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

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- PDF

- 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