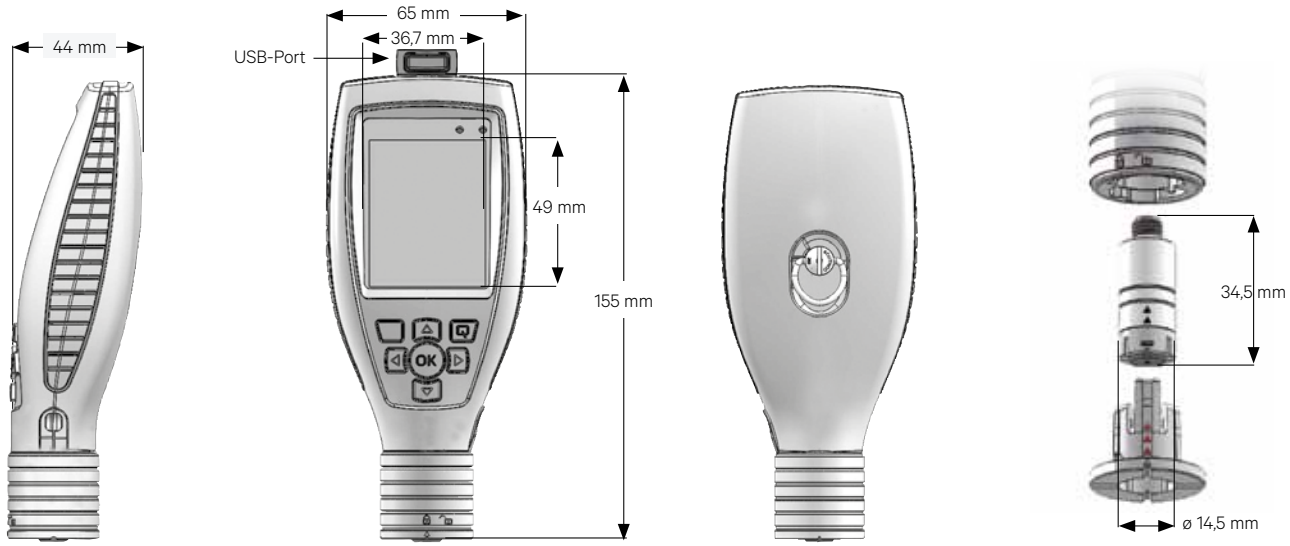
There is a digital copy of the last calibration certificate saved in each probe, which can be integrated into a report via PC software.

All interchangeable standard probes of the QNix® 9500 are also compatible with the new QNix® 5500, thus ensuring a cross-model flexibility.

Technical data QNix® probes

Technical measurements		
Status display with RGB-LED on the probe		yes
Limit display with RGB-LEDs on the probe		yes
Measuring principal		magnetic: magnetic field amendment/Hall-effect Fe/whirl current NFe
Standards		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		depending on the probe
Measuring speed (measurements per minute)		≥ 120
Accuracy of measurement** on Fe substrates related to QNix® reference standards		± (1 µm + 2 % of the reading) to 2,0 mm ± 3 % of the reading from 2,0 mm
Accuracy of measurement** on NFe substrates related to QNix® reference standards		± (2 µm + 2 % of the reading) to 2,0 mm ± 3 % of the reading from 2,0 mm
Smallest measuring surface NE / NFe		diameter 14,5 mm
Smallest curvature	konvex Fe	4 mm – Zero adjustment and 250 µm adjustment on original substrate (accuracy checked up to 250 µm) 6 mm – Zero point adjustment on original substrate (accuracy checked up to 250 µm)
Smallest curvature	konvex NFe	30 mm – Zero adjustment and 250 µm adjustment on original substrate (accuracy checked up to 250 µm) 50 mm – Zero point adjustment on original substrate (accuracy checked up to 250 µm)
MInimum thickness of base metal	Fe	25 µm – Zero adjustment and 250 µm adjustment on original substrate (accuracy checked up to 250 µm) 100 µm – Zero point adjustment on original substrate (accuracy checked up to 250 µm)
MInimum thickness of base metal	NFe	20 µm – Zero adjustment and 250 µm adjustment on original substrate (accuracy checked up to 250 µm) 50 µm – Zero point adjustment on original substrate (accuracy checked up to 250 µm)
Mechanical properties		
Material casing top*		Stainless steel (1.4305)
Material casing bottom*		Trogamid®
Material measuring tip*		Ruby, polished (Al203)
Dimensions (height, diameter)		34,5 mm, 14,5 mm
Weight		11,9 g
Robustness / environmental conditions		**Classification**
IP-protection		IP65
Operating temperature		-20 °C to +70 °C
Storage temperature		-20 °C to +70 °C
Max. surface temperature at continuous measuring mode		80 °C
Max. surface temperature at 2s measuring time every 10s		100 °C

