

## Ultrasonic Flaw Detector NOVOTEST UD2301



Ultrasonic flaw detector UD2301 is designed for nondestructive testing of metals, plastics, glass, composite materials, weld inspection and measurement of the thickness of the various structures.



Flaw detector allows detecting defects such as discontinuities and heterogeneity of materials in semi-finished products and welded joints, to measure the depth and depth coordinates of defects, the thickness of products, the speed of propagation and attenuation of ultrasonic vibrations (UT) in the material.

Ultrasonic Flaw detector has an optimal size to perform measurements in tight spaces. Device equipped with a clear color display with a high resolution of 320 \* 480 pixels, which significantly improves the usability of the device.



Display of the device can be operated in any orientation. There are 4 options for display orientation. This allows to customize instrument for both left handed and right handed users. Instrument can be operated in both portrait and landscape orientations.

Ultrasonic flaw detector UD2301 is designed to:  
test the quality of welds and base metal of products;  
detect corrosion, cracks, delaminations and other internal defects;  
determine coordinates and parameter estimation of defects such as discontinuity, cracks and  
uniformity of material in products from metal, plastic, composites and other materials;  
measure the thickness of products.

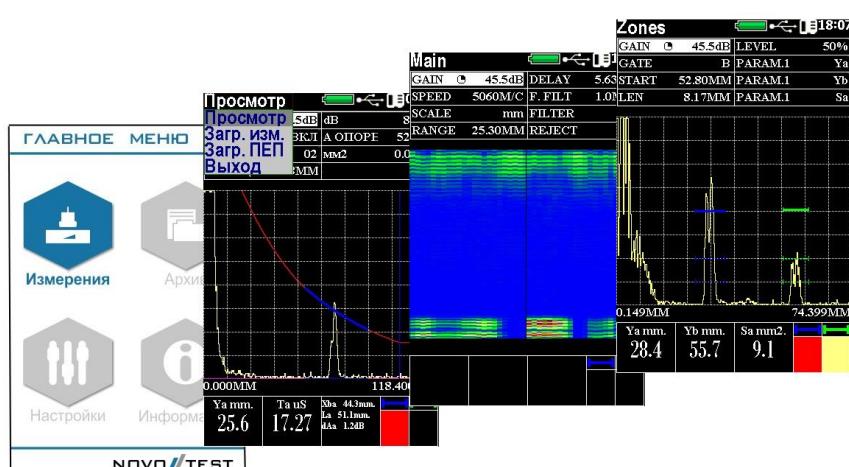
Flaw detector is equipped with 3 standard type AA rechargeable batteries. The device can also operate from simple batteries the same type. Using the batteries of standard type allows autonomous operation of the device in almost any conditions. User can charge batteries or use spare batteries.



Flaw detector allows user to solve a wide range of tasks starting from the thickness measurement of thin products ending with the large-sized casting flaw detection.



Ultrasonic flaw detector UD2301 has a sealed housing with rubber protective strips which is ideal for use in workshop and field conditions with high humidity, dust, etc. Device has frost-resistant display that allows you to use the device at very low temperatures.



**Specifications:**

Operating Frequency Range	from 1 to 10,0 MHz
The range of measured time intervals (duration of scanning)	from 6 to 1000 $\mu$ s
Velocity range	1000 - 9999 m / s
The error of measurement of time intervals	not exceed $\pm 0,025 \mu$ s
Maximum permissible error of measurement of the amplitudes of the signals at the receiver input in the range from 0 to 110 dB	not exceed $\pm 0,5$ dB;
Testing gain range	125 dB
Averaging over the quantity of starts	from 1 to 16
The range of variation of temporal sensitivity adjustment (TVG)	40 dB
Number of control points TVG	15
The duration of the excitation pulse to the load	from 0,0 to 0,5 $\mu$ s
The amplitude of the excitation pulse to the 50 Ohm load, not less	100, 200, 300
Operating frequency range of the receiver on the level -3 dB	from 1 to 10 MHz
Deviation of the amplitudes of input signals in the range from 10 to 100% of the screen height not more than	1 dB
Scanning	from 1 to 1000 $\mu$ s
Delay of scanning	from 0 to 2000 $\mu$ s
Range of measurement of time intervals	from 0 to 1000 $\mu$ s
Setting a delay in the prism of the probe	from 0 to 15 $\mu$ s
Automatic signaling of defects (AFS)	dual-gate
Setting range of AFS gates	from 0 to 2000 $\mu$ s
Adjusting thresholds of AFS gates	from 0 to 100 % of display height
Detection of signals	positive half-wave, radio mode
Dimensions (WxHxD)	80x162x38 mm;
Weight, not more	250 g (without batteries)
Mean time between failures	not less than - 3000 hours

**Standard set of device:**

- Electronic unit of Ultrasonic Flaw NOVOTEST UD2301
- Probes 2 pcs
- Cable Lemo-Lemo 1 pc
- AA batteries - 3 pcs, charger
- USB cable for PC connection
- Operating manual
- Case

