

# AVK-CO, HV-112 / 113 / 114 / 115

## SERIES 810 — Vickers Hardness Testing Machines

### Technical Data

Test force range	9.807, 49.03, 98.07, 196.1, 294.2, 490.3N
AVK-CO:	
HV-112, HV-113:	1.961, 2.942, 4.903, 9.807, 24.51, 49.03, 98.07, 196.1N
HV-114, HV-115:	9.807, 19.61, 29.42, 49.03, 98.07, 196.1, 294.2, 490.3N
Test force setting:	By dial
Loading accuracy:	±1%
Load control:	Automatic (load, dwell, unload)
Load dwell time:	5s - 99s (1s increments) (5s, 10s, 15s, 20s, 30s: AVK-CO)
Max. specimen height:	210mm (205mm: AVK-CO)
Max. specimen depth:	170mm (165mm: AVK-CO) (from the center of indenter shaft)
Indenter/objective turret:	Manual
Indenter mounting:	1 position
Objective mounting:	2 positions (1 position: AVK-CO)
Optical path*:	Split two ways for video monitoring and photography (Single way: AVK-CO)
Resolution:	0.1µm (1µm: AVK-CO)
Control unit*:	Touch-screen type
Data output*:	RS-232C, Digimatic code (SPC) and Centronics
Power supply:	100/120/220/240V AC, 50/60Hz
Dimensions (W x D x H)	
Main unit:	245x515x770mm
Control unit*:	165x260x105mm
Mass (main unit):	50kg (45kg: AVK-CO)

\*Except for AVK-CO

### Optional Accessories

<b>19BAA063:</b>	Diamond indenter for Knoop
<b>810-037:</b>	Round table (ø180mm)
<b>810-038:</b>	Round table (ø250mm)
<b>810-012:</b>	50x50mm-travel XY stage
<b>810-016:</b>	Vise (max. opening: 45mm)
<b>810-017:</b>	Vise (max. opening: 100mm)
<b>810-622:</b>	Printer (DPU-414)
<b>19BAA157:</b>	Printer paper (10-roll set)
<b>19BAA266:</b>	Connecting cable for printer
<b>264-504:</b>	DP-1VR
<b>09EAA082:</b>	Printer paper of DP-1VR (10-roll set)
<b>936937:</b>	SPC cable (1m)
<b>965014:</b>	SPC cable (2m)
<b>19BAA011:</b>	Hardness test block (200HV)
<b>19BAA012:</b>	Hardness test block (300HV)
<b>19BAA013:</b>	Hardness test block (400HV)
<b>19BAA014:</b>	Hardness test block (500HV)
<b>19BAA015:</b>	Hardness test block (600HV)
<b>19BAA016:</b>	Hardness test block (700HV)
<b>19BAA017:</b>	Hardness test block (800HV)
<b>19BAA018:</b>	Hardness test block (900HV)
<b>810-640:</b>	Vibration damping stand
<b>11AAA002:</b>	EXPAK data processing program
—:	VLPK auto-reading measuring program (See page L-6.)

### Consumable Parts

<b>810-087:</b>	Illumination lamp (1 pc.)
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Refer to the Hardness Testing Machines leaflet (E4104) for more details.

### FEATURES

- A wide range of test force from 1.961N to 490.3N\* is available for measuring various type of specimens. The load dwell time can be set in 1sec increments between 5 and 99sec. A measuring resolution of 0.1µm is provided that allows small indentations to be measured with high precision.

### Function: Control unit

- Back-lit LCD graphic display for Indentation size (D1 and D2), Hardness value and scale, Number of measurement point
- Test conditions (HV / HK indenter type, test force, load dwell time), GO / ±NG tolerance judgment, Cylindrical and spherical surface compensation and offset
- Remote control of power turret
- Conversion to other hardness scales
- Statistical processing



### SPECIFICATIONS

Model No.	AVK-CO	HV-112	HV-113	HV-114	HV-115
<b>Order No.</b>	<b>810-160*</b>	<b>810-163*</b>	<b>810-981*</b>	<b>810-165*</b>	<b>810-985*</b>
Test force range	9.807, 49.03, 98.07, 196.1, 294.2, 490.3N	1.961, 2.942, 4.903, 9.807, 24.51, 49.03, 98.07, 196.1N		9.807, 19.61, 29.42, 49.03, 98.07, 196.1, 294.2, 490.3N	
Test force setting	By dial	By dial	By dial	By dial	By dial
Control unit	—	Touch-screen type			
Video monitor	—	—	9" B/W	—	9" B/W
Indenter/objective turret	Manual operation	Motor driven	Motor driven	Motor driven	Motor driven
Indenter mounts	1	1	1	1	1
Objective mounts	1 (measurement)	2 (measurement)	2 (measurement)	2 (measurement)	2 (measurement)

\* To denote your AC power cable add the following suffixes to the order No.:

**A** for UL/CSA, **D** for CEE, **DC** for CCC, **E** for BS, **F** for SAA, **K** for EK, **No suffix** is required for JIS/100V

### AVK-HF: 810-155

Vickers hardness testing at high temperatures.

