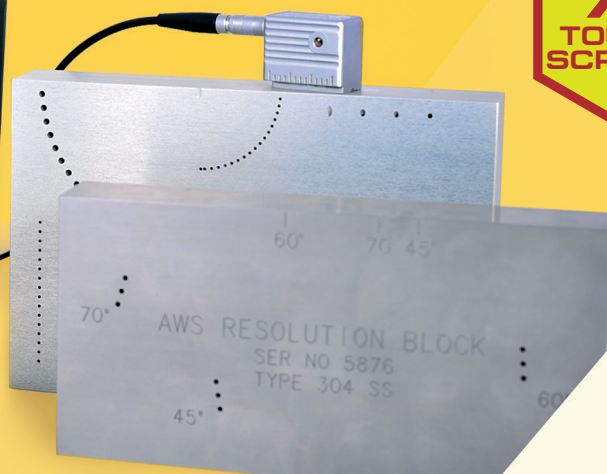




**NOVOTEST**  
QUALITY TESTING DEVICES

# Ultrasonic Flaw Detector NOVOTEST UD2301



Ultrasonic Flaw Detector NOVOTEST UD2301 is designed to detect defects, such as continuity and uniformity of materials in products and welded joints, to measure the depth and position of their occurrence, thickness measurements, measurements of velocity and attenuation of ultrasonic waves (ultrasonic) in the material.

Ultrasonic Flaw Detector NOVOTEST UD2301 with large touch screen display is the best choice for expert ultrasonic testing. Powerful, lightweight and portable, the ergonomic impact-resistant metal casing. The flaw detector UD2301 allows to measure the thickness of the product with great accuracy, the signal to be in the form of A-and B-scans and has all the features of the full documentation of control.

## The advantages of Ultrasonic Flaw Detector NOVOTEST UD2301

- ✓ Frequency range with continuously adjustable from 0.2 to 10MHz
- ✓ Two independently controlled gate (A and B)
- ✓ Automatic or manual construction of the TCG curve (32 points)
- ✓ Two types of representations of signals: the detection and radio
- ✓ Build and handling A, B scans
- ✓ Modes: the envelope, freeze and display of the beam
- ✓ Large 7" touch screen display
- ✓ Memory of the results
- ✓ Communication with PC
- ✓ Further processing of the results using a specialized computer program



ES France - Département Bio-tests & Industries  
127 rue de Buzenval BP 26 - 92380 Garches



Tél. 01 47 95 99 90  
Fax. 01 47 01 16 22



e-mail : [bio@es-france.com](mailto:bio@es-france.com)  
Site Web : [www.es-france.com](http://www.es-france.com)

## Detailed specifications of Ultrasonic Flaw Detector NOVOTEST UD2301

Range	min : 0 - 6 $\mu$ s max : 0 - 1000 $\mu$ s step - 25 ns
Display shift (delay)	from 0 $\mu$ s to 1000 $\mu$ s step - 25 ns
MAX length of tested material	up to 6000 mm (echo mode) for steel
Velocity range	1000 - 9999 m/s
Delay in the prism	0 - 100 $\mu$ s step - 25 ns
Damping	50 Ohm
Input impedance	50 Ohm / 600 Ohm
Pulse mode	RF pulse with amplitude of 100, 200 or 300V, With variable length from 25 to 500 ns, step - 25 ns
PRF	automatically optimized from 10 to 100Hz
Analog bandwidth	wideband 0.4-20 MHz (-6 dB)
Gain control range	125 dB, step - 0,5 dB
Time control gain (TCG)	range up to 70 dB, 12 dB / $\mu$ s with the construction of the curve through 16 reference points, entered by hand or by the control reflectors
Amplitude-Distance Curve (DAC)	drawing through 16 points, height adjustable
Zone control (gates)	two independent areas, the beginning and width are change at all scan range; levels of limits are set from 0 to 100% of display height; individual logic of detection defects.
Detection	positive or negative half-wave, complete, the radio signal (at all range of scan), B-scan
Cutoff	compensated, 0 - 90% of screen height
Automatic Alarm of defects	light logic of detection defect in zone for each zone individu- ally and sound individual logic detection defect at the zone
Time intervals measurement	from 0 to a first signal in the zone or between signals in the zones to the front or to the maximum signal
Measurement of amplitude	in dB relative to threshold level in the zone; in dB relative to the reference signal; in dB relative to the amplitude-distance curve
Display	7" touch screen, 155x85 mm
Memory	limited of SD cards capacity
Interface	USB, Bluetooth (optional)
Connectors of probes	2 Lemo
Battery	Li-Ion 12 a/h
Battery life	up to 10 hours
External power supply	220V, 50Hz AC
Supply voltage	5V
Operating temperature range	from -30 °C to + 55 °C
Dimensions (H x W x L)	50x150x250 mm
Weight	1.1 kg



Ultrasonic Flaw Detector NOVOTEST UD2301 is designed for nondestructive testing of metals, plastics, glass, composite materials, weld inspection and measurement of the thickness of the various products and structures.

