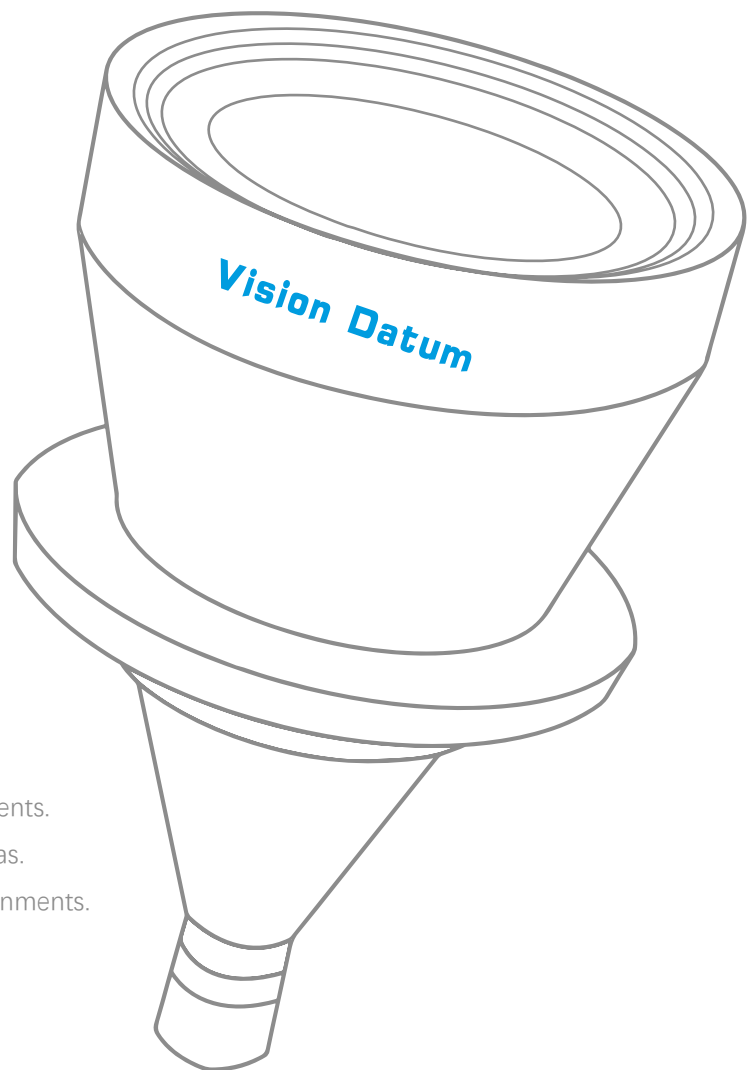




TELECENTRIC LENSES SERIES



MAIN FEATURES

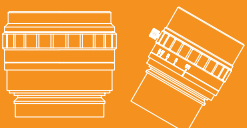
- ◆ **High telecentricity** for thick object imaging.
- ◆ **Nearly zero distortion** for accurate measurements.
- ◆ **Excellent resolution** for high resolution cameras.
- ◆ **Simple and robust design** for industrial environments.

ABOUT US

Hangzhou Vision Datum Technology Co.,Ltd. is China top leading professional machine vision products manufacturer and supplier, who have been specializing in design, development and producing machine vision products, software and systems.

With advanced technology and creative power of image acquisition and processing, Vision Datum major products have included industrial camera, scientific standard camera, industrial FA lens, telecentric lens, machine vision lights and image processing software. All products comply with international quality standards and we have more than 20 years industry experience in the fields of machine vision image acquisition and processing, optical imaging and automation.

Vision Datum provides free of charge consultation for imaging solution. With excellent pre-sales, quality control and after-sales service team, we are able to respond rapidly in 24 hours and ensure to create best value for customers. Vision Datum will innovate constantly and shall make more brilliant achievements together with our customers in the era of Industry 4.0.



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BTL SERIES

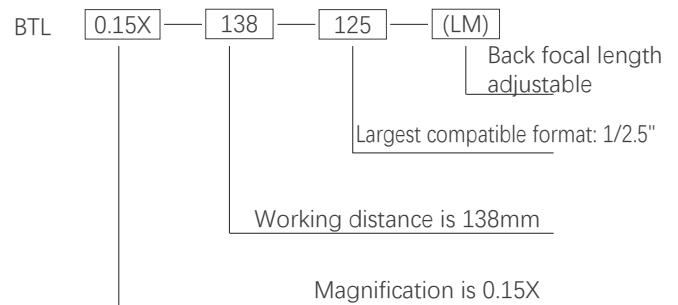
NEW



PRODUCT FEATURES

1. Optimized for 1/2.5"~1.1" C-Mount cameras;
2. Largest FOV from 26mm upto 300mm;
3. Excellent resolution for high pixel cameras;
4. Low distortion, good telecentricity, big aperture and big depth of field for high end application.

NAMING RULES



OVERVIEW

Sensor Size FOV (mm) Mag X	1/2.5" BTL-125	1/2" BTL-12	1/1.8" BTL-118	2/3" BTL-23	1" BTL-H1	1.1" BTL-H1.1	4/3" BTL-H2	1.75" BTL-175	2" BTL-21	39mm BTL-71M	44mm BTL-FF	59mm BTL-16K	WD (mm)
26	0.277	0.308	0.346	0.438	0.638	0.708	0.923	1.115	/	/	/	/	73
36	0.2	0.222	0.25	0.317	0.46	0.511	0.67	0.806	0.917	1.083	/	/	110
42	0.171	0.19	0.214	0.271	0.395	0.438	0.571	0.69	0.786	0.929	1.038	/	118
48	0.15	0.167	0.188	0.238	0.346	0.383	0.5	0.604	0.688	0.813	0.908	/	128
56	0.129	0.143	0.161	0.204	0.296	0.329	0.429	0.518	0.589	0.696	0.779	/	138
64	0.113	0.125	0.141	0.178	0.259	0.288	0.375	0.453	0.516	0.609	0.681	/	158
72	0.1	0.111	0.125	0.158	0.231	0.256	0.333	0.403	0.458	0.542	0.606	/	178
80	0.09	0.1	0.113	0.142	0.208	0.23	0.3	0.363	0.413	0.488	0.545	0.738	228
90	0.08	0.089	0.1	0.127	0.184	0.204	0.267	0.322	0.367	0.433	0.484	/	208
100	0.072	0.08	0.09	0.106	0.166	0.184	0.204	0.29	0.33	0.39	0.436	0.59	258
110	0.066	0.073	0.082	0.104	0.151	0.167	0.218	0.264	0.300	0.355	0.396	0.536	263
120	0.06	0.067	0.075	0.095	0.138	0.153	0.2	0.242	0.275	0.325	0.363	0.492	273
136	0.053	0.059	0.066	0.084	0.122	0.135	0.177	0.213	0.243	0.287	0.321	0.434	288
150	0.048	0.053	0.06	0.076	0.11	0.123	0.16	0.193	0.22	0.26	0.291	0.393	300
170	0.042	0.047	0.053	0.067	0.098	0.108	0.141	0.171	0.194	0.229	0.256	0.347	318
190	0.038	0.042	0.047	0.06	0.087	0.097	0.126	0.153	0.174	0.205	0.229	0.311	330
216	0.033	0.037	0.042	0.053	0.077	0.085	0.111	0.134	0.153	0.181	0.202	0.273	372
240	0.03	0.033	0.038	0.048	0.069	0.077	0.1	0.121	0.138	0.163	0.182	0.246	410
258	0.028	0.031	0.035	0.044	0.064	0.071	0.093	0.112	0.128	0.151	0.169	0.229	338
300	0.024	0.027	0.03	0.038	0.055	0.061	0.08	0.097	0.11	0.13	0.145	0.197	465
Mount	C	C	C	C	C	C	M42/M48/ M58	M42/M48/ M58	M42/M48/ M58	M58	M58	M72	

BTL-125 SERIES

1/2.5"

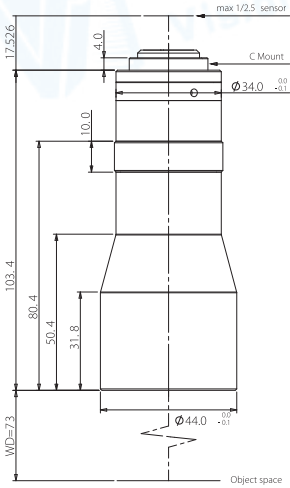


Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.277X-73-125	26	0.277	73±1	7.2(1/2.5")	4.2	>190	±5.7@F11	<0.1	<0.1	194±1	103.4	C Mount	0.3
BTL-0.2X-110-125	36	0.2	110±2	7.2(1/2.5")	4.2	>190	±11.0@F11	<0.1	<0.1	251±2	123.5	C Mount	0.4
BTL-0.171X-118-125	42	0.171	118±3	7.2(1/2.5")	4.2	>200	±15.0@F11	<0.1	<0.1	244±3	108.9	C Mount	0.4
BTL-0.15X-128-125	48	0.15	128±3	7.2(1/2.5")	4.2	>190	±19.5@F11	<0.1	<0.1	268±3	122.4	C Mount	0.4
BTL-0.15X-138-125(LM)	48	0.15	138±3	7.2(1/2.5")	4.2	>190	±19.5@F11	<0.1	<0.1	263±3	107.5	C Mount	0.4
BTL-0.129X-138-125(LM)	56	0.129	138±3	7.2(1/2.5")	4.2	>200	±26.4@F11	<0.1	<0.1	301±3	145	C Mount	0.7
BTL-0.113X-158-125(LM)	64	0.113	158±3	7.2(1/2.5")	4.2	>200	±34.8@F11	<0.1	<0.1	333±3	157.5	C Mount	0.8
BTL-0.1X-178-125(LM)	72	0.1	178±3	7.2(1/2.5")	4.2	>195	±44@F11	<0.1	<0.1	373±3	177.5	C Mount	1
BTL-0.09X-228-125(LM)	80	0.09	228±4	7.2(1/2.5")	4.2	>205	±54.3@F11	<0.1	<0.1	413±4	167.4	C Mount	1.9
BTL-0.08X-208-125(LM)	90	0.08	208±3	7.2(1/2.5")	4.2	>200	±68.7@F11	<0.1	<0.1	428±3	202.5	C Mount	1.7
BTL-0.072X-258-125(LM)	100	0.072	258±4	7.2(1/2.5")	4.2	>210	±85@F11	<0.1	<0.1	501±4	225.9	C Mount	3.1
BTL-0.066x-263-125(LM)	110	0.066	263±4	7.2(1/2.5")	4.2	>210	±101@F11	<0.1	<0.1	536±4	255.1	C Mount	2.7
BTL-0.06X-273-125(LM)	120	0.06	273±5	7.2(1/2.5")	4.2	>210	±122@F11	<0.1	<0.1	557±5	266.9	C Mount	4.2
BTL-0.053x-288-125(LM)	136	0.053	288±5	7.2(1/2.5")	4.2	>210	±157@F11	<0.1	<0.1	646±5	340.1	C Mount	4.2
BTL-0.048X-300-125(LM)	150	0.048	300±5	7.2(1/2.5")	4.2	>210	±190@F11	<0.1	<0.1	627±5	309.5	C Mount	5.7
BTL-0.042X-318-125(LM)	170	0.042	318±5	7.2(1/2.5")	4.2	>210	±249@F11	<0.1	<0.1	707±5	371.4	C Mount	6.5
BTL-0.038X-330-125(LM)	190	0.038	330±5	7.2(1/2.5")	4.2	>210	±306@F11	<0.1	<0.1	746±5	398.8	C Mount	9.6
BTL-0.033X-372-125(LM)	216	0.033	372±5	7.2(1/2.5")	4.2	>210	±404@F11	<0.1	<0.1	884±5	494.2	C Mount	13.7
BTL-0.03XH-410-125(LM)	240	0.03	410±6	7.2(1/2.5")	4.2	>210	±489@F11	<0.1	<0.1	968±6	540.1	C Mount	19.1
BTL-0.028X-258-125(LM)	258	0.028	338±5	7.2(1/2.5")	4.2	>210	±565@F11	<0.1	<0.1	771±5	415.5	C Mount	-
BTL-0.024X-465-125(LM)	300	0.024	465±6	7.2(1/2.5")	4.2	>205	±763@F11	<0.1	<0.1	1101±6	618.5	C Mount	46.6

1. The back focal length of model with (LM) is adjustable.

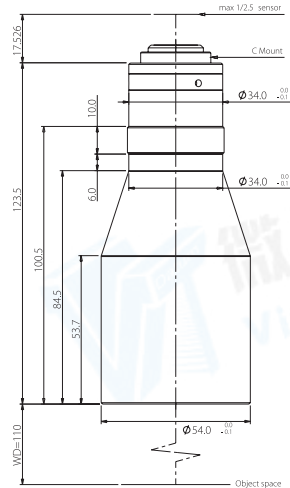
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.277X-73-125



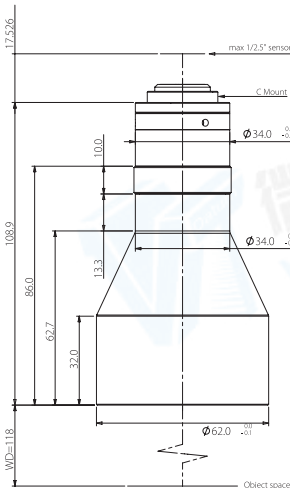
FOV(Φmm)	26
Mag.(x)	0.277
WD(mm)	73±1
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±5.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	194±1
Length(mm)	103.4
Mount	C-Mount
Weight(kg)	0.3
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 20.6x15.5

BTL-0.2X-110-125



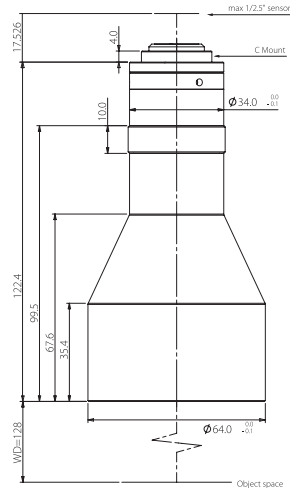
FOV(Φmm)	36
Mag.(x)	0.200
WD(mm)	110±2
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±11.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	251±2
Length(mm)	123.5
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 28.5x21.4

BTL-0.171X-118-125



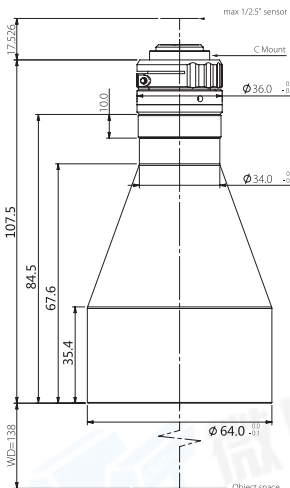
FOV(Φmm)	42
Mag.(x)	0.171
WD(mm)	118±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±15.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	244±3
Length(mm)	108.9
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 33.3x25.0

BTL-0.15X128-125



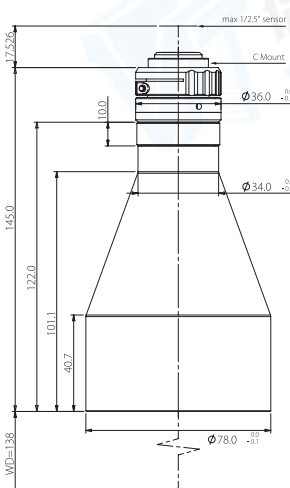
FOV(Φmm)	48
Mag.(x)	0.150
WD(mm)	128±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±19.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	268±3
Length(mm)	122.4
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 38.0x28.5

BTL-0.15X-138-125(LM)



FOV(Φmm)	48
Mag.(x)	0.150
WD(mm)	138±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±19.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	263±3
Length(mm)	107.5
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 38.0x28.5

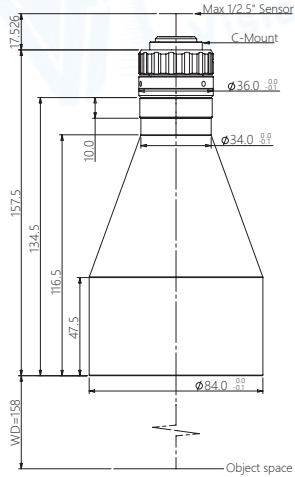
BTL-0.129X-138-125(LM)



FOV(Φmm)	56
Mag.(x)	0.129
WD(mm)	138±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±26.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	301±3
Length(mm)	145.0
Mount	C-Mount
Weight(kg)	0.7
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 44.2x33.2

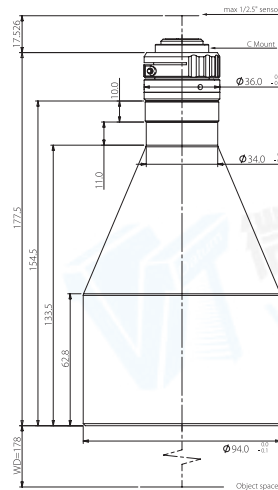
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.113X-158-125(LM)



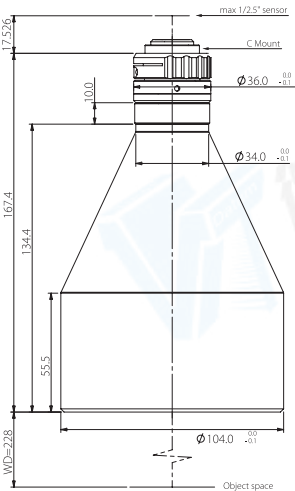
FOV(Φmm)	64
Mag.(x)	0.113
WD(mm)	158±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±34.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	333±3
Length(mm)	157.5
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 50.4x37.9

BTL-0.1X-178-125(LM)



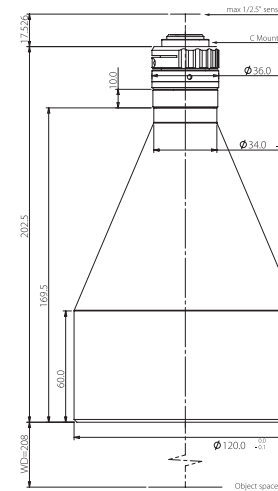
FOV(Φmm)	72
Mag.(x)	0.100
WD(mm)	178±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>195
DoF(mm)	±44.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	373±3
Length(mm)	177.5
Mount	C-Mount
Weight(kg)	1.0
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 57.0x42.8

BTL-0.09X-228-125(LM)



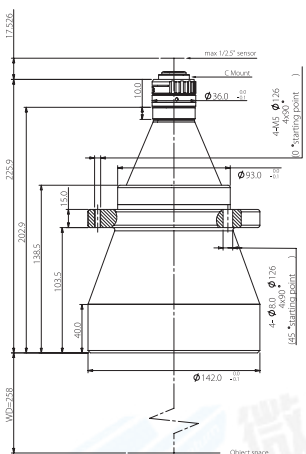
FOV(Φmm)	80
Mag.(x)	0.090
WD(mm)	228±4
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>205
DoF(mm)	±54.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	413±4
Length(mm)	167.4
Mount	C-Mount
Weight(kg)	1.9
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 63.3x47.6

BTL-0.08X-208-125(LM)



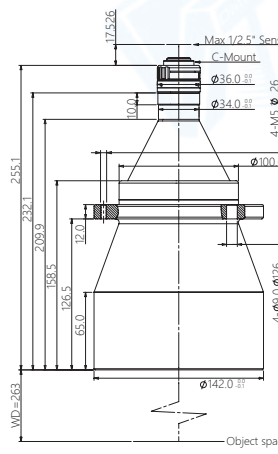
FOV(Φmm)	90
Mag.(x)	0.080
WD(mm)	208±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±68.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	428±3
Length(mm)	202.5
Mount	C-Mount
Weight(kg)	1.7
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 71.3x53.5

BTL-0.072X-258-125(LM)



FOV(Φmm)	100
Mag.(x)	0.072
WD(mm)	258±4
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±85@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	501±4
Length(mm)	225.9
Mount	C-Mount
Weight(kg)	3.1
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 79.2x59.4

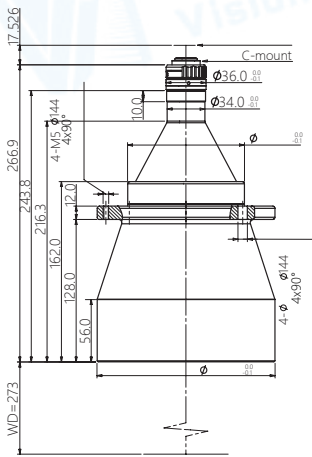
BTL-0.066X-263-125(LM)



FOV(Φmm)	110
Mag.(x)	0.066
WD(mm)	263±4
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±101@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	536±4
Length(mm)	255.1
Mount	C-Mount
Weight(kg)	2.7
Field of View(mm×mm)	1/2.5" 9P001/31(5.7x4.28) 86.4x64.8

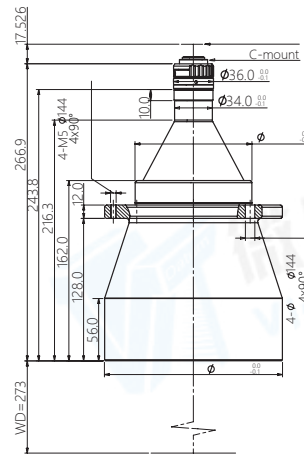
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.06X-273-125(LM)



