



SM

PORTABLE HARDNESS TESTER



Technical Parameters **Model: PX5500**

- HL display range 170~960HLD
- Repeatability 6HLD
- Testing direction All direction
- Optional Impact Device D, DC, DL, D+15, C, G
- Display 3.9" 240*320(with touch screen), Bright and clear LCD display with back light
- Operating voltage 3.7V (rechargeable lithium battery)
- Charging power supply DC5.5V/1A
- Printer Mini thermal printer with IrDA (Cable no need)

Operating environment

- Temperature : -20°C~+50°C
- Humidity:20%~85%

Storage environment

- Temperature : -30°C~+70°C
- Humidity:5%~95%
- Dimensions 135mm*83mm*24mm
- Weight 350g (include D type impact device)

Accessories

- Display Unit, Impact Device D, Test Block, Mini-printer,
- Charger, Little Support Ring, Cleaning Brush, Printer Cable.
- Certificate CE

Technical Parameters **Model: PX300**

1. Accuracy ± 6 HL
2. Scales HRC, HRB, HB, HV, HSD, MPa
3. Display Bright and clear LCD display with backlight
4. Testing direction All direction
5. Optional Impact Device D, DC
6. Printer Mini thermal printer with IrDA (Wireless)
7. Operating voltage 4.5V (3 AAA batteries)
8. Operating environment
9. Temperature : -10~+40deg.C
10. Humidity: 20%~85%

Storage environment

1. Temperature : -30~+80deg.C
2. Humidity:5%~95%
3. Dimensions 150mm*80mm*30mm
4. Weight Approx.200g

Accessories

1. Display Unit, Impact Device D, Test Block,
2. Mini-printer, Charger, Little Support Ring,
3. Cleaning Brush , Printer Cable
4. Certificate CE

PORTABLE HARDNESS TESTER



Technical Parameters **Model: TIPD**

Self contained (Impact Device D Integrated): no cables.

Application: For the majority of your hardness testing assignments.

- Integrated impact direction sensor.
- Highly accurate ($\pm 4\text{HL}$) in any impact direction (360°) – automatically.
- Integrated display of results for all common hardness scales.
- Large, high contrast LCD for optimum viewing in all conditions.
- Easy calibration.
- Full USB communication with PC, software included free of charge.
- Internal storage of data with day and time.
- Battery: Rechargeable Li ion, charges through device USB port.
- Intelligent sleep mode.
- Standards and Guidelines applied: DIN 50156 (2007), DGZfP Guideline MC 1 (2008), VDI/VDE Guideline 2616 Paper 1 (2002), ISO 18625 (2003), ASTM A956 (2006), GB/T17394 (1998), JB/T 9378 (2001), JJG 747 (1999), CNAL T0299 (2008), JIS B7731 (2000).
- Printer: Wireless (Bluetooth) mini printer.
- Operating environment: Temperature: $-10\sim+60^\circ\text{C}$; Humidity: 20%~85%.
- Storage environment: Temperature: $-30\sim+80^\circ\text{C}$; Humidity: 5%~95%.
- Dimensions: 147 x 35 x 22 mm.
- Weight: 100 g.



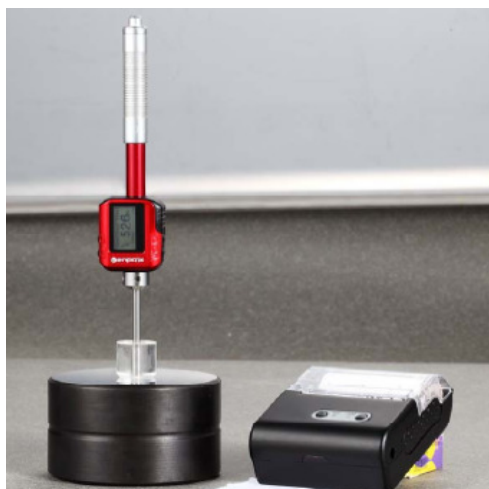
Technical Parameters **Model: TIPDC**

Self contained (Impact Device DC Integrated): no cables.

Application: Use in very confined spaces, e.g. in holes, cylinders or for internal measurements on assembled machines.