The device meets all requirements of the modern digital flaw detector, while having a value lower than all the existing analogues!

## Appointment of Ultrasonic Flaw Detector NOVOTEST UD2301

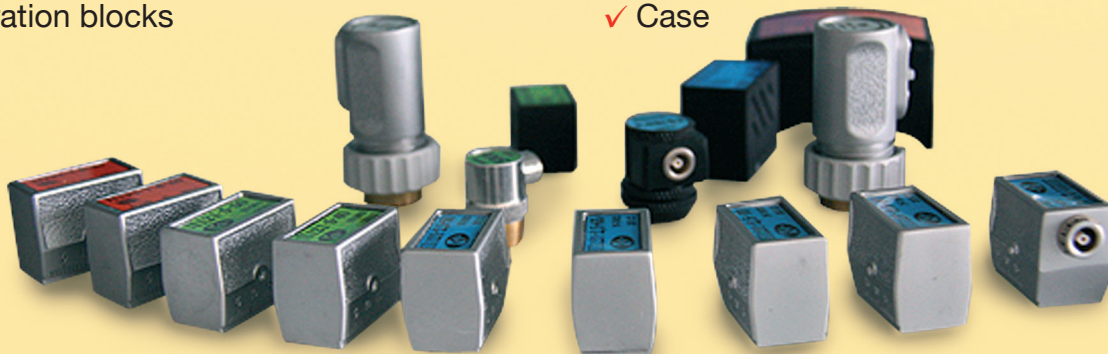
- ✓ Control of the welds and base metal;
- ✓ Places of corrosion, cracks, delaminations and other internal defects;
- ✓ Determination of the coordinates and parameter estimation of defects such as discontinuity and uniformity of material in products from metals, plastics, composites and other materials;
- ✓ Measurement of the thickness of the product.

## Standard set of Ultrasonic Flaw Detector NOVOTEST UD2301

- ✓ Electronic control unit  
NOVOTEST UD2301
- ✓ Transducers 2 pcs
- ✓ Cable Lemo-Lemo 1 pc
- ✓ Power supply
- ✓ Operating manual
- ✓ Case

## Available options for ordering of Ultrasonic Flaw Detector NOVOTEST UD2301

- ✓ Additional transducers
- ✓ Reference blocks
- ✓ Calibration blocks
- ✓ Additional cables
- ✓ Charger
- ✓ Case



Ultrasonic Flaw detector NOVOTEST UD2301 can be equipped with various ultrasonic and electro-



# Ultrasonic Flaw Detector NOVOTEST UD2301-mini



In contrast to standard type UD2301, Ultrasonic Flaw Detector NOVOTEST UD2301-mini is made in miniature housing, optimal in size for performing testing in tight spaces and in limited space. At the same time flaw detector equipped with a clear color display with high resolution 480x320 pixels, which significantly improves the usability of the device.

## Specifications of Ultrasonic Flaw Detector NOVOTEST UD2301-mini

Bandwidth	from 1 to 10,0 MHz
Velocity range	1000 - 9999 m / s
Operation modes	DGS, TVG, DAC
Digital gain	125 dB, ajustable in steps of 0,5 dB
Pulsev	100...200 V, 50 ohms
Gates	independent gates A and B
Measurement modes	Peak, Flank
Memory	SD-card up to 32 Gb
Battery	3 pcs AA
Operation time	up to 4 hours
Display	480x320 px
Operation temperature	-25...+55 °C
Connectors	2 x Lemo 00
Dimensions (WxHxD)	80x162x38 mm
Weight, no more	250 g (without batteries)

## Standard set of Ultrasonic Flaw detector NOVOTEST UD2301-mini:

- ✓ Electronic control unit
- ✓ Transducers 2 pcs
- ✓ Cable Lemo-Lemo 1 pc
- ✓ Power supply
- ✓ Operating manual
- ✓ Case

## Available options for ordering of Ultrasonic Flaw detector NOVOTEST UD2301-mini:

- ✓ Additional transducers
- ✓ Reference blocks
- ✓ Calibration blocks
- ✓ Additional cables
- ✓ Charger
- ✓ Case