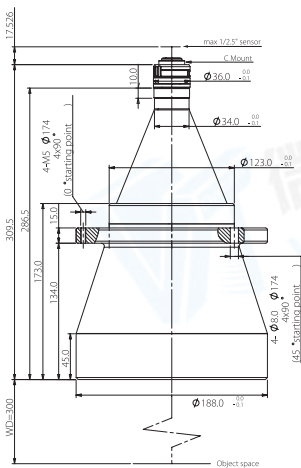
FOV(Φmm)	120
Mag.(x)	0.060
WD(mm)	273±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±122@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	557±5
Length(mm)	266.9
Mount	C-Mount
Weight(kg)	4.2
Field of View(mm xmm)	1/2.5" 9P001/31(5.7x4.28)
	95.0x71.3

BTL-0.053X-288-125(LM)



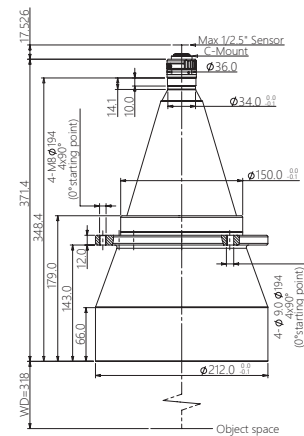
FOV(Φmm)	136
Mag.(x)	0.053
WD(mm)	288±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±157@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	646±5
Length(mm)	340.1
Mount	C-Mount
Weight(kg)	4.2
Field of View(mm xmm)	1/2.5" 9P001/31(5.7x4.28)
	107.5x80.8

BTL-0.048X-300-125(LM)



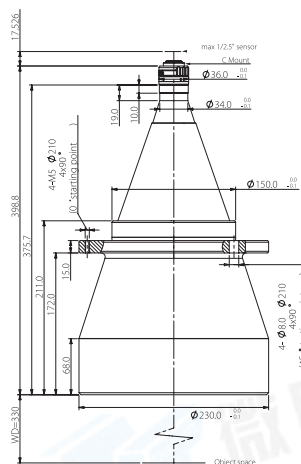
FOV(Φmm)	150
Mag.(x)	0.048
WD(mm)	300±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±190@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	627±5
Length(mm)	309.5
Mount	C-Mount
Weight(kg)	5.7
Field of View(mm xmm)	1/2.5" 9P001/31(5.7x4.28)
	118.8x89.2

BTL-0.042X-318-125(LM)



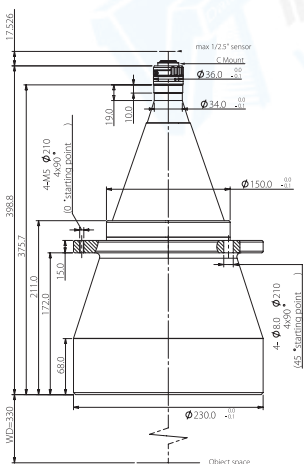
FOV(Φmm)	170
Mag.(x)	0.042
WD(mm)	318±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±249@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	707±5
Length(mm)	371.4
Mount	C-Mount
Weight(kg)	6.5
Field of View(mm xmm)	1/2.5" 9P001/31(5.7x4.28)
	135.7x101.9

BTL-0.038X-330-125(LM)



FOV(Φmm)	190
Mag.(x)	0.038
WD(mm)	330±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±306@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	746±5
Length(mm)	398.8
Mount	C-Mount
Weight(kg)	9.6
Field of View(mm xmm)	1/2.5" 9P001/31(5.7x4.28)
	150.0x112.6

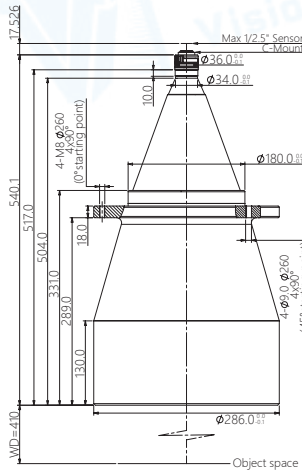
BTL-0.033X-372-125(LM)



FOV(Φmm)	216
Mag.(x)	0.033
WD(mm)	372±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±404@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	884±5
Length(mm)	494.2
Mount	C-Mount
Weight(kg)	13.7
Field of View(mm xmm)	1/2.5" 9P001/31(5.7x4.28)
	172.7x129.7

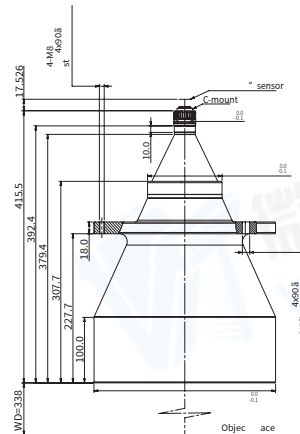
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.03XH-410-125(LM)



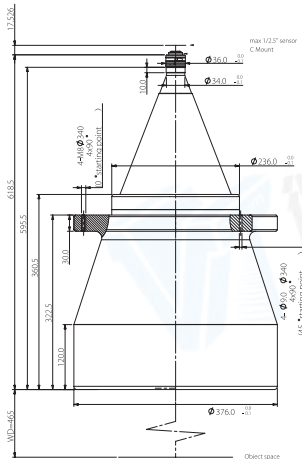
FOV(Φ mm)	240
Mag.(x)	0.030
WD(mm)	410 \pm 6
Max Sensor Size(Φ mm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	\pm 489@F11
Distortion(% max)	<0.1
Telecentricity($^\circ$ max)	<0.1
I/O(mm)	968 \pm 6
Length(mm)	540.1
Mount	C-Mount
Weight(kg)	19.1
Field of View(mm \times mm)	
1/2.5" 9P001/31(5.7 \times 4.28)	190.0 \times 142.7

BTL-0.028X-338-125(LM)



FOV(Φ mm)	258
放大倍率 (x)	0.028
物距 (mm)	338 \pm 5
最大值靶面尺寸 (Φ mm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	\pm 565@F11
畸变 (最大值 %)	<0.1
远心度 (最大值 $^\circ$)	<0.1
I/O(mm)	771 \pm 5
长度 (mm)	415.5
接口	C-Mount
重量 (kg)	-
视野 (mm \times mm)	
1/2.5" 9P001/31(5.7 \times 4.28)	203.6 \times 152.9

BTL-0.024X-465-125(LM)



FOV(Φ mm)	300
Mag.(x)	0.024
WD(mm)	465 \pm 6
Max Sensor Size(Φ mm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>205
DoF(mm)	\pm 763@F11
Distortion(% max)	<0.1
Telecentricity($^\circ$ max)	<0.1
I/O(mm)	1101 \pm 6
Length(mm)	618.5
Mount	C-Mount
Weight(kg)	46.6
Field of View(mm \times mm)	
1/2.5" 9P001/31(5.7 \times 4.28)	237.5 \times 178.3



BTL-12 SERIES

1/2"

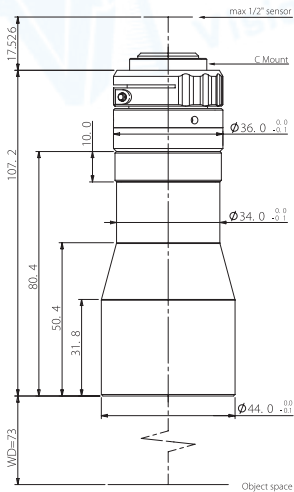


Model No.	Optical specs										Mechanical specs		
	FOV (Φ mm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φ mm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity ($^{\circ}$ max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.308X-73-12(LM)	26	0.308	73 \pm 1	8.0(1/2")	4.2	>175	\pm 4.6@F11	<0.1	<0.1	198 \pm 1	107.2	C Mount	0.3
BTL-0.222X-110-12(LM)	36	0.222	110 \pm 2	8.0(1/2")	4.2	>190	\pm 8.9@F11	<0.1	<0.1	255 \pm 2	127.2	C Mount	0.4
BTL-0.19X-118-12(LM)	42	0.190	118 \pm 3	8.0(1/2")	4.2	>210	\pm 12.1@F11	<0.1	<0.1	248 \pm 3	112.7	C Mount	0.4
BTL-0.167X-128-12(LM)	48	0.167	128 \pm 3	8.0(1/2")	4.2	>200	\pm 15.7@F11	<0.1	<0.1	272 \pm 3	126.2	C Mount	0.4
BTL-0.167X-138-12(LM)	48	0.167	138 \pm 3	8.0(1/2")	4.7	>190	\pm 15.7@F11	<0.1	<0.1	267 \pm 3	111.2	C Mount	0.4
BTL-0.143X-138-12(LM)	56	0.143	138 \pm 3	8.0(1/2")	4.2	>210	\pm 21.5@F11	<0.1	<0.1	304 \pm 3	148.7	C Mount	0.6
BTL-0.125X-158-12(LM)	64	0.125	158 \pm 3	8.0(1/2")	4.2	>220	\pm 28.2@F11	<0.1	<0.1	337 \pm 3	161.2	C Mount	0.8
BTL-0.111X-178-12(LM)	72	0.111	178 \pm 3	8.0(1/2")	4.2	>215	\pm 35.7@F11	<0.1	<0.1	377 \pm 3	181.2	C Mount	1
BTL-0.1X-228-12(LM)	80	0.100	228 \pm 4	8.0(1/2")	4.2	>210	\pm 44@F11	<0.1	<0.1	417 \pm 4	171.1	C Mount	1.8
BTL-0.089X-208-12(LM)	90	0.089	208 \pm 3	8.0(1/2")	4.2	>210	\pm 55.5@F11	<0.1	<0.1	432 \pm 3	206.2	C Mount	1.6
BTL-0.08X-258-12(LM)	100	0.080	258 \pm 4	8.0(1/2")	4.2	>210	\pm 68.8@F11	<0.1	<0.1	505 \pm 4	229.6	C Mount	3
BTL-0.073X-263-12(LM)	110	0.073	263 \pm 4	8.0(1/2")	4.2	>210	\pm 82.6@F11	<0.1	<0.1	539 \pm 4	258.8	C Mount	2.6
BTL-0.067X-273-12(LM)	120	0.067	273 \pm 5	8.0(1/2")	4.2	>210	\pm 99@F11	<0.1	<0.1	561 \pm 5	270.6	C Mount	4.1
BTL-0.059X-258-12(LM)	136	0.059	288 \pm 5	8.0(1/2")	4.2	>215	\pm 126@F11	<0.1	<0.1	649 \pm 5	343.8	C Mount	4.2
BTL-0.053X-300-12(LM)	150	0.053	300 \pm 5	8.0(1/2")	4.2	>210	\pm 156@F11	<0.1	<0.1	631 \pm 5	313.2	C Mount	5.6
BTL-0.047X-318-12(LM)	170	0.047	318 \pm 5	8.0(1/2")	4.2	>210	\pm 199@F11	<0.1	<0.1	711 \pm 5	375.1	C Mount	6.4
BTL-0.042X-330-12(LM)	190	0.042	330 \pm 5	8.0(1/2")	4.2	>210	\pm 248@F11	<0.1	<0.1	750 \pm 5	402.5	C Mount	9.6
BTL-0.037X-372-12(LM)	216	0.037	372 \pm 5	8.0(1/2")	4.2	>210	\pm 321@F11	<0.1	<0.1	887 \pm 5	497.9	C Mount	13.7
BTL-0.033XH-410-12(LM)	240	0.033	410 \pm 6	8.0(1/2")	4.2	>210	\pm 397@F11	<0.1	<0.1	971 \pm 6	543.8	C Mount	19.0
BTL-0.031X-338-12(LM)	258	0.031	338 \pm 5	8.0(1/2")	4.2	>210	\pm 458@F11	<0.1	<0.1	775 \pm 5	419.2	C Mount	-
BTL-0.027X-465-12(LM)	300	0.027	465 \pm 6	8.0(1/2")	4.2	>205	\pm 603@F11	<0.1	<0.1	1105 \pm 6	622.2	C Mount	46.5

1. The back focal length of model with (LM) is adjustable.

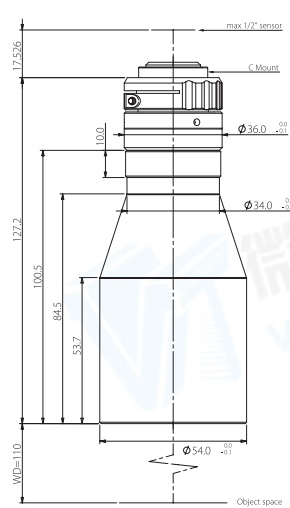
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. \pm 763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.308X-73-12(LM)



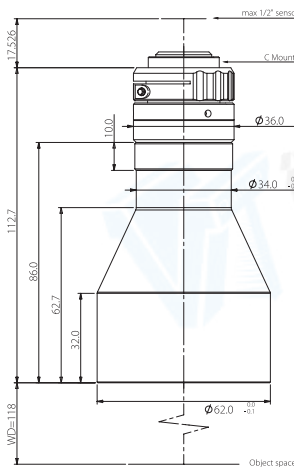
FOV(Φmm)	26
Mag.(x)	0.308
WD(mm)	73±1
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>175
DoF(mm)	±4.6@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	198±1
Length(mm)	107.2
Mount	C-Mount
Weight(kg)	0.3
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	20.9x15.0
1/2.5" 9P001/31 (5.7x4.28)	18.5x13.9

BTL-0.222X-110-12(LM)



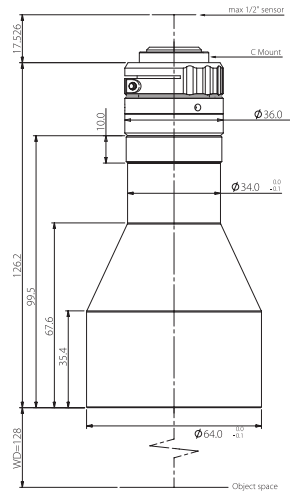
FOV(Φmm)	36
Mag.(x)	0.200
WD(mm)	110±2
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±8.9@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	255±2
Length(mm)	127.2
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	29.0x20.8
1/2.5" 9P001/31 (5.7x4.28)	25.7x19.3

BTL-0.19X-118-12(LM)



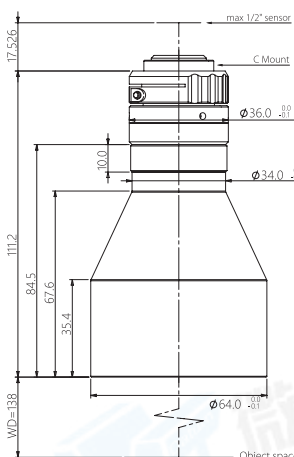
FOV(Φmm)	42
Mag.(x)	0.190
WD(mm)	118±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±12.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	248±3
Length(mm)	112.7
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	33.9x24.3
1/2.5" 9P001/31 (5.7x4.28)	30.0x22.5

BTL-0.167X-128-12(LM)



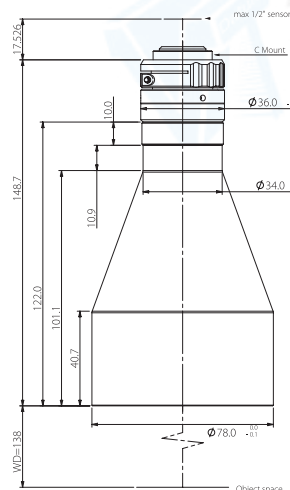
FOV(Φmm)	48
Mag.(x)	0.167
WD(mm)	128±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±15.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	272±3
Length(mm)	126.2
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	38.6x27.7
1/2.5" 9P001/31 (5.7x4.28)	34.1x25.6

BTL-0.167X-138-12(LM)



FOV(Φmm)	48
Mag.(x)	0.167
WD(mm)	138±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.7
MTF30(lp/mm)	>190
DoF(mm)	±15.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	267±3
Length(mm)	111.2
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	38.6x27.7

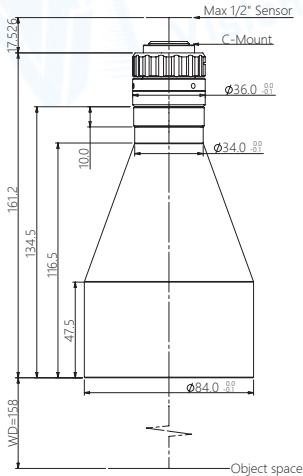
BTL-0.143X-138-12(LM)



FOV(Φmm)	56
Mag.(x)	0.143
WD(mm)	138±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±21.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	304±3
Length(mm)	148.7
Mount	C-Mount
Weight(kg)	0.6
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	45.0x32.3
1/2.5" 9P001/31 (5.7x4.28)	39.9x29.9

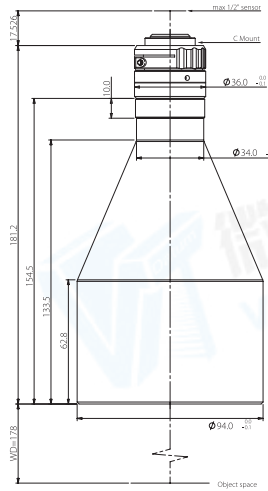
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.125X-158-12(LM)



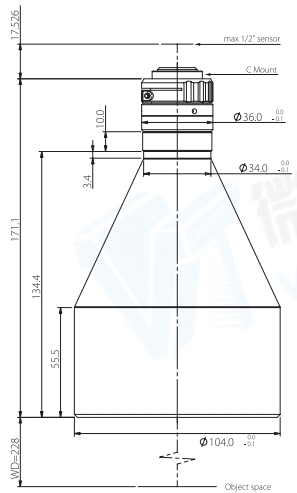
FOV(Φmm)	64
Mag.(x)	0.125
WD(mm)	158±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>220
DoF(mm)	±28.2@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	337±3
Length(mm)	161.2
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm×mm)	
1/2.3" 9J003 (6.44x4.62)	51.5x37.0
1/2.5" 9P001/31 (5.7x4.28)	45.6x34.2

BTL-0.111X-178-12(LM)



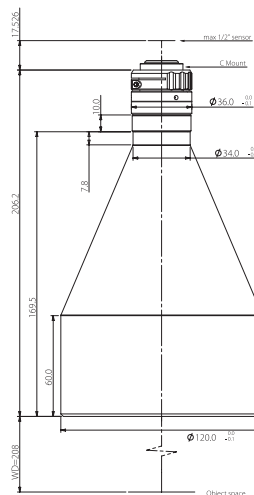
FOV(Φmm)	72
Mag.(x)	0.111
WD(mm)	178±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>215
DoF(mm)	±35.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	377±3
Length(mm)	181.2
Mount	C-Mount
Weight(kg)	1.0
Field of View(mm×mm)	
1/2.3" 9J003 (6.44x4.62)	58.0x41.6
1/2.5" 9P001/31 (5.7x4.28)	51.4x38.6

BTL-0.1X-228-12(LM)



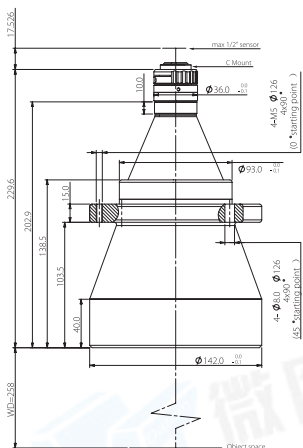
FOV(Φmm)	80
Mag.(x)	0.100
WD(mm)	228±4
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±44@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	417±4
Length(mm)	171.1
Mount	C-Mount
Weight(kg)	1.8
Field of View(mm×mm)	
1/2.3" 9J003 (6.44x4.62)	64.4x46.2
1/2.5" 9P001/31 (5.7x4.28)	57.0x42.8

BTL-0.089X-208-12(LM)



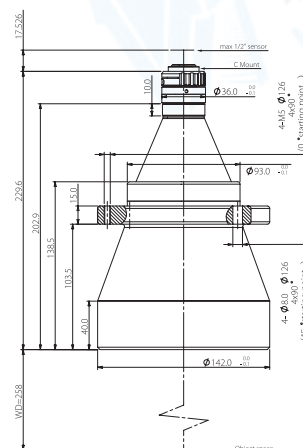
FOV(Φmm)	90
Mag.(x)	0.089
WD(mm)	208±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±55.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	432±3
Length(mm)	206.2
Mount	C-Mount
Weight(kg)	1.6
Field of View(mm×mm)	
1/2.3" 9J003 (6.44x4.62)	72.4x51.9
1/2.5" 9P001/31 (5.7x4.28)	64.0x48.1

BTL-0.08X-258-12(LM)



FOV(Φmm)	100
Mag.(x)	0.080
WD(mm)	258±4
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±68.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	505±4
Length(mm)	229.6
Mount	C-Mount
Weight(kg)	3.0
Field of View(mm×mm)	
1/2.3" 9J003 (6.44x4.62)	80.5x57.8
1/2.5" 9P001/31 (5.7x4.28)	71.3x53.5

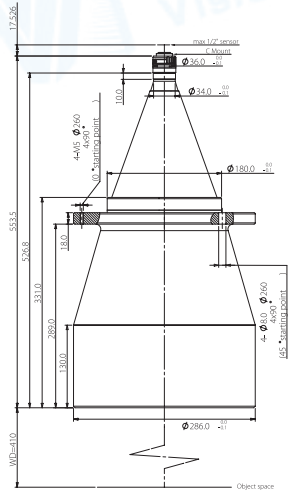
BTL-0.073X-263-12(LM)



FOV(Φmm)	110
Mag.(x)	0.073
WD(mm)	263±4
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±82.6@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	539±4
Length(mm)	258.8
Mount	C-Mount
Weight(kg)	2.6
Field of View(mm×mm)	
1/2.3" 9J003 (6.44x4.62)	88.2x63.3
1/2.5" 9P001/31 (5.7x4.28)	78.1x58.6

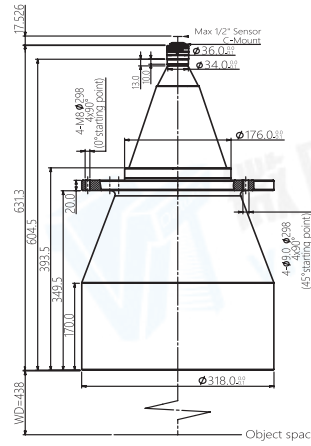
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.033XH-410-12(LM)



