

# Premium Micro-Vickers Hardness Tester

## NEXUS 410AAT/DAT Series

RS232

Motorised turret with analogue / digital measurement microscope and easy-to-use integrated hardness calculator.

### Features

- Two models available with 10gf - 1 Kgf or 10gf - 2Kgf depending on model
- Fully automatic 4 position turret for Micro Vickers /Knoop measurements
  - Choice of turret configuration
  - 3 objectives and 1 indenter
  - 2 objectives and 2 indenter (Vickers & Knoop)
  - Dual indenter (Vickers/Knoop) turret optional
- High resolution analogue eyepiece (410DAT = digital eyepiece)
- Built in high speed printer
- New user friendly display interface



### TECHNICAL SPECIFICATION

|                       |                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------|
| <b>W-412AAT</b>       | Analogue, 2 objectives, 0.01 - 0.025 - 0.05 - 0.1 - 0.2 - 0.3 - 0.5 - 1Kg (HV)             |
| <b>W-413AAT</b>       | Analogue, 3 objectives, 0.01 - 0.025 - 0.05 - 0.1 - 0.2 - 0.3 - 0.5 - 1Kg (HV)             |
| <b>W-412DAT</b>       | Digital, 2 objectives, 0.01 - 0.025 - 0.05 - 0.1 - 0.2 - 0.3 - 0.5 - 1Kg (HV)              |
| <b>W-413DAT</b>       | Digital, 3 objectives, 0.01 - 0.025 - 0.05 - 0.1 - 0.2 - 0.3 - 0.5 - 1Kg (HV)              |
| Test force selection  | Manual                                                                                     |
| Test procedure        | Automatic, loading/dwell/unloading                                                         |
| Hardness value        | 5 digits                                                                                   |
| Turret                | 4 positions over 360°, fully automatic, memorised start position, option for 2             |
| Test force accuracy   | < +/-1% for force from 100gr to 2kg, < +/-1.5% for force below 100gr                       |
| User display          | Length of diagonals, hardness value, converted value, test force, online statistics        |
| Display resolution    | 0.1 HV, HK                                                                                 |
| Standardisation       | EN, ISO 6507, ASTM E-384, EN 150 4545                                                      |
| Statistics            | Total test, max, min, average, range, standard deviation, all in real time after each test |
| Control panel         | Start test, stop test, light intensity, dwell time, print, clear                           |
| Firmware              | English                                                                                    |
| Memory                | Memory for 20 test results, with CCD-VIEW software unlimited results                       |
| Data output           | RS-232 Bi-Directional                                                                      |
| Dwell time setting    | Default 5 seconds, user defined 1 to 60 seconds (5 sec. increments)                        |
| Printer               | Built in, silent high speed thermal printer                                                |
| Eyepiece microscope   | Bright dual line filar eyepiece with 15x magnification, 0.1um reading                      |
| Light source          | Halogen 12V, 30W, green filter, dimmable                                                   |
| Optical path          | 2 way, eyepiece / camera                                                                   |
| Vertical capacity     | 90mm (maximum specimen height)                                                             |
| Horizontal capacity   | 130mm (from centre line)                                                                   |
| Stage dimensions      | 100x100mm, travel 25x25mm, and reading 0.01mm                                              |
| Operating temperature | 5°C to 40°C (+/-20° for force 25gr and 50gr)                                               |
| Humidity              | 10% to 90% non condensing                                                                  |
| Dimensions            | 420 x 250 x 490mm                                                                          |
| Weight                | 37.5Kg                                                                                     |
| Power                 | 240V/110V, 50/60Hz, single phase                                                           |

### Standard Delivery

- Main unit
- Manual X-Y stage
- Objectives according to model (10x & 40x or 10x, 20x & 40x)
- Analogue eyepiece 15x (410AAT)
- Digital eyepiece 15x (410DAT)
- Vickers test block (+/- 725 HV 1)
- Vickers test block (+/- 450 HV 0.2)
- Built-in thermal printer
- RS-232 data output
- 4 adjustable feet
- Set of work piece fixtures - vice, chuck & clamp
- Spare halogen bulb
- Fuse
- Installation & user's manual
- Quality certificate

### Optional Accessories

- Choice of objective configuration
- INV Video measuring systems
- Dual indenter turret, Vickers & Knoop
- Motorised X-Y stage
- Motorised X-Y-Z stage (auto focus)
- Metal support table with storage cabinet
- Indenter & test blocks
- Certified indenter & test blocks

### Optional System

- INV system for semi and automatic traverses, pattern testing through PC support and motorised XY stage