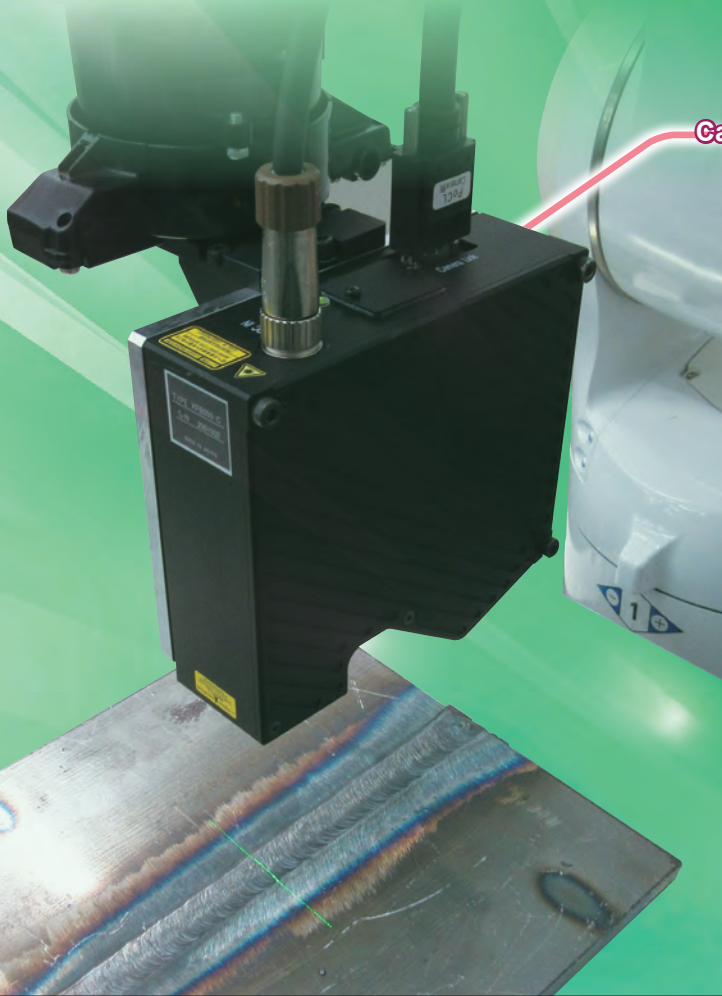




Capture 3D line profile



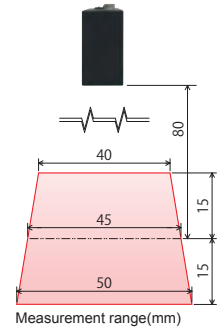
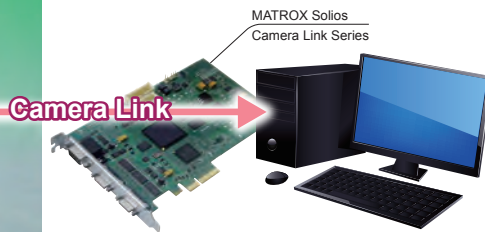
3D line profile camera Kingfisher Series KFB080

KFB080-C

KFB080 is a 3D line profile camera with the fastest scan rate of 5.0 kHz using the laser beam section method. The measurement range is 80 ± 15 mm in the height direction, and the line profile of up to 50 mm wide is output with data of 1000 pixels. You can achieve excellent performance in the shape inspection of such as the weld bead using this camera that specializes in narrow objects.

