



## VR-6200

3D Optical Profilometer Head (Fully-automated model)



## Specifications

Model		VR-6200		
Type		Head		
Controller		VR-6000		
Field of view	Low magnification (wide field of view)	Magnification on a 15" monitor 12×	Horizontal	24.0 mm <b>0.94"</b>
			Vertical	18.0 mm <b>0.71"</b>
		Magnification on a 15" monitor 25×	Horizontal	12.0 mm <b>0.47"</b>
			Vertical	9.0 mm <b>0.35"</b>
		Magnification on a 15" monitor 38×	Horizontal	8.0 mm <b>0.31"</b>
			Vertical	6.0 mm <b>0.24"</b>
		Magnification on a 15" monitor 50×	Horizontal	4.5 mm <b>0.18"</b>
			Vertical	4.5 mm <b>0.18"</b>
	High magnification (high resolution)	Magnification on a 15" monitor 40×	Horizontal	7.6 mm <b>0.30"</b>
			Vertical	5.7 mm <b>0.22"</b>
		Magnification on a 15" monitor 80×	Horizontal	3.8 mm <b>0.15"</b>
			Vertical	2.9 mm <b>0.11"</b>
Magnification on a 15" monitor 120×	Horizontal	2.5 mm <b>0.10"</b>		
	Vertical	1.9 mm <b>0.07"</b>		
Magnification on a 15" monitor 160×	Horizontal	1.4 mm <b>0.06"</b>		
	Vertical	1.4 mm <b>0.06"</b>		
Zoom		1× to 4×		
Height measurement	Display resolution		0.1 μm	
	Height measurement range	Without Z stitching	Low magnification (wide field of view): 10 mm <b>0.39"</b> High magnification (high resolution): 1 mm <b>0.04"</b>	
		With Z stitching	Low magnification (wide field of view): 50 mm <b>1.97"</b> High magnification (high resolution): 30 mm <b>1.18"</b>	
	Repeatability (σ)	Without Z stitching	0.4 μm *1	
		With Z stitching	1.0 μm *1	
	Measurement accuracy	Without Z stitching	±2.5 μm *1	
With Z stitching		±4.0 μm *1		
Width measurement	Repeatability (σ)		Low magnification (wide field of view): 1 μm High magnification (high resolution): 0.5 μm *1	
	Measurement accuracy		Low magnification (wide field of view): ±5 μm High magnification (high resolution): ±2 μm *1	

Stitching function		Fully-automated measurement (XY automatic control + Z automatic control, $\theta$ automatic control), Automatic mapping creation, Automatic area setting *2
Stitching function	Motorized rotational unit	Supported *2
XY measurable range		300 × 150 mm <b>11.81" × 5.91"</b> *2
Stage	XY stroke	278 × 134 mm <b>10.94" × 5.28"</b> (motorized)
	Z stroke	69 mm <b>2.72"</b> (motorized)
	Load capacity	4.5 kg <b>9.92 lb</b>
Working distance		75 mm <b>2.95"</b>
Image receiving element		4 megapixel monochrome CMOS
Transmitter lens		Double-telecentric lens × 2
Receiver lens		Double-telecentric lens
Light sources	Observation light source	LED ring light (red, blue, green)
	Measurement light source	White LED
Data processing		Dedicated PC specified by KEYENCE (OS: Windows 10 Pro)
Power supply	Power voltage	100 to 240 VAC ±10%, 50/60 Hz
	Power consumption	200 VA max.
Environmental resistance	Ambient temperature	+15 to 30°C <b>+59 to 86°F</b>
	Relative humidity	20 to 80% RH (no condensation)
Weight		Approx. 28 kg <b>61.73 lb</b> *3

\*1 Value obtained using KEYENCE's specified standard gauge with measurement in KEYENCE's specified measurement mode (ambient temperature: 23±1°C **73.4±1.8°F**)

