

ATTENTION: HARDNESS BLOCKS
FOR CALIBRATION ARE OPTIONAL

WIRELESS TRANSMISSION
IS OPTIONAL

ATTENTION: NEED TO CONFIRM IF THE
WORKPIECES ARE SUITABLE BEFORE PURCHASE

SMALL TEST INDENTATION

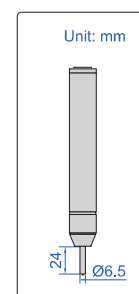
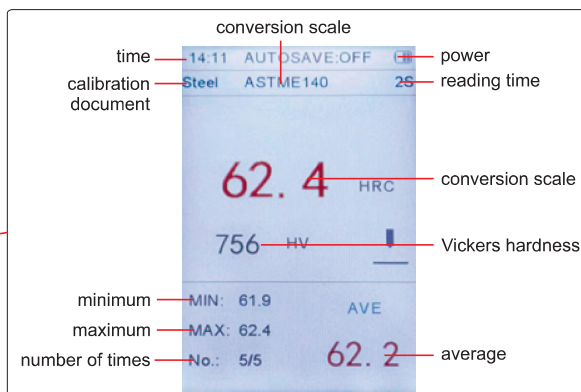
ULTRASONIC HARDNESS TESTERS

INSPECTION
CERTIFICATE

POPULAR
MODEL



9646-300



long probe
(optional)

- Small size, light weight, portable, convenient for on-line measurement and can be used to measure large workpieces
- Support 360° measurement, fast test speed, the fastest results in 1 second
- Standard Vickers indentation, small test indentation and low damage to the workpiece
- 100 measurement data sets and 10 calibration data sets can be stored
- Large display, directly shows the current measured value, maximum value, minimum value, average value and unit conversion value
- For unspecified conversion tables and unknown materials, multi-point calibration on any hardness scale you can choose to eliminate of systematic errors due to conversion tables
- According to DIN 50159, ASTM A1038 standards

Applications:

1. Hardness measurement of flange edges and gear root stampings, gears and gear grooves with surface hardening of lamina, taper sections
2. Hardness measurement of shafts and thin-walled pipes and container
3. Hardness measurement of thin plating, wheels, turbine rotors and welded parts
4. Measurement of the depth of a certain diameter deep holes, dents of the larger curvature and convex marks, irregular planes
5. Covering the majority of hardness measurement of industrial production of ferrous metals, non-ferrous metals and their alloys

SPECIFICATION

Code	9646-300	9646-301	9646-310	9646-311
Test force of probe	19.6N (2kgf)		49N (5kgf)	
Data printout	without printer	with bluetooth printer	without printer	with bluetooth printer
Main test parameter	HV			
Convertible parameters	HRA, HRB, HRC, HBW, HS, MPa			
Measurement range	50-1599HV, 20-68HRC, 85-650HB, 41-100HRB, 61-85.6HRA, 34.2-97.3HS, 255-2180MPa			
Resolution	1HV, 0.1HRA, 0.1HRB, 0.1HRC, 1HB, 0.1HS, 1MPa			
Accuracy	±4%HV, ±4%HB, ±1.5HR			
Calibration method	normal material: one-point calibration special material: multi-point calibration			
Operation temperature	-10°C~40°C			
Power supply	built-in rechargeable lithium battery (for 10 hours working)			
Dimension of main unit (L×W×H)	190×82×30mm			
Dimension of probe	150×Ø22mm			
Net weight	540g			



wireless transmitter (optional)



flat base (optional),
suitable for measuring flat surface

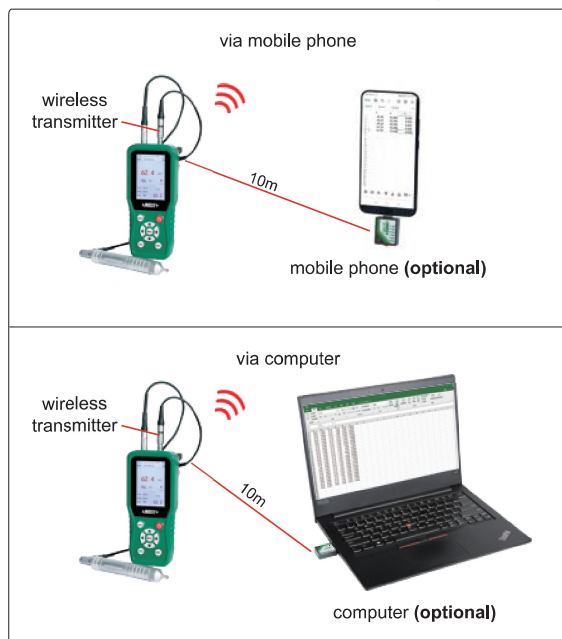


bluetooth printer
(included in 9646-301 and 9646-311)



V-type base (optional),
suitable for measuring
cylindrical surface

can send data to Excel, TXT and other documents
by connecting to mobile phone or computer via
optional 7315 series wireless transmission systems



magnetic stand (optional), suitable
for measuring large flat surface and
shaft workpiece, with stable adsorption



stand (optional), suitable for
measuring small workpieces,
fast and stable

OPTIONAL ACCESSORY

9.8N manual probe	9646-300-10
29.4N manual probe	9646-300-30
49N manual probe	9646-300-50
98N manual probe	9646-300-98
9.8N manual long probe	9646-300-10L
19.6N manual long probe	9646-300-20L
29.4N manual long probe	9646-300-30L
49N manual long probe	9646-300-50L
98N manual long probe	9646-300-98L
Stand	9646-300-STAND
Magnetic stand	9646-STANDV
Flat base	9646-300-FLAT
V-type base	9646-300-VANVIL
Wireless transmitter (receiver is needed)	7315-9646
Receiver	7315-2/3/6/7/8/9
Ultrasonic hardness test block	

STANDARD DELIVERY

Code	9646-300	9646-301	9646-310	9646-311
Main unit	1 pc	1 pc	1 pc	1 pc
19.6N manual probe	1 pc	1 pc	—	—
49N manual probe	—	—	1 pc	1 pc
Bluetooth printer	—	1 pc	—	1 pc
Charger	1 pc	1 pc	1 pc	1 pc
USB cable	1 pc	1 pc	1 pc	1 pc
Ultrasonic hardness test block	1 pc	1 pc	1 pc	1 pc

SPECIFICATION OF PROBE

Probe type	9.8N	19.6N	29.4N	49N	98N**
Diameter	22mm	22mm	22mm	22mm	22mm
Length	150mm	150mm	150mm	150mm	150mm
Maximum roughness of measuring surface	Ra<3.2μm	Ra<5μm	Ra<5μm	Ra<10μm	Ra<15μm
Minimum workpiece weight	0.3kg*	0.3kg*	0.3kg*	0.3kg*	0.3kg*
Minimum thickness of workpiece	2mm	2mm	2mm	2mm	2mm
Application	mold shells, fixtures, thin-walled parts, bearings, tooth sides and pipe interiors			measurement of grooves, gear flanks and gear roots	workpieces with low roughness requirement

* If the weight or thickness of workpieces is less than required, the workpieces should be fixed or coupled on solid support

** For large test force, it is recommended to use the probe with a stand

Note: when replacing optional probes, a multi-point calibration with more than three calibration blocks must be performed before use