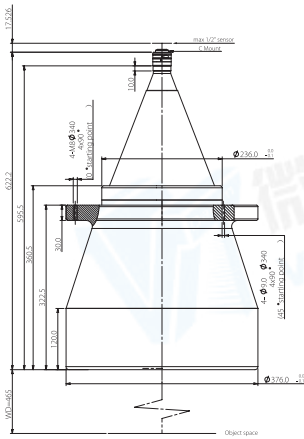
FOV(Φmm)	240
Mag.(x)	0.033
WD(mm)	410±6
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±397@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	971±6
Length(mm)	543.8
Mount	C-Mount
Weight(kg)	19.0
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	195.2x140.0
1/2.5" 9P001/31 (5.7x4.28)	183.9x138.1

BTL-0.031X-338-12(LM)



FOV(Φmm)	258
Mag.(x)	0.031
WD(mm)	338±5
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±458@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	775±5
Length(mm)	419.2
Mount	C-Mount
Weight(kg)	-
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	195.2x140.0
1/2.5" 9P001/31 (5.7x4.28)	183.9x138.1

BTL-0.027X-465-12(LM)



FOV(Φmm)	300
Mag.(x)	0.027
WD(mm)	465±6
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>205
DoF(mm)	±603@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1105±6
Length(mm)	622.2
Mount	C-Mount
Weight(kg)	46.5
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	238.5x171.1
1/2.5" 9P001/31 (5.7x4.28)	211.1x158.5



Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-118 SERIES

1/1.8"

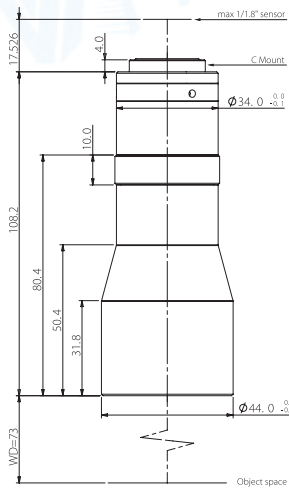


Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.346X-73-118	26	0.346	73±1	9.0(1/1.8")	4.6	>170	±3.7@F11	<0.1	<0.1	199±1	108.2	C Mount	0.3
BTL-0.25X-110-118	36	0.250	110±2	9.0(1/1.8")	4.6	>180	±7.0@F11	<0.1	<0.1	256±2	128.3	C Mount	0.4
BTL-0.214X-118-118	42	0.214	118±3	9.0(1/1.8")	4.6	>195	±9.6@F11	<0.1	<0.1	249±3	113.8	C Mount	0.4
BTL-0.188X-128-118	48	0.188	128±3	9.0(1/1.8")	4.6	>190	±12.4@F11	<0.1	<0.1	273±3	127.3	C Mount	0.4
BTL-0.188X-138-118(LM)	48	0.188	138±3	9.0(1/1.8")	4.6	>190	±12.4@F11	<0.1	<0.1	268±3	112.4	C Mount	0.4
BTL-0.161X-138-118(LM)	56	0.161	138±3	9.0(1/1.8")	4.6	>190	±17.0@F11	<0.1	<0.1	306±3	149.9	C Mount	0.7
BTL-0.141X-158-118(LM)	64	0.141	158±3	9.0(1/1.8")	4.6	>195	±22.3@F11	<0.1	<0.1	338±3	162.4	C Mount	0.8
BTL-0.125X-178-118(LM)	72	0.125	178±3	9.0(1/1.8")	4.6	>195	±28.1@F11	<0.1	<0.1	378±3	182.4	C Mount	1
BTL-0.113XH-228-118(LM)	80	0.113	228±4	9.0(1/1.8")	4.6	>195	±34.8@F11	<0.1	<0.1	418±4	172.4	C Mount	1.9
BTL-0.1X-208-118(LM)	90	0.100	208±3	9.0(1/1.8")	4.6	>195	±44@F11	<0.1	<0.1	433±3	207.4	C Mount	1.7
BTL-0.09X-258-118(LM)	100	0.090	258±4	9.0(1/1.8")	4.6	>200	±54@F11	<0.1	<0.1	506±4	230.8	C Mount	3.1
BTL-0.082X-263-118(LM)	110	0.082	263±4	9.0(1/1.8")	4.6	>200	±65.4@F11	<0.1	<0.1	541±4	260.0	C Mount	2.7
BTL-0.075X-273-118(LM)	120	0.075	273±5	9.0(1/1.8")	4.5	>200	±78.2@F11	<0.1	<0.1	562±5	271.1	C Mount	4.2
BTL-0.066X-288-118(LM)	136	0.066	288±5	9.0(1/1.8")	4.6	>200	±101@F11	<0.1	<0.1	651±5	345.0	C Mount	4.2
BTL-0.06X-300-118(LM)	150	0.060	300±5	9.0(1/1.8")	4.6	>195	±122@F11	<0.1	<0.1	632±5	314.4	C Mount	5.7
BTL-0.053X-318-118(LM)	170	0.053	318±5	9.0(1/1.8")	4.6	>200	±157@F11	<0.1	<0.1	712±5	376.3	C Mount	6.5
BTL-0.047X-330-118(LM)	190	0.047	330±5	9.0(1/1.8")	4.6	>200	±199@F11	<0.1	<0.1	751±5	403.6	C Mount	9.6
BTL-0.042X-372-118(LM)	216	0.042	372±5	9.0(1/1.8")	4.6	>200	±249@F11	<0.1	<0.1	889±5	499.1	C Mount	13.7
BTL-0.038XH-410-118(LM)	240	0.038	410±6	9.0(1/1.8")	4.6	>200	±313@F11	<0.1	<0.1	972±6	554.9	C Mount	19.1
BTL-0.035X-338-118(LM)	258	0.035	338±5	9.0(1/1.8")	4.6	>200	±362@F11	<0.1	<0.1	776±5	420.3	C Mount	-
BTL-0.03XH-465-118(LM)	300	0.030	465±6	9.0(1/1.8")	4.6	>190	±488@F11	<0.1	<0.1	1106±6	623.4	C Mount	46.6

1. The back focal length of model with (LM) is adjustable.

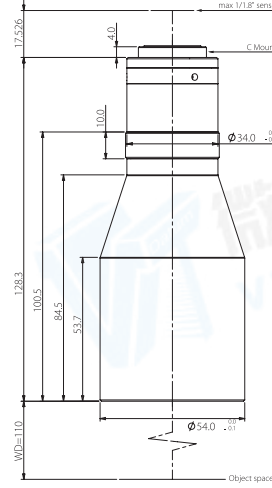
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.346X-73-118



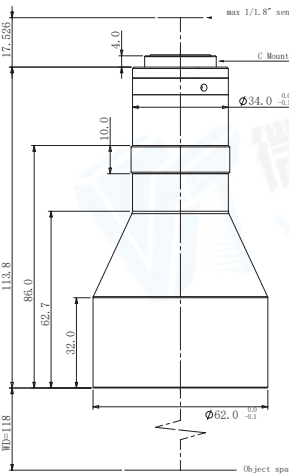
FOV(Φ mm)	26
Mag.(x)	0.346
WD(mm)	73 \pm 1
Max Sensor Size(Φ mm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>170
DoF(mm)	\pm 3.7@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	199 \pm 1
Length(mm)	108.2
Mount	C-Mount
Weight(kg)	0.3
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	21.5x14.2
1/1.8" IMX252/265 (7.1x5.3)	20.5x15.3

BTL-0.25X-110-118



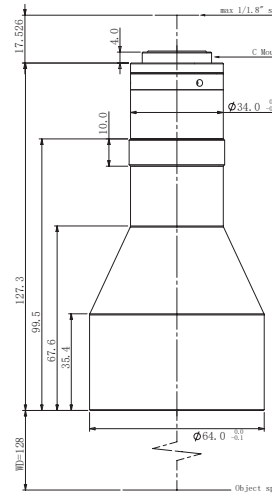
FOV(Φ mm)	36
Mag.(x)	0.250
WD(mm)	110 \pm 2
Max Sensor Size(Φ mm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>180
DoF(mm)	\pm 7.0@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	256 \pm 2
Length(mm)	128.3
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	29.7x19.6
1/1.8" IMX252/265 (7.1x5.3)	28.4x21.2

BTL-0.214X-118-118



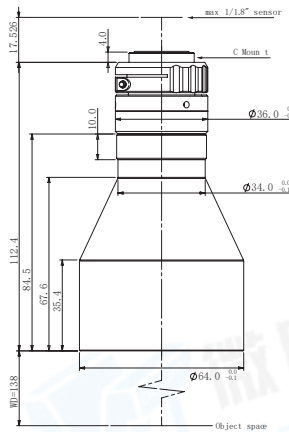
FOV(Φ mm)	42
Mag.(x)	0.214
WD(mm)	118 \pm 3
Max Sensor Size(Φ mm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	\pm 9.6@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	249 \pm 3
Length(mm)	113.8
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	34.7x22.9
1/1.8" IMX252/265 (7.1x5.3)	33.2x24.8

BTL-0.188X-128-118



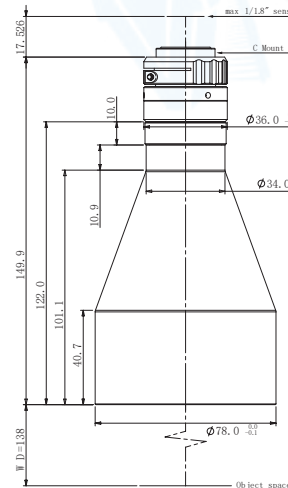
FOV(Φ mm)	48
Mag.(x)	0.188
WD(mm)	128 \pm 3
Max Sensor Size(Φ mm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>190
DoF(mm)	\pm 12.4@F11
Distortion(% max)	<0.15
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	273 \pm 3
Length(mm)	127.3
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	39.5x26.1
1/1.8" IMX252/265 (7.1x5.3)	37.8x28.2

BTL-0.188X-138-118(LM)



FOV(Φ mm)	48
Mag.(x)	0.188
WD(mm)	138 \pm 3
Max Sensor Size(Φ mm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>165
DoF(mm)	\pm 12.4@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	268 \pm 3
Length(mm)	112.4
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	38.1x29.0
1/1.8" IMX252/265 (7.1x5.3)	38.3x28.7

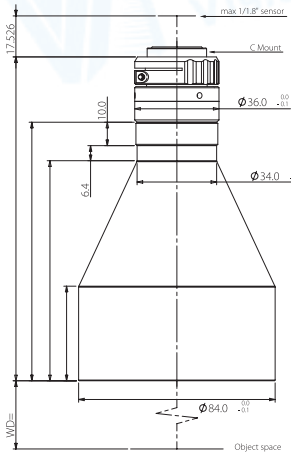
BTL-0.161X-138-118(LM)



FOV(Φ mm)	56
Mag.(x)	0.161
WD(mm)	138 \pm 3
Max Sensor Size(Φ mm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>190
DoF(mm)	\pm 17.0@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	306 \pm 3
Length(mm)	149.9
Mount	C-Mount
Weight(kg)	0.7
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	46.1x30.4
1/1.8" IMX252/265 (7.1x5.3)	44.1x32.9

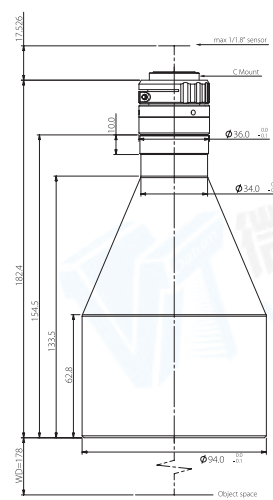
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. \pm 763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.141X-158-118(LM)



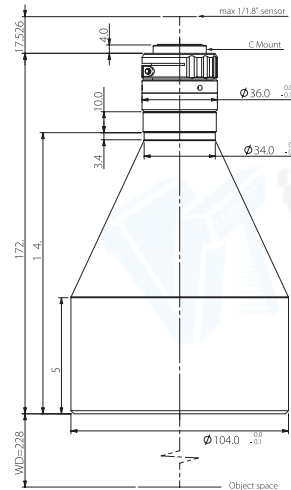
FOV(Φmm)	64
Mag.(x)	0.141
WD(mm)	158±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±22.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	338±3
Length(mm)	162.4
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm×mm)	
1/1.8" IMX178 (7.43x4.9)	52.7x34.8
1/1.8" IMX252/265 (7.1x5.3)	50.4x37.6

BTL-0.125X-178-118(LM)



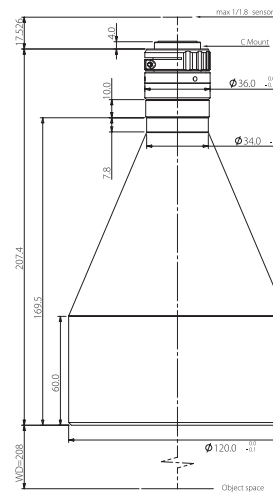
FOV(Φmm)	72
Mag.(x)	0.125
WD(mm)	178±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±28.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	378±3
Length(mm)	182.4
Mount	C-Mount
Weight(kg)	1.0
Field of View(mm×mm)	
1/1.8" IMX178 (7.43x4.9)	59.4x39.2
1/1.8" IMX252/265 (7.1x5.3)	56.8x42.4

BTL-0.113XH-228-118(LM)



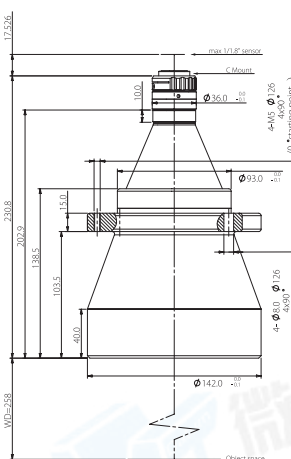
FOV(Φmm)	80
Mag.(x)	0.113
WD(mm)	228±4
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±34.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	418±4
Length(mm)	172.4
Mount	C-Mount
Weight(kg)	1.9
Field of View(mm×mm)	
1/1.8" IMX178 (7.43x4.9)	65.8x43.4
1/1.8" IMX252/265 (7.1x5.3)	62.8x46.9

BTL-0.1X-208-118(LM)



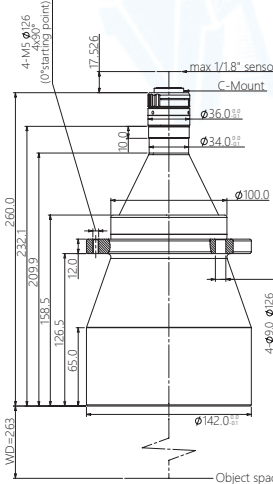
FOV(Φmm)	90
Mag.(x)	0.100
WD(mm)	208±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±44.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	433±3
Length(mm)	207.4
Mount	C-Mount
Weight(kg)	1.7
Field of View(mm×mm)	
1/1.8" IMX178 (7.43x4.9)	74.3x49.0
1/1.8" IMX252/265 (7.1x5.3)	71.0x53.0

BTL-0.09X-258-118(LM)



FOV(Φmm)	100
Mag.(x)	0.090
WD(mm)	258±4
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±54@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	506±4
Length(mm)	230.8
Mount	C-Mount
Weight(kg)	3.1
Field of View(mm×mm)	
1/1.8" IMX178 (7.43x4.9)	82.6x54.4
1/1.8" IMX252/265 (7.1x5.3)	78.9x58.9

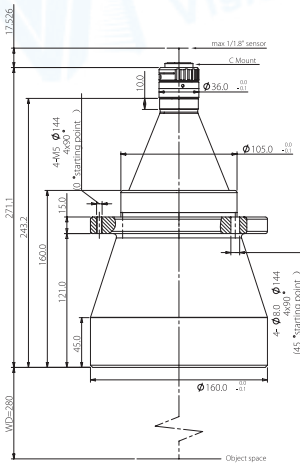
BTL-0.082X-263-118(LM)



FOV(Φmm)	110
Mag.(x)	0.082
WD(mm)	263±4
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±65.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	541±4
Length(mm)	260.0
Mount	C-Mount
Weight(kg)	2.7
Field of View(mm×mm)	
1/1.8" IMX178 (7.43x4.9)	90.6x59.8
1/1.8" IMX252/265 (7.1x5.3)	86.6x64.6

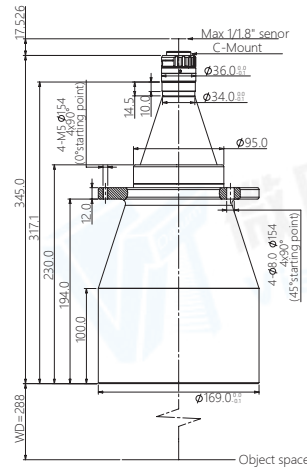
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.075X-273-118(LM)



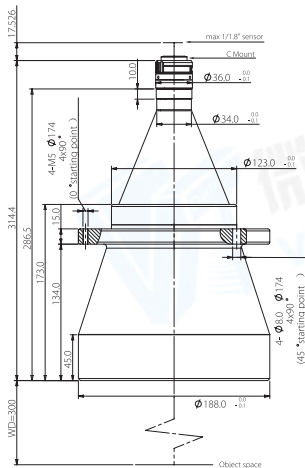
FOV(Φmm)	120
Mag.(x)	0.075
WD(mm)	273±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.5
MTF30(lp/mm)	>200
DoF(mm)	±78.2@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	562±5
Length(mm)	271.1
Mount	C-Mount
Weight(kg)	4.2
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	99.1x65.3
1/1.8" IMX252/265 (7.1x5.3)	94.7x70.7

BTL-0.066X-288-118(LM)



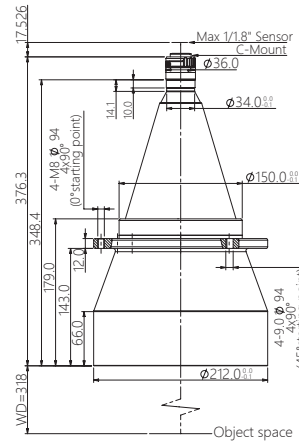
FOV(Φmm)	136
Mag.(x)	0.066
WD(mm)	288±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±101@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	651±5
Length(mm)	345.0
Mount	C-Mount
Weight(kg)	4.2
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	112.6x74.2
1/1.8" IMX252/265 (7.1x5.3)	107.6x80.3

BTL-0.06X-300-118(LM)



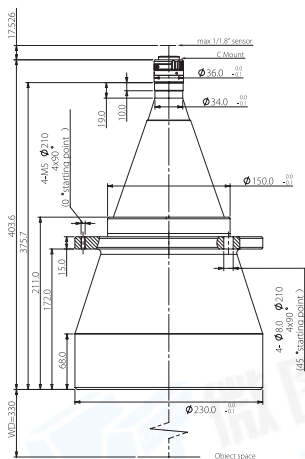
FOV(Φmm)	150
Mag.(x)	0.060
WD(mm)	300±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±122@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	632±5
Length(mm)	314.4
Mount	C-Mount
Weight(kg)	5.7
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	123.8x81.7
1/1.8" IMX252/265 (7.1x5.3)	118.3x88.3

BTL-0.053X-318-118(LM)



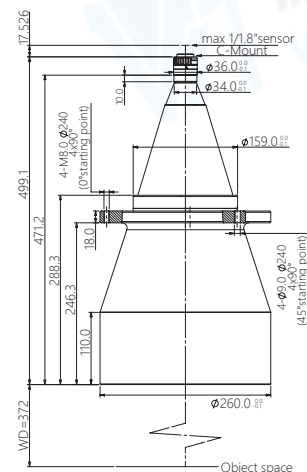
FOV(Φmm)	170
Mag.(x)	0.053
WD(mm)	318±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±157@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	712±5
Length(mm)	376.3
Mount	C-Mount
Weight(kg)	6.5
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	140.2x92.5
1/1.8" IMX252/265 (7.1x5.3)	134.0x100.0

BTL-0.047X-330-118(LM)



FOV(Φmm)	190
Mag.(x)	0.047
WD(mm)	330±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±199@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	751±5
Length(mm)	403.6
Mount	C-Mount
Weight(kg)	9.6
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	158.1x104.3
1/1.8" IMX252/265 (7.1x5.3)	151.1x112.8

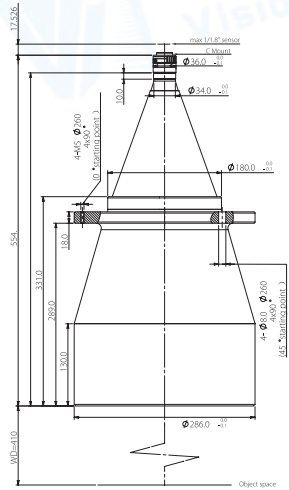
BTL-0.042X-372-118(LM)



FOV(Φmm)	216
Mag.(x)	0.042
WD(mm)	372±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±249@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	889±5
Length(mm)	499.1
Mount	C-Mount
Weight(kg)	13.7
Field of View(mmxmm)	
1/1.8" IMX178 (7.43x4.9)	176.9x116.7
1/1.8" IMX252/265 (7.1x5.3)	169.0x126.2

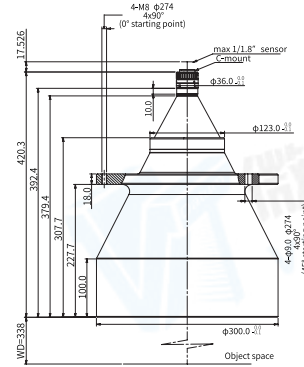
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.038XH-410-118(LM)