* Clean with a damp cloth; is chemically resistant against acetone (except soft rubber parts e.g. keyboards or rubber protective frame), nitro dilution and ethanol
** An accurate measurement can vary when external temperature is below -5 °C or above 65 °C, but not more than factor 2.



QNix® 9500 application

Industrial coating – job coater – wet or powder coating

Single, series or random sampling

More efficiency

The quality requirements for coatings in terms of appearance, lifetime and reliability are constantly increasing with increasing pressure on saving costs. Efficiency is therefore essential for the coating process, quality assurance and order-related documentation.

The QNix® 9500 gives optimum support by set-ups that can be saved as templates. Configure limits and adjustments in advance on the PC or device. Create folder structures for your readings per production lot or component or activate different templates at any time. The pre-configurable reports of the QNix® 9500 bring transparency and can be individually customized to the client's needs. Or you use one of the standard templates to generate a report by three clicks. This can be supplemented, for example, with the certificate of the last calibration stored in the probe.

Surface finishing – electroplating – anodizing

Quality control with the QNix® 9500

High precision

Functional coatings achieve defined surface properties for corrosion and wear protection, e.g. in the automotive sector or mechanical engineering. Here, quality assurance is of particular importance, because the layers are very thin and the tolerance range is comparatively small.

The QNix® 9500 has simple adjusting features that ensure accurate measurement results on different substrate properties or component geometries. Save your adjustments for different applications for quick changes to previous adjustments.

Various measurement triggering options (press key on device when measuring on a tripod or delayed measurements) support you just as much with measurements on complex geometries, as well as small diameter and the low overall height of the standard QNix® P3 probe.

Vehicle inspection by automobile experts and trades

Quick and easy

Today, professional vehicle evaluations are only possible by the aid of coating thickness gauges, e.g. for professional accident reports or value reports, for leasing returns, for the purchase of used cars and for the inspection and documentation of body and paint work.

With the QN9 software you can quickly and easily create templates for different body shapes that you save on the gauge. Generate new jobs (inspection plan for a vehicle) from your stored template with just three clicks on the gauge. Create report templates for the test report, add photos or comments to the report, or generate your standard report with just three clicks once connected to the PC.

Automatic alignment of the display, brightness adaptation, large foot and low centre of gravity, the device facilitates fast and precise work.


Photo: evannovostro


Photo: dinga

Heavy corrosion protection

Ergonomics for continuous use in rough environments

Extremely robust

For the execution and monitoring of coating process in heavy corrosion protection, system procedures and complete documentation is often required. In almost no application are there so many requirements, standards and guidelines. The requirements for man, machine and device are extremely high.

When developing the QNix® 9500, huge importance was attached to robustness and ergonomics. The fibreglass reinforced three-layer plastic casing, which ensures shock absorption from external impact, display and electronics as well as the drag chain cable suited to the industrial standards, meet these requirements, even in case of the cable having to be replaced.

