

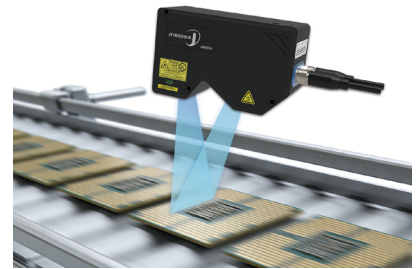


3D Laser Profiler





INTRODUCTION TO INTELLIGENT SENSOR

Product Overview

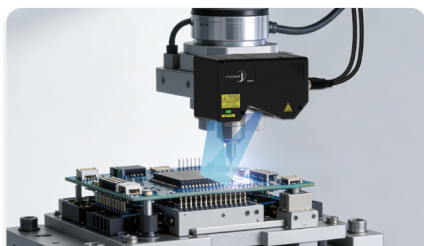
Compared to the JWB Series, the JWK Series significantly increases measurement speed while maintaining high accuracy. With a maximum measuring rate of 16 kHz and a full-range rate of 1.5 kHz, it is stable and highly adaptable, operating standalone and perfectly suited for high-speed automation applications demanding speed, precision, and stability.



Technical Advantage

- 
Non-Contact Measurement
 No contact, no damage to target
- 
Fine Detail Reproduction
 Unaffected by color or surface gloss
- 
Ultra-High-Speed Scanning
 Optimized for high-speed production lines with outstanding efficiency
- 
Professional Algorithm Support
 Built-in professional algorithms ensuring measurement accuracy

Application Scenarios



Dimension Inspection

Gap measurement in robot assembly



Appearance Inspection

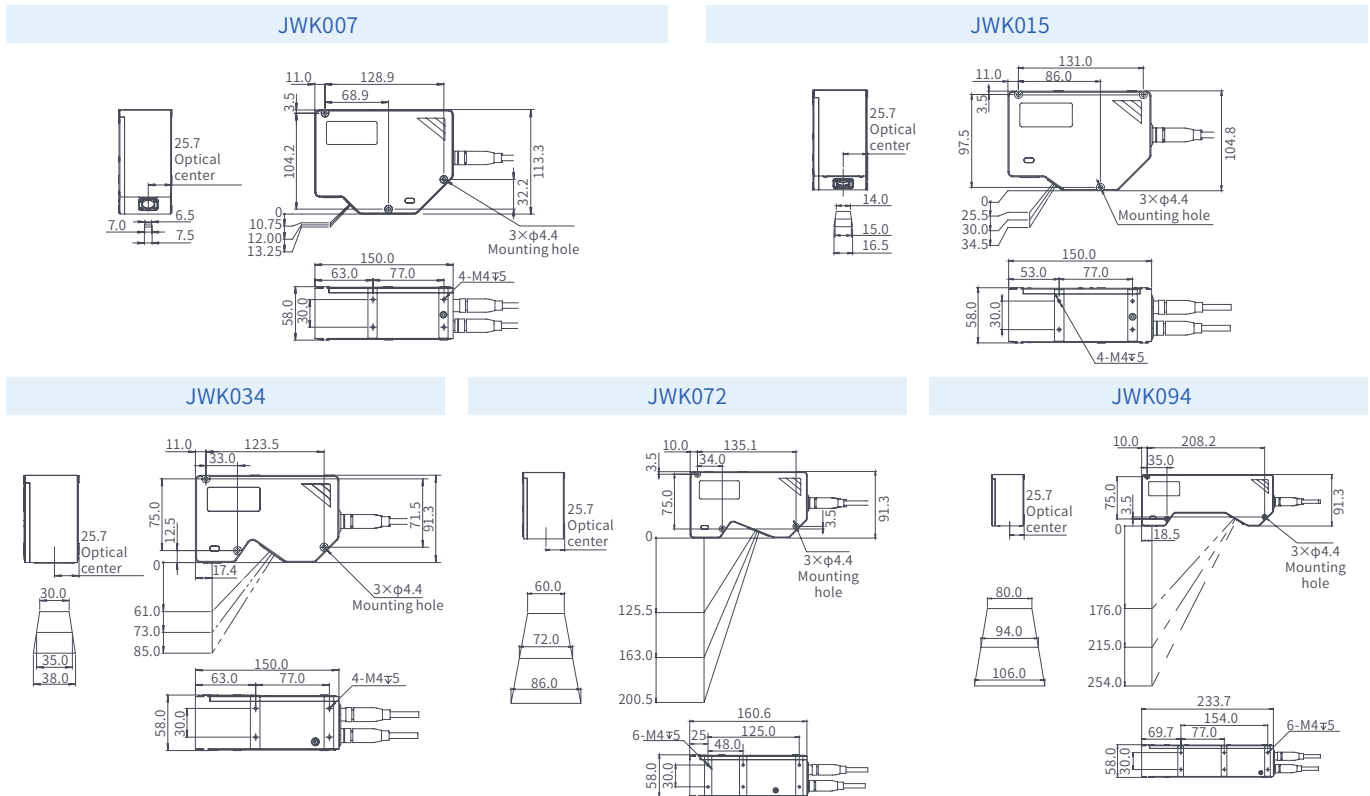
Defect and dimension inspection of capacitors, resistors, and other components



Shape Inspection

Automotive weatherstrip profile inspection

Dimensions Diagram



[Unit: mm]

Performance Specifications

Model		JWK007	JWK015	JWK034	JWK072	JWK094
Z - axis ¹	Near	10.75 mm	25.5 mm	61 mm	125.5 mm	176 mm
	Reference Distance	12 mm	30 mm	73 mm	163 mm	215 mm
	Far	13.25 mm	34.5 mm	85 mm	200.5 mm	254 mm
	Measurement Range	2.5mm	9 mm	24 mm	75 mm	78 mm
	Linearity accuracy ²	±0.048% of F.S.	±0.048% of F.S.	±0.048% of F.S.	±0.048% of F.S.	±0.06% of F.S.
X - axis ⁴	Repeatability ³	0.36 μm	0.48 μm	0.6 μm	2.4 μm	6 μm
	Near	6.5 mm	14 mm	30 mm	58 mm	80 mm
	Reference Distance	7 mm	15 mm	34 mm	72 mm	94 mm
	Far	7.5 mm	16.5 mm	38 mm	86 mm	106 mm
Light Source ^{5,6}	Type	Blue Semiconductor Laser				
	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		1500 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.