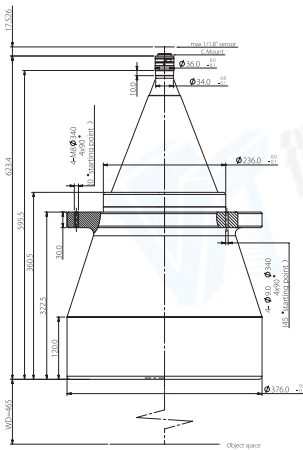
FOV(Φmm)	240
Mag.(x)	0.038
WD(mm)	410±6
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±313@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	972±6
Length(mm)	544.9
Mount	C-Mount
Weight(kg)	19.1
Field of View(mm×mm)	
1/1.8"	188.4x143.2
ICX274/687(7.16x5.44)	189.5x142.1
1/1.8" EV76C570(7.2x5.4)	

BTL-0.035X-338-118(LM)



FOV(Φmm)	258
Mag.(x)	0.035
WD(mm)	338±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±362@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	776±5
Length(mm)	420.3
Mount	C-Mount
Weight(kg)	-
Field of View(mm×mm)	
1/1.8" IMX178 (7.43x4.9)	212.3x140.0
1/1.8" IMX252/265 (7.1x5.3)	202.9x151.4

BTL-0.03X-465-118(LM)



FOV(Φmm)	300
Mag.(x)	0.030
WD(mm)	465±6
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>190
DoF(mm)	±488@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1106±6
Length(mm)	623.4
Mount	C-Mount
Weight(kg)	46.6
Field of View(mm×mm)	
1/1.8"	238.7x181.3
1/1.8" EV76C570(7.2x5.4)	240.0x180.0



BTL-23 SERIES

2/3"

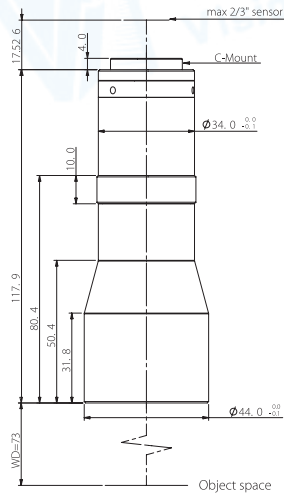


Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.438X-73-23	26	0.438	73±1	11.4(2/3")	6	>130	±2.3@F11	<0.1	<0.1	208±1	117.9	C Mount	0.3
BTL-0.317X-110-23	36	0.317	110±2	11.4(2/3")	5.4	>145	±4.3@F11	<0.1	<0.1	265±2	137.9	C Mount	0.4
BTL-0.271X-118-23	42	0.271	118±3	11.4(2/3")	4.9	>185	±6.0@F11	<0.1	<0.1	259±3	123.4	C Mount	0.4
BTL-0.238X-128-23	48	0.238	128±3	11.4(2/3")	5.4	>165	±7.7@F11	<0.1	<0.1	282±3	136.9	C Mount	0.5
BTL-0.238X-138-23(LM)	48	0.238	138±3	11.4(2/3")	6.7	>130	±7.7@F11	<0.1	<0.1	278±3	122.0	C Mount	0.5
BTL-0.204X-138-23(LM)	56	0.204	138±3	11.4(2/3")	4.9	>180	±10.5@F11	<0.1	<0.1	315±3	159.5	C Mount	0.7
BTL-0.178X-158-23(LM)	64	0.178	158±3	11.4(2/3")	4.9	>180	±13.9@F11	<0.1	<0.1	348±3	172.0	C Mount	0.8
BTL-0.158X-178-23(LM)	72	0.158	178±3	11.4(2/3")	4.9	>180	±17.6@F11	<0.1	<0.1	388±3	192.0	C Mount	1.1
BTL-0.142XH-228-23(LM)	80	0.142	228±4	11.4(2/3")	4.9	>180	±21.7@F11	<0.1	<0.1	428±4	182.9	C Mount	1.9
BTL-0.127X-208-23(LM)	90	0.127	208±3	11.4(2/3")	4.9	>180	±27.2@F11	<0.1	<0.1	443±3	217.0	C Mount	1.7
BTL-0.106X-258-23(LM)	100	0.106	258±4	11.4(2/3")	4.9	>185	±39.2@F11	<0.1	<0.1	516±4	240.4	C Mount	3.1
BTL-0.104X-263-23(LM)	110	0.104	263±4	11.4(2/3")	4.9	>190	±40.7@F11	<0.1	<0.1	550±4	269.6	C Mount	2.7
BTL-0.095X-273-23(LM)	120	0.095	273±5	11.4(2/3")	4.9	>185	±48.7@F11	<0.1	<0.1	572±5	281.7	C Mount	4.2
BTL-0.084X-288-23(LM)	136	0.084	288±5	11.4(2/3")	4.9	>185	±62.4@F11	<0.1	<0.1	659±5	354.6	C Mount	4.3
BTL-0.076X-300-23(LM)	150	0.076	300±5	11.4(2/3")	4.9	>185	±76.1@F11	<0.1	<0.1	642±5	324.0	C Mount	5.7
BTL-0.067X-318-23(LM)	170	0.067	318±5	11.4(2/3")	4.9	>180	±98@F11	<0.1	<0.1	721±5	385.9	C Mount	6.5
BTL-0.06X-330-23(LM)	190	0.060	330±5	11.4(2/3")	4.9	>180	±122@F11	<0.1	<0.1	761±5	413.2	C Mount	9.7
BTL-0.053X-372-23(LM)	216	0.053	372±5	11.4(2/3")	4.9	>180	±157@F11	<0.1	<0.1	898±5	385.9	C Mount	13.8
BTL-0.048XH-410-23(LM)	240	0.048	410±6	11.4(2/3")	4.9	>180	±195@F11	<0.1	<0.1	982±6	554.5	C Mount	19.1
BTL-0.044X-338-23(LM)	258	0.044	338±5	11.4(2/3")	4.9	>180	±225@F11	<0.1	<0.1	786±5	429.9	C Mount	-
BTL-0.038X-465-23(LM)	300	0.038	465±6	11.4(2/3")	4.9	>180	±304@F11	<0.1	<0.1	1116±6	633.0	C Mount	46.6

1. The back focal length of model with (LM) is adjustable.

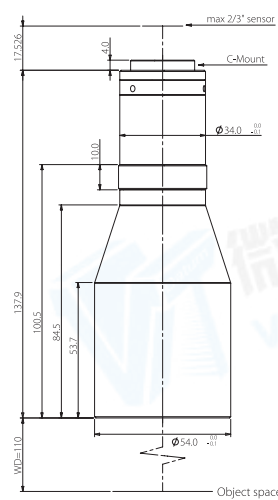
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.438X-73-23



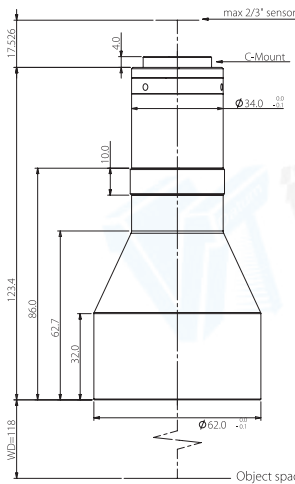
FOV(Φmm)	26
Mag.(x)	0.438
WD(mm)	73±1
Max Sensor Size(Φmm)	11.4(2/3")
F/#	6.0
MTF30(lp/mm)	>130
DoF(mm)	±2.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	208±1
Length(mm)	117.9
Mount	C-Mount
Weight(kg)	0.3
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	19.3x16.2

BTL-0.317X-110-23



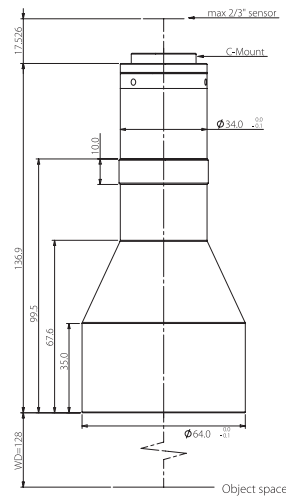
FOV(Φmm)	36
Mag.(x)	0.317
WD(mm)	110±2
Max Sensor Size(Φmm)	11.4(2/3")
F/#	5.4
MTF30(lp/mm)	>145
DoF(mm)	±4.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	265±2
Length(mm)	137.9
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	26.7x22.4

BTL-0.271X-118-23



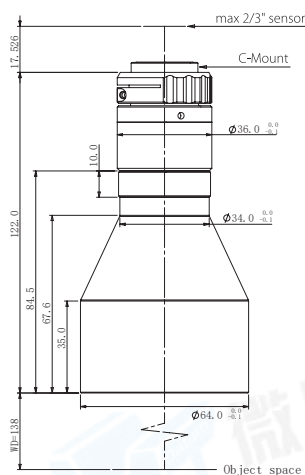
FOV(Φmm)	42
Mag.(x)	0.271
WD(mm)	118±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±6.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	259±3
Length(mm)	123.4
Mount	C-Mount
Weight(kg)	0.4
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	31.3x26.2

BTL-0.238X-128-23



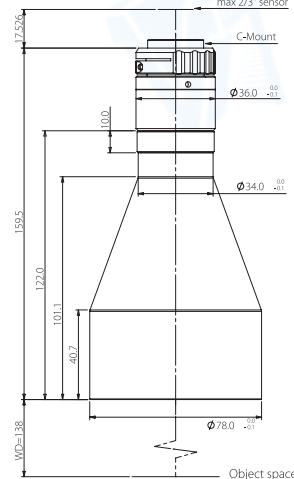
FOV(Φmm)	48
Mag.(x)	0.238
WD(mm)	128±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	5.4
MTF30(lp/mm)	>165
DoF(mm)	±7.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	282±3
Length(mm)	136.9
Mount	C-Mount
Weight(kg)	0.5
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	35.6x29.8

BTL-0.238X-138-23(LM)



FOV(Φmm)	48
Mag.(x)	0.238
WD(mm)	138±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	6.7
MTF30(lp/mm)	>130
DoF(mm)	±7.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	278±3
Length(mm)	122.0
Mount	C-Mount
Weight(kg)	0.5
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	35.6x29.8

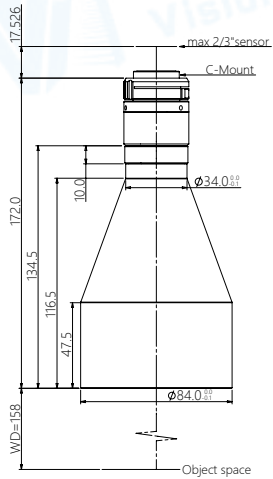
BTL-0.204X-138-23(LM)



FOV(Φmm)	56
Mag.(x)	0.204
WD(mm)	138±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±10.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	315±3
Length(mm)	159.5
Mount	C-Mount
Weight(kg)	0.7
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	41.4x34.8

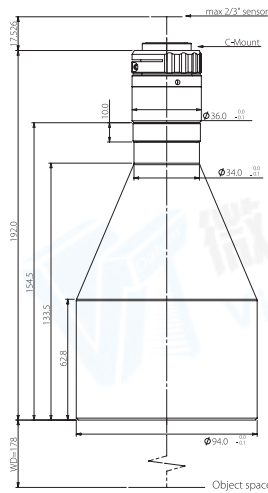
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.178X-158-23(LM)



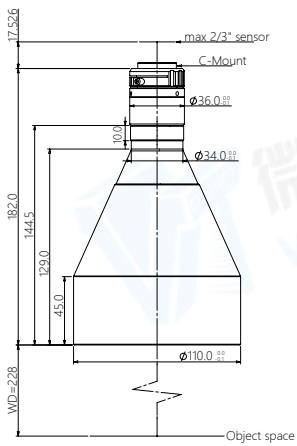
FOV(Φmm)	64
Mag.(x)	0.178
WD(mm)	158±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±13.9@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	348±3
Length(mm)	172.0
Mount	C-Mount
Weight(kg)	0.8
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	47.5x39.9

BTL-0.158X-178-23(LM)



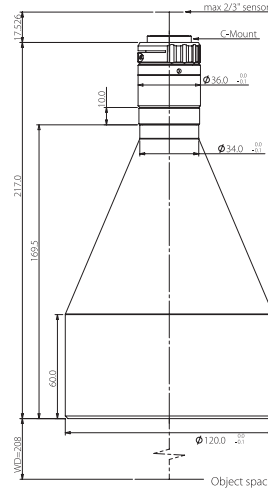
FOV(Φmm)	72
Mag.(x)	0.158
WD(mm)	178±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±17.6@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	388±3
Length(mm)	192.0
Mount	C-Mount
Weight(kg)	1.0
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	53.5x44.9

BTL-0.142XH-228-23(LM)



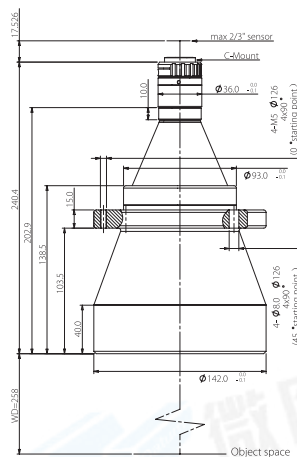
FOV(Φmm)	80
Mag.(x)	0.142
WD(mm)	228±4
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±39.2@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	427±4
Length(mm)	181.9
Mount	C-Mount
Weight(kg)	1.5
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	59.7x50.0

BTL-0.127X-208-23(LM)



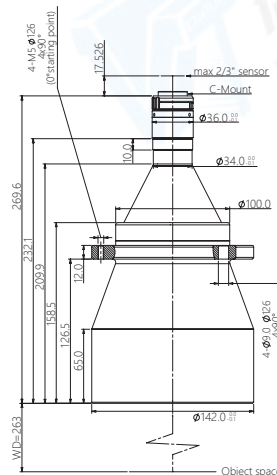
FOV(Φmm)	90
Mag.(x)	0.127
WD(mm)	208±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±27.2@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	443±3
Length(mm)	217.0
Mount	C-Mount
Weight(kg)	1.7
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	66.7x55.9

BTL-0.106X-258-23(LM)



FOV(Φmm)	100
Mag.(x)	0.106
WD(mm)	258±4
Max Sensor Size(Φmm)	11.4(2/3")
F/#	5.4
MTF30(lp/mm)	>170
DoF(mm)	±33.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	516±4
Length(mm)	240
Mount	C-Mount
Weight(kg)	3.1
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	74.1x62.3

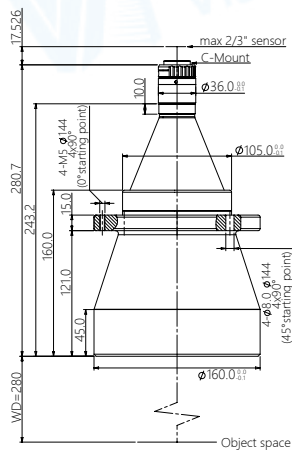
BTL-0.104X-263-23(LM)



FOV(Φmm)	110
Mag.(x)	0.104
WD(mm)	263±4
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>190
DoF(mm)	±40.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	550±4
Length(mm)	269.6
Mount	C-Mount
Weight(kg)	2.7
Field of View(mmxmm)	
2/3" IMX250/264 (8.45x7.1)	81.3x68.3

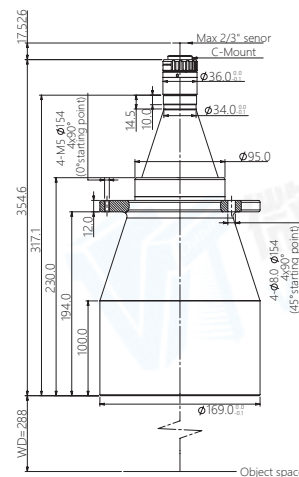
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.095X-273-23(LM)



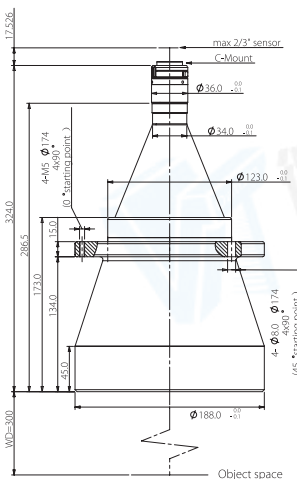
FOV(Φmm)	120
Mag.(x)	0.095
WD(mm)	273±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±48.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	572±5
Length(mm)	281.7
Mount	C-Mount
Weight(kg)	4.2
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	88.9x74.7

BTL-0.084X-288-23(LM)



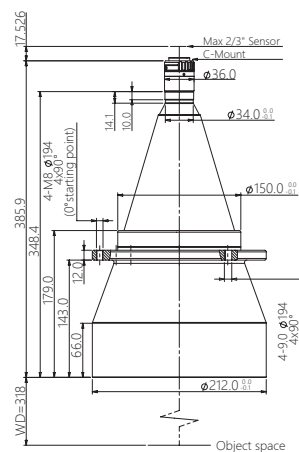
FOV(Φmm)	136
Mag.(x)	0.084
WD(mm)	288±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±62.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	659±5
Length(mm)	354.6
Mount	C-Mount
Weight(kg)	4.3
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	100.6x84.5

BTL-0.076X-300-23(LM)



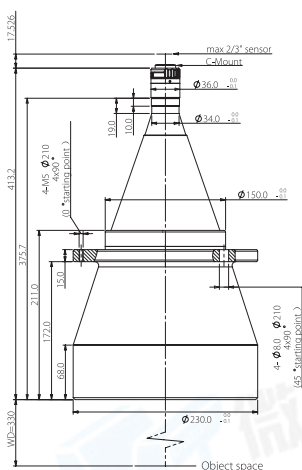
FOV(Φmm)	150
Mag.(x)	0.076
WD(mm)	300±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±76.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	642.5±5
Length(mm)	324.0
Mount	C-Mount
Weight(kg)	5.7
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	111.5x93.4

BTL-0.067X-318-23(LM)



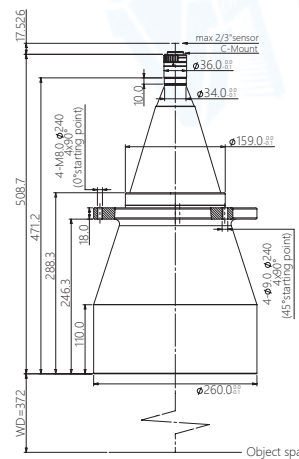
FOV(Φmm)	170
Mag.(x)	0.067
WD(mm)	318±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±98@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	721±5
Length(mm)	385.9
Mount	C-Mount
Weight(kg)	6.5
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	126.1x106.0

BTL-0.06X-330-23(LM)



FOV(Φmm)	190
Mag.(x)	0.060
WD(mm)	330±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±122@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	761±5
Length(mm)	413.2
Mount	C-Mount
Weight(kg)	9.7
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	141.2x118.3

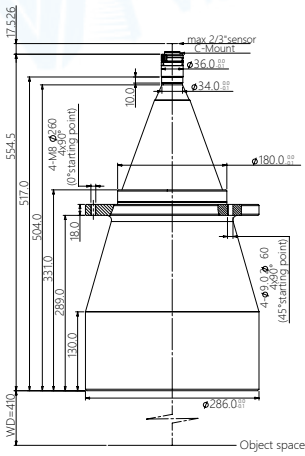
BTL-0.053X-372-23(LM)



FOV(Φmm)	216
Mag.(x)	0.053
WD(mm)	372±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±157@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	898±5
Length(mm)	508.7
Mount	C-Mount
Weight(kg)	13.8
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	159.4x134.0

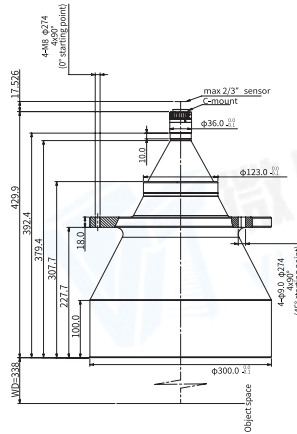
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.048XH-410-23(LM)



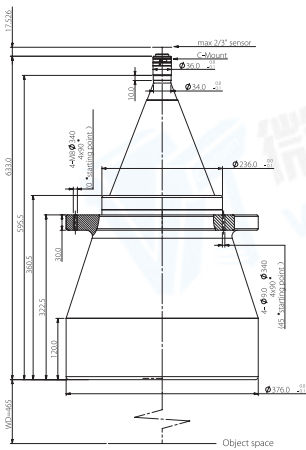
FOV(Φmm)	240
Mag.(x)	0.048
WD(mm)	410±6
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±195@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	982±6
Length(mm)	554.5
Mount	C-Mount
Weight(kg)	19.1
Field of View(mmxmm)	2/3" IMX250/264 (8.45x7.1)

BTL-0.044X-338-23(LM)



FOV(Φmm)	258
Mag.(x)	0.044
WD(mm)	338±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±225@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	786±5
Length(mm)	429.9
Mount	C-Mount
Weight(kg)	-
Field of View(mmxmm)	2/3" IMX250/264 (8.45x7.1)

BTL-0.038X-465-23(LM)



FOV(Φmm)	300
Mag.(x)	0.038
WD(mm)	465±6
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±304@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1116±6
Length(mm)	633.0
Mount	C-Mount
Weight(kg)	46.6
Field of View(mmxmm)	2/3" IMX250/264 (8.45x7.1)



Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-H1 SERIES

1"