Key Features

- High-speed profile: Max. 5000 lines per second
- Measurement range: Height: ± 15 mm, width: 50 mm (Maximum values)
- Height resolution: $10 \mu\text{m}$
- Data interval height: $1 \mu\text{m}$, width: $50 \mu\text{m}$
- Data output: Camera Link (Base Configuration)
- No requirement for the calibration owing to the laser integrated type: The calibration is adjusted at the factory shipment.
- Green semiconductor laser (520 nm, class 3R)



Resolution

- Height direction : $10 \mu\text{m}$
- Width direction : $50 \mu\text{m}$

Functions

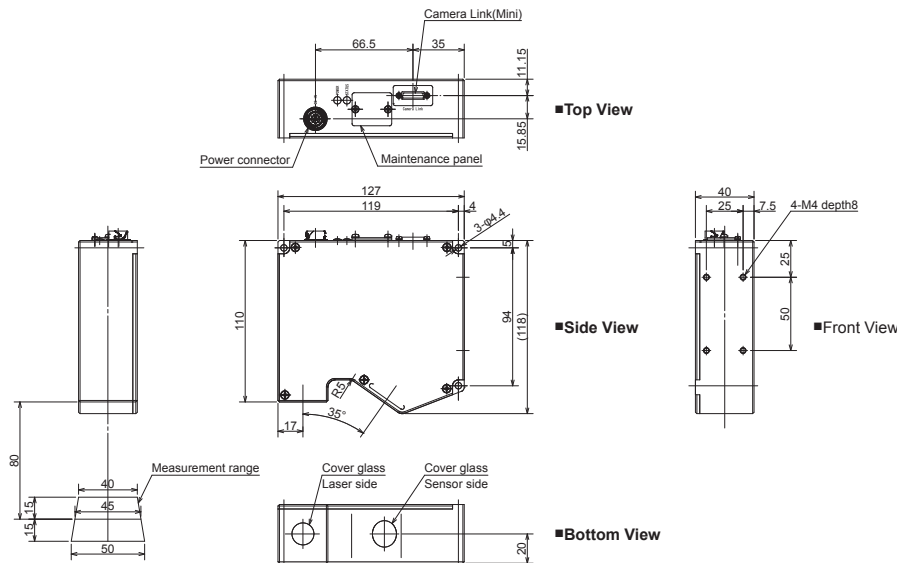
- Selection of internal / external synchronization
- Increase of line rate enabled by limiting the scanning range.
- Settings of laser intensity with commands
- Offset setting of output position and output height
- Saving and reading of camera settings
- Laser life monitoring and life warning

CE RoHS

Main specifications

Characteristics		Units	KFB080-C				
Optical system		—	Diffused reflection by light section method				
Stand off and working distance		mm	80 ± 15				
Measurement range	Measurement direction	mm	Width (X-axis)		Height (Z-axis)		
	Near		40	-15			
	Reference distance		45	0			
	Far	50	+15				
Data output interval		µm	50		1		
Resolution		µm	50		10		
Repeat accuracy		µm	10		1		
Laser light source	Type	—	Green visible light semiconductor laser				
	Wavelength	nm	520 (Standard), 515-530				
	Optical output	mW	Up to 5				
	Class	—	3R [JIS C 6802:2014] [IEC 60825-1:2014]				
	Shape(Line width x Line length)	—	50 µmx100 mm				
Data output format		—	Camera Link (Base Configuration)				
Data format		bit	16 (Profile), 8 (Sensor Image)				
Output connector		—	12226-8200-00PL (3M)				
Data rate		MHz	40				
Power input connector		—	LF10WBR-12P (Hirose)				
Size		mm	127(W)x118(H)x40(D)				
Weight		g	700				
Protection level		—	IP5X				
Operation range		Unit					
Sampling	Height	mm	±15	±12.5	±10	±7.5	±5
	Scan rate	kHz	2.0	2.5	2.9	4.0	5.0
	Period	µs	500	400	345	250	200
Ambient illumination		lx	7000				
Operating temperature and humidity		—	0-45 °C, 20-85% (no condensation)				
Storage temperature and humidity		—	-25-55 °C, 15-90% (no condensation)				
Input voltage		V _{DC}	12~24				
Warm-up time		minute	Typ.: 60				
Current consumption @ Vin = 15 V		A	Typ.: 0.9				
Power consumption		W	Typ.: 13.5				
Accessories		—	CD-ROM x 1 (Display application)				
Recommended connection board		—	Matrox / SOL 2M EV CLB				

Dimensions



In order to bring the best use of your camera, please read the user's manual carefully before operation.