

UNIVERSAL HARDNESS TESTER **ADL DU 120 MINI**

Easy to use, versatile in capabilities, multifunctional in application,
and reliable in operation!

made in
TURKEY



Universal hardness tester ADL DU 120 Mini

ADL DU120 Mini is a universal hardness tester designed for measuring the hardness of metallic products. The device uses two methods of hardness measurement - ultrasonic and dynamic, making it efficient and universal for quality control of materials in various tasks, including input, interoperation, and output quality control of materials.

The hardness tester is suitable for measuring the hardness of carbon and structural steels, surface-hardened products, heat-resistant, corrosion-resistant, stainless steels, galvanic coatings, weld overlays, products with complex configurations, thin-walled, and compact products.

ADL DU 120 Mini has a Leeb scale, as well as standard calibrations for measuring hardness by Rockwell, Vickers, Brinell, and Shore. Additional scales for different materials can also be added, including through the one-point calibration function. This significantly increases the measurement accuracy for specific materials and sets it apart from its counterparts.

ADL DU 120 Mini also has the ability to store up to 20 user-defined scales and view the measurement history of the entire enterprise. The built-in automatic outlier value processing

algorithm and control of specified ranges increase the accuracy and reliability of material hardness measurements.

The dynamic sensor allows for the measurement of the hardness of solid objects with poorly prepared and coarse-grained surfaces. The G-type dynamic sensor is recommended for such objects, as it has low sensitivity to the curvature of the object and surface roughness. Additionally, the device can be equipped with additional interchangeable sensors of various sizes, spring stiffness, and indenter hardness.

The ultrasonic sensor allows for measuring the hardness of grooves, surfaces with small radii, hard-to-reach areas, complex-shaped products, and small parts. It is ideal for measuring the hardness of mirror surfaces of shaft necks, blades, gear teeth, due to its small indenter footprint.

Features of hardness tester ADL DU 120 mini:

- The device housing is protected from dust and moisture.
- The intuitive device interface allows you to start working immediately after turning it on.
- The color display with adjustable backlight shows bright and clear measurement results even in low light conditions or bright sunlight.
- The device notifies the user when measurement results exceed set values.
- The unique statistical data processing system provides fast analysis of measurement results.
- One-point calibration function.
- The device can store up to 20 user-defined scales and the history of all measurements, as well as the date and time of the test.
- Reliable operation of the device in various climatic conditions.
- Shock-resistant housing, protection against accidental drops from a height of up to 1.5 meters.

Main technical characteristics:

| Parameter | Value | Parameter | Value |
|---|---|---|---|
| Measurement range on the main scales | | Main characteristics | |
| Rockwell | 20 – 70 HRC | Scale conversion | It is possible to convert the measured hardness into different scales |
| Brinell | 30 – 650 HB | Programmable scales | Up to 20 additional scales |
| Vickers | 230 – 940 HV | Algorithm for discarding false readings (for higher reading accuracy) | Yes |
| Measurement error (Regulated by ISO or DSTU standards) | | Computing | Average value for 3 - 20 measurements, minimum-maximum average value, Finding Incorrect Measurement Results |
| Rockwell | 2 HRC | Working temperature | - 20 ... +45 °C |
| Brinell, in the range | | Display | LCD TFT 2.4", 240x320 px |
| - 90-180 HB | 10 HB | Language | Ukrainian, English, Russian |
| - 180-250 HB | 15 HB | PC connection | USB-C, customization and processing |
| - 250-460 HB | 20 HB | Instrument power supply | Built-in battery |
| Vickers, in the range | | Overall dimensions | 141x73x32mm |
| - 240-500 HV | 15 HV | Weight | 0.3 kg |
| - 500-800 HV | 20 HV | | |
| - 800-940 HV | 25 HV | | |
| Diameter of the platform for installing the sensor | | | |
| For ultrasonic sensor | from 1 mm on the plane from 5 mm in a blind hole | | |
| For dynamic sensor | from 10 mm on the plane | | |
| Roughness (different sensors may work with different product roughness) | | | |
| Ultrasonic | 1,6 Ra | | |
| Dynamic | | | |
| - for sensor type "D" | 3.2 Ra | | |
| - for sensor type "G" | 7.2 Ra | | |
| - for sensor type "E" | 1.6 Ra | | |