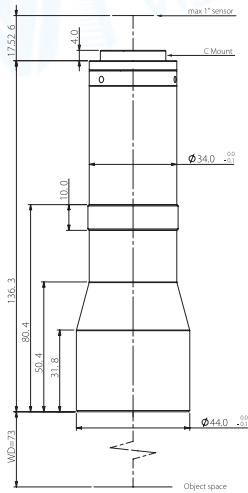


Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.638X-73-H1	26	0.638	73±1	16.6(1")	8.7	>90	±1.6@F16	<0.1	<0.1	227±1	136.3	C Mount	0.4
BTL-0.46X-110-H1	36	0.46	110±2	16.6(1")	7.8	>100	±3.0@F16	<0.1	<0.1	284±2	156.4	C Mount	0.5
BTL-0.395X-118-H1	42	0.395	118±3	16.6(1")	6.5	>130	±4.1@F16	<0.1	<0.1	278±3	141.9	C Mount	0.5
BTL-0.346X-128-H1	48	0.346	128±3	16.6(1")	6.5	>130	±5.3@F16	<0.1	<0.1	301±3	155.4	C Mount	0.5
BTL-0.346X-138-H1(LM)	48	0.346	138±3	16.6(1")	9.8	>90	±5.5@F16	<0.1	<0.1	296±3	140.5	C Mount	0.5
BTL-0.296X-138-H1(LM)	56	0.296	138±3	16.6(1")	6.5	>130	±7.3@F16	<0.1	<0.1	334±3	178.0	C Mount	0.8
BTL-0.259X-158-H1(LM)	64	0.259	158±3	16.6(1")	6.5	>85	±9.5@F16	<0.1	<0.1	366±3	190.5	C Mount	0.9
BTL-0.231X-178-H1(LM)	72	0.231	178±3	16.6(1")	6.5	>135	±12.0@F16	<0.1	<0.1	406±3	210.5	C Mount	1.1
BTL-0.208X-228-H1(LM)	80	0.208	228±4	16.6(1")	6.5	>135	±14.8@F16	<0.1	<0.1	446±4	200.5	C Mount	2.0
BTL-0.184X-208-H1(LM)	90	0.184	208±3	16.6(1")	6.5	>135	±18.9@F16	<0.1	<0.1	461±3	235.5	C Mount	1.8
BTL-0.166X-238-H1(LM)	100	0.166	238±4	16.6(1")	6.5	>140	±23.2@F16	<0.1	<0.1	534±4	278.2	C Mount	3.2
BTL-0.151X-263-H1(LM)	110	0.151	263±4	16.6(1")	6.5	>140	±28.1@F16	<0.1	<0.1	569±4	288.1	C Mount	2.8
BTL-0.138X-273-H1(LM)	120	0.138	273±5	16.6(1")	6.5	>140	±33.4@F16	<0.1	<0.1	590±5	299.8	C Mount	4.3
BTL-0.122X-288-H1(LM)	136	0.122	288±5	16.6(1")	6.5	>140	±43.0@F16	<0.1	<0.1	679±5	373.0	C Mount	4.3
BTL-0.11X-300-H1(LM)	150	0.11	300±5	16.6(1")	6.5	>120	±52.9@F16	<0.1	<0.1	660±5	342.4	C Mount	5.8
BTL-0.098X-318-H1(LM)	170	0.098	318±5	16.6(1")	6.5	>140	±66.6@F16	<0.1	<0.1	740±5	404.3	C Mount	6.6
BTL-0.087X-330-H1(LM)	190	0.087	330±5	16.6(1")	6.5	>140	±84.6@F16	<0.1	<0.1	779±5	431.7	C Mount	9.7
BTL-0.077X-372-H1(LM)	216	0.077	372±5	16.6(1")	6.5	>140	±107.9@F16	<0.1	<0.1	917±5	527.1	C Mount	13.9
BTL-0.069XH-410-H1(LM)	240	0.069	410±6	16.6(1")	6.5	>140	±134.4@F16	<0.1	<0.1	1001±6	573.0	C Mount	19.2
BTL-0.064X-338-H1(LM)	258	0.064	338±5	16.6(1")	6.5	>140	±106@F11	<0.1	<0.1	804±5	448.4	C Mount	-
BTL-0.055XH-465-H1(LM)	300	0.055	465±6	16.6(1")	6.5	>135	±211.6@F16	<0.1	<0.1	1134±6	651.5	C Mount	46.7

1. The back focal length of model with (LM) is adjustable.

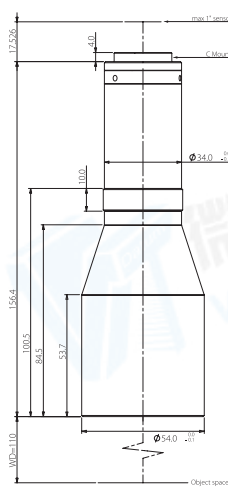
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.638X-73-H1



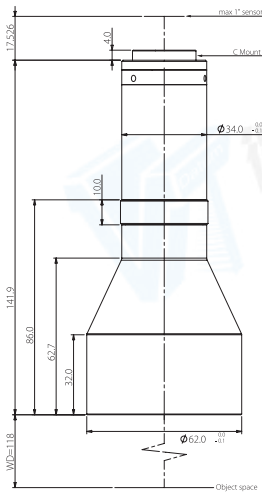
FOV(Φmm)	26
Mag.(x)	0.638
WD(mm)	73±1
Max Sensor Size(Φmm)	16.6(1")
F/#	8.7
MTF30(lp/mm)	>90
DoF(mm)	±1.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	227±1
Length(mm)	136.3
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	19.5x15.4
1" IMX255 (14.19x7.51)	22.2x11.8
1" IMX183 (13.13x8.76)	20.6x13.7

BTL-0.46X-110-H1



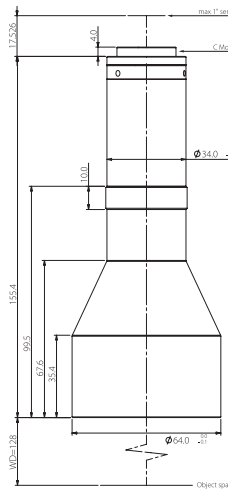
FOV(Φmm)	36
Mag.(x)	0.460
WD(mm)	110±2
Max Sensor Size(Φmm)	16.6(1")
F/#	7.8
MTF30(lp/mm)	>100
DoF(mm)	±3.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	284±2
Length(mm)	156.4
Mount	C-Mount
Weight(kg)	0.5
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	27.0x21.4
1" IMX255 (14.19x7.51)	30.8x16.3
1" IMX183 (13.13x8.76)	28.5x19.0

BTL-0.395X-118-H1



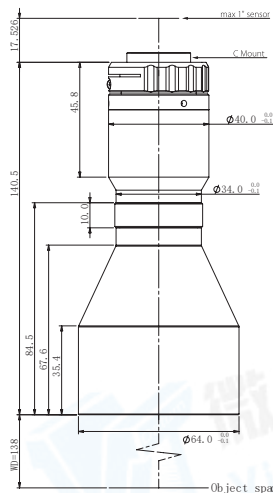
FOV(Φmm)	42
Mag.(x)	0.395
WD(mm)	118±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>130
DoF(mm)	±4.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	278±3
Length(mm)	141.9
Mount	C-Mount
Weight(kg)	0.5
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	31.5x24.9
1" IMX255 (14.19x7.51)	35.9x19.0
1" IMX183 (13.13x8.76)	33.2x22.2

BTL-0.346X-128-H1



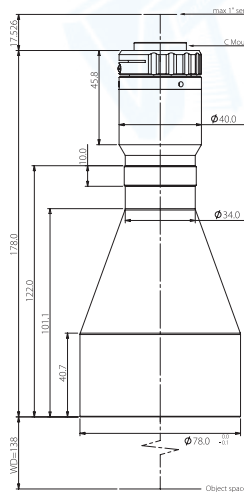
FOV(Φmm)	48
Mag.(x)	0.346
WD(mm)	128±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>130
DoF(mm)	±5.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	301±3
Length(mm)	155.4
Mount	C-Mount
Weight(kg)	0.5
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	35.9x28.4
1" IMX255 (14.19x7.51)	41.0x21.7
1" IMX183 (13.13x8.76)	37.9x25.3

BTL-0.346X-138-H1(LM)



FOV(Φmm)	48
Mag.(x)	0.346
WD(mm)	138±3
Max Sensor Size(Φmm)	16.6(1")
F/#	9.8
MTF30(lp/mm)	>190
DoF(mm)	±5.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	296±3
Length(mm)	140.5
Mount	C-Mount
Weight(kg)	0.5
Field of View(mm xmm)	
1" KAI-04050(12.85x9.64)	37.1x27.9
1" CMV4000(11.26x11.26)	32.5x32.5
1" IC674/694/814(12.5x10.0)	36.1x28.9

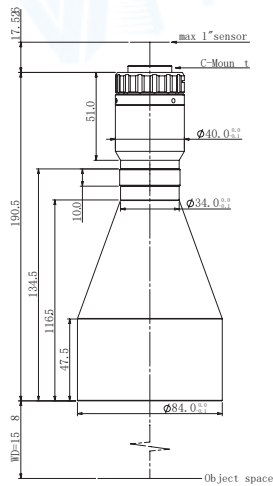
BTL-0.296X-138-H1(LM)



FOV(Φmm)	56
Mag.(x)	0.296
WD(mm)	138±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>130
DoF(mm)	±7.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	301±3
Length(mm)	145.0
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	42.0x33.2
1" IMX255 (14.19x7.51)	47.9x25.4
1" IMX183 (13.13x8.76)	44.4x29.6

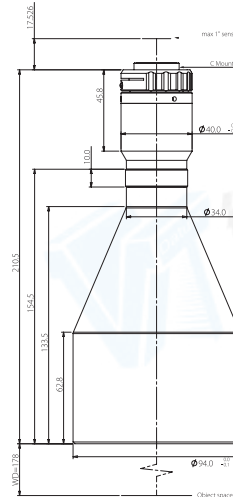
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.259X-158-H1(LM)



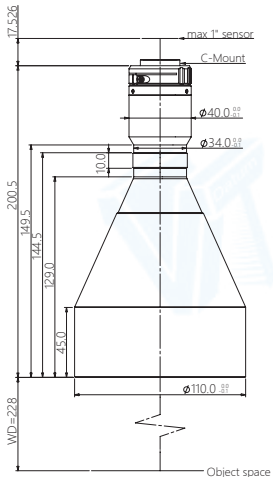
FOV(Φmm)	64
Mag.(x)	0.259
WD(mm)	158±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>130
DoF(mm)	±9.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	366±3
Length(mm)	190.5
Mount	C-Mount
Weight(kg)	0.9
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	48.0x38.0
1" IMX255 (14.19x7.51)	54.8x29.0
1" IMX183 (13.13x8.76)	50.7x33.8

BTL-0.231X-178-H1(LM)



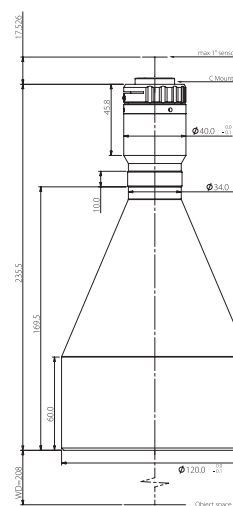
FOV(Φmm)	72
Mag.(x)	0.231
WD(mm)	178±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±12@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	406±3
Length(mm)	210.5
Mount	C-Mount
Weight(kg)	1.1
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	53.8x42.6
1" IMX255 (14.19x7.51)	61.4x32.5
1" IMX183 (13.13x8.76)	56.8x37.9

BTL-0.208X-228-H1(LM)



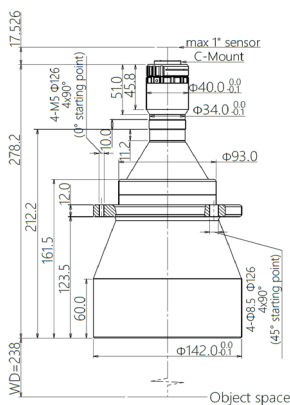
FOV(Φmm)	80
Mag.(x)	0.208
WD(mm)	228±4
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±14.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	446±4
Length(mm)	200.5
Mount	C-Mount
Weight(kg)	2.0
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	59.8x47.3
1" IMX255 (14.19x7.51)	68.2x36.1
1" IMX183 (13.13x8.76)	63.1x42.1

BTL-0.184X-208-H1(LM)



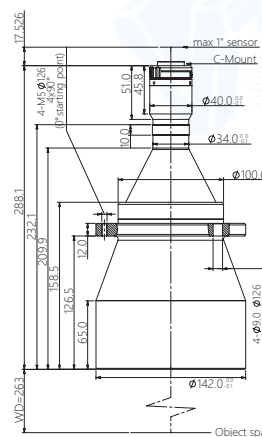
FOV(Φmm)	90
Mag.(x)	0.184
WD(mm)	208±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±18.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	461±3
Length(mm)	235.5
Mount	C-Mount
Weight(kg)	1.8
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	67.6x53.4
1" IMX255 (14.19x7.51)	77.1x40.8
1" IMX183 (13.13x8.76)	71.4x47.6

BTL-0.166X-238-H1(LM)



FOV(Φmm)	100
Mag.(x)	0.166
WD(mm)	238±4
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±23.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	534±4
Length(mm)	278.2
Mount	C-Mount
Weight(kg)	3.2
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	74.9x59.2
1" IMX255 (14.19x7.51)	85.5x45.2
1" IMX183 (13.13x8.76)	79.1x52.8

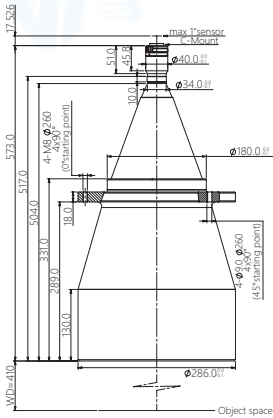
BTL-0.151X-263-H1(LM)



FOV(Φmm)	110
Mag.(x)	0.151
WD(mm)	263±4
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±28.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	569±4
Length(mm)	288.1
Mount	C-Mount
Weight(kg)	2.8
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	82.3x65.1
1" IMX255 (14.19x7.51)	94.0x49.7
1" IMX183 (13.13x8.76)	87.0x58.0

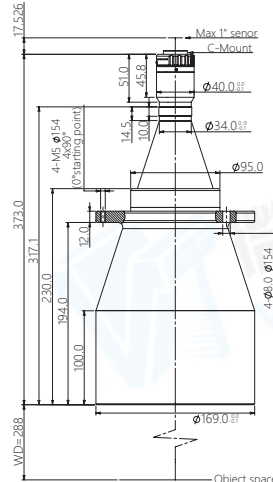
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.138X-273-H1(LM)



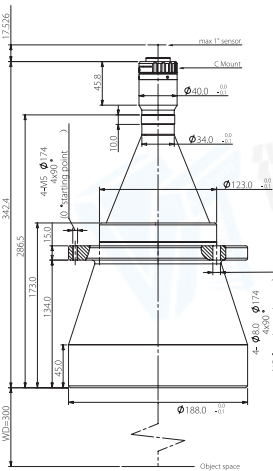
FOV(Φmm)	120
Mag.(x)	0.138
WD(mm)	273±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±33.4@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	590±5
Length(mm)	299.8
Mount	C-Mount
Weight(kg)	4.3
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	90.1x71.2
1" IMX255 (14.19x7.51)	102.8x54.4
1" IMX183 (13.13x8.76)	95.1x63.5

BTL-0.122X-288-H1(LM)



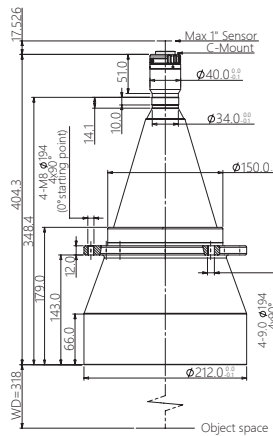
FOV(Φmm)	136
Mag.(x)	0.122
WD(mm)	288±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±43.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	679±5
Length(mm)	373.0
Mount	C-Mount
Weight(kg)	4.3
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	101.9x80.6
1" IMX255 (14.19x7.51)	116.3x61.6
1" IMX183 (13.13x8.76)	107.6x71.8

BTL-0.11X-300-H1(LM)



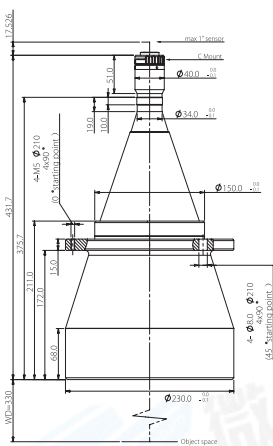
FOV(Φmm)	150
Mag.(x)	0.110
WD(mm)	300±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>120
DoF(mm)	±52.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	660±5
Length(mm)	324.4
Mount	C-Mount
Weight(kg)	5.8
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	113.0x89.4
1" IMX255 (14.19x7.51)	129.0x68.3
1" IMX183 (13.13x8.76)	119.4x79.6

BTL-0.098X-318-H1(LM)



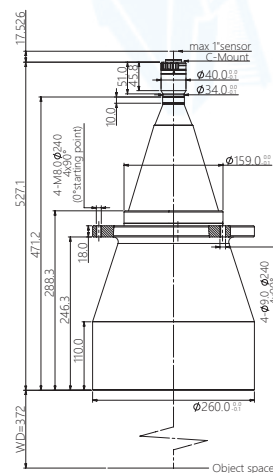
FOV(Φmm)	170
Mag.(x)	0.098
WD(mm)	318±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±66.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	740±5
Length(mm)	404.3
Mount	C-Mount
Weight(kg)	6.6
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	126.8x100.3
1" IMX255 (14.19x7.51)	144.8x76.6
1" IMX183 (13.13x8.76)	134.0x89.4

BTL-0.087X-330-H1(LM)



FOV(Φmm)	190
Mag.(x)	0.087
WD(mm)	330±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±84.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	779±5
Length(mm)	431.7
Mount	C-Mount
Weight(kg)	9.7
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	142.9x113.0
1" IMX255 (14.19x7.51)	163.1x86.3
1" IMX183 (13.13x8.76)	150.9x100.7

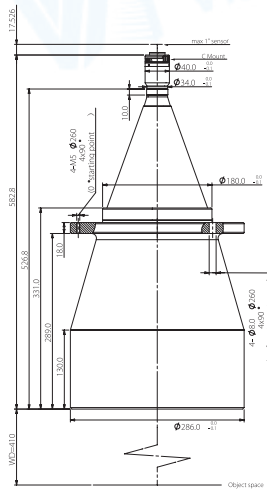
BTL-0.077X-372-H1(LM)



FOV(Φmm)	216
Mag.(x)	0.077
WD(mm)	372±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±107.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	917±5
Length(mm)	527.1
Mount	C-Mount
Weight(kg)	13.9
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	161.4x127.7
1" IMX255 (14.19x7.51)	184.3x97.5
1" IMX183 (13.13x8.76)	170.5x113.8

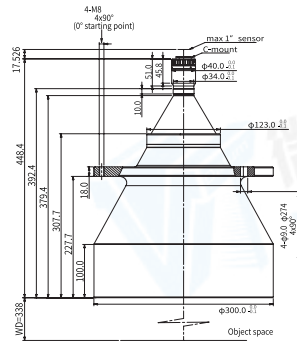
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF that you need, please check with our sales engineer before order cfm.