Extensive preconfigured parameters support you setting limits and adjusting standards (e.g. ISO 19840, SSPC PA2, IMO SSPC). Readings above or below the limits are indicated acoustically by a beep, visually by a distinct colour change in the display, as well as by a RGB LED in the probe tip. Thus, you can fully concentrate on the areas to be measured.

The high measuring speed of up to two measurements per second ensures fast processing in case of large components. The simple and intuitive menu almost eliminates the need for training.

The QNix® 9500 PC software

Software can only be powerful if users can intuitively integrate it into their workflow.

Intuitive operation

When developing the QNix® 9500 PC software, the focus was on the design of the graphical user interface – easy to understand and quick to apply.

Many consultations were held in advance with users from a wide range of industries in order to find out what requirements have to be met by the PC software. The result is a software that is intuitive to use, where you can find your way quickly, that saves time and optimizes the procedure.

Configure from your PC

The QNix® 9500 software is completely browser-based and requires no software installation, so it is independent of the current version of Windows. The operating logic of the entirely redeveloped PC software of the QNix® 9500 has also been applied in the user interface of the Qnix® 9500 gauge. All configurations that are made on the gauge can also be set up using the PC software.

Three clicks to the report

Thanks to the integrated powerful statistical functions you can evaluate your measurements with just three clicks and document them. By preconfigurated and freely positionable text, table and graphic modules you can create professional report templates using drag-and-drop. Logos and photos of the object being measured and the last certificate of calibration can be integrated into the report without any effort.

A report documents the results of the survey and increases its credibility.

Report editor

3 klicks to get a report

Configuration of device

Live measurement

Display and functions

The QNix® 9500 provides a variety of information on the display, dramatically increasing usability and speed.

Smart tab navigation

The newly developed tab navigation enables fast, clearly structured navigation through the handheld device and the PC software. The colour tabs, sorted per batch, can be found in both the gauge device and in the PC software. The result: an easy-to-use and easy to understand navigation.

Particular attention has been paid to the handheld device to shorten navigation paths in order to increase the working speed. Well structured menu levels are the basis for fast navigation, even through many measurements. The large LCD allows smart browsing of the measurement history, fast deletion of incorrect measurements and a rough statistical evaluation directly on the gauge display – average, maximum and minimum measurements and deviations. Optionally configured limits are displayed as well. Outliers are red.

Jobs and areas

Jobs and areas structure the large number of measurements. Various jobs can be created, each with several areas as a second structuring level. All jobs and areas can be freely named via the PC software and saved as a template. Some templates are already configured on the device when delivered.

Focal frame

The focal frame enables fast navigation through measurement history, statistics, jobs and areas..

You can navigate through the areas of a job

Here, you can navigate through the measurement history

If the focal frame is in this area, you can switch between the display of statistical data

QNix® 9500 delivery package

- Handheld QNix® 9500
- PC software QN9
- Fe- and NFe-reference plate and two test foils
- Operation manual
- USB cable
- 2 Mignon batteries 1,5 V (AA) alkaline
- Plastic case for transport and storage

