



## VR-5200

Wide-Area 3D Measurement System Head



## SPECIFICATIONS

Model		VR-5200		
Type		Head		
Controller		VR-5000		
Field-of-view	Low magnification (wide field of view)	Magnification on a 15" monitor or 12×	Horizontal	24.0 mm 0.94"
			Vertical	18.0 mm 0.71"
		Magnification on a 15" monitor or 25×	Horizontal	12.0 mm 0.47"
			Vertical	9.0 mm 0.35"
		Magnification on a 15" monitor or 38×	Horizontal	8.0 mm 0.31"
			Vertical	6.0 mm 0.24"
	High magnification (high resolution)	Magnification on a 15" monitor or 50×	Horizontal	4.5 mm 0.18"
			Vertical	4.5 mm 0.18"
		Magnification on a 15" monitor or 40×	Horizontal	7.6 mm 0.30"
			Vertical	5.7 mm 0.22"
		Magnification on a 15" monitor or 80×	Horizontal	3.8 mm 0.15"
			Vertical	2.9 mm 0.11"
Magnification on a 15" monitor or 120×	Horizontal	2.5 mm 0.10"		
	Vertical	1.9 mm 0.07"		
Magnification on a 15" monitor or 160×	Horizontal	1.4 mm 0.06"		
	Vertical	1.4 mm 0.06"		
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 0.39" High magnification (high resolution) : 1 mm 0.04"	
		With Z stitching	Low magnification (wide field of view) : 50 mm 1.97" High magnification (high resolution) : 30 mm 1.18"	
	Repeatability (σ)	Without Z stitching	0.4 μm <sup>-1</sup>	
		With Z stitching	1.0 μm <sup>-1</sup>	
	Measurement accuracy	Without Z stitching	±2.5 μm <sup>-1</sup>	
With Z stitching		±4.0 μm <sup>-1</sup>		
Width measurement	Repeatability (σ)		Low magnification (wide field of view) : 1 μm High magnification (high resolution) : 0.5 μm <sup>-1</sup>	
	Measurement accuracy		Low magnification (wide field of view) : ±5 μm High magnification (high resolution) : ±2 μm <sup>-1</sup>	
Stitching function		Fully-automated measurement (XY automatic control + Z automatic control) <sup>2</sup>		
XY measurable range		206 x 104 mm 8.11" x 4.09" <sup>2</sup>		
Stage	XY stroke	184 x 88 mm 7.24" x 3.46" (motorized)		
	Z stroke	73 mm 2.87" (motorized)		
	Load capacity	4.5 kg		
Working distance		75 mm 2.95"		
Image receiving element		4 megapixel monochrome CMOS		
Transmitter lens		Double-telecentric lens x 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, 50/60 Hz		
	Power consumption	200 VA max.		
Environmental resis	Ambient temperature	+15 to 30 °C 59 to 86 °F		

tance	Relative humidity	35 to 80 % RH (no condensation)
Weight		Approx. 28 kg <sup>3</sup>
<sup>1</sup> 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) <sup>2</sup> Measurement expansion module (VR-H3J) required <sup>3</sup> Weight of only measurement unit: Approx. 11 kg		

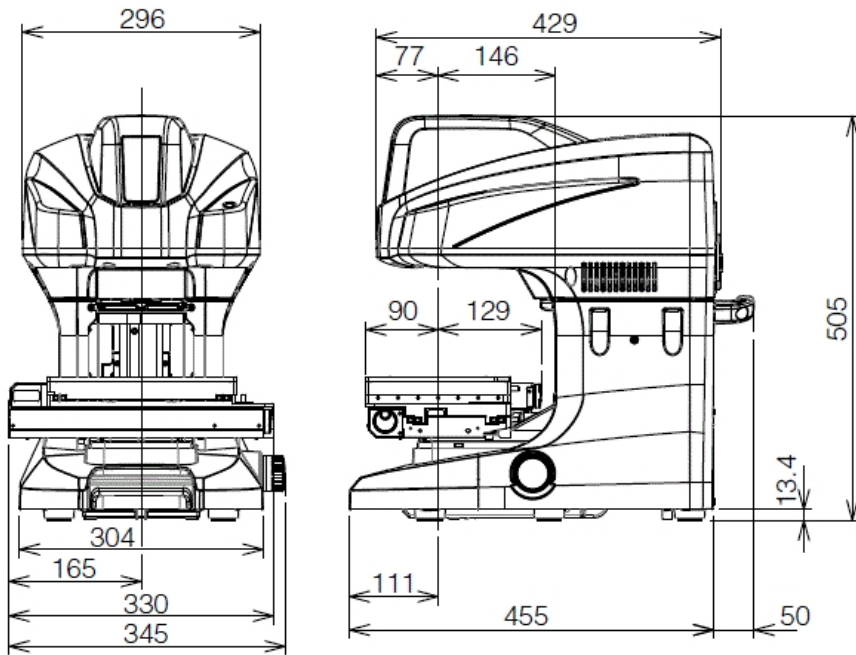
## Dimensions

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

## VR-5200

## ■ Head

Unit: mm



## ■ Measurement unit

Unit: mm