- Integrated impact direction sensor.
- Highly accurate ($\pm 4\text{HL}$) in any impact direction (360°) – automatically.
- Integrated display of results for all common hardness scales.
- Large, high contrast LCD for optimum viewing in all conditions.
- Easy calibration.
- Full USB communication with PC, software included free of charge.
- Internal storage of data with day and time.
- Battery: Rechargeable Li ion, charges through device USB port.
- Intelligent sleep mode.
- Standards and Guidelines applied: DIN 50156 (2007), DGZfP Guideline MC 1 (2008), VDI/ VDE Guideline 2616 Paper 1 (2002), ISO 18625 (2003), ASTM A956 (2006), GB/T17394 (1998), JB/T 9378 (2001), JJG 747 (1999), CNAL T0299 (2008), JIS B7731 (2000).
- Printer: Wireless (Bluetooth) mini printer.
- Operating environment: Temperature: $-10\sim+60^\circ\text{C}$; Humidity: 20%~85%.
- Storage environment: Temperature: $-30\sim+80^\circ\text{C}$; Humidity: 5%~95%.
- Dimensions: 86 x 35 x 22 mm.
- Weight: 75 g.

PORTABLE HARDNESS TESTER



Technical Parameters **Model: ETIPDL**

Application: For measurements in extremely confined spaces or at the base of grooves.

- Self contained (Impact Device DL Integrated): no cables.
- Integrated impact direction sensor.
- Highly accurate ($\pm 4\text{HL}$) in any impact direction (360°) – automatically.
- Integrated display of results for all common hardness scales.
- Large, high contrast LCD for optimum viewing in all conditions.
- Easy calibration.
- Full USB communication with PC, software included free of charge.
- Internal storage of data with day and time.
- Battery: Rechargeable Li ion, charges through device USB port,
- Intelligent sleep mode.
- Standards and Guidelines applied: DIN 50156 (2007), DGZfP Guideline MC 1 (2008), VDI/ VDE Guideline 2616 Paper 1 (2002), ISO 18625 (2003), ASTM A956 (2006), GB/T17394 (1998), JB/T 9378 (2001), JJG 747 (1999), CNAL T0299 (2008), JIS B7731 (2000).
- Printer: Wireless (Bluetooth) mini printer.
- Operating environment: Temperature: $-10\sim+60^\circ\text{C}$ Humidity: 20%~85%.
- Storage environment: Temperature: $-30\sim+80^\circ\text{C}$; Humidity: 5%~95%.
- Dimensions: 202 x 35 x 22 mm.
- Weight: 125g.



Technical Parameters **Model: ETIPD +15**

Application: Particularly slim front section and with measuring coil moved back. Hardness measurements in grooves and on recessed surfaces.

- Self contained (Impact Device D+15 integrated): no cables.
- Integrated impact direction sensor.
- Highly accurate ($\pm 4\text{HL}$) in any impact direction (360°) –automatically.
- Integrated display of results for all common hardness scales.
- Large, high contrast LCD for optimum viewing in all conditions.
- Easy calibration.
- Full USB communication with PC, software included free of charge.
- Internal storage of data with day and time.
- Battery: Rechargeable Li ion, charges through device USB port,
- Intelligent sleep mode.
- Standards and Guidelines applied: DIN 50156 (2007), DGZfP Guideline MC 1 (2008), VDI/ VDE Guideline 2616 Paper 1 (2002), ISO 18625 (2003), ASTM A956 (2006), GB/T17394 (1998), JB/T 9378 (2001), JJG 747 (1999), CNAL T0299 (2008), JIS B7731 (2000).
- Printer: Wireless (Bluetooth) mini printer.
- Operating environment: Temperature: $-10\sim+60^\circ\text{C}$; Humidity: 20%~85%.
- Storage environment: Temperature: $-30\sim+80^\circ\text{C}$; Humidity: 5%~95%.
- Dimensions: 162 x 35 x 22 mm.
- Weight: 125g.

PORTABLE HARDNESS TESTER



Technical Parameters **Model: ETIPC**

Application: Surface hardened components, coatings, thin walled or impact sensitive components (small measuring indentation).

- Self contained (Impact Device C integrated): no cables.
- Integrated impact direction sensor.
- Highly accurate ($\pm 4\text{HL}$) in any impact direction (360°) – automatically.
- Integrated display of results for all common hardness scales.
- Large, high contrast LCD for optimum viewing in all conditions.
- Easy calibration.
- Full USB communication with PC, software included free of charge.
- Internal storage of data with day and time.
- Battery: Rechargeable Li-ion, charges through device USB port.
- Intelligent sleep mode.
- Standards and Guidelines applied: DIN 50156 (2007), DGZfP Guideline MC 1 (2008), VDI/ VDE Guideline 2616 Paper 1 (2002), ISO 18625 (2003), ASTM A956 (2006), GB/T17394 (1998), JB/T 9378 (2001), JJG 747 (1999), CNAL T0299 (2008), JIS B7731 (2000).
- Printer: Wireless (Bluetooth) mini printer.
- Operating environment: Temperature: $-10 \sim +60$ °; Humidity: 20%~85%.
- Storage environment: Temperature: $-30 \sim +80$ °; Humidity: 5%~95%.
- Dimensions: 141 x 35 x 22 mm.
- Weight: 100 g.



