

Optical Specification	
Model	OPT-CH05-110FC-F8
Optical Configuration	Bi-Telecentric
Working Distance (mm)	110±2
Magnification	0.5X
Sensor Ø (mm)	11.0(2/3")
Aperture	F8
Telecentricity	0.10°
NA	0.03123
Distortion	<0.1%
Depth of Field (mm)	2.64
Resolution (μm)	4.2
Image MTF30 (lp/mm)	120
Field of View Ø (mm)	22.00
O/I Distance (mm)	264.7
Mount	C-Mount
Weight (kg)	0.28
Size (mm)	Ø 42.0×137.2
Filter Thread (mm)	M39×0.5-6H
Working Temperature	0°C~+40°C

[1]Resolution:The resolution is the image resolution.
[2]DOF evaluation formula for telecentric lenses:

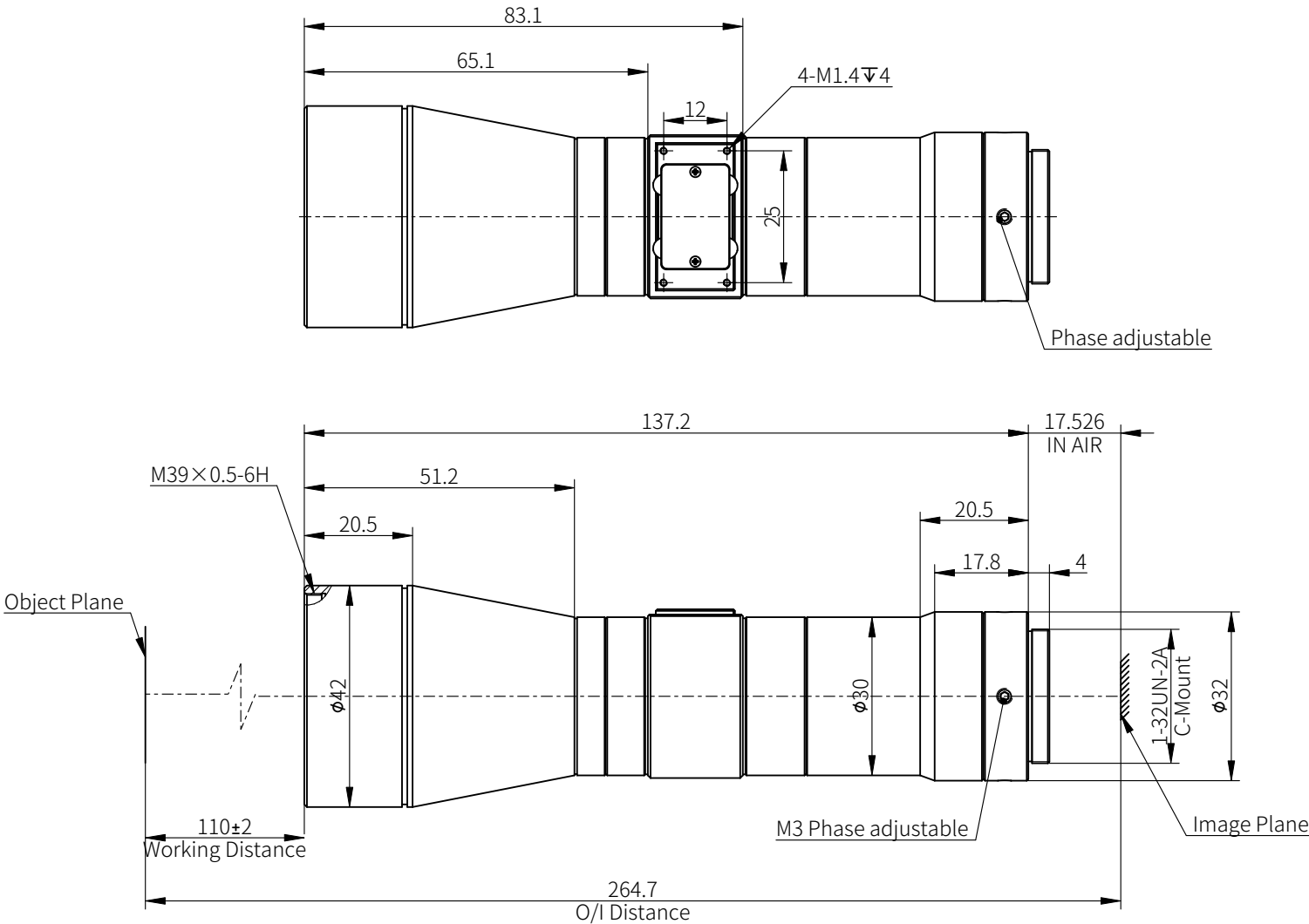
$$DOF(mm)= \frac{F\# \times P \times k}{\beta \times \beta}$$

F#:The real F-number of a lens when used
P:Sensor pixel size (5.5 μm used here)
β:Lens magnification
k:The parameter based on application (measurement,
k=0.015; defect detection, k=0.008; 0.015 used here)

At the borders of DOF,the image can still be used for measurement.But only half of the nominal DOF should be used to get a sharp image.

