

# 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

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	More than 500 additional scales
Vickers	230 – 940 HV	Device body	Shockproof plastic body, protected from falls with rubberized inserts
Measurement error (Regulated by ISO or DSTU standards)		Construction of graphs	All points from the series that were taken into account in the calculation of the average value
Rockwell	2 HRC	Algorithm for discarding false readings (for higher reading accuracy)	Yes
Brinell, in the range		Calculations	Average value for 1 - 20 measurements, minimum-maximum average value, Finding Incorrect Measurement Results
- 90-180 HB	10 HB	Working temperature	- 20 ... +45 °C
- 180-250 HB	15 HB	Display	LCD TFT 3.5" 320x480 px
- 250-460 HB	20 HB	Language	Ukrainian, English, Russian
Vickers, in the range		PC connection	USB-C, customization and processing
- 240-500 HV	15 HV	Instrument power supply	Built-in battery
- 500-800 HV	20 HV	Overall dimensions	185 × 93 × 36 mm
- 800-940 HV	25 HV	Weight	0.3 kg
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 type "D"	from 15 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"	3.2 Ra		

### CONTENTS OF DELIVERY

Parameter	Value	Parameter	Value
Measuring unit	1 p	Carrying bag	1 p
Type D sensor and ultrasonic sensor	2 p	Operation manual	1 p
The cable to the sensor	2 p	Verification certificate	1 p
PC connection cable	1 p	The passport	1 p
Charger	1 p	Hardness measuring scales	by agreement

