

## Product Information

### Zwick/ZHV30 Vickers hardness tester



#### Range of applications

Hardness testing to Vickers, Knoop, and Brinell

- Vickers (HV): DIN EN ISO 6507, ASTM E 92
- Knoop (HK): DIN EN ISO 4545, ASTM E 384 (Option)
- Brinell (HB): DIN EN ISO 6506, ASTM E 10 (Option)

#### Special characteristics

- Load steps:  
0.2 / 0.5 / 1 / 3 / 5 / 10 / 30 kgf
- Motorised turret for changing between indenter and two lens positions
- Fully automatic timing cycle, eliminates operator influence
- Indication of testing method on display
- Manual load change
- Variable test times from 5 to 60 sec
- RS232 C and USB interface
- Microscope with x 200 magnification  
Indentation measurement with slidable beam  
Diagonal value transmission at the touch of a button
- Fully CE compliant

- Simple operation via:
  - Automatic load application and removal
  - Automatic evaluation
- Dead weight load application
- Automatic conversion to alternative scales to DIN EN ISO 18265 and ASTM E 140
- Setting of tolerance limits, standard statistics functions (x-bar, R)
- Horizontal and vertical indentation diagonal measurements displayed
- Optional upgrade with CCD camera and *testXpert*<sup>®</sup>
- Standard accessories:
  - Vickers diamond pyramid
  - Vickers hardness reference test block
  - Plane specimen support table (Ø 70 mm)
  - Specimen support table, V-shaped (6 mm)
  - Instruction manual
  - Objective lens x 20
  - Accessory box
  - Light source bulb

## Product Information

### Zwick/ZHV30 Vickers hardness tester

Type	ZHV30-m
Order item	H019.ZHV30.00
<b>Test loads</b>	
Vickers hardness	9.8/24.5/49/98/196/294
Brinell hardness (option)	HB 1/1; HB 1/5; HB 1/10; HB 1/30
Knoop hardness (option)	HK0.2 / HK0.5 / HK1
Display	Dot Matrix Graphics LCD, backlit
Data entry	Touchscreen
Measuring resolution	0.1 µm
Calibration	ISO 6507, ASTM E 92
Working space (height x depth)	250 x 150 mm
Power supply (Services)	3 A single phase, 240/120 V switchable
Dimensions (Width x height x depth)	770 x 220 x 580 mm
Weight	50 kg

#### Further accessories

Description	Order item
Indenter (Vickers pyramid 136°)	<b>H019.ZHV.00V</b>
Indenter (Knoop diamond pyramid)	<b>H019.ZHV.00K</b>
Indenter Brinell (hard metal ball dia. 1 mm)	<b>H019.ZHV.00B</b>
Objective for x10 particular magnification and x100 total magnification	<b>H019.ZHV.100</b>
Objective for x40 particular magnification and x400 total magnification	<b>H019.ZHV.400</b>
Light source bulb	<b>H019.ZHV.010</b>
<i>testXpert</i> ® master test program for RS232 measurement value transfer	<b>069020.00.x0</b>

#### Compound tables and adapter plate

Description	Order item
Manual compound table, Fmax. 500 N, table dimensions 135 x 135 mm, travel 50 x 50 mm, with micrometer screws (Combined with PC-version order item 069099.16.x0 is required)	<b>065243.05.00</b>
Adapter plate for use with compound table 065243.05.00	<b>3340.000</b>
Further specimen supports on request.	

#### *testXpert*® connection to ZHV30-m (ZHV30-PC)

Description	Order item
<i>testXpert</i> ® camera connection to ZHV30-m	<b>H019.ZHV.200</b>
<b>Here is required:</b>	
Video objective 12 mm / 16 mm / 25 mm	<b>W3310.210/.211/.212</b>
<i>testXpert</i> ® master test program for optical test methods	<b>069021.00.x0</b>
<i>testXpert</i> ® option Sequence testing	<b>069099.13.x0</b>
<i>testXpert</i> ® option Auto measurement	<b>069099.15.x0</b>
<i>testXpert</i> ® option Connection of x-y tables	<b>069099.16.x0</b>

#### Objective fields of view (horizontal x vertical) for ZHV30-m / ZHV30-PC

	x 10 objective	x 20 objective	x 40 objective
Video objective 12 mm	approx. 950 x 700 µm	approx. 474 x 350 µm	approx. 237 x 175 µm
Video objective 16 mm *)	approx. 700 x 530 µm	approx. 340 x 250 µm	approx. 170 x 125 µm
Video objective 25 mm	approx. 460 x 340 µm	approx. 230 x 170 µm	approx. 115 x 85 µm

\*) Recommended