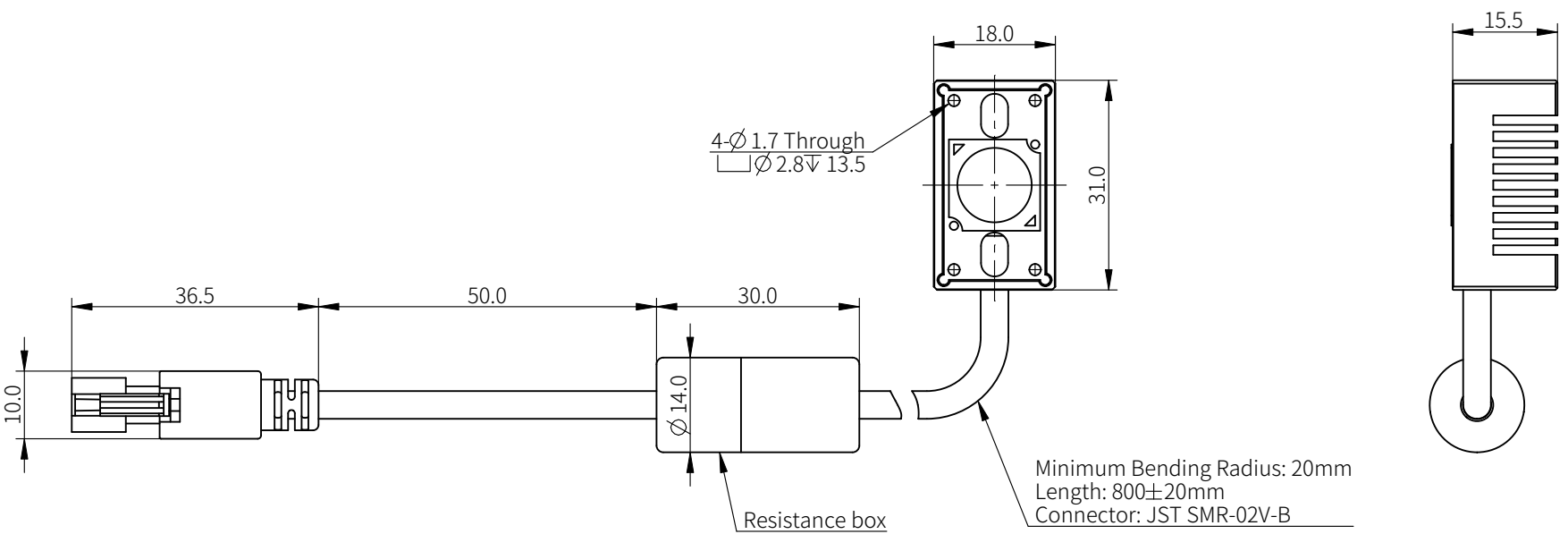
[3]The lens supports dedicated surface illumination. For objects with low reflectivity, a dedicated surface light source is recommended for better illumination. Optional OPT-FL3118-CH-X is available as an option.

View Angle		Item	Signature	Date	 OPT Machine Vision Tech Co., Ltd.			
		Drawing						
		Design			All Rights Reserved			
Standard Difference	IT14	Check						
		Scale	4:5		Name	OPT-CH05-110FC-F8		
		Paper Size	A4		Unit	mm	Page 1 / 2	Version V1.0



A				B	C	D			
Model	Color	Voltage	Power			JST SMR-02V-B, 2 Pin or Compactible Connector 	Pin	Polarity	Wire Color
OPT-FL3118-CH-R	Red	24V	2.88W				1	+	/
OPT-FL3118-CH-G	Green	24V	2.88W				2	-	/
OPT-FL3118-CH-B	Blue	24V	2.88W						
OPT-FL3118-CH-W	White	24V	2.88W						

JST SMR-02V-B, 2 Pin
or Compactible Connector



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Standard Difference	IT14	Design			All Rights Reserved				
		Check							
Drawing Code		Scale			Name	OPT-FL3118-CH-X			
		Paper Size	A4		Unit	mm	Page 2 / 2		Version