

Portable Hardness Tester with Integrated Printer KH320

Extremely complete model with built-in thermal printer, allows the creation of reports on the field. In addition to traditional hardness scales can also directly calculate the tensile strength of some materials. Supplied with application software and USB interface cable to PC. Developed to allow rapid keyboard settings. CE mark, complying with ASTM A956-02.



Features:

- ✦ Wide measurement range. Based on the principle of Leeb hardness test. Can measure the hardness of any material.
- ✦ Large LCD backlit display that show any parameter.
- ✦ Is possible to test every angle, including upside down.
- ✦ Direct display of hardness scales in HRB, HRC, HRA, HV, HB, HS, HL.
- ✦ There are seven different impact devices for many special applications. The instrument automatically recognizes the type of impact device connected.
- ✦ Large memory, the instrument can record up to 500 sets of values. Each set group includes the average, individual measurements (up to 32) the impact direction, the probe type, material, scale used, date and time.
- ✦ Upper and lower limits can be set, the alarm can overcome them.
- ✦ Calibration functions.
- ✦ Connect to PC via USB.
- ✦ Backlight.
- ✦ Integrated thermal printer, which is useful for field measurements.
- ✦ Rechargeable batteries. Working autonomy of not less than 150 hours (without backlight and without printing).
- ✦ Auto power off.

Typical applications:

- ✦ Machinery and fixed parts in assembled systems
- ✦ Die surfaces
- ✦ Heavy pieces
- ✦ Pressure vessels, turbo-generators etc.
- ✦ Bearings and other parts in the assembly
- ✦ Data acquisition for reports on customer specifications
- ✦ Identification of metals

Standard Configuration:

- ✦ Main unit
- ✦ Impact device type D with connection cable
- ✦ Calibration Block
- ✦ Cleaning Brush
- ✦ Small support ring
- ✦ Charger (9V 500mA)
- ✦ Manual
- ✦ Briefcase
- ✦ Data Pro Software
- ✦ Data Interface Cable



Technical:

Materials:	Steel and cast steel, Cold work tool steel, Stainless steel, Grey cast iron, Nodular cast iron, Cast aluminum alloys, BRASS(copperzinc alloys), BRONZE(copper-aluminum/tin alloys), Wrought copper alloys
Probe type:	separate
Display functions:	hardness scale, hardness value indicator, average and average value, impact direction, memory reference, battery consumption
Measurable hardness:	HRB, HRC, HV, HB, HS, HLD
Tensile strength:	σ_b 374 to 2652 (steel only)
Measuring range:	HLD (170 ÷ 960) HRC (19 ÷ 68) HRB (13.3 ÷ 100) HS (5 ÷ 99.9) HB (30 ÷ 680) HV (80 ÷ 999)
Accuracy (800HLD):	± 6HLD (~ 1HRC)
Repeatability:	± 6HLD (~ 1HRC)
Direction of measurement:	0 ÷ 360 °
Optional probes Types:	DC, D +15, C, G, DL, E
Hardness scales:	HLD, HB, HRB, HRC, HRA, HV, HS
Weight min. the piece to be measured (ref values. probe D):	Direct measurement:> 5Kg With the solid base of support:2 ÷ 5Kg By coupling paste: 0.05-2Kg
Impact Strength:	11Nmm
Tip weight:	5.5 g
Minimum thickness of the sample:	5mm
Surface Roughness Max. Ra:	1.6 μ m
Max hardness of the sample:	950HV
Display:	128x64mm LCD backlit
Printer:	57.5mm 30mm diameter paper
Memory:	Max. 500 groups
Batteries:	6V rechargeable
Chargers:	9V/500mA
Hours of continuous work:	150 hours
Communication interface:	USB1.1 + Built-in printer
Weight:	300 Gr
Temperature:	-10 ° C to +50 ° C
Dimensions:	212 × 80 × 32 mm

Ranges

Materials	HLD	HRC	HRB	HB	HS	HV
Steel and cast steel	300-890	19.8 to 68.5	59.6-99.6	80-651	26.4-99.5	83-976
Cold work tool steel	300-840	20.4-67.1				80-898
Stainless steel	300-800	19.6-62.4	46.5-101.7	85-655		85-802
Grey cast iron	444-650			140-334		
Nodular cast iron	416-658			140-384		
Cast aluminum alloys	200-560				30-159	
BRASS(copperzinc alloys)	200 to 550		13.5-95.3		40-173	
BRONZE(copper-aluminum/tin alloys)	300-700				60-290	
Wrought copper alloys	200-690				45-315	