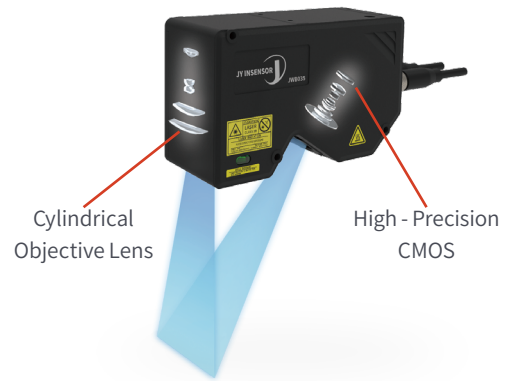


3D Laser Profiler

INTRODUCTION TO INTELLIGENT SENSOR

Product Overview

JWB Series 3D Laser Profiler: Blue laser with 3,200 points/profile output. Built-in high-precision algorithms deliver real-time profile, point cloud, and positioning data. Strong interference resistance and stable performance across a wide range of target materials and complex environments.



Technical Advantage



Precision Measurement

Dedicated algorithm team for complex application needs



Excellent environmental adaptability

Optimized optics + Ambient light rejection algorithm
Stable on complex surfaces and varied lighting



High Precision

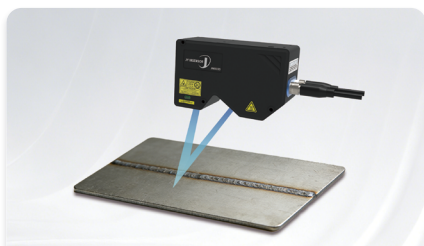
High-res CMOS for micron-level accuracy



Wide Material Compatibility

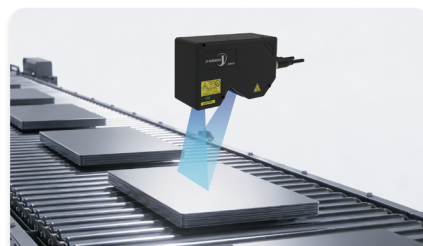
Works on metal, plastic, glass
Regardless of color or gloss

Application Scenarios



Dimensional Inspection

Post-weld dimensional and defect inspection
Automotive fixture dimensional inspection



Surface Inspection

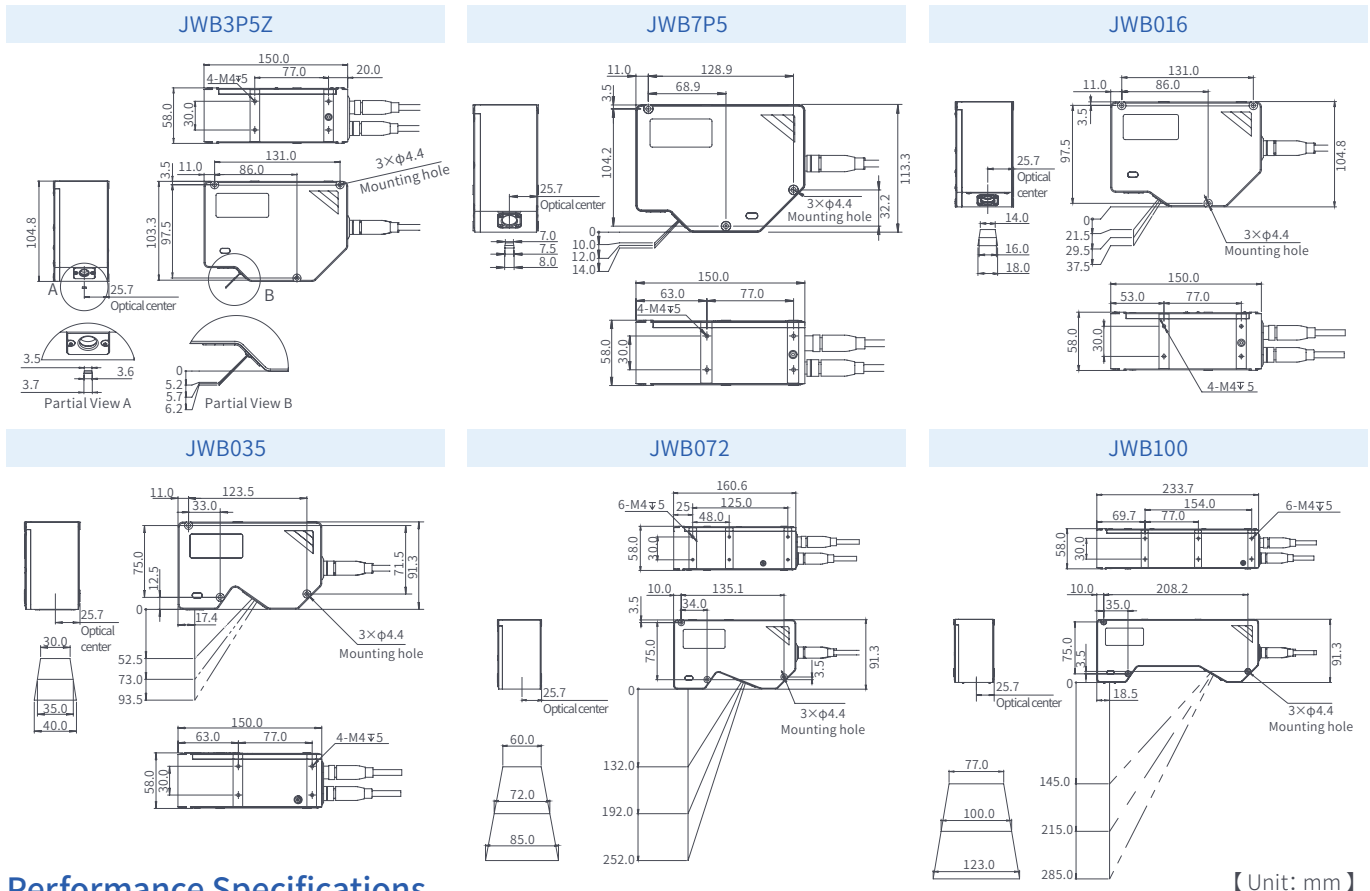
Flatness measurement and defect detection on machined metal components