BTL-0.069XH-410-H1(LM)



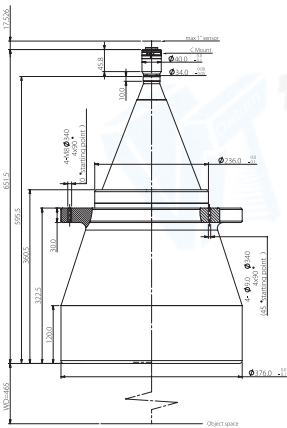
FOV(Φmm)	240
Mag.(x)	0.069
WD(mm)	410±6
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±134.4@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1001±6
Length(mm)	573.0
Mount	C-Mount
Weight(kg)	19.2
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	186.2x139.7
1" IMX255 (14.19x7.51)	163.2x163.2
1" IMX183 (13.13x8.76)	181.2x144.9

BTL-0.064X-338-H1(LM)



FOV(Φmm)	258
Mag.(x)	0.064
WD(mm)	338±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±106@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	804±5
Length(mm)	448.4
Mount	C-Mount
Weight(kg)	-
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	194.2x153.6
1" IMX255 (14.19x7.51)	221.7x117.3
1" IMX183 (13.13x8.76)	205.2x136.9

BTL-0.055X-465-H1(LM)



FOV(Φmm)	300
Mag.(x)	0.055
WD(mm)	465±6
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±211.6@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1134±6
Length(mm)	651.5
Mount	C-Mount
Weight(kg)	46.7
Field of View(mmxmm)	
1" PYTHON5000 (12.43x9.83)	233.6x175.3
1" IMX255 (14.19x7.51)	204.7x204.7
1" IMX183 (13.13x8.76)	227.3x181.8



Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-H1.1 SERIES

1.1"

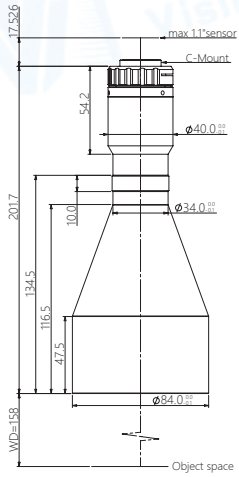


Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.708X-73-H1.1(LM)	26	0.708	73±1	18.4(1.1")	9.6	>75	±1.6@F20	<0.1	<0.1	238±1	147.7	C Mount	0.4
BTL-0.511X-110-H1.1(LM)	36	0.511	110±2	18.4(1.1")	8.7	>85	±3.0@F20	<0.1	<0.1	295±2	167.7	C Mount	0.6
BTL-0.438X-118-H1.1(LM)	42	0.438	118±3	18.4(1.1")	7.2	>115	±3.3@F16	<0.1	<0.1	289±3	153.2	C Mount	0.5
BTL-0.383X-128-H1.1(LM)	48	0.383	128±3	18.4(1.1")	7.2	>115	±4.3@F16	<0.1	<0.1	312±3	166.7	C Mount	0.6
BTL-0.383X-138-H1.1(LM)	48	0.383	138±3	18.4(1.1")	10.8	>80	±4.3@F16	<0.1	<0.1	307±3	151.7	C Mount	0.6
BTL-0.329X-138-H1.1(LM)	56	0.329	138±3	18.4(1.1")	6.2	>145	±4.0@F11	<0.1	<0.1	345±3	189.2	C Mount	0.8
BTL-0.288X-158-H1.1(LM)	64	0.288	158±3	18.4(1.1")	6.2	>150	±7.8@F16	<0.1	<0.1	377±3	201.7	C Mount	0.9
BTL-0.256X-178-H1.1(LM)	72	0.256	178±3	18.4(1.1")	6.2	>145	±6.7@F11	<0.1	<0.1	417±3	221.7	C Mount	1.2
BTL-0.23XH-228-H1.1(LM)	80	0.230	228±4	18.4(1.1")	6.2	>145	±12.1@F16	<0.1	<0.1	457±4	211.7	C Mount	2.0
BTL-0.204X-208-H1.1(LM)	90	0.204	208±3	18.4(1.1")	6.2	>145	±10.5@F11	<0.1	<0.1	472±3	246.7	C Mount	1.8
BTL-0.184X-258-H1.1(LM)	100	0.184	258±4	18.4(1.1")	6.2	>150	±13.0@F11	<0.1	<0.1	546±4	270.1	C Mount	3.2
BTL-0.167X-263-H1.1(LM)	110	0.167	263±4	18.4(1.1")	6.2	>150	±15.8@F11	<0.1	<0.1	580±4	299.3	C Mount	2.8
BTL-0.153X-273-H1.1(LM)	120	0.153	273±5	18.4(1.1")	6.2	>150	±18.7@F11	<0.1	<0.1	602±5	311.0	C Mount	4.3
BTL-0.135X-288-H1.1(LM)	136	0.135	288±5	18.4(1.1")	6.2	>150	±24.1@F11	<0.1	<0.1	690±5	384.3	C Mount	4.3
BTL-0.123X-300-H1.1(LM)	150	0.123	300±5	18.4(1.1")	6.2	>145	±29@F11	<0.1	<0.1	671±5	353.7	C Mount	5.8
BTL-0.108X-318-H1.1(LM)	170	0.108	318±5	18.4(1.1")	6.2	>150	±37.7@F11	<0.1	<0.1	751±5	415.6	C Mount	6.6
BTL-0.097X-330-H1.1(LM)	190	0.097	330±5	18.4(1.1")	6.2	>150	±46.7@F11	<0.1	<0.1	791±5	443	C Mount	9.7
BTL-0.085X-372-H1.1(LM)	216	0.085	372±5	18.4(1.1")	6.2	>150	±60.9@F11	<0.1	<0.1	928±5	538.4	C Mount	13.9
BTL-0.077XH-410-H1.1(LM)	240	0.077	410±6	18.4(1.1")	6.2	>150	±109@F16	<0.1	<0.1	1012±6	584.2	C Mount	19.2
BTL-0.071X-340-H1.1(LM)	258	0.071	340±5	18.4(1.1")	6.2	>150	±86.5@F11	<0.1	<0.1	817±5	459.7	C Mount	-
BTL-0.061X-465-H1.1(LM)	300	0.061	465±6	18.4(1.1")	6.2	>145	±118@F11	<0.1	<0.1	1145±6	662	C Mount	46.7

1. The back focal length of model with (LM) is adjustable.

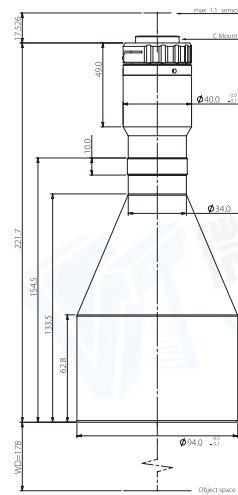
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.288X-158-H1.1(LM)



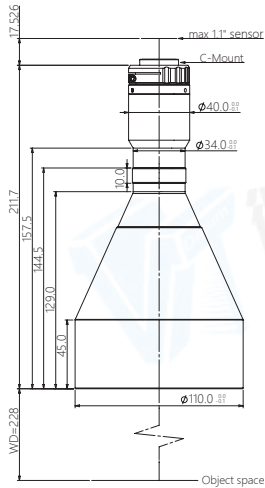
FOV(Φmm)	64
Mag.(x)	0.288
WD(mm)	158±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±7.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	377±3
Length(mm)	201.7
Mount	C-Mount
Weight(kg)	0.9
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	49.4x36.2

BTL-0.256X-178-H1.1(LM)



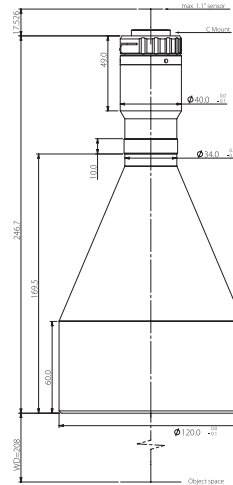
FOV(Φmm)	72
Mag.(x)	0.256
WD(mm)	178±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±6.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	417±3
Length(mm)	221.7
Mount	C-Mount
Weight(kg)	1.2
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	55.4x40.6

BTL-0.23XH-228-H1.1(LM)



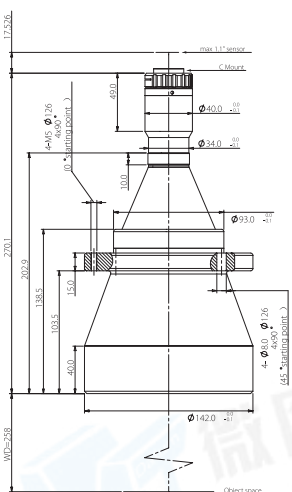
FOV(Φmm)	80
Mag.(x)	0.230
WD(mm)	228±4
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±12.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	457±4
Length(mm)	211.7
Mount	C-Mount
Weight(kg)	2.0
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	61.7x45.1

BTL-0.204X-208-H1.1(LM)



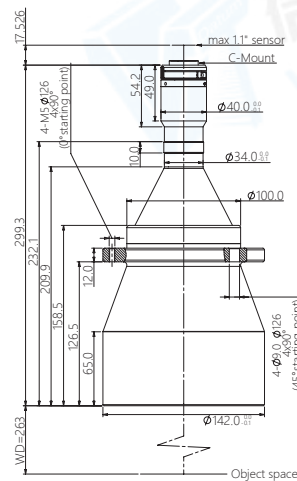
FOV(Φmm)	90
Mag.(x)	0.204
WD(mm)	208±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±10.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	472±3
Length(mm)	246.7
Mount	C-Mount
Weight(kg)	1.8
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	69.6x50.9

BTL-0.184X-258-H1.1(LM)



FOV(Φmm)	100
Mag.(x)	0.072
WD(mm)	0.184
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±13.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	546±4
Length(mm)	270.1
Mount	C-Mount
Weight(kg)	3.2
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	77.1x56.4

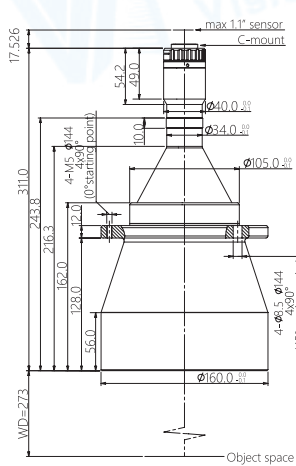
BTL-0.167X-263-H1.1(LM)



FOV(Φmm)	110
Mag.(x)	0.167
WD(mm)	263±4
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±15.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	580±4
Length(mm)	299.3
Mount	C-Mount
Weight(kg)	2.8
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	85.0x62.2

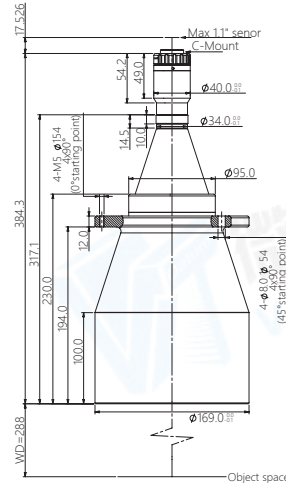
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.153X-273-H1.1(LM)



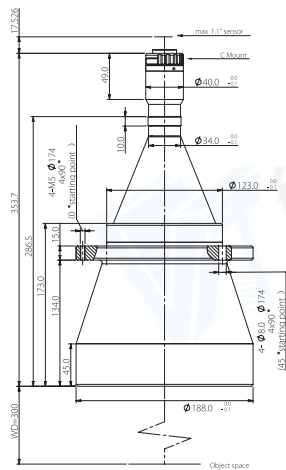
FOV(Φmm)	120
Mag.(x)	0.153
WD(mm)	273±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±18.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	602±5
Length(mm)	311
Mount	C-Mount
Weight(kg)	4.3
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	92.7x67.8

BTL-0.135X-288-H1.1(LM)



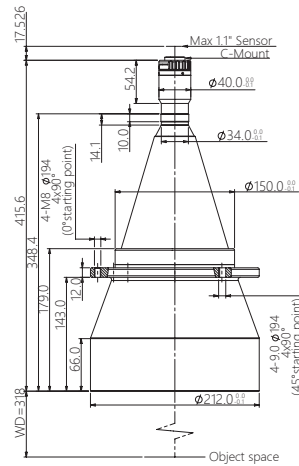
FOV(Φmm)	136
Mag.(x)	0.135
WD(mm)	288±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±24.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	690±5
Length(mm)	384.3
Mount	C-Mount
Weight(kg)	4.3
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	105.1x76.9

BTL-0.123X-300-H1.1(LM)



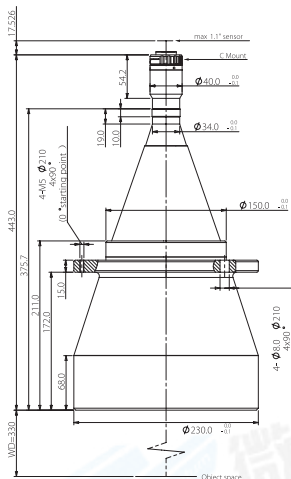
FOV(Φmm)	150
Mag.(x)	0.123
WD(mm)	300±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±29.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	671±5
Length(mm)	353.7
Mount	C-Mount
Weight(kg)	5.8
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	115.4x84.4

BTL-0.108X-318-H1.1(LM)



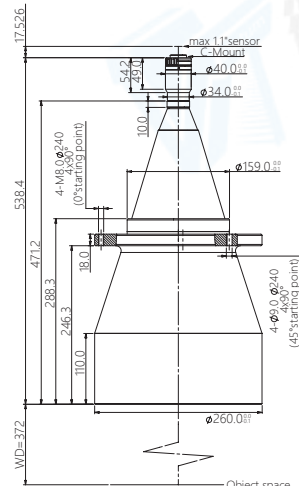
FOV(Φmm)	170
Mag.(x)	0.108
WD(mm)	318±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±37.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	751±5
Length(mm)	415.6
Mount	C-Mount
Weight(kg)	6.6
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	131.4x96.1

BTL-0.097X-330-H1.1(LM)



FOV(Φmm)	190
Mag.(x)	0.097
WD(mm)	330±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±46.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	791±5
Length(mm)	443.0
Mount	C-Mount
Weight(kg)	9.7
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	146.3x107.0

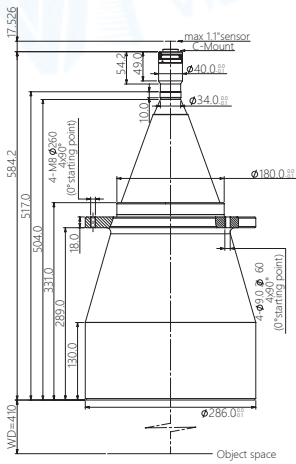
BTL-0.085X-372-H1.1(LM)



FOV(Φmm)	216
Mag.(x)	0.085
WD(mm)	372±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±60.9@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	928±5
Length(mm)	538.4
Mount	C-Mount
Weight(kg)	13.9
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	166.9x122.1

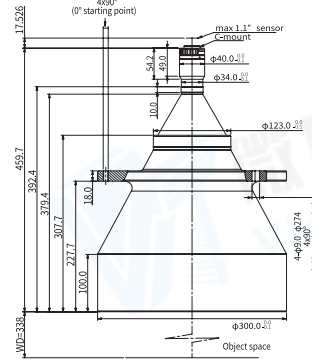
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.077XH-410-H1.1(LM)



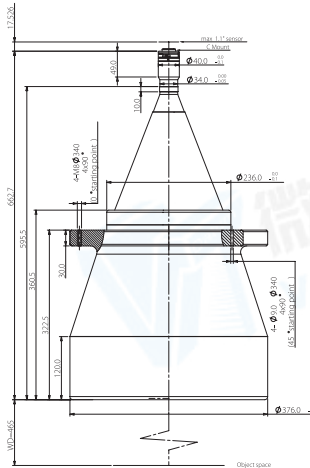
FOV(Φmm)	240
Mag.(x)	0.077
WD(mm)	410±6
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±109@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1012±6
Length(mm)	584.2
Mount	C-Mount
Weight(kg)	19.2
Field of View(mmxmm)	
1.1" IMX253(14.19x10.38)	184.3x134.8

BTL-0.071X-340-H1.1(LM)



FOV(Φmm)	258
Mag.(x)	0.071
WD(mm)	340±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±86.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	817±5
Length(mm)	459.7
Mount	C-Mount
Weight(kg)	-
Field of View(mmxmm)	
1.1" IMX253(14.19x10.38)	199.9x146.2

BTL-0.061X-465-H1.1(LM)



FOV(Φmm)	300
Mag.(x)	0.061
WD(mm)	465±6
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±118@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1145±6
Length(mm)	662.7
Mount	C-Mount
Weight(kg)	46.7
Field of View(mmxmm)	
1.1" IMX253(14.19x10.38)	232.6x170.2



Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-H2 SERIES



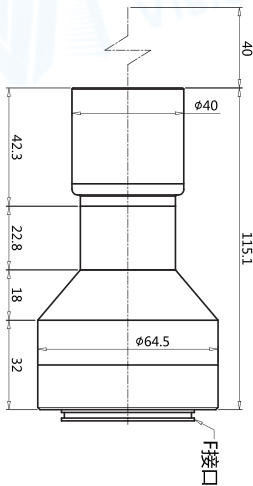
型号	光学规格									机械规格		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF>0.3 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount	Weight (kg)
BTL-1.1X-40-H2(LM)	21	1.10	40	23(4/3")	F11	>100	1.5	<0.1	<0.1	178.5	F / M58	0.68
BTL-0.93X-80-H2(LM)	25	0.93	80	23(4/3")	F11	>100	2.2	<0.1	<0.1	198.5	F / M58	0.7
BTL-0.87X-55-H2(LM)	26	0.87	55	23(4/3")	F11	>100	2.5	<0.1	<0.1	184.0	F / M58	0.78
BTL-0.66X-118-H2(LM)	35	0.66	118	23(4/3")	F11	>100	2.8	<0.1	<0.1	197.5	F / M58	0.73
BTL-0.58X-130-H2(LM)	40	0.58	130	23(4/3")	F11	>100	4.8	<0.1	<0.1	148.0	F / M58	0.8
BTL-0.51X-125-H2(LM)	45	0.51	125	23(4/3")	F11	>100	5.3	<0.1	<0.1	220.0	F / M58	0.91
BTL-0.44X-150-H2(LM)	52	0.44	150	23(4/3")	F11	>100	7.5	<0.1	<0.1	232.5	F / M58	1.17
BTL-0.38X-195-H2(LM)	61	0.38	195	23(4/3")	F11	>100	9.5	<0.1	<0.1	252.5	F / M58	1.39
BTL-0.34X-190-H2(LM)	68	0.34	190	23(4/3")	F11	>100	11	<0.1	<0.1	242.5	F / M58	1.4
BTL-0.3X-210-H2(LM)	77	0.30	210	23(4/3")	F11	>150	15.8	<0.1	<0.1	277.5	F / M58	1.9
BTL-0.27X-190-H2(LM)	85	0.27	190	23(4/3")	F11	>150	17.3	<0.1	<0.1	300.9	F / M58	2.2
BTL-0.242X-280-H2(LM)	95	0.242	280	23(4/3")	F11	>150	23.8	<0.1	<0.1	330.1	F / M58	3.84
BTL-0.198X-270-H2(LM)	116	0.198	270	23(4/3")	F16	>150	36	<0.1	<0.1	341.9	F / M58	5.32
BTL-0.159X-310-H2(LM)	145	0.159	310	23(4/3")	F16	>150	58	<0.1	<0.1	415.1	F / M58	6.57
BTL-0.128X-302-H2(LM)	180	0.128	302	23(4/3")	F16	>150	78	<0.1	<0.1	384.5	F / M58	10.61
BTL-0.1X-420-H2(LM)	230	0.10	420	23(4/3")	F16	>150	110	<0.1	<0.1	446.4	F / M58	-
BTL-0.06X-565-H2(LM)	383	0.06	565	23(4/3")	F16	>150	160	<0.1	<0.1	473.8	F / M58	-

1. The back focal length of model with (LM) is adjustable.

2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

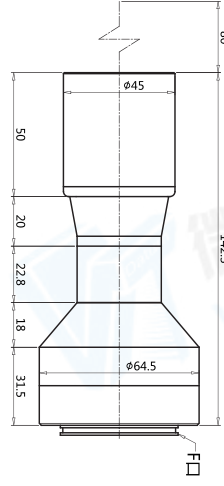


BTL-1.1X-40-H2(LM)



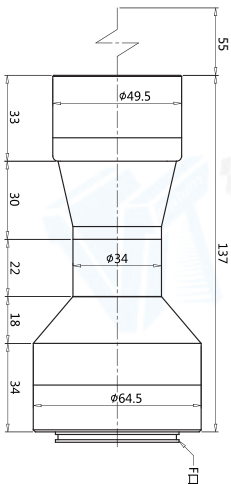
FOV(Φmm)	21
Mag.(x)	1.1
WD(mm)	40
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	1.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	115.1
Mount	F / M58
Weight(kg)	0.68
Field of View(mm xmm)	
4/3"CMV8000(18.4x13.7)	16.7x12.5
4/3"KEYENCE21M(17.8x14.3)	16.2x13
4/3"PYTHON12K(18.4x13.8)	16.7x12.5

BTL-0.93X-80-H2(LM)



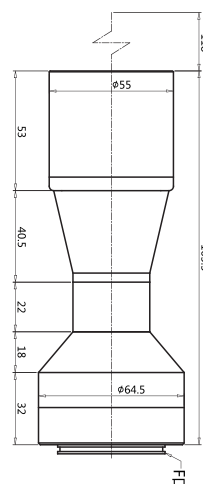
FOV(Φmm)	25
Mag.(x)	0.93
WD(mm)	80
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	2.2
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	142.3
Mount	F / M58
Weight(kg)	0.7
Field of View(mm xmm)	
4/3"CMV8000(18.4x13.7)	19.8x14.7
4/3"KEYENCE21M(17.8x14.3)	19.1x15.4
4/3"PYTHON12K(18.4x13.8)	19.8x14.8

BTL-0.87X-55-H2(LM)



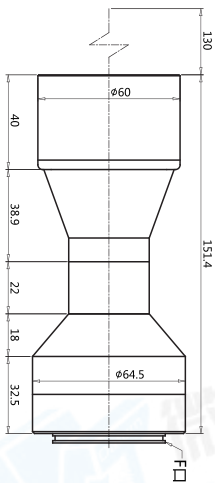
FOV(Φmm)	26
Mag.(x)	0.87
WD(mm)	55
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	2.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	137
Mount	F / M58
Weight(kg)	0.78
Field of View(mm xmm)	
4/3"CMV8000(18.4x13.7)	21.1x15.7
4/3"KEYENCE21M(17.8x14.3)	20.5x16.4
4/3"PYTHON12K(18.4x13.8)	21.1x15.9

BTL-0.66X-118-H2(LM)



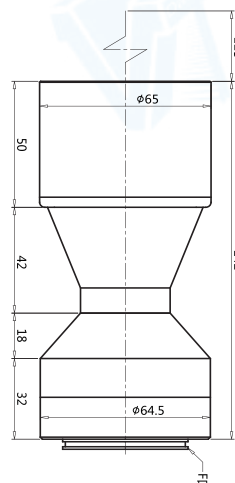
FOV(Φmm)	35
Mag.(x)	0.66
WD(mm)	118
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	2.8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	165.5
Mount	F / M58
Weight(kg)	0.73
Field of View(mm xmm)	
4/3"CMV8000(18.4x13.7)	27.9x20.8
4/3"KEYENCE21M(17.8x14.3)	27x21.7
4/3"PYTHON12K(18.4x13.8)	27.9x20.9

BTL-0.58X-130-H2(LM)



FOV(Φmm)	40
Mag.(x)	0.58
WD(mm)	130
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	4.8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	151.4
Mount	F / M58
Weight(kg)	0.8
Field of View(mm xmm)	
4/3"CMV8000(18.4x13.7)	31.7x23.6
4/3"KEYENCE21M(17.8x14.3)	30.7x24.7
4/3"PYTHON12K(18.4x13.8)	31.7x23.8

