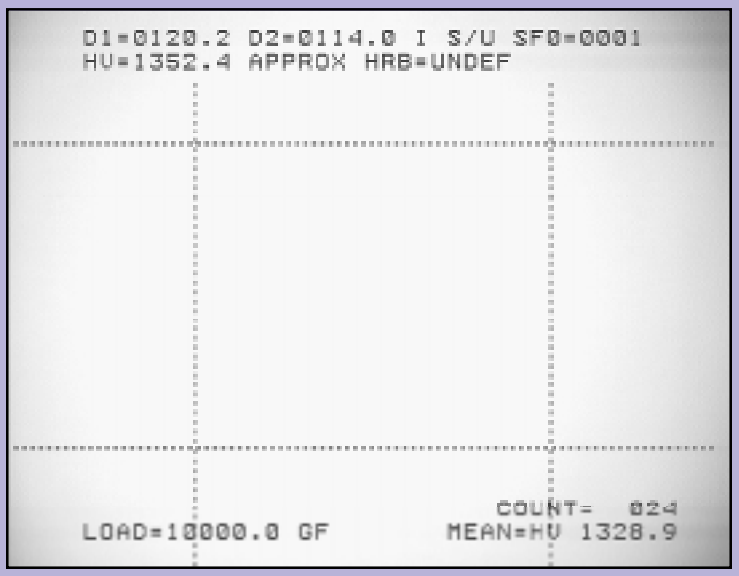
VIA®-110

Video Hardness Measurement System



VIA-110 measurement overlay.

FEATURES

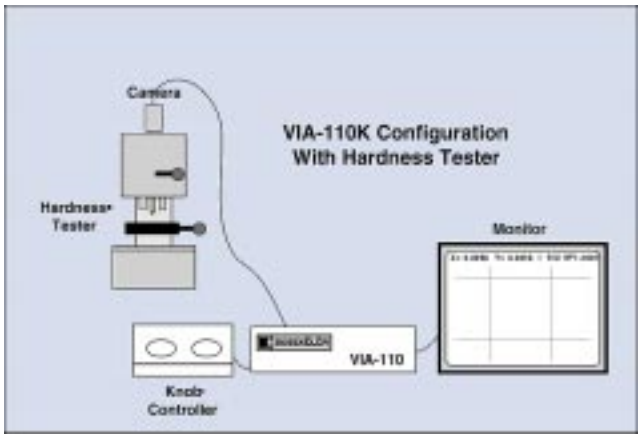
- **Knoop-X measurement** is obtained by adjusting two vertical lines to the left and right edges of the indentation.
- **Knoop-Y measurement** is obtained by adjusting two horizontal lines above and below the indentation.
- **Vickers measurement** is achieved when two vertical and two horizontal measurement lines are used to measure in both horizontal and vertical directions**.**
- **Brinell measurement** is achieved when two vertical and two horizontal measurement lines are used to measure in both horizontal and vertical directions.
- **The Knoop, Vickers, or Brinell reading** with the load used to obtain calculations is displayed on screen. For Brinell, the ball diameter will also be displayed.
- **Approximate Rockwell conversions** displayed on screen, if selected.
- **A labelling function** features date, operator ID, lot number, sample size, load utilized, dwell time, and magnification.
- **A statistics table** displays the count, mean, standard deviation, range, and high and low hardness values for up to 500 calculations.
- **Nonvolatile memory** stores and recalls setup information after powered down.
- **Ten scale factors** are available for calibrating multiple objective magnifications.
- **RS-232 output** allows users to transmit ASCII data of measurements and statistics to printers or computers. Special RS-232 for output to Mitutoyo SPC products is accommodated, as well.
- **Easy adjustment of the gray level or color of measurement lines** for optimal contrast with the video image (color markers will be displayed only if an optional VIA-RGB or VIA-Y/C interface is being used with RGB or Y/C cameras and monitors.

(continued on next page)

FEATURES *(continued)*

The VIA-110 provides the capability to measure an indentation and to determine a Knoop, Vickers or Brinell hardness value. Approximate conversions to Rockwell B or C are automatically determined. The VIA-110, combined with a hardness tester, standard video camera, and monitor becomes a state-of-the-art video hardness system. For maximum accuracy, use a CID or CCD camera. The VIA-110 is compatible with monochrome and color NTSC composite cameras and monitors. With an optional VIA-RGB or VIA-Y/C interface, the VIA-110 is compatible with RGB or Y/C cameras and monitors. The VIA-110C is compatible with CCIR/PAL standards.

The VIA-110 is used in microhardness testing to measure the size of the indentation and to automatically determine the hardness value. Knoop, Vickers, and Brinell hardness values are calculated using the appropriate ASTM formulas. Approximate conversions to Rockwell B and C are established using tables consistent with ASTM E 140 Tables 1 and 2 and ASTM A 370 Tables 3A and 3B, where applicable.



SPECIFICATIONS

The VIA-110 is pictured here with optional knob controller.

Video Input.....	VIA-110 is NTSC model, VIA-110C is PAL model; Composite (BNC X 1); 1.0Vp-p, 75ohms
Video Output.....	Unity gain, loop through; Composite (BNC x 1); 1.0Vp-p, 75ohms
Overlay Contrast Range.....	Black to White
Resolution.....	1024 (H) x 482 (V) for VIA-110; 1024 (H) x 574 (V) for VIA-110C
Stability.....	Reticle line placement (H), accurate to one vertical line of video, phased locked to camera for stability
Measurement Data Output.....	Through RS-232 port (ASCII data)
Ambient Temperature.....	0° C to 55° C
Power Supply.....	110/220 VAC, 0.5 AMP (60 Hz)
Dimensions of Base Unit.....	9.9" (W) x 2.6" (H) x 7.0" (D); 251.5 mm (W) x 66.0 mm (H) x 177.8 mm (D)
Approximate Weight.....	9 lbs. (4.1 kg)
Warranty.....	1 year parts and labor

Your Boeckeler Dealer:

Boeckeler Instruments, Inc.
4650 South Butterfield Drive
Tucson, Arizona 85714
Phone: (520) 745-0001
Toll-free in U.S. (800) 552-2262
FAX: (520) 745-0004
E-mail: info@boeckeler.com
Website: http//www.boeckeler.com