

## Product Information

### Zwick ZHV1-m/ZHV2-m Manual Micro Vickers Hardness Tester



#### Range of applications

Micro Vickers testing according to ISO 6507 and ASTM E92, UKAS accredited.

#### Special Characteristics

- Capable of performing tests using forces:  
ZHV1-m: 10, 25, 50, 100, 200, 300, 500, 1000 gf  
ZHV2-m: 25, 50, 100, 200, 300, 500, 1000, 2000 gf
- Automatic turret allows one touch operation when changing between indenter and lens position
- Fully automatic timing cycle eliminates operator influence during the dwell times
- Test scale designation on display
- Motorised load/scale change mechanism
- HK Knoop hardness, Knoop indenter is optional
- Fully CE compliant
- RS232 C and Centronics data output
- Standard statistics are integrated
- Dead weight load application provides long term test force stability
- 256 test data storage facility
- Variable dwell times, 5-99 seconds
- Automatic conversion to alternative scales, eliminating the requirement for conversion tables
- Visual indication of "out of tolerance" results, eliminating operator decisions
- Full range of standard accessories
- Design of special purpose fixtures available
- Optional upgrade for CCD camera adaptation to measure with PC system and *testXpert*® test software
- Supplied as standard with manual X-Y stage and precision component vice
- Horizontal and vertical indentation diagonal measurements displayed

## Product Information

### Zwick ZHV1-m/ZHV2-m Manual Micro Vickers Hardness Tester

Order item	ZHV1-m H019.ZHV1.00	ZHV2-m H019.ZHV2.00	Unit
Micro Vickers test forces	10, 25, 50, 100, 200, 300, 500, 1000	25, 50, 100, 200, 300, 500, 1000, 2000	gf gf
Display	Dot Matrix Graphics LCD, back lit		
Data Entry	Keypad		
Measuring Resolution			
Resolution $\mu\text{m}$	0.1 e.g. 0.2468 mm		
Resolution HV	0.1 e.g. 527.4 HV 10		
Calibration	ISO 6507, ASTM E 92		
Standard specimen accommodation	Vertical: 95 mm Throat: 100 mm		
Services	3 A single phase, 240/120 V switchable		
Dimensions (height x width x depth)	500 x 220 x 400 mm		
Weight	28 kg		

#### Standard accessories (included in scope of supply)

- Manual X-Y stage
- Precision vice
- Standard test block
- Vickers diamond indenter
- Measuring microscope
- Objective lenses 10-times  
and 40-times magnified
- Instruction manual
- Light source bulbs (2 pieces)
- Accessory box

#### Additional accessories

Description	Order item
Indenter, diamand pyramid 136° to Vickers	<b>H019.ZHV.00V</b>
Indenter, diamand pyramid to Knoop	<b>H019.ZHV.00K</b>
Objective lenses 10-times magnified for 100-times aggregate magnification	<b>H019.ZHV.100</b>
Objective lenses 40-times magnified for 400-times aggregate magnification	<b>H019.ZHV.400</b>
Objective lenses 100-times magnified for 1000-times aggregate magnification	<b>H019.ZHV.1K0</b>
Spare - electric bulb	<b>H019.ZHV.010</b>

#### testXpert® adaptation for ZHV1/2

Description	Order item
testXpert® adaptation for ZHV1-m/ZHV2-m	<b>H019.ZHV.200</b>
<b>Here is required: W3310.21x</b>	
Video objektive 12 mm	<b>W3310.210</b>
Video objektive 16 mm	<b>W3310.211</b>
Video objektive 25 mm	<b>W3310.212</b>

#### Objektive field of view (horizontal x vertical) in $\mu\text{m}$

	10-times objektive	40-times objektive	100-times objektive
Video objektive 12 mm	approx. 950 approx. 700	approx. 237 approx. 175	approx. 95 approx. 70
Video objektive 16 mm	approx. 700 approx. 530	approx. 170 approx. 125	approx. 70 approx. 53
Video objektive 25 mm	approx. 460 approx. 340	approx. 115 approx. 85	---- ----