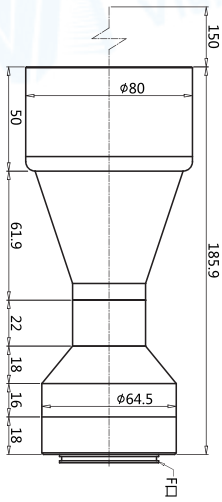
BTL-0.51X-125-H2(LM)



FOV(Φmm)	45
Mag.(x)	0.51
WD(mm)	125
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	5.3
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	142
Mount	F / M58
Weight(kg)	0.91
Field of View(mm xmm)	
4/3"CMV8000(18.4x13.7)	36.1x26.9
4/3"KEYENCE21M(17.8x14.3)	34.9x28
4/3"PYTHON12K(18.4x13.8)	36.1x27.1

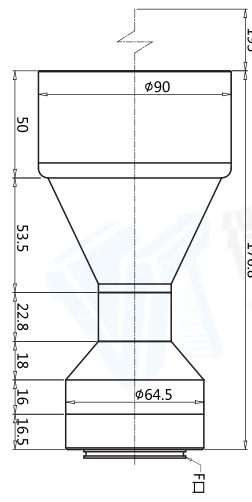
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.44X-150-H2(LM)



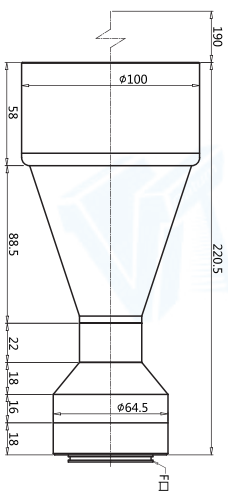
FOV(Φmm)	52
Mag.(x)	0.44
WD(mm)	150
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	7.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	185.9
Mount	F / M58
Weight(kg)	1.17
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	41.8x31.1
4/3"KEYENCE21M(17.8x14.3)	40.5x32.5
4/3"PYTHON12K(18.4x13.8)	41.8x31.4

BTL-0.38X-195-H2(LM)



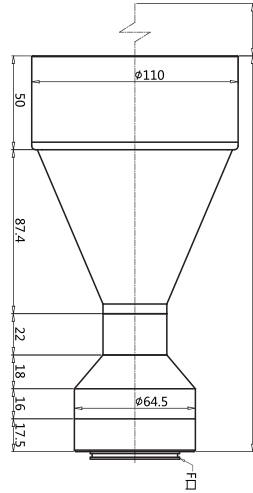
FOV(Φmm)	61
Mag.(x)	0.38
WD(mm)	195
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	9.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	176.8
Mount	F / M58
Weight(kg)	1.39
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	48.4x36.1
4/3"KEYENCE21M(17.8x14.3)	46.8x37.6
4/3"PYTHON12K(18.4x13.8)	48.4x36.3

BTL-0.34X-190-H2(LM)



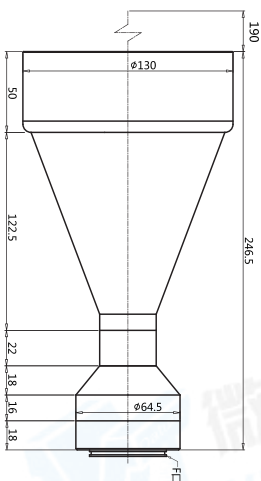
FOV(Φmm)	68
Mag.(x)	0.34
WD(mm)	190
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>100
DoF(mm)	11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	220.5
Mount	F / M58
Weight(kg)	1.4
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	54.1x40.3
4/3"KEYENCE21M(17.8x14.3)	52.4x42
4/3"PYTHON12K(18.4x13.8)	54.1x40.6

BTL-0.3X-210-H2(LM)



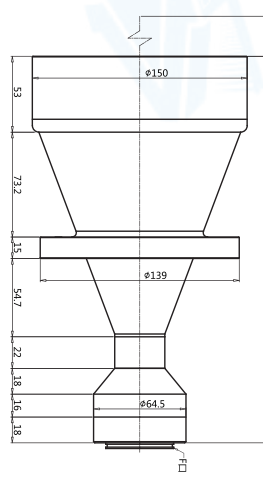
FOV(Φmm)	77
Mag.(x)	0.3
WD(mm)	210
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>150
DoF(mm)	15.8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	210.9
Mount	F / M58
Weight(kg)	1.9
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	61.3x45.7
4/3"KEYENCE21M(17.8x14.3)	59.3x47.7
4/3"PYTHON12K(18.4x13.8)	61.3x46

BTL-0.27X-190-H2(LM)



FOV(Φmm)	85
Mag.(x)	0.27
WD(mm)	190
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>150
DoF(mm)	17.3
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	246.5
Mount	F / M58
Weight(kg)	2.2
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	68.1x50.7
4/3"KEYENCE21M(17.8x14.3)	65.9x53
4/3"PYTHON12K(18.4x13.8)	68.1x51.1

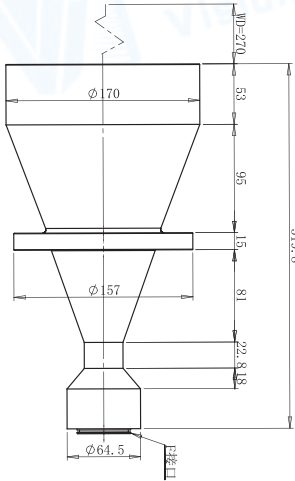
BTL-0.242X-280-H2(LM)



FOV(Φmm)	95
Mag.(x)	0.242
WD(mm)	280
Max Sensor Size(Φmm)	23(4/3")
F/#	F11
MTF>0.3(lp/mm)	>150
DoF(mm)	23.8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	269.9
Mount	F / M58
Weight(kg)	3.84
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	76x56.6
4/3"KEYENCE21M(17.8x14.3)	73.5x59.1
4/3"PYTHON12K(18.4x13.8)	76x57

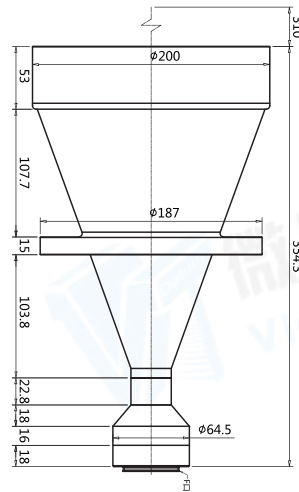
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.198X-270-H2(LM)



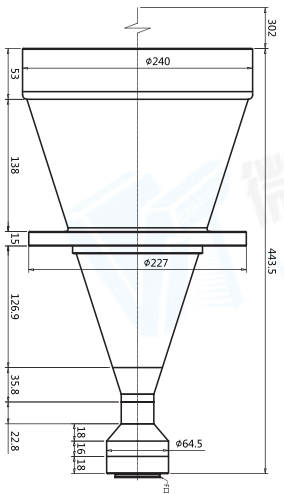
FOV(Φmm)	116
Mag.(x)	0.198
WD(mm)	270
Max Sensor Size(Φmm)	23(4/3")
F/#	F16
MTF>0.3(lp/mm)	>150
DoF(mm)	36
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	319.8
Mount	F / M58
Weight(kg)	5.32
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	92.9x69.2
4/3"KEYENCE21M(17.8x14.3)	89.9x72.2
4/3"PYTHON12K(18.4x13.8)	92.9x69.7

BTL-0.159X-310-H2(LM)



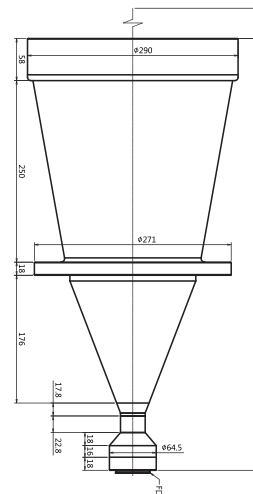
FOV(Φmm)	145
Mag.(x)	0.159
WD(mm)	310
Max Sensor Size(Φmm)	23(4/3")
F/#	F16
MTF>0.3(lp/mm)	>150
DoF(mm)	58
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	354.3
Mount	F / M58
Weight(kg)	6.57
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	115.7x86.2
4/3"KEYENCE21M(17.8x14.3)	111.9x89.9
4/3"PYTHON12K(18.4x13.8)	115.7x86.8

BTL-0.128X-302-H2(LM)



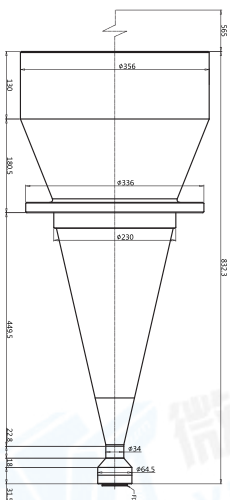
FOV(Φmm)	180
Mag.(x)	0.128
WD(mm)	302
Max Sensor Size(Φmm)	23(4/3")
F/#	F16
MTF>0.3(lp/mm)	>150
DoF(mm)	78
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	443.5
Mount	F / M58
Weight(kg)	10.61
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	143.8x107
4/3"KEYENCE21M(17.8x14.3)	139.1x111.7
4/3"PYTHON12K(18.4x13.8)	143.8x107.8

BTL-0.1X-420-H2(LM)



FOV(Φmm)	230
Mag.(x)	0.1
WD(mm)	420
Max Sensor Size(Φmm)	23(4/3")
F/#	F16
MTF>0.3(lp/mm)	>150
DoF(mm)	110
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	594.6
Mount	F / M58
Weight(kg)	-
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	184x137
4/3"KEYENCE21M(17.8x14.3)	178x143
4/3"PYTHON12K(18.4x13.8)	184x138

BTL-0.06X-383-H2(LM)



FOV(Φmm)	383
Mag.(x)	0.06
WD(mm)	565
Max Sensor Size(Φmm)	23(4/3")
F/#	F16
MTF>0.3(lp/mm)	>150
DoF(mm)	160
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	832.3
Mount	F / M58
Weight(kg)	-
Field of View(mmxmm)	
4/3"CMV8000(18.4x13.7)	306.7x228.3
4/3"KEYENCE21M(17.8x14.3)	296.7x238.3
4/3"PYTHON12K(18.4x13.8)	306.7x230



Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-175 SERIES

1.75"

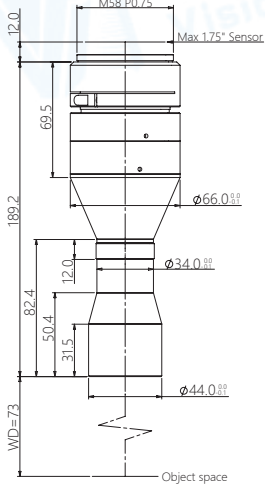


Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-1.115XH-73-175(LM)	26	1.115	73±1	29(1.75")	15	>50	±0.6@F20	<0.1	<0.1	274±1	189.2	M42/M58	0.8
BTL-0.806XH-110-175(LM)	36	0.806	110±2	29(1.75")	13.5	>60	±1.2@F20	<0.1	<0.1	331±2	209.3	M42/M58	1.0
BTL-0.69XH-118-175(LM)	42	0.69	118±3	29(1.75")	11.4	>70	±1.6@F20	<0.1	<0.1	325±3	194.8	M42/M58	0.9
BTL-0.604XH-128-175(LM)	48	0.604	128±3	29(1.75")	11.3	>70	±2.2@F20	<0.1	<0.1	348±3	208.3	M42/M58	1.0
BTL-0.604X-138-175(LM)	48	0.604	138±3	29(1.75")	17.1	>50	±2.2@F20	<0.1	<0.1	343±3	158.8	F / Other	0.9
BTL-0.518XH-138-175(LM)	56	0.518	138±3	29(1.75")	9.7	>85	±3.0@F20	<0.1	<0.1	381±3	230.8	M42/M58	1.2
BTL-0.453X-158-175(LM)	64	0.453	158±3	29(1.75")	8.5	>100	±3.1@F16	<0.1	<0.1	413±3	243.3	M42/M58	1.3
BTL-0.403XH-178-175(LM)	72	0.403	178±3	29(1.75")	8.5	>105	±3.9@F16	<0.1	<0.1	453±3	263.3	M42/M58	1.6
BTL-0.363XH-228-175(LM)	80	0.363	228±4	29(1.75")	6.8	>139	±4.9@F16	<0.1	<0.1	493±4	253.3	M42/M58	2.4
BTL-0.322XH-208-175(LM)	90	0.322	208±3	29(1.75")	8.5	>100	±6.1@F16	<0.1	<0.1	508±3	288.3	M42/M58	2.2
BTL-0.29XH-258-175(LM)	100	0.29	258±4	29(1.75")	6.8	>135	±7.6@F16	<0.1	<0.1	582±4	311.6	M42/M58	3.6
BTL-0.264X-263-175(LM)	110	0.264	263±4	29(1.75")	6.8	>120	±9.2@F16	<0.1	<0.1	616±4	340.9	M42/M58	3.2
BTL-0.242X-273-175(LM)	120	0.242	273±5	29(1.75")	6.8	>130	±11.0@F16	<0.1	<0.1	638±5	352.6	M42/M58	4.7
BTL-0.213X-288-175(LM)	136	0.213	288±5	29(1.75")	6.8	>125	±14.1@F16	<0.1	<0.1	726±5	425.8	M42/M58	4.7
BTL-0.193XH-300-175(LM)	150	0.193	300±5	29(1.75")	9.7	>90	±21.5@F20	<0.1	<0.1	707±5	395.2	M42/M58	6.2
BTL-0.171X-318-175(LM)	170	0.171	318±5	29(1.75")	6.8	>125	±21.9@F16	<0.1	<0.1	787±5	457.2	M42/M58	7.0
BTL-0.153XH-330-175(LM)	190	0.153	330±5	29(1.75")	6.8	>135	±27.3@F16	<0.1	<0.1	827±5	484.5	M42/M58	10.1
BTL-0.134X-372-175(LM)	216	0.134	372±5	29(1.75")	6.8	>125	±35.6@F16	<0.1	<0.1	964±5	579.9	M42/M58	14.3
BTL-0.121XH-410-175(LM)	240	0.121	410±6	29(1.75")	6.8	>125	±43.7@F16	<0.1	<0.1	1048±6	625.8	M42/M58	19.6
BTL-0.112X-338-175(LM)	258	0.112	338±5	29(1.75")	6.8	>130	±50.7@F16	<0.1	<0.1	853±5	501.2	M42/M58	-
BTL-0.097XH-465-175(LM)	300	0.097	465±6	29(1.75")	8.5	>105	±68@F16	<0.1	<0.1	1181±6	704.3	M42/M58	47.1

1. The back focal length of model with (LM) is adjustable.

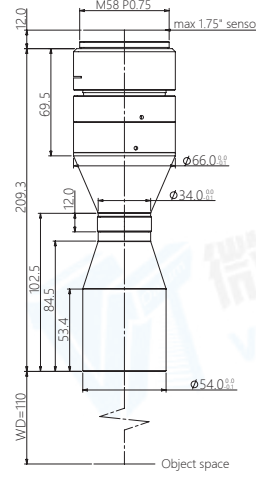
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±7.63@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-1.115XH-73-175(LM)



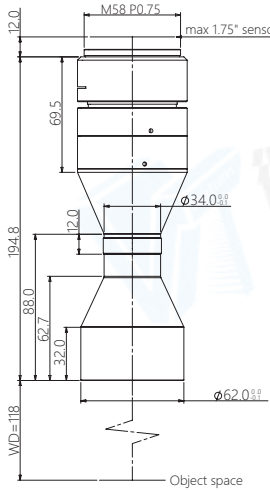
FOV(Φmm)	26
Mag.(x)	1.115
WD(mm)	73±1
Max Sensor Size(Φmm)	29(1.75")
F/#	15.0
MTF30(lp/mm)	>50
DoF(mm)	±0.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	274±1
Length(mm)	189.2
Mount	M42/M58
Weight(kg)	0.8
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	20.2x15.2
1.75"PYTHON16k(18.43x18.43)	16.5x16.5
1.75"LineScan-2k/4k/8k(28.8)	25.8

BTL-0.806XH-110-175(LM)



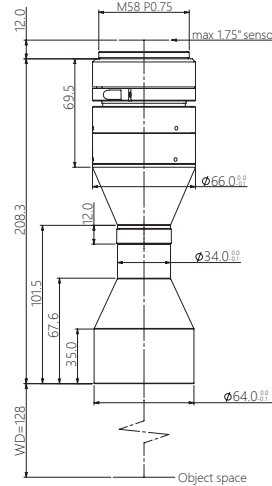
FOV(Φmm)	36
Mag.(x)	0.806
WD(mm)	110±2
Max Sensor Size(Φmm)	29(1.75")
F/#	13.5
MTF30(lp/mm)	>60
DoF(mm)	±1.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	331±2
Length(mm)	209.3
Mount	M42/M58
Weight(kg)	1.0
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	28.0x21.0
1.75"PYTHON16k(18.43x18.43)	22.9x22.9
1.75"LineScan-2k/4k/8k(28.8)	35.7

BTL-0.69XH-118-175(LM)



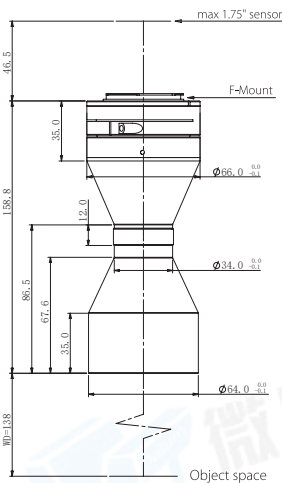
FOV(Φmm)	42
Mag.(x)	0.690
WD(mm)	118±3
Max Sensor Size(Φmm)	29(1.75")
F/#	11.4
MTF30(lp/mm)	>70
DoF(mm)	±1.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	325±3
Length(mm)	194.8
Mount	M42/M58
Weight(kg)	0.9
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	32.7x24.5
1.75"PYTHON16k(18.43x18.43)	26.7x26.7
1.75"LineScan-2k/4k/8k(28.8)	41.7

BTL-0.604XH-128-175(LM)



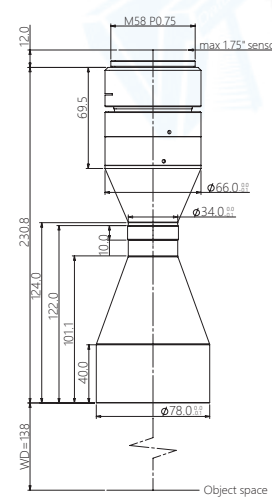
FOV(Φmm)	48
Mag.(x)	0.604
WD(mm)	128±3
Max Sensor Size(Φmm)	29(1.75")
F/#	11.3
MTF30(lp/mm)	>70
DoF(mm)	±2.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	348±3
Length(mm)	208.3
Mount	M42/M58
Weight(kg)	1.0
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	37.3x28.0
1.75"PYTHON16k(18.43x18.43)	30.5x30.5
1.75"LineScan-2k/4k/8k(28.8)	47.7

BTL-0.604X-138-175(LM)



FOV(Φmm)	48
Mag.(x)	0.604
WD(mm)	138±3
Max Sensor Size(Φmm)	29(1.75")
F/#	17.1
MTF30(lp/mm)	>50
DoF(mm)	±2.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	343±3
Length(mm)	158.8
Mount	F / Other
Weight(kg)	0.9
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	37.3x28.0
1.75"PYTHON16k(18.43x18.43)	30.5x30.5
1.75"LineScan-2k/4k/8k(28.8)	47.7

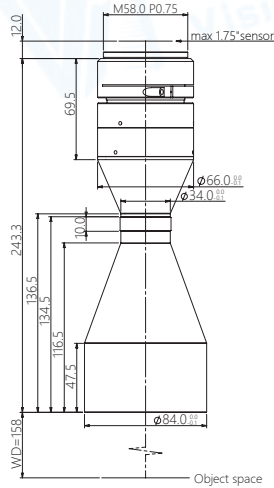
BTL-0.518XH-138-175(LM)



FOV(Φmm)	56
Mag.(x)	0.518
WD(mm)	138±3
Max Sensor Size(Φmm)	29(1.75")
F/#	9.7
MTF30(lp/mm)	>85
DoF(mm)	±3.0@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	381±3
Length(mm)	230.8
Mount	M42/M58
Weight(kg)	1.2
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	43.5x32.6
1.75"PYTHON16k(18.43x18.43)	35.6x35.6
1.75"LineScan-2k/4k/8k(28.8)	55.6

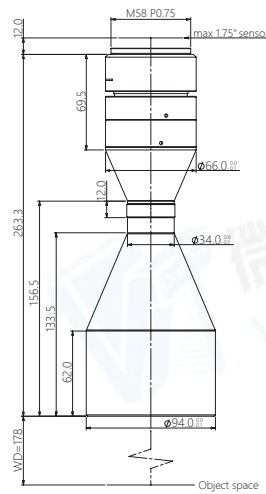
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.453X-158-175(LM)



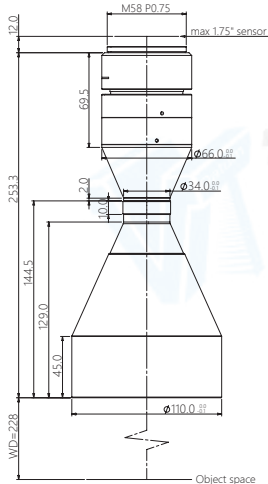
FOV(Φmm)	64
Mag.(x)	0.453
WD(mm)	158±3
Max Sensor Size(Φmm)	29(1.75")
F/#	8.5
MTF30(lp/mm)	>100
DoF(mm)	±3.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	413±3
Length(mm)	243.3
Mount	M42/M58
Weight(kg)	1.3
Field of View(mmxmm)	
1.75"CMV12000(22.53x16.90)	49.7x37.3
1.75"PYTHON16k(18.43x18.43)	40.7x40.7
1.75"LineScan-2k/4k/8k(28.8)	63.6

