



**BUEHLER®**

# **MACROVICKERS 5114**

*Macro Indentation Hardness Tester*

- **Load Range of 1kgf to 50kgf in Eight Increments**
- **Two Objectives and a Vickers Indenter Mounted on a Motorized Turret**
- **Large Easy-To-Use LCD Console for Tester Control and Hardness Readout**
- **Precision Digital Filar with 0.1 $\mu$ m Resolution Readout**
- **Powerful Halogen Illuminator**
- **Data Output from Serial and Centronics Ports**

**BUEHLER® MACROVICKERS® 5114**

## Specifications

**MACROVICKERS 5114 Macro Indentation Hardness Tester**, with 1kgf – 50kgf test load range in eight load increments of: 1kg, 2kg, 3kg, 5kg, 10kg, 20kg, 30kg, and 50kg. Tester features a motorized turret providing two objectives (10x and 20x) and one Vickers indenter. Direct verification calibration of the tester and included test block is provided. A digital filar eyepiece provides measurement resolution to 0.1µm for precise measurement of the Vickers macro indentations with the corresponding hardness readings displayed in the large easy-to-read LCD console. Measured hardness values are displayed in Vickers, and as converted hardness values in other scales such as Rockwell. Hardness data from batches of up to 256 indentations may be stored and statistically analyzed with report generation and printing on the maximum, minimum, average, range, standard deviation and number of values within and outside set limits of hardness. A 50W halogen lamphouse with built-in green filter provides strong illumination. The tester comes complete with a comprehensive instruction manual, dust cover and accessory kit containing: a 2.½" (64mm) diameter flat anvil, 1.6" (40mm) diameter V groove anvil, certified test block, fuse and tools.

**TEST MODE**

N= 11/256

D1 429.5  
D2 429.5

**502.7HV**

T= 10 s 49.3 HRC HV 50

FORCE INDENT

**SET UP 1**

UP1 CONVERSION TABLE HARD SCALE HRC

UP2 JUDGMENT UPPER 0 LOWER 0

DATA OUT PUT RS-232C ON CENTRO ON SPC ON

MAIN TE NANCE

**STATISTICS**

N	10
MAX	814.5
MIN	330.5
AVR	439.6
RNG	484.0
UPPER	0
LOWER	0
GOOD	10
OVER	0
UNDER	0
SD(n-1)	142.00
SD(n)	134.71

**Large font size for the hardness readout and icon driven menu options ensure ease-of-use.**

**A number of set-up screens are provided for choice of hardness conversion, setting of limits and data output type.**

**Comprehensive statistical analysis is provided for up to 256 hardness values.**

**1900-5114** Tester, weight approx 110 lbs. (50kg), Dimensions 9.7" x 20.3" x 30.3" (245 x 515 x 770mm)

**Model 1900-5114A**, for operation on 110V 60Hz, mounted with Vickers indenter

**Model 1900-5114D**, for operation on 220V 50Hz, mounted with Vickers indenter

**Model 1900-5114E**, for operation on 240V 50Hz, mounted with Vickers indenter

## Accessories

**1900-3200** Additional Vickers indenter for 1900-5114 tester

**1900-3201** Knoop indenter for 1900-5114 tester

*Buehler continuously makes product improvements; therefore, technical specifications are subject to change without notice.*

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**BUEHLER ANALYST® SECTION 13**



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