# Ultrasonic testing systems | 100 MHz | PHAsisNEO

**PHAsisNEO, for fast, simple use in production – reliable testing without profound ultrasonic knowledge.**



PHasisNEO picture

Ultrasonic inspection device for the fast and precise inspection of welded joints in production, especially spot welds and short weld seams

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**Advantages**

- Key Visualization: C/D scans illuminate the weld, providing clarity and precise detail.
- High Resolution: More than 700 measuring points ensure superior resolution for pinpoint welding lens diameter accuracy.
- Easy assessment: Automatic image-based suggestions for reliable inspection without the need for ultrasound expertise.
- Inspection speed: Accelerated inspection thanks to simultaneous scanning of large areas.
- Versatile Probes: Universal probes eliminate the need to change equipment for different sample types.

**Benefits**

- Imaged display: direct visualization of weld beads via C/D scans for simplified quality assessment.

- High resolution: more than 700 measuring points for precise determination of the welding lens diameter.
- Automatic assessment: assessment suggestions based on predefined parameters, facilitating inspections without ultrasonic expertise.
- Fast inspection: Reduced inspection times thanks to simultaneous scanning of a large area.
- Probe universality: No need to change probes for different samples, simplifying the inspection process.

## Related industries

## At your service

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- Technical Info
- Drawings
- 3D

| | PHAsisNEO |
|---|---|
| **Dimensions** | 350 x 280 x 90 mm |
| **Weight** | 4.950 kg |
| **Display** | 13“ Touchscreen, replaceable |
| **PC Board** | Intel Pentium QuadCore @ 2,5 GHz, 8 GB RAM, 512 GB SSD |

| | PHAsisNEO |
|---|---|
| **Interfaces** | 2x USB 2.0, 1x USB 3.0, HDMI |
| **Protection class** | IP 64, restricted |
| **Battery** | 2x Lithium-Ion, min. runtime > 7 Std |
| **Phased Array test channels** | 128, 16 thereof parallel |
| **Digitization rate** | 100 MHz |
| **Communication** | LAN 1GBit/s, WLAN, Bluetooth 4.2 |
| **Max. IFF** | 20 KHz |
| **Max. pulse amplitude** | +/- 100 V (neg. square pulse) |
| **Band width (-3dB)** | 0.5 - 25 MHz |
| **Pulse width** | ? 5 ns |
| **Focal Laws** | > 700 (virtual probes) |
| **Power supply** | 100 - 240 VAC 50 Hz - 60 Hz |
| **Operation temperature** | 0°C - 40°C |
| **Relative Humidity** | 80%, non-condensing |
| **Cooling passive** | (no fan) |
| **Housing** | IP 64 (restricted), shock protection, passive cooling, swiveling handle |

## Standard Probe

| | | |
|---|---|---|
| **Type** | Phased Array 2D Matrix | |
| **Number of elements** | 11 x 11 arranged in square | |
| **Cable** | Long-Life 2.5 m; 5 m for robot applications | |
| **Nominal frequency** | 12 MHz | 20 MHz |
| **Inspection area** | 9 x 9 mm | 11.7 x 11.7 mm |
| **Physical resolution more precise than** | 0.35 mm | 0.45 mm |

## Software

**Administration and communication:**

- Access rights and user management
- Test equipment monitoring and management of inspection devices
- Management of plate pairing and materials
- Various interfaces such as test plan import, result export or communication interface for automated testing

**Inspection:**

- "Inspection according to test plan" mode: secures testing with 100% fulfillment and enables safe testing with minimal training
- Improved setup of inspection plans and easy to go inspection according to proven standards of conventional ultrasonic inspection
- "Free testing" mode: fast testing without a test plan with instantly selectable standard or individual parameter setsManagement of plate pairing and materials
- Inspection mode for highly sound-attenuating materials or very rough surfaces
- Multiple modes for detection of cladding
- Access to all setting parameters at any time for the implementation of individual evaluations

**Data management:**

- Creation and administration of test plans and free testing
- Transfer of the results of the free testing into new test plans

- Management of plate pairings, evaluation and ultrasonic parameters
- Inspection plans on all devices by means of synchronization
- Individual color display of spot welds (D-Scan)
- Test reports can be exported as Word, Excel or PDF documents. Two different types of reports available: detailed and compressed
- Predefined, universal ready to go setups as well as the creation of individual advanced setups

## Applications