Technical Parameters **Model: ETIPG**

Application: This model is recommended for the exclusive measurement of solid and heavy components in the Brinell range. Unit G places low demands on measuring location surface finish.

Typical applications: forgings or solid castings.

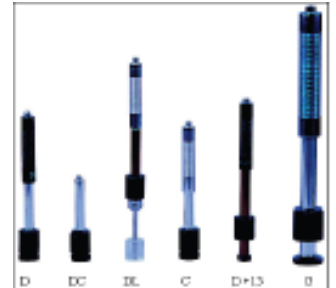
- Self contained (Impact Device G integrated): no cables.
- Integrated impact direction sensor.
- Highly accurate ($\pm 6\text{HL}$) in any impact direction (360°) – automatically.
- Integrated display of results for HB, HRB hardness scales.
- Large, high contrast LCD for optimum viewing in all conditions.
- Easy calibration.
- Full USB communication with PC, software included free of charge.
- Internal storage of data with day and time.
- Battery: Rechargeable Li ion, charges through device USB port.
- Intelligent sleep mode.
- Standards and Guidelines applied: DIN 50156 (2007), DGZfP Guideline MC 1 (2008), VDI/ VDE Guideline 2616 Paper 1 (2002), ISO 18625 (2003), ASTM A956 (2006), GB/T17394 (1998), JB/T 9378 (2001), JJG 747 (1999), CNAL T0299 (2008), JIS B7731 (2000).
- Printer: Wireless (Bluetooth) mini printer.
- Operating environment: Temperature: $-10 \sim +60$ °; Humidity: 20%~85%.
- Storage environment: Temperature: $-30 \sim +80$ °; Humidity: 5%~95%.
- Dimensions: 254 x 52 x 32 mm.
- Weight: 230g.



PORTABLE HARDNESS TESTER (OPTIONAL)

Optional Impact Devices

The ENPAIX unit is fitted with universal impact device 'D'. Special impact devices are Available for use in extremely confine spaces, with special component geometry or Surface finish. These significantly extend the possibilities of application for the ENPAIX procedure. Each special impact device is compatible with unit 'D' indicating device and is supplied as accessory.



Support Ring (set of 12)



Standard Test Block

Test Blocks D, G, are calibrated in accordance with the dynamic hardness value L by an independent traceable laboratory. These test blocks are supplied with a certificate to the L-value. Reference values are engraved on the test blocks. Standardized according to JJG747-1999, ASTM A956-02, DIN 50156.





DIGITAL DUROMETER

SHORE 'A' & SHORE 'D'

Description:

The 'Durometer' is the international standard for the hardness measurement of rubber, plastic and Other non-metallic materials. Durometers are described in the American Society for Testing and Material specification ASTM D2240, which is the recognized specification for the instrument and test procedures.

Features:

1. Accuracy: $\leq \pm 1$ HA/HD
2. Resolution: 0.1HA/HD
3. Calibration Certificate Included
4. Conforms to ASTM D-2240-05, GB/T-531.1-2008/ISO7619-1:2004
5. A large, easy-to-read LCD display with backlight
6. AC Adapter/Charger and Batteries Included
7. Charger with US/EUR/UK Plugs selectable
8. **Measurable material:** Natural rubber, Chloroprene (Diane) rubber, Polyester, PVC, Leather, Nitrile rubber, Paraffin, Vinyl, Cellulose acetate products, Polystyrene glass Etc.
9. This device is suitable for the A and D Shore hardness standards, and has broad applicability.
10. The number of significant hardness data hold function, the LCD monitor to ensure that the operator misreading.
11. Measurement results can be printed wirelessly.
12. Measurement mode: Averaging mode, Max Mode, Maximum average mode.
13. Control tolerances can be set to alarm beyond the control tolerances.
14. Available Grubbs criteria of measurement data to do error handling.
15. The work piece Number can be set.
16. Backlight lit time adjustable.
17. To save power, the key sound and alarm sound can be shut down.
18. Measurement data can be stored, browsing, batch printing.