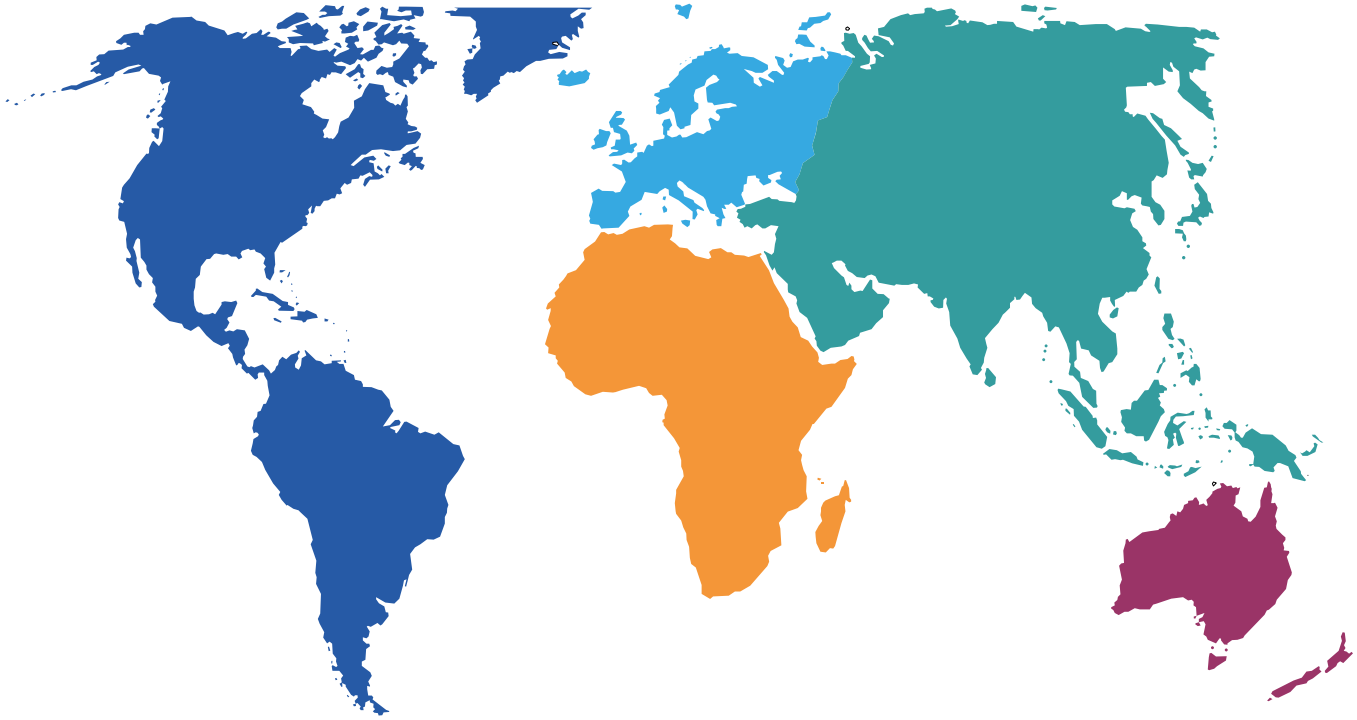
If a probe is ordered with the modular system, these additional components are supplied: Probe, Test certificate for measuring probe, Probe holder, Probe adaptor cable for extending the probe

QNix® 9500 technical details

Electrical details					
Power supply	2 x AA (Alkaline LR6				
Power system clock	CR1220				
Battery life when device is not in use at min. 50 % battery capacity	> 1 year				
Battery life at one measurement per second	up to 60,000 readings				
Display	IPS-LCD, 2.4", colour, 600 lm (550 cd/m²), viewing angle 70° all directions				
Mechanical details					
Material housing parts hard*	PA12 GF30				
Material housing parts soft*	TPE				
Material sensor holder (transparent)*	Trogamid®				
Dimensions (H x W x D)	155 x 65 x 44 mm				
Weight	175 g				
Robustness / external conditions	**Classification**				
IP protection	IP65				
Operating temperature	-20 °C to +70 °C				
Storage temperature	-20 °C to +70 °C				
Measurement range					
QNix® 9500 with modular probe, optional	Fe: NFe: dual Fe/NFe:	1,25 mm 1,25 mm 1,25 mm / 1,25 mm	3 mm 3 mm 3 mm / 3 mm	5 mm 5 mm 5 mm / 3 mm	 5 mm / 5 mm

* Clean with a damp cloth, is chemically resistant against acetone (except soft rubber parts e.g. keyboards or rubber protective frame), nitro dilution and ethanol.

QNix® coating thickness gauges are global players



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Automation Dr. Nix GmbH & Co. KG
Robert-Perthel-Straße 2
50739 Köln – Germany

Phone +49 (0) 221 91 74 55-0

info@automation.de
www.q-nix.com