



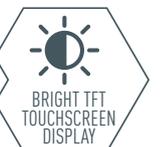
NOVOTEST

Ultrasonic Testing

# Ultrasonic Flaw Detector



ULTRASONIC FLAW DETECTION



# Ultrasonic Flaw Detector UD2301

The ultrasonic flaw detector is designed to detect internal defects, such as discontinuities and heterogeneities of materials in products and welds, determine coordinates and evaluate defect parameters, measure thickness and the velocity of propagation and attenuation of ultrasonic waves in the materials (metals, plastics, glass and etc.), the search for places of corrosion, cracks, internal delamination and other defects.

NOVOTEST can offer two modifications of ultrasonic flaw detectors: NOVOTEST UD2301 and NOVOTEST UD3701.

Ultrasonic Flaw Detector NOVOTEST UD2301 is a powerful, ergonomic, portable device that has all the functions of a general industrial ultrasonic flaw detector, and is perfect for field use.



ULTRASONIC FLAW DETECTION



## MULTIFUNCTIONAL



The device has wide functionality:

- presentation of the signal like A-scan and B-scan;
- the device has two independent gates, with the ability to evaluate parameters in different areas on the scan.
- for better signal processing, the device has functions of freezing and envelope.



## DAC AND TVG FUNCTIONS



The device implements the Distance Amplitude Correction (DAC) and Time Varied Gain (TVG) functions, with the setting up to 16 points, which allows the operator to evaluate the equivalent reflector size at various depths.



## DGS FUNCTION

Also in the device there are Distance Gain Size (equivalent) diagrams that allow user to build an amplitude curve from one standard reflector, as well as calculate the equivalent reflector size of tested discontinuities.



# Ultrasonic Flaw Detector UD3701

Ultrasonic Flaw Detector NOVOTEST UD3701 is a universal, powerful, functional, ergonomic and reliable device for solving tasks of ultrasonic flaw detection both in the laboratory and in the field.



## BRIGHT TFT TOUCH-SCREEN DISPLAY

Thanks to the multi-touch screen, the operator can easily move the gates and set the scan without using buttons and encoders. All functions for setting up and controlling the device can be carried out both through the touchscreen and in the classic way – using the keyboard.



## AVAILABILITY OF MANY USEFUL FUNCTIONS

The **envelope** mode of the signal allows user to detect the maximum of signals.  
**Auto zoom** – the electronic magnifier mode allows operator to focus the scan on the selected gate by clicking just one key.  
**Fill function** – designed to improve the perception of the image on the screen of the device.  
**Simulation of a measurement** from a stored record in the instrument memory.



The presence of **movable blocks** of output of measured values, which allows the operator to arrange blocks of parameters at any place of the screen.



## DAC, TVG and DGS CURVES

The Ultrasonic Flaw Detector NOVOTEST UD3701 has the ability to build and configure the Distance Amplitude Correction (DAC) and Time Varied Gain (TVG) functions, using up to 16 points. Using the DGS (Distance Gain Size) mode, the operator can configure the device according to the signal from the reference reflector, and then receive automatic calculation of equivalent reflector sizes at various depths.



## Specifications

Operating frequency range	from 1 to 10,0 MHz
Range of measured time intervals (duration of scanning)	from 6 to 1000 $\mu$ s
Velocity range	1000 – 9999 m / s
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
Range of variation of temporal sensitivity adjustment (TVG)	40 dB
Number of control points TVG	16
Duration of the excitation pulse to the load	from 0,0 to 0,5 $\mu$ s
Deviation of the amplitudes of input signals in the range from 10 to 100% of the screen height not more than	1 dB
Setting a delay in the prism of the probe	from 0 to 15 $\mu$ s
Detection of signals	positive half-wave, radio mode

### Standard package

- Ultrasonic flaw detector
- UT-probes – 2 pcs
- Cable Lemo-Lemo – 1 pc
- Batteries
- Charger
- USB cable for PC connection
- Operating manual
- Case



**sales@novotest.biz**  
**+380 67 593 5977**  
**novotest.biz**



**NOVOTEST**  
QUALITY TESTING DEVICES