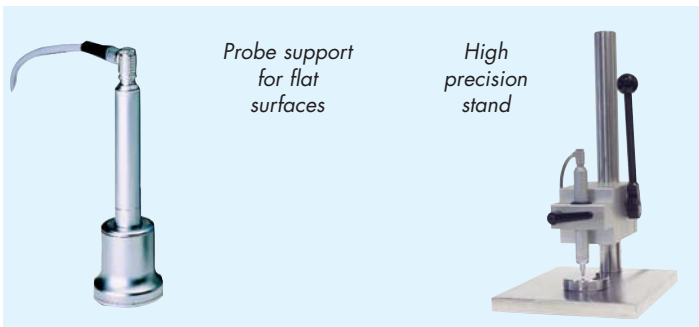


PORTABLE VICKERS HARDNESS TESTER "ULTRAMATIC"™

Hardness tester CV-HV400 for portable accurate testing on metals, plastics and ceramics

- Ultrasonic Contact Impedance test principle: very accurate!
- Suitable for hardness tests on metals, plastics, ceramics
- Direct reading in Vickers HV, and direct conversion to HRC, HRB, HB and UTS
- High reproducibility within $\pm 1\%$
- Extensive range of application at locations difficult to access
- Large memory, statistics and data output
- Windows software for testing, data processing and documentation



Technical specifications

Measuring principle	According to the UCI method (ultrasonic contact impedance principle)		
Indenter	Vickers diamond (angle 136°)		
Test load	3N, 10N, 20N, 30N, 49N, 98N (different probes)		
Measuring range	Vickers	HV	10 - 3000 (direct)
	Rockwell	HRC	20 - 68 (conversion)
	Rockwell	HRB	41 - 99.5 (conversion)
	Brinell	HB	(76) - 447 (conversion)
	UTS	N/mm ²	255 - 2180 (conversion)
Reproducibility	Vickers	HV	$\pm 1\%$
	Rockwell	HRC	± 0.5
	Rockwell	HRB	± 1.2
	Brinell	HB	$\pm 1\%$
Applicable test materials	Primarily metals; plastics or ceramics may be tested using a standard calibration block		
Display	Large graphical, backlit display, contrast and brightness adjustable, display of hardness scales HV, HRC, HB		
Calibration	Storage of up to 20 calibrations for different materials		
Display languages	English, German, French (selectable)		
Memory	1000 readings, storage in batches with date, hour, and go/no go judgement Optional: memory for 30.000 readings		
Statistics	Mean value, minimum, maximum, standard deviation absolute and relative. Delete single readings		
Interface	Serial:	RS-232C and RS485	
	Parallel:	Printer	
Printer output	Prints hardness values, hour and date.		
	Prints statistics of stored data		
Power	Power supply 100-240V / 50-60Hz		
Batteries	Rechargeable 9.6V / 1700 mAh (2.5 hours charging, 5 hours continuous use)		
Operating temperature	0°C - 50°C		
Dimensions	Display unit:	85mm x 225mm x 198mm	
	Probe:	19.5 diameter x 175mm length	
Weight	2200g (including probe 190g)		

Standard delivery

- Main unit
- Cable
- Power supply 100-240V / 50-60Hz
- Carrying case
- Manual
- CV Instruments certificate

Optional probes

- 3N, 10N, 20N, 30N, 49N, 98N

Software options for the main unit

- SPS Option for use in automated testing systems
- Measurement of sinter materials
- Storage of 30000 measurements

Optional accessories

- High precision stand for probe CV-H4S
- Probe shoes for flat surfaces
- Probe shoes for convex surfaces 10mm - 50mm
- Probe shoes for convex surfaces 50mm - 250mm
- Probe SL type (slim nose)
- Probe shoes for probe SL type (width 21mm)
- Windows software program CV-H4DAT for data transmission to the PC (incl. cable)
- Windows software program CV-H4CON for production-following hardness testing
- Plastic handle for probe CV-H4G
- Carrier bag for main unit and accessories