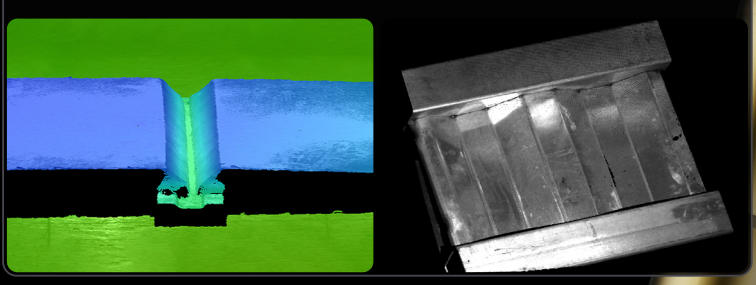
RVBUST

Intelligent Eyes for Robot Welding

Unlock Possibilities with RVC-M2600

Uncompromised Precision for Every Angle

Even for workpieces with complex structures and multiple reflections, a single exposure can capture the image. The newly developed multi-reflection imaging algorithm ensures the accuracy of point cloud data for bevels and corner edges.

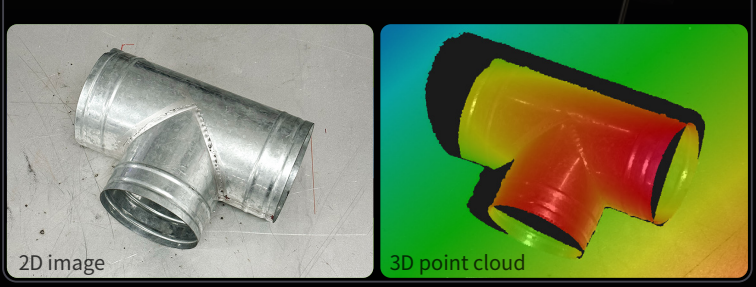


Conquer the Strong Light

Utilizing a self-developed structured light core component and an innovative anti-ambient light algorithm, the camera can maintain complete and accurate point cloud data even in strong light environments exceeding 400,000 Lux. This allows the camera to directly face welding arcs and sunlight for capturing images.

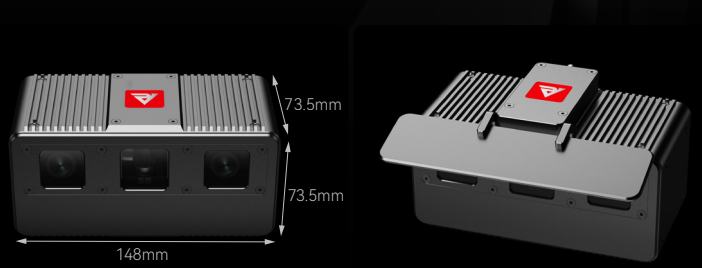
Unreached Quality on Reflective Materials

Utilizing a dual-eye dynamic compensation algorithm, high-quality point clouds can be obtained even under near mirror-like reflection conditions.



150mm Body with Intelligent Protective Cover

148x73.5x73.5mm ultra-compact body, **0.95kg** ultra-light-weight design, protective cover structure that isolates welding slag, assisting robots in calmly handling various welding scenarios.



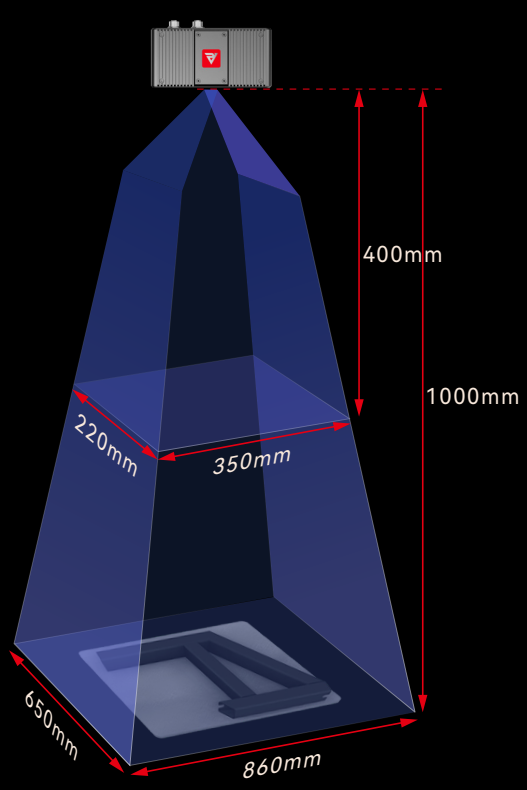
400000Lux Anti-ambient light interference

0.4–1m Ultra-large working distance range

0.86×0.65@1m Ultra-large field of view

0.1% Good point cloud accuracy

1 FPS Fast Capturing Speed



Product Specification

Basic Info.	Camera Dimension (mm)	148*73.5*73.5
	Camera Weight (kg)	0.95
	Baseline Length (mm)	93
	Camera Resolution	1440*1080(1.6M), dual-eye, grayscale
	Light Source	Blue laser
	Data I/O	GigE
	Working Voltage/Current	DC 24V/2A
	Supported OS	Linux/Windows
	Supported Programming Languages	C/C++/C#/Python
Performance	Working Distance (mm)	400-1000
	Field (mm)	600
	Near FoV (mm)	350*220@400
	Middle FoV (mm)	600*450@700
	Far FoV (mm)	860*650@1000
	Z Single Point Repeatability (mm)*1,2	0.27@1000
	Z Area Repeatability (mm)*1,3	0.05@1000
	XYZ Spatial Accuracy*1,4	Full view<0.2% Center of vision<0.1%
	Point Distane (mm)	0.25@400 0.7@1000
	Speed (FPS)*5	0.44-1.02
Stability	Protection	IP65 protection level
	Light Resistance*6	Line scan mode>400000 Lux
	Working Temperature*7	-20-50℃

1. Sampling mode: in the nearest field of view, the best working distance, the farthest field of view of the three distances to shoot the target object, each measurement distance to select the "well" distributed in the field of view of the edge of the center of the nine sampling areas, and take the worst of the nine values of the results of the measurement distance under the measurement results, and ultimately take the three distances from the results of the measurement of the extreme value of formation Accuracy range; **2.** Z single-point repeatability: 100 measurements of the center of the sampling area P and the difference between the z-mean value of the sampling area, and take 1 times the standard deviation (1σ), the sampling area area for the field of view size of 1%; **3.** Z-area repeatability: 100 measurements of the difference between the z-mean value of the sampling area A and the z-mean value of the reference area B, and take 1 times the standard deviation (1σ), the sampling area A and the reference area B are adjacent to each other, and the area of the sampling area is 1% of the size of the field of view; **4.** XYZ spatial measurement error: measurement of the center distance between the two circles of the circular calibration plate and the true value of the error, as a percentage of the true value; **5.** Shooting time range determined by the shortest exposure time (10ms) and the longest exposure time (100ms) using the surface array mode of shooting time; **6.** Line scan mode is used; **7.** Hardware reliable operating temperature range, performance parameters for normal room temperature 26 °C test results.

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