ADELIX
TURKEY

# UNIVERSAL HARDNESS TESTER ADL-DU110
## intended for monitoring the hardness of metal products.

The **ADL-DU110** hardness tester combines two hardness measurement methods: ultrasonic and dynamic. This makes the device a versatile and effective solution for input, inter-operational and output quality control of materials.

The universal hardness tester is used for various tasks. It is well applicable for measuring carbon and structural steels, surface-hardened products, heat-resistant, corrosion-resistant, stainless steels, galvanized coatings, hardfacing, products of complex configuration, thin-walled and compact products.

made in TURKEY


### DYNAMIC SENSOR

To measure the hardness of massive products with poorly prepared surfaces and a coarse-grained structure, it is recommended to use a type G dynamic probe. It has a low sensitivity to product curvature and surface roughness. The device can be equipped with additional replaceable sensors with different dimensions, spring stiffness and indenter stiffness.

### ULTRASONIC SENSOR

With the help of an ultrasonic sensor, it is possible to easily solve the problems of measuring the hardness of grooves, surfaces of small radius, hard-to-reach places, products of complex shape and small parts. It is well applicable for measuring the hardness of the mirror surfaces of shaft journals, blades, gear teeth, since it has a small imprint of the identifier.

# ADL-DU110 IS A UNIVERSAL HARDNESS TESTER THAT WILL SOLVE ALMOST ALL TASKS RELATED TO EXPRESS HARDNESS CONTROL WITH HIGH ACCURACY!

## FEATURES OF THE HARDNESS TESTER ADL-DU110:

- Dust and moisture resistant housing.
- The intuitive interface is organized according to the "PLUG AND PLAY" principle.
- The color display with adjustable backlight clearly shows measurements in bright sunlight and in low light.
- A notification is provided about the output of the measurement result beyond the established limits.
- A unique system of statistical data processing for the operational analysis of measurement results.
- Large memory capacity - allows you to enter and save more than 500 custom scales and view the history of all measurements taken after work is completed.
- Single point calibration function.
- Independent programming of additional scales.
- Saving all measurement results by date and time. View results in the form of tables and graphs for a detailed analysis of the obtained values.
- Stable operation in difficult climatic conditions.

## SPECIFICATIONS

| Measurement range | by Rockwell | according to Brinell | according to Vickers |
|---|---|---|---|
| The range of measurements on the main scales | 20 – 70 HRC | 30-650 HB | 230 – 940 HV |
| Error measurements (Regulated standards ISO) | ± 2 HRC | in the range 90-180 HB ± 10 HB<br>in the range 180-250 HB ± 15 HB<br>in the range 250-460 HB ± 20 HB | in the range 240-500 HV ± 15 HV<br>in the range 500-800 HV ± 20 HV<br>in the range 800-940 HV ± 25 HV |
| Diameter site for installation of the sensor | For an ultrasonic sensor:<br>- from 1 mm on the plane,<br>- from 5 mm in a blind hole (groove) | | For an dynamic sensor:<br>- from 10 mm on the plane |
| Roughness | Ultrasonic sensor:<br>1.6 Ra | | Dynamic sensor:<br>for sensor type "D" - 3.2 Ra<br>for sensor type "G" - 7.2 Ra<br>for sensor type "E" – 3.2 Ra |
| Discarding from false readings (for higher reading accuracy) | Exists | | |
| Conversion of scales | It is possible to convert the measured hardness into different scales | | |
| Calculations | Average value for 1 - 20 measurements;<br>Minimum, maximum, average value;<br>Search for incorrect measurement results | | |
| Programmable scales | More than 500 additional scales | | |
| Construction of graphs | All points from the series that were taken into account in the calculation of the average value | | |
| Device body | Shockproof plastic body, protected from falls with rubberized inserts | | |
| Display | LCD TFT 3.5" 320x480 px | | |
| Language | English, Russian, Ukranian | | |
| Communication with a PC | USB, the ability to configure and process results | | |
| Power supply | From the built-in battery | | |
| Overall dimensions | 150 × 70 × 45 mm | | |
| Working temperature | - 20 ... +45 °C | | |
| Weight | 0.3 kg | | |