

# Arterial Stiffness -

## The Cardio-Ankle Vascular Index (CAVI) from Research to Clinical Practice

# CAVI

VaSera™ VS-2000

Your Partner  
for Better  
Patient  
Management



**NEW RELEASE!**

## Cardiovascular Risk Evaluation for Your Practice

### VaSera, Model VS-2000

VaSera non-invasively and simultaneously captures pulse waves in all four limbs, and calculates blood pressures and a validated arterial stiffness index. This makes it possible to examine the arterial stiffness and the degree of blood circulation disorders in blood vessels in the lower limbs of the patient.

### CAVI (Cardio-Ankle Vascular Index)

CAVI reflects the stiffness of arterial walls from the heart (aortic valve) to the ankle. CAVI provides a tool to detect early-stage atherosclerosis and assess its progression and response to therapy.

Research has demonstrated the measurement's sensitivity to dyslipidemia, diabetes, coronary heart disease, and other conditions.

CAVI is particularly well suited for detecting arterial stiffness in patients with hypertension, because it is less influenced by point-of-care blood pressure than are other devices of its kind.

### ABI (Ankle-Brachial Index)

The ABI is a standardized index of the degree of arterial blockage existing in the lower limbs due to Peripheral Artery Disease (PAD). This test is recommended by the AHA/ACC and by TASC II.

### TBI (Toe Brachial Index), option

TBI is an index to evaluate blood circulation disorders from the ankles to the peripheral arteries.

### Standard 12-lead ECG, option

VaSera is able to measure standard 12-lead ECG, giving highly accurate waveforms. Its automated ECG analysis software allows for the recording and printing of a full ECG report.

## VS-2000 Specification

Display	LCD display	1024 x 768 dots (LED back light)
PCG	Frequency response	L filter: 50 Hz (-6 dB/oct)
		PWV filter: 165~280Hz within -3dB
NIBP(BPU-100)	Measuring range	0~300mmHg
	Scale interval	1 mmHg
	Pressure accuracy	±3mmHg
	Pressure detection	Semiconductor pressure sensor
	Zero balancing	Automatic balancing
	Measuring method	Oscillometric
	NIBP measuring range	20~280mmHg
	Inflation method	Automatic inflation by pump
	Deflation method	Automatic by electromagnetic valve
	Safety device	Over 330mmHg, or 10mmHg for longer than 130sec
ECG (EE-100)	Leads	Standard 12-lead ECG
	Standard sensitivity	10 mm/mV
	Sensitivity changes	1/4, 1/2, 1, 2, auto
	Differential and common-mode offset voltage (electrode-skin voltage)	±600mV or more
	Sine wave characteristics	0.05~150Hz within -3dB
	Low frequency characteristics (time constant)	3.2s or more
	CMRR	103dB or more
	Internal noise	<30 μVp-p
	Filters	AC: 50 / 60Hz (-20dB max)
		Muscle: 25 / 35Hz -3dB (-6dB/oct)
Drift: 0.25Hz/0.5Hz within -3dB		
SD card slot		SD Card Specification 2.0
LAN connector		IEEE 802.3u, 100BASE-TX (cable within 50m)
USB connector		USB2.0 Full Speed, 3 channel
Safety standard		IEC 60601-1: 1999
Class of protection against electric shock		Class I, internally-powered equipment
Type of protection against electric shock	NIBP input	Type CF (defibrillation-proof)
	PCG input	Type CF (defibrillation-proof)
	ECG input	Type CF (defibrillation-proof)
Power supply		100~240V AC 50/60Hz, 120 VA
		DC11.1V (Battery operation)



Dimension and Weight	Main Unit	178(W) x 181(D) x 315(H) mm Approx. 4.5kg (without battery)
	Display Unit	297(W) x 95.5(D) x 210(H) mm Approx. 1.6kg
	BPU-100	90(W) x 151.1(D) x 43(H) mm Approx. 0.4kg
Operating environments		Temperature 10~40°C Humidity 25~95% (non-condensing)
Storage environments		Temperature -10~+60°C Humidity 10~95% (non-condensing)

FUKUDA DENSHI reserves the right to change specifications without notice.