Shape Inspection

Measures adhesive bead geometry, dimensions, and solder paste thickness distribution and volume.

Dimensions Diagram



[Unit: mm]

Performance Specifications

Model	JWB3P5Z	JWB7P5	JWB016	JWB035	JWB072	JWB100	
Z - axis ¹	Near	5.2 mm	10 mm	21.5 mm	52.5 mm	132 mm	145 mm
	Reference Distance	5.7 mm	12 mm	29.5 mm	73 mm	192 mm	215 mm
	Far	6.2 mm	14 mm	37.5 mm	93.5 mm	252 mm	285 mm
	Measurement Range	1 mm	4 mm	16 mm	41 mm	124 mm	140 mm
	Linearity Accuracy ²	±0.05% of F.S.	±0.04% of F.S.	±0.04% of F.S.	±0.04% of F.S.	±0.04% of F.S.	±0.05% of F.S.
Repeatability ³		0.2 μm	0.3 μm	0.4 μm	0.5 μm	2 μm	3 μm
X - axis ⁴	Near	3.5 mm	7 mm	14 mm	30 mm	60 mm	77 mm
	Reference Distance	3.6 mm	7.5 mm	16 mm	35 mm	72 mm	100 mm
	Far	3.7 mm	8 mm	18 mm	40 mm	85 mm	123 mm
Repeatability ³		0.2 μm	0.3 μm	0.5 μm	1 μm	3 μm	5 μm
Light source ^{5,6}	Type	Blue Semiconductor Laser (405 nm)					
	Laser Class	Class 3R					
Voltage Range	11-30 VDC						
Switch Output	Open collector output (NPN/PNP switchable), N.O./N.C. switchable						
Communication Interface	1000BASE-T						
Encoder	Differential encoder (5 V output: max 150 mA)						
HDR (High dynamic range) ⁷	Single frame HDR						
Operating Temperature	0-45° C						
Profile Data Points	3200 points						
Measuring Rate	250 Hz - 16 kHz						
Display	LED indicator × 2						
Material	Housing: Aluminum alloy						
Protection Class ⁸	IP67						

¹ Measurement target: standard diffuse object. The average height value measured in the initial set area using the height/position tool is the specified value. Other settings remain default.

² Measurement target: standard diffuse object. The profile data is measured after 64 smoothing processes and 8 averaging steps. Other settings remain default.

³ The value is the average of 4096 measurements taken at the reference distance.

⁴ Measurement target: pin gauge. Measure R-surface/edge intersection with height/position tool. Other settings are default.

⁵ Classification according to FDA (CDRH) Laser Notice No. 56, based on IEC60825 - 1 standards.

⁶ Do not directly observe the laser beam using optical devices such as magnifying glasses or telescopes.

⁷ One exposure (shot) is sufficient for stable and high - precision measurements of surfaces with significant contrast differences.

⁸ Values when the sensing head cable or extension cable is connected.