

HARDNESS TESTER

PCE-2000N



- » Measures all common hardness parameters
- » External impact device on 1.5 m / 4.9 ft cable
- » large measuring range
- » High precision
- » Storage data measurements on USB stick
- » Various other impactors as accessories
- » Measurement in different angles possible
- » Color display

The PCE-Instruments PCE-2000N hardness meter uses the Leeb rebound method. This is a dynamic hardness test method in which a standardized test specimen, usually a hard metal ball, is hit with defined impact energy on a test surface. The impact of the hard metal ball on the test surface results in a plastic deformation of the surface at the point of impact. From this deformation results in an energy loss, which is proportional to the workpiece hardness and can be determined by the ratio of rebound to impact velocity of the specimen.

This technology enables a compact design, which makes it particularly suitable for the hardness tester. In contrast to static test methods with heavy hardness testing machines, a mobile hardness tester can be used very flexibly in the incoming or outgoing inspection, in production and generally in all areas where hardness has an influence on quality parameters. The hardness tester from PCE Instruments can be used to measure six different hardness scales (HL, HV, HRA, HRC, HB, HV, HS) as well as ten different materials.

As standard, the hardness meter is supplied with a striker D, but optional additional impactors (DC, DL, C, D + 15, E, G) can be connected for more specific applications. In addition, the data can be saved directly on a USB stick, which further extends the flexibility of this mobile hardness tester.

Specification

Hardness	
Measuring range	170 ... 960 HLD
Resolution	1 HLD
Accuracy	±0.5% (@ 800 HLD)
Hardness	
Measuring range	17,9 ... 69,5 HRC
Resolution	0,1 HRC
Accuracy	±0.5% (@ 800 HLD)
Hardness	
Measuring range	19 ... 683 HB
Resolution	1 HB
Accuracy	±0.5% (@ 800 HLD)
Hardness	
Measuring range	80 ... 1042 HV
Resolution	1 HV
Accuracy	±0.5% (@ 800 HLD)
Hardness	
Measuring range	30,6 ... 102,6 HS
Resolution	0,1 HS
Accuracy	±0.5% (@ 800 HLD)
Hardness	
Measuring range	59,1 ... 88 HRA
Resolution	0,1 HRA
Accuracy	±0.5% (@ 800 HLD)
Hardness	
Measuring range	13,5 ... 101,7 HRB
Resolution	0,1 HRB
Accuracy	±0.5% (@ 800 HLD)

General technical data	
Cable length	1,5 m
Measuring functions	MIN, MAX, Average value
Measuring principle	Leeb hardness principle
Display type	OLED
Display size	1,5 Inch
Storage medium	USB pen drive, Internal memory
Storage capacity	600 Values
Memory capacity (additional information)	600 average values in 6 data groups
Interface	USB
Measuring surface minimum	20 mm
Measuring surface additional information	Min. radius - 30 mm distance between measurements - 3 mm distance from the edge of the sample - 5 mm direct measurement - 25 mm minimum layer thickness for hardened surface - ≥0.8 mm
Materials	Stainless steel, Steel, alloy steel, Copper, Grey cast iron, Cast steel, Spheroidal graphite cast iron, Cast aluminium alloy, Cu-Zn (brass), Copper-tin alloy
Operating time	50 h
Automatic power-off	12 min
Repeatability	0,8 %
Sensor length	150 mm
Measuring angle	360 °
Impact device	D-type
Hardness scales	HRC, HRB, HRA, HB, HV, HS, HL
Menu language	English, Chinese
Protection class (device)	IP52
(Rechargeable) battery	3 x 1,5 V AA battery , Alkali-manganese
Capacity	3000 mAh
Performance	4,5 Wh
Operating conditions	10 ... 50 °C , 20 ... 90 % RH
Storage conditions	-30 ... 60 °C , 10 ... 50 % RH
Dimensions (L x W x H)	160 x 80 x 40 mm
Weight	300 g