



Hardness Testers - Measuring Quality

## XM 70 - D1



## TECHNICAL DATA

### TEST CYCLE:

Completely automatic hardness measurement

### OPTICAL SYSTEMS:

- 6-position motorized turret with:
  - Optical lenses:** No. 4 included - 5X, 10X, 20X and 40X as default setting
  - Indenters:** No. 1 included - Vickers
- Energy-saving LED lighting** to guarantee a natural-coloured vision
- High-definition 5 MP camera with 3.0 USB connection**
- Protection system for lenses and indenters**, covered inside the measuring head

### IT SYSTEM

Microsoft Windows 10®  
Keyboard, mouse and 24" full HD monitor included

### SOFTWARE:

- Vx Image®**
- Autofocus (touch focus)**
- Users management:** different access levels to software setup
- Dynamic anti-collision system**
- Image cleaning feature**
- Data output:** USB, Ethernet
- Data export and backup** as .pdf, .xls, .xml, .txt, e .csv files

### POWER SUPPLY:

115/230VAC - 50÷60Hz

### SCOPE OF APPLICATION:

To perform single micro and macro **Vickers, Knoop and Brinell hardness tests** on ferrous and non-ferrous metals such as: iron, steel, tempered steel, cast iron, brass, aluminium, copper and metal alloys. Heat treatments, hardened and nitrided materials. Tests on ceramics and glass.

### REFERENCE STANDARDS:

ISO 6506, ISO 6507, ISO 4545, ASTM E10, ASTM E92, ASTM E384

### TEST LOADS:

#### Vickers:

0,098 - 0,147 - 0,196 - 0,245 - 0,980 - 1,961 - 2,942 - 4,903 - 9,807 - 19,61 - 29,42 - 49,03 - 98,07 - 196,1 - 294,2 N (0,01 - 0,015 - 0,02 - 0,025 - 0,1 - 0,2 - 0,3 - 0,5 - 1 - 2 - 3 - 5 - 10 - 20 - 30 Kgf)

#### Knoop:

0,098 - 0,196 - 0,254 - 0,490 - 0,980 - 1,961 - 2,942 - 4,903 - 9,81 N (0,01 - 0,02 - 0,025 - 0,05 - 0,1 - 0,2 - 0,3 - 0,5 - 1 Kgf)

#### Brinell:

9.81 - 24.52 - 49.03 - 98.07 - 294.2 - 306.5 N (1 - 2.5 - 5 - 10 - 30 - 31.25 Kgf)

### HARDNESS TESTS AVAILABLE:

#### Vickers:

HV0,01 - HV0,015 - HV0,02 - HV0,025 - HV 0,1 - HV 0,2 - HV 0,3 - HV 0,5 - HV 1 - HV 2 - HV 3 - HV 5 - HV 10 - HV 20 - HV 30

#### Knoop:

HK0,01 - HK0,02 - HK0,025 - HK0,05 - HK 0,1 - HK 0,2 - HK 0,3 - HK 0,5 - HK 1

#### Brinell:

HBW 1/1 - HBW 1/2.5 - HBW 1/5 - HBW 1/10 - HBW 1/30 - HBW 2.5/31.25

## OPTIONAL ACCESSORIES AND CUSTOMIZATIONS

- Further optical lenses to be installed:** 2,5X (default setting replacement)
- Further indenters to be installed:** Knoop; Ø1mm ball and Ø2.5mm ball (default setting replacement)
- Customizable test loads:** up to 1gf; 5gf; 50kgf or 62,5kgf

## DIMENSIONS

Weight: 70kg