DUROMETER STAND



More Accurate and Stability of Measurement



DIGITAL COATING THICKNESS GAUGE

Features

- Very compact size with integrated probe.
 - Magnetic induction method (ISO 2178, ASTM D7091), Measurement of non-magnetic coatings on magnetic Substrates.
 - Quick one-hand operation. Place instrument on specimen and see the measured value.
 - Ready to measure immediately without calibration.
 - Easy to perform zero-point correction provides correct Measurement results for measuring applications with little Changes in shape and substrate material.
- The one-point calibration function allows for an adaptation in cases of severe changes in shape or substrate material and enables high-precision measurements in selected measurement ranges.
- Data transmitting to PC via USB cable.
 - Statistic function allows for evaluation of a measurement series and display of the most significant characteristic statistical values.
 - Automatic On/Off function.



Specifications

Test Method: Magnetic Induction
Measuring Range: 0~1500µm (0 ~60 mil)
Resolution: 0 ~ 999µm: 0.1µm, ≥1000µm: 1µm
Accuracy: 0 ~ 100µm: ± 1.5µm
 101 ~ 1500µm: ≤ 1.5 %
Data Memory: Up to 1500 readings.
Display: Graphic LCD with backlight
Power Supply: 1.5V*3 (AAA alkaline batteries). Life: approx. 80hours
Operating Temperature: 0 ~ 50°C
Dimension: 88 X 67 X 30 mm
Weight: 120g

Standard content of shipment

Thickness gauge, Substrate plate, Certification foils set, 3 AAA alkaline batteries, Data cable, Data logger software, Leather sheath, User's manual, Manufacturer's certificate.

Options

Wireless mini-printer.



VISUAL MICROSCOPE

Visual Microscope EPX200C-A

Can directly connect to monitor to display high resolution image **without computer**, which can greatly improve the agility of micro-observation. It is important equipment of checkout & inspection in industrial, biological, chemistry, plant, material and other field.

Specification:

1. **Camera:** Eye200C high resolution VGA camera;

- > Sensor: 1/2 inch, 2M pix CMOS imager sensor
- > Output: XGA, D15 VGA
- > Resolution: 1024(H)*768(V), 70Hz
- > Control interface: 3 key PS/2 mouse

2. Optics System:

- > Zooming Magnification: 0.65 X ~4.6 X (or 0.7 X ~4.5 X)
- > Photography Eyepiece Magnification: 0.5X
- > Working Distance: 95mm

3. LCD Monitor (Optional)

- > 17" LCD, 4:3
- > Standard Resolution: 1024X768

4. **Total Magnification:** 24X ~180 X (Approx.)

5. Illumination:

- > Main Illumination: adjustable LED ring illumination
- > Lateral Illumination: adjustable flexible LED lamp
- > Back Illumination: adjustable LED lamp (Optional)

6. **Stand:** Elevating Adjustable Range: 110mm

7. **Power Supply:** 100~220VAC/50~60Hz

8. **Operating Environment:** 0deg.C~+50deg.C, 20%~85%

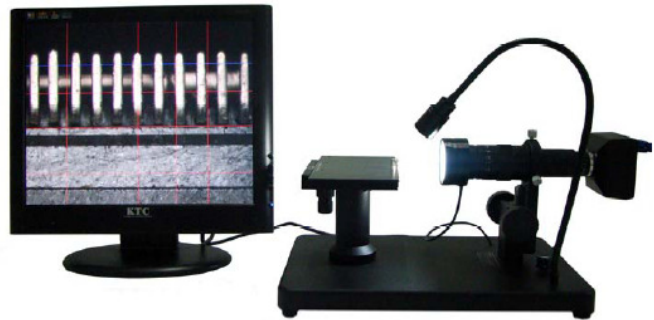
9. **Storage Environment:** -20deg.C~+70deg.C, 5%~95%





VISUAL MICROSCOPE

EPX200C-B Visual Microscope **—Suit flatness inspection of connector pin**



Features

- 17 inch large screen LCD has high-resolution display and clear image to easy observation;
- **Multi- cross that can be dragged by mouse**, using mouse to measurement is convenient and Quickly, it can be direct measure length, flatness inspection, position, etc.
- Hand-wheel adjustable focus range which is stable.

