

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

Detailed specifications of Ultrasonic Flaw Detector NOVOTEST UD2301

| Range | min .: 0 - 6 μs max .: 0 - 1000 μs step - 25 ns | |
|--------------------------------|---|--|
| Display shift (delay) | from 0 µs to 1000 µs 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 μs step - 25 ns | |
| Damping | 50 Ohm | |
| Input impedance | 50 Ohm / 600 Ohm | |
| Pulsev 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 / μs 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 independents 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 individually 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-lon 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

√ Additional cables

√ Reference blocks

√ Charger





Ultrasonic Flaw detector NOVOTEST UD2301 can be equipped with various ultrasonic and electromagnetic acoustic transducers (EMAT).

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 | 100200 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

✓ Power supply

√ Transducers 2 pcs

✓ Operating manual

√ Cable Lemo-Lemo 1 pc

√ Case

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

√ Additional transducers

√ Additional cables

√ Reference blocks

√ Charger

✓ Calibration blocks

√ Case