\*2 Measurement expansion module (VR-H4J) required

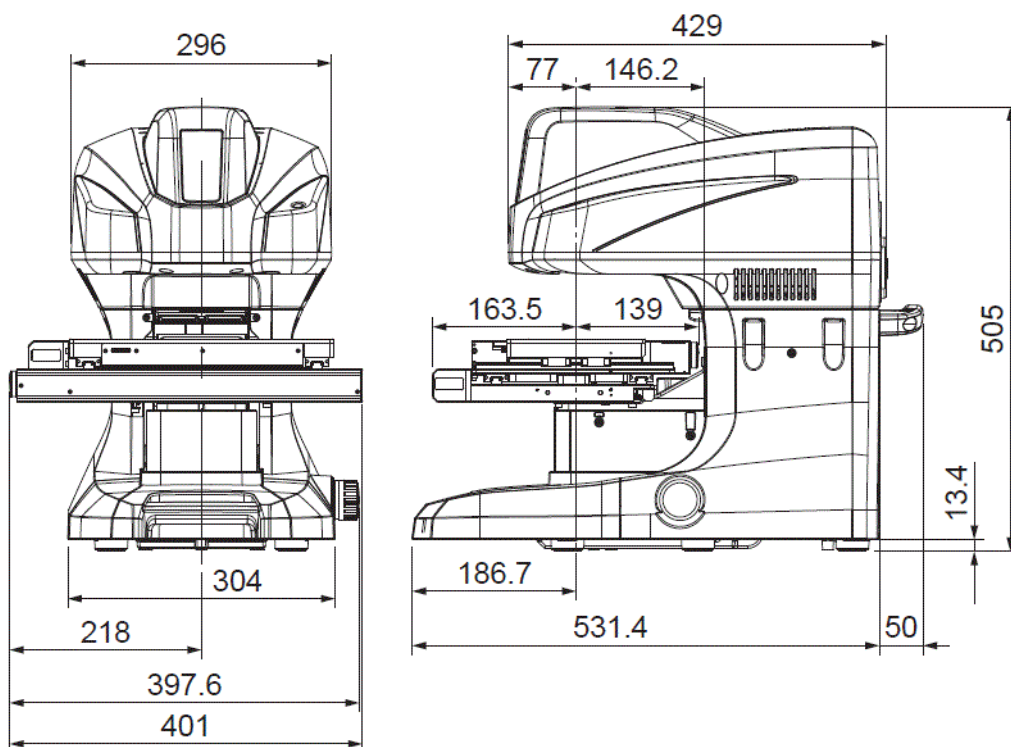
\*3 Weight of only measurement unit: Approx. 11 kg **24.25 lb**

## Dimensions

\* Download CAD file or product manual for larger image/text and more detail.

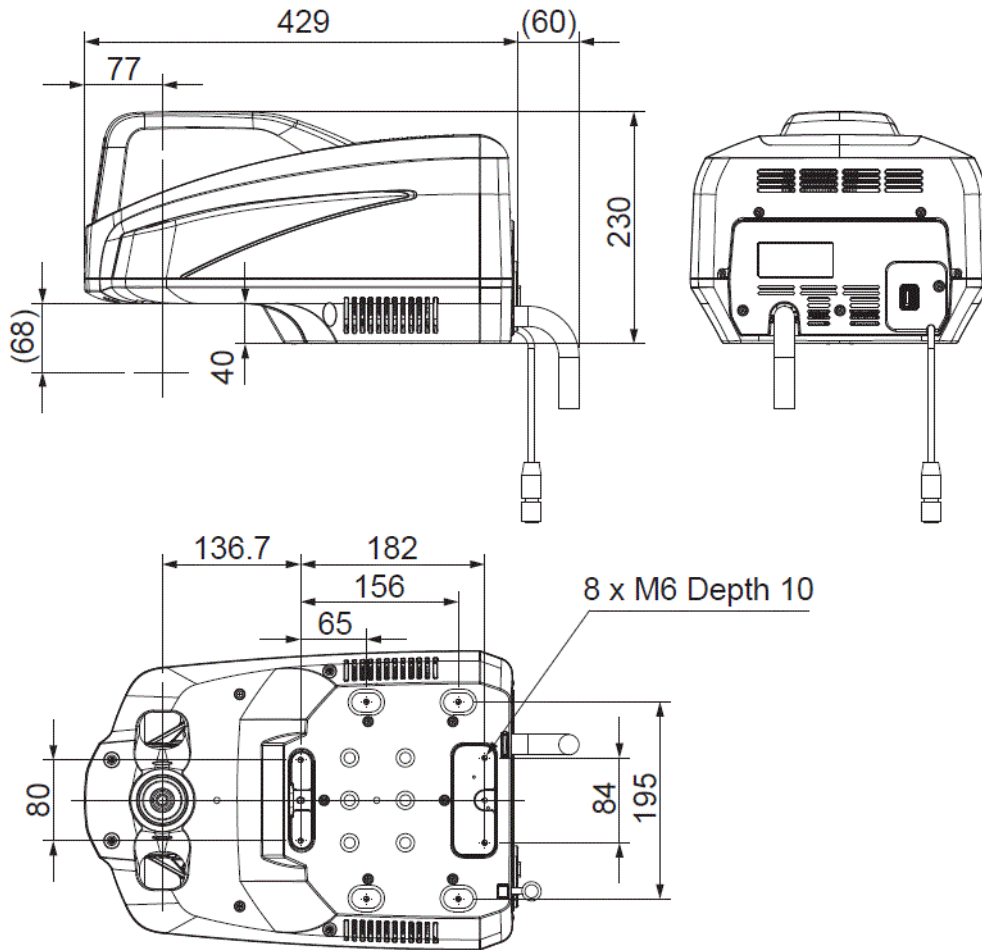
### VR-6200

#### Head



Unit: mm

■ Measurement position



Unit: mm