Specification:

1. Camera: Eye200C high resolution **VGA camera**

- > Sensor: 1/2 inch、**2M Pix CMOS** imager sensor
- > Output: **XGA, D15 VGA**
- > Resolution: **1024(H)*768(V)**, 70Hz
- > Control interface: **3 key PS/2 mouse**

2. Optics System:

- > Zooming Magnification: 0.65 X ~4.6 X (or 0.7 X ~4.5 X)
- > Photography Eyepiece Magnification: 0.5X
- > Working Distance: 95mm

3. LCD Monitor (Optional)

- > 17" LCD, 4:3
- > Standard Resolution: 1024X768

4. Total Magnification: 26 X ~1980 X (Approx.)

5. Illumination:

- > Main Illumination: adjustable LED ring illumination
- > Lateral Illumination: adjustable flexible LED lamp

6. X,Y Bench: X,Y bench Adjustable Range: 70mmX70mm

7. Power Supply: 100~220VAC/50~60Hz

8. Operating Environment: 0deg.C~+50deg.C, 20%~85%

9. Storage Environment: -20deg.C~+70deg.C ,5%~95%.



VISUAL MICROSCOPE

EPX200C-D Visual Microscope —Suit FPC &PCB or lens inspection

This equipment can take the Micro-image signal into LCD monitor to observe by high resolution VGA camera which can greatly improve the agility of Micro-observation. It is important equipment of checkout & inspection in industrial field, special in FPC &PCB or lens inspection.



Specification:

1. **Camera:** Eye200C high resolution **VGA camera**
 - > Sensor: 1/2 inch、**2M pix CMOS** imager sensor
 - > Output: **XGA, D15 VGA;**
 - > Resolution: **1024(H)*768(V)**, 70Hz
 - > Control interface: **3 key PS/2 mouse**
2. **Optics System:**
 - > Zooming Magnification: 0.65 X ~4.6 X (or 0.7 X ~4.5 X);
 - > Photography Eyepiece Magnification: 0.5X
 - > Working Distance: 95mm
3. **LCD Monitor (Optional)**
 - > 17" LCD , 4:3
 - > Standard Resolution: 1024X768
4. **Total Magnification:** 40 X ~190 X (Approx.)
5. **Illumination:**
 - > Main Illumination: adjustable LED ring illumination
 - > Lateral Illumination: adjustable **Flexible LED lamp**
 - > Back Illumination: adjustable LED lamp
 - > **With laser indicator**
6. **Stand:**
 - > Elevating Adjustable Range: 110mm
 - > **X,Y bench moving Range: 400mmX250mm**
7. **Power Supply:** 100~220VAC/50~60Hz
8. **Operating Environment:** 0deg.C~+50deg.C, 20%~85%
9. **Storage Environment:** -20deg.C~+70deg.C ,5%~95%

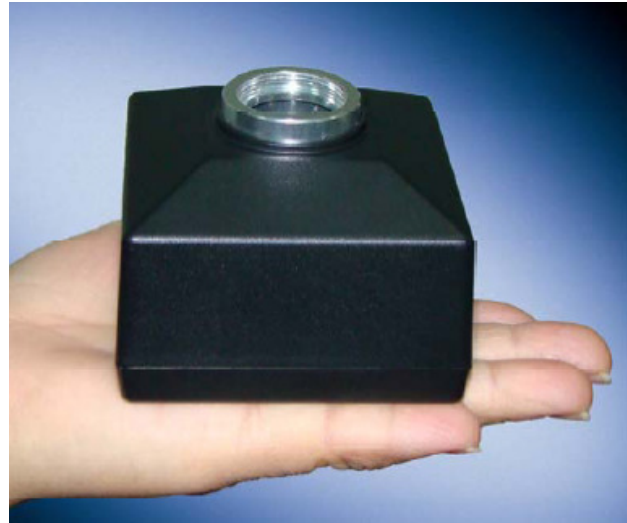


XGA CAMERA

VGA Camera EPX 200C

EPX 200C high resolution camera is our new product, the main features as follow:

- VGA output: it can directly connect to monitor to display high resolution image without computer.
 - Control interface: use PS/2 mouse to set or control the lines on the screen.
- It is very easily to checkout & inspection in industrial, biological, chemistry, plant, material and other field.



Specification:

- ☐ Sensor: 1/2 inch, 2M pix CMOS imager sensor
- ☐ Pixel Size: 4.2μm x 4.2μm
- ☐ Output: XGA, D15 VGA
- ☐ Resolution: 1024(H)*768(V), 70Hz
- ☐ Lens interface: C-Mount
- ☐ Control interface: 3 key PS/2 mouse
- ☐ Power: 5VDC/1A
- ☐ Operating Environment: -20deg.C~+50deg.C, 20%~85%
- Storage Environment: -30deg.C~+70deg.C, 5%~95%
- Dimensions: 80mm x 80mm x 56mm
- Weight: 103gm