

**NEW: Modular measuring system with extreme flexible use for measuring coating thickness on Steel, Iron and Non-ferrous metals.**

*A wireless transfer of measured values with the world's first only thumb size, 30 gram light radio control measuring probe.*

**A modular measuring system QNix® 8500: A universal genius, but ingeniously simple.**

The new modular measuring system QNix® 8500 designed by AUTOMATION Dr. Nix GmbH, Cologne, guarantees variable, versatile use and allows for new areas of application:

With a simple probe change, users can non destructively measure a thickness range up to 5000 µm on steel, iron and non-ferrous metals and transfer data, as well as evaluate and create user-specific documentation.

The system QNix® 8500 allows the user to structure their measuring task in a highly flexible manner.

**The wireless transmitting of measured values by radio control extends application possibilities.**

The world's unique radio control probe QNix® sat is part of the measuring system and an example of an extraordinary versatility and adaptability. In combination with the QNix 8500, the 30 gram light miniature measuring device opens a completely new application horizon for wide stretching surfaces and narrow measuring points.

Only thumb size, the new radio control probe QNix® sat permits one hand-free measurements, even where conventional handheld gauges have their problems: With lacquer and corrosion protection -, safety and inspection measurements on bridges, airplanes, ship and other steel constructions - Even within safety critical areas at which precise thickness measuring was previously not possible. No cable disturbs the taking of measurements - Because the measured values are transferred, noted and documented wirelessly by radio control. Where the thumb fits, one can also measure now.

Stephan Nix: "this system belongs - without doubt, to the world-wide unsurpassed development in the industry."

## **Background:**

Dr. Ing. Gerrit Gehnen - Director of the research & development team of AUTOMATION Dr. Nix GmbH & CO. Kg, Cologne narrates the story:

As a pioneer for precise and particularly easy-to-use handheld measuring devices for measuring of coating thickness, Automation Dr. Nix in Cologne develops innovative products, deriving from the practical experience of its users in over 40 countries.

The recent development of a world's new radio control probe is a result of the demands and desires of many users for precision measuring instruments, which measure lacquer and corrosion protection coating thickness at difficulty to access or safety relevant, for example on bridges, airplanes or shipbuilding: The new radio control probe is the world-wide first and smallest, only thumb size precision device for the non destructive measuring of coating thickness on Fe and NFe substrates. Because of the wireless transmission of the measuring data by radio to the body gauge, QNix® 8500 sat extends the application scope of the measuring coating thickness and provides users with a never known before "freedom of measuring" that creates additional value.

## **The situation today:**

Measuring coating thickness at difficult to access, safety-relevant places.

Those who must make a multiplicity of measurements with a Hand held measuring instrument know what we are talking about. In course of taking the many measurements the instrument can become unmanageably or too heavy. A user who accomplishes a large number of measurements over hours stands under physical strain and fatigues easily. Because of the fatigue, measuring errors easily occur which might have serious consequences, leading to complaints and repetition of measurements.

A further problem: Even a relatively small measuring instrument with memory, batteries and display is still too large, in particular for complicated measuring tasks. The critical places of a coating are hidden in the most inaccessible places. In such cases, taking precision measurements at safety-relevant points with conventional measuring instruments is difficult: - these points are often neglected.

A cable-led measuring probe already offers a certain easement for such measuring tasks, since the actual measuring head is substantially lighter than the whole measuring instrument. But still, probe and body gauge are connected by a disturbing cable - A connection that is always annoying and a source of danger. In practice one always needs both hands for precise measurements: A hand leads the measuring probe, the other one controls the cable, which always interrupts the measuring process. For security purpose, especially for a hold to the ladder, one needs one more hand.

**NEW: Miniaturized radio control probe allows for precision measurements at difficult- to- access measuring points.**

The newly developed miniaturized and completely separate measuring probe, which communicates by radio transmission with the indicating gauge and data storage unit, now offers more than just fundamental advantages:

**Wireless:** No cable obstructs the measurement at inaccessible places or endangers the user. **Thumb size:** With the small dimensions of the only thumb size radio control probe the user reaches practically everywhere, also difficult to access measuring point.

**Light Weight:** The weight of the radio control probe (30 g) avoids strain, fatigue and associated measuring errors.

**Security:** Even at difficult positions, the radio control probe allows for simple, safe and precise measurement.

The world's new radio probe QNix® sat in combination with the modular measuring system QNix® 8500 of AUTOMATION Dr. Nix, Cologne, ideally fulfills the safety and security requirements for the measuring of coating thickness on metals.

**The world's new radio control probe QNix sat: An innovative solution**

The development of the world's first wireless radio control probe QNix® sat was only because of the existing experience with the measuring probes of the modular gauge system QNix® 8500. On the basis of its well-known reliability and precision of this probe line and its unproblematic handling, also on different substrates, the simple operation mentality was maintained. Thumb size and only approximately 30 gram, QNix® sat represents the smallest measuring device for measuring coating thicknesses today.

The new radio control probe consists of an extremely miniaturized measuring computer, a high performance Accumulator as well as a radio interface with a transmission range up to approximately 20 meters. The device is constructed for radio transmission to work omni directional – no need to adjust antennas to the proper direction of optimal reception. The radio transmission works in the safe frequency band of 2,4 GHz. As such, one can use this device everywhere without restriction.

With the use of a Low power Chip set for the radio transmission, the accumulator is loaded gradually. The transmission is secured by an appropriate coding against disturbances. The radio technology used for the QNix sat has a proven employment in the wireless transmission of data between the body gauge and a PC. A high speed Accumulator permits up to 4000 measurements without reloading the probe. It is loaded over the body gauge. The full capacity is available after approximately five hours. The proven measuring head with an integrated ruby prevents the damage of the coating due to the polished, rounded off surface.

**Simple handling, even in rough environment.**

The design of the radio control probe was optimized purposefully for the use in the rough everyday work and hard site conditions. During the intensive development phases the robustness of the device was guaranteed by numerous quality

inspections, load -, shaking and drop test. The innovative result is practice and user oriented construction, which ensures simplest handling, highest precision with at the same time durable long term use. For assurance that measurement has been taken, the transmission of the measurement is optically indicated at the probe by a blue LED signal. In this way, even in noisy conditions of work one can be sure that all measurements were taken precisely and correctly. The body gauge, which serves as memory, indicating and loading station, can be carried in the jacket pocket or be fastened with bracelet on the arm. In this way, measured values are always comfortably read off without the measuring instrument acting as a disturbing item.

The measurement of the coating thickness is always possible depending on whether its execution is on a ferromagnetic substrate or a non-ferromagnetic substrate. The dual radio control probes combine both possibilities and offer optimal flexibility in each measuring situation.

**The application of the radio control probe opens new areas of application for coating thickness measurement.**

The only thumb size radio control probe QNix® sat offers a set of practical advantages:

For corrosion protection measurements, new and safety-relevant ranges become measurable with the small dimensions of the radio control probe. A higher security for the user is reached by the problem-free one hand measurement.

For measurements on wide stretching surfaces or in higher heights with ladder, the radio control probe has the inestimable advantage of the small weight and the wireless transmission. The fatigue danger is minimized. Substantial sources of error and safety risks are eliminated. Simplest handling - which ensures quality and security without neglecting precision. The innovative radio control probe QNix® sat is a great achievement for the user. It creates a "new freedom of measuring in the real sense of the word."

Dr. Ing. Gerrit Gehnen

**Further information and photos at [www.q-nix.de](http://www.q-nix.de)**

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