BTL-0.403XH-178-175(LM)



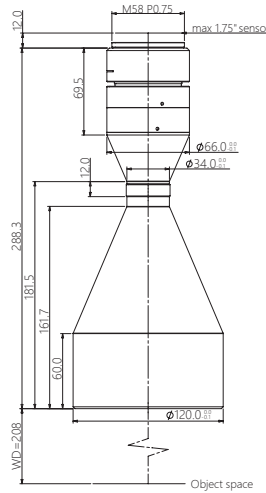
FOV(Φmm)	72
Mag.(x)	0.403
WD(mm)	178±3
Max Sensor Size(Φmm)	29(1.75")
F/#	8.5
MTF30(lp/mm)	>105
DoF(mm)	±3.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	453±3
Length(mm)	263.3
Mount	M42/M58
Weight(kg)	1.6
Field of View(mmxmm)	
1.75"CMV12000(22.53x16.90)	55.9x41.9
1.75"PYTHON16k(18.43x18.43)	45.7x45.7
1.75"LineScan-2k/4k/8k(28.8)	71.5

BTL-0.363XH-228-175(LM)



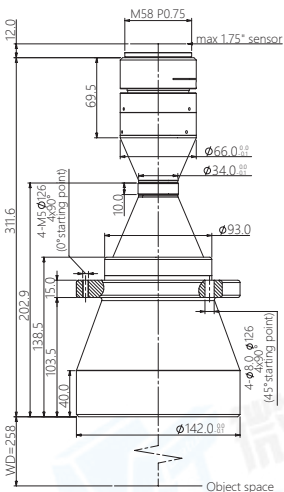
FOV(Φmm)	80
Mag.(x)	0.363
WD(mm)	228±4
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>130
DoF(mm)	±4.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	493±4
Length(mm)	253.3
Mount	M42/M58
Weight(kg)	2.4
Field of View(mmxmm)	
1.75"CMV12000(22.53x16.90)	62.1x46.6
1.75"PYTHON16k(18.43x18.43)	50.8x50.8
1.75"LineScan-2k/4k/8k(28.8)	79.3

BTL-0.322XH-208-175(LM)



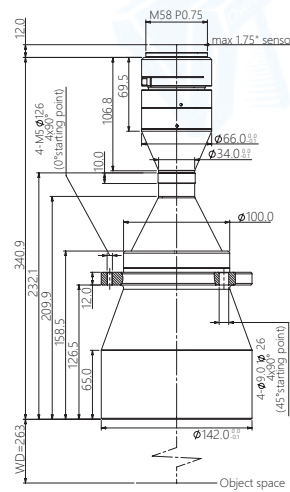
FOV(Φmm)	90
Mag.(x)	0.322
WD(mm)	208±3
Max Sensor Size(Φmm)	29(1.75")
F/#	8.5
MTF30(lp/mm)	>100
DoF(mm)	±6.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	508±3
Length(mm)	288.3
Mount	M42/M58
Weight(kg)	2.2
Field of View(mmxmm)	
1.75"CMV12000(22.53x16.90)	70.0x52.5
1.75"PYTHON16k(18.43x18.43)	57.2x57.2
1.75"LineScan-2k/4k/8k(28.8)	89.4

BTL-0.29XH-258-175(LM)



FOV(Φmm)	100
Mag.(x)	0.290
WD(mm)	258±4
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>135
DoF(mm)	±7.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	582±4
Length(mm)	311.6
Mount	M42/M58
Weight(kg)	3.6
Field of View(mmxmm)	
1.75"CMV12000(22.53x16.90)	77.7x58.3
1.75"PYTHON16k(18.43x18.43)	63.6x63.6
1.75"LineScan-2k/4k/8k(28.8)	99.3

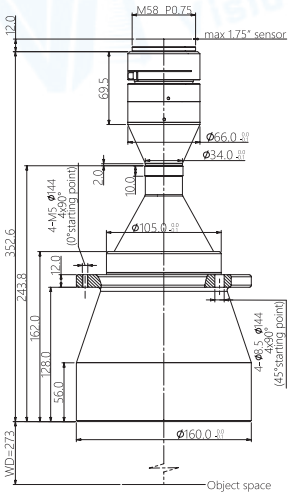
BTL-0.264X-263-175(LM)



FOV(Φmm)	110
Mag.(x)	0.264
WD(mm)	263±4
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>100
DoF(mm)	±9.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	616±4
Length(mm)	340.9
Mount	M42/M58
Weight(kg)	3.2
Field of View(mmxmm)	
1.75"CMV12000(22.53x16.90)	85.3x64.0
1.75"PYTHON16k(18.43x18.43)	69.8x69.8
1.75"LineScan-2k/4k/8k(28.8)	109.1

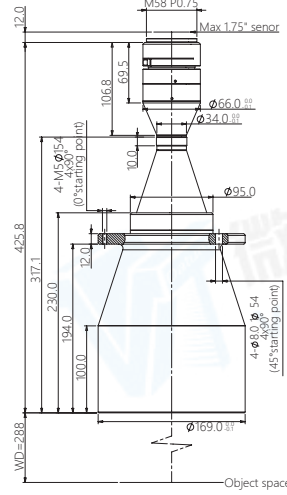
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.242XH-273-175(LM)



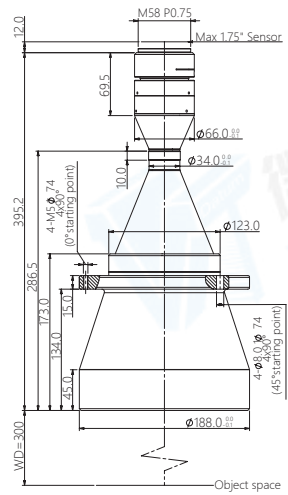
FOV(Φmm)	120
Mag.(x)	0.242
WD(mm)	273±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>130
DoF(mm)	±11.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	638±5
Length(mm)	352.6
Mount	M42/M58
Weight(kg)	4.7
Field of View(mmxxmm)	
1.75"CMV12000(22.53x16.90)	93.1x69.8
1.75"PYTHON16k(18.43x18.43)	76.2x76.2
1.75"LineScan-2k/4k/8k(28.8)	119.0

BTL-0.213X-288-175(LM)



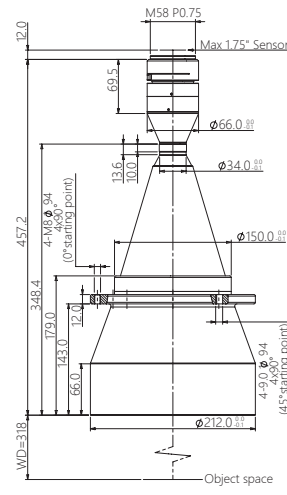
FOV(Φmm)	136
Mag.(x)	0.213
WD(mm)	288±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>125
DoF(mm)	±14.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	726±5
Length(mm)	425.8
Mount	M42/M58
Weight(kg)	4.7
Field of View(mmxxmm)	
1.75"CMV12000(22.53x16.90)	105.8x79.3
1.75"PYTHON16k(18.43x18.43)	86.5x86.5
1.75"LineScan-2k/4k/8k(28.8)	135.2

BTL-0.193XH-300-175(LM)



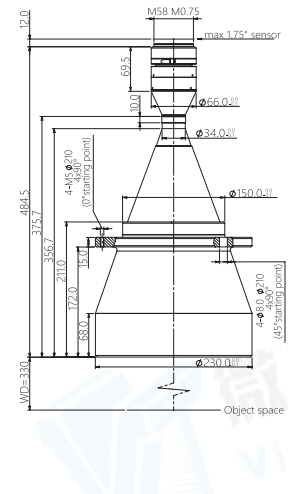
FOV(Φmm)	150
Mag.(x)	0.193
WD(mm)	300±5
Max Sensor Size(Φmm)	29(1.75")
F/#	9.7
MTF30(lp/mm)	>90
DoF(mm)	±21.5@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	707±5
Length(mm)	395.2
Mount	M42/M58
Weight(kg)	6.2
Field of View(mmxxmm)	
1.75"CMV12000(22.53x16.90)	116.7x87.6
1.75"PYTHON16k(18.43x18.43)	95.5x95.5
1.75"LineScan-2k/4k/8k(28.8)	149.2

BTL-0.171X-318-175(LM)



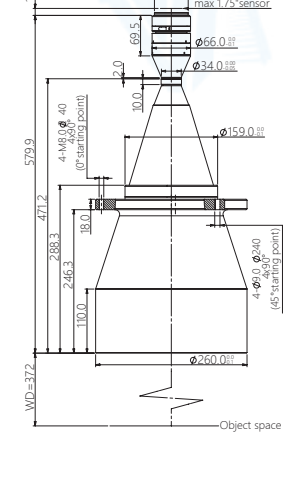
FOV(Φmm)	170
Mag.(x)	0.171
WD(mm)	318±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>125
DoF(mm)	±21.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	787±5
Length(mm)	457.2
Mount	M42/M58
Weight(kg)	7.0
Field of View(mmxxmm)	
1.75"CMV12000(22.53x16.90)	131.8x98.8
1.75"PYTHON16k(18.43x18.43)	107.8x107.8
1.75"LineScan-2k/4k/8k(28.8)	168.4

BTL-0.153XH-330-175(LM)



FOV(Φmm)	190
Mag.(x)	0.153
WD(mm)	330±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>135
DoF(mm)	±27.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	827±5
Length(mm)	484.5
Mount	M42/M48/M58
Weight(kg)	10.1
Field of View(mmxxmm)	
1.75"CMV12000(22.53x16.90)	147.3x110.5
1.75"PYTHON16k(18.43x18.43)	120.5x120.5
1.75"LineScan-2k/4k/8k(28.8)	188.2

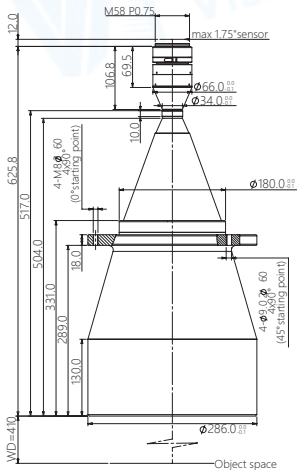
BTL-0.134X-372-175(LM)



FOV(Φmm)	216
Mag.(x)	0.134
WD(mm)	372±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>125
DoF(mm)	±35.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	964±5
Length(mm)	579.9
Mount	M42/M58
Weight(kg)	14.3
Field of View(mmxxmm)	
1.75"CMV12000(22.53x16.90)	168.1x126.1
1.75"PYTHON16k(18.43x18.43)	137.5x137.5
1.75"LineScan-2k/4k/8k(28.8)	214.9

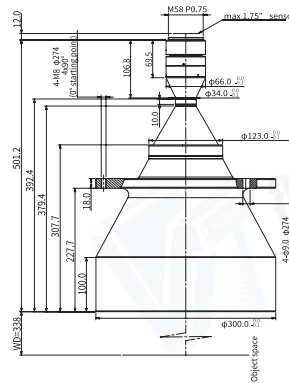
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.121XH-410-175(LM)



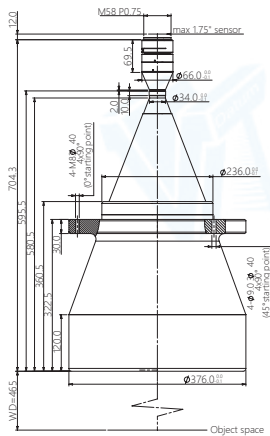
FOV(Φmm)	240
Mag.(x)	0.121
WD(mm)	410±6
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>125
DoF(mm)	±43.7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1048±6
Length(mm)	625.8
Mount	M42/M58
Weight(kg)	19.6
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	186.2x139.7
1.75"PYTHON16k(18.43x18.43)	152.3x152.3
1.75"LineScan-2k/4k/8k(28.8)	238.0

BTL-0.112X-338-175(LM)



FOV(Φmm)	258
Mag.(x)	0.112
WD(mm)	338±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>130
DoF(mm)	±50.7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	853±5
Length(mm)	501.2
Mount	M42/M58
Weight(kg)	-
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	201.2x150.9
1.75"PYTHON16k(18.43x18.43)	164.6x164.6
1.75"LineScan-2k/4k/8k(28.8)	257.1

BTL-0.097XH-465-175(LM)



FOV(Φmm)	300
Mag.(x)	0.097
WD(mm)	465±6
Max Sensor Size(Φmm)	29(1.75")
F/#	8.5
MTF30(lp/mm)	>105
DoF(mm)	±68@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1181±6
Length(mm)	704.3
Mount	M42/M58
Weight(kg)	47.1
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	232.3x174.2
1.75"PYTHON16k(18.43x18.43)	190.0x190.0
1.75"LineScan-2k/4k/8k(28.8)	296.9



BTL-21 SERIES

2"



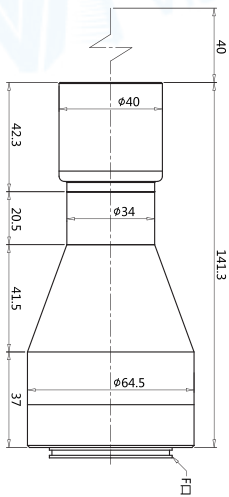
Model No.	Optical specs									Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF>0.3 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount	Weight (kg)
BTL-1.6X-40-21(LM)	20	1.60	40	32(2")	15	75	0.3	<0.1	<0.1	141.3	F / M58	0.74
BTL-1.2X-83-21(LM)	27	1.20	83	32(2")	15	75	0.5	<0.1	<0.1	169.4	F / M58	0.8
BTL-1.1X-55-21(LM)	29	1.10	55	32(2")	15	75	0.6	<0.1	<0.1	162.1	F / M58	0.76
BTL-0.9X-118-21(LM)	36	0.90	118	32(2")	15	75	0.7	<0.1	<0.1	192.5	F / M58	0.86
BTL-0.77X-130-21(LM)	42	0.77	130	32(2")	15	75	0.9	<0.1	<0.1	177.9	F / M58	0.82
BTL-0.678X-135-21(LM)	47	0.678	135	32(2")	15	75	1.3	<0.1	<0.1	191	F / M58	1
BTL-0.59X-155-21(LM)	54	0.59	155	32(2")	15	75	2.8	<0.1	<0.1	210.9	F / M58	0.97
BTL-0.5X-191-21(LM)	64	0.50	191	32(2")	15	75	3.3	<0.1	<0.1	202.5	F / M58	1.42
BTL-0.451X-200-21(LM)	71	0.451	200	32(2")	15	75	3.7	<0.1	<0.1	245.5	F / M58	1.29
BTL-0.4X-222-21(LM)	80	0.40	222	32(2")	16	75	5	<0.1	<0.1	236.4	F / M58	1.87
BTL-0.365X-212-21(LM)	88	0.365	212	32(2")	16	75	5.5	<0.1	<0.1	271.5	F / M58	2.1
BTL-0.328X-291-21(LM)	98	0.328	291	32(2")	16	75	8.1	<0.1	<0.1	294.9	F / M58	3.94
BTL-0.28X-280-21(LM)	114	0.28	280	32(2")	16	75	11.5	<0.1	<0.1	343	F / M58	5.42
BTL-0.223X-325-21(LM)	143	0.223	325	32(2")	16	75	15	<0.1	<0.1	378.5	F / M58	6.79
BTL-0.17X-310-21(LM)	188	0.17	310	32(2")	16	75	19	<0.1	<0.1	467.7	F / M58	10.96
BTL-0.14X-430-21(LM)	288	0.14	430	32(2")	16	75	29	<0.1	<0.1	618.8	F / M58	-
BTL-0.08X-560-21(LM)	400	0.08	560	32(2")	16	75	89	<0.1	<0.1	859	F / M58	-

1. The back focal length of model with (LM) is adjustable.

2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

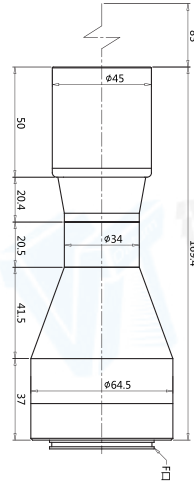


BTL-1.6X-40-21(LM)



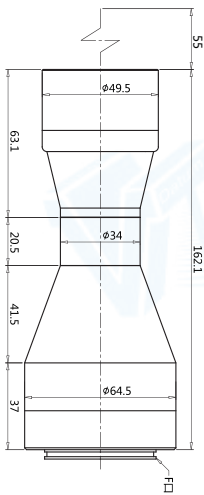
FOV(Φmm)	20
Mag.(x)	1.6
WD(mm)	40
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	0.3
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	141.3
Mount	F / M58
Weight(kg)	0.74
Field of View(mm xmm)	
4/3"(18.1x13.6)	11.3x8.5
2"(23.04x23.04)	14.4x14.4
2"(24.58x18.43)	15.4x11.5

BTL-1.2X-83-21(LM)



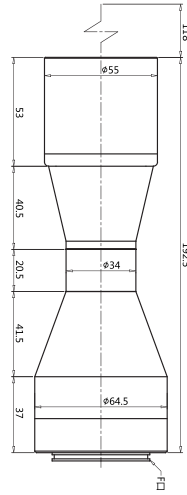
FOV(Φmm)	27
Mag.(x)	1.2
WD(mm)	83
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	0.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	169.4
Mount	F / M58
Weight(kg)	0.8
Field of View(mm xmm)	
4/3"(18.1x13.6)	15.1x11.3
2"(23.04x23.04)	19.2x19.2
2"(24.58x18.43)	20.5x15.4

BTL-1.1X-55-21(LM)



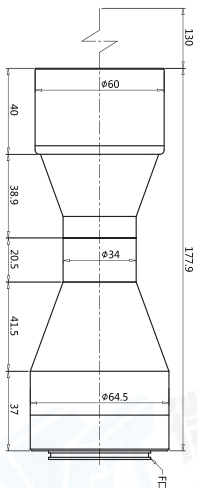
FOV(Φmm)	29
Mag.(x)	1.1
WD(mm)	55
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	0.6
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	162.1
Mount	F / M58
Weight(kg)	0.76
Field of View(mm xmm)	
4/3"(18.1x13.6)	16.5x12.4
2"(23.04x23.04)	20.9x20.9
2"(24.58x18.43)	22.3x16.8

BTL-0.9X-118-21(LM)



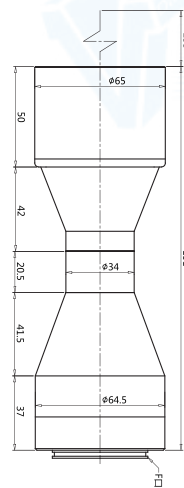
FOV(Φmm)	36
Mag.(x)	0.9
WD(mm)	118
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	0.7
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	192.5
Mount	F / M58
Weight(kg)	0.86
Field of View(mm xmm)	
4/3"(18.1x13.6)	20.1x15.1
2"(23.04x23.04)	25.6x25.6
2"(24.58x18.43)	27.3x20.5

BTL-0.77X-130-21(LM)



FOV(Φmm)	42
Mag.(x)	0.77
WD(mm)	130
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	0.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	177.9
Mount	F / M58
Weight(kg)	0.82
Field of View(mm xmm)	
4/3"(18.1x13.6)	23.5x17.7
2"(23.04x23.04)	29.9x29.9
2"(24.58x18.43)	31.9x23.9

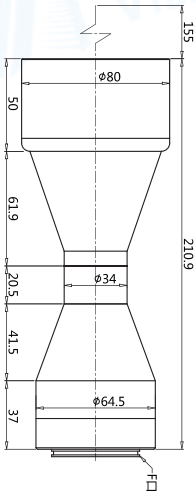
BTL-0.678X-135-21(LM)



FOV(Φmm)	47
Mag.(x)	0.678
WD(mm)	135
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	1.3
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	191
Mount	F / M58
Weight(kg)	1.0
Field of View(mm xmm)	
4/3"(18.1x13.6)	26.7x20.1
2"(23.04x23.04)	34x34
2"(24.58x18.43)	36.3x27.2

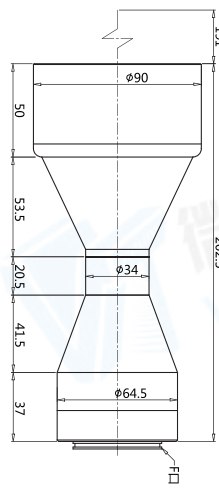
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.59X-155-21(LM)



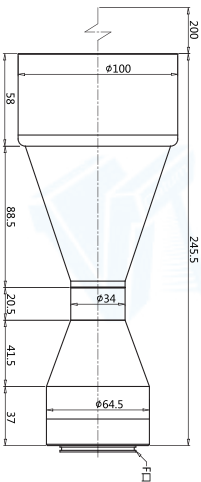
FOV(Φmm)	54
Mag.(x)	0.59
WD(mm)	155
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	2.8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	279.0
Mount	F / M58
Weight(kg)	0.97
Field of View(mm xmm)	
4/3"(18.1x13.6)	30.7x23.1
2"(23.04x23.04)	39.1x39.1
2"(24.58x18.43)	41.7x31.2

BTL-0.5X-191-21(LM)



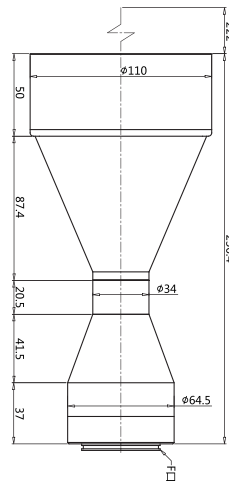
FOV(Φmm)	64
Mag.(x)	0.5
WD(mm)	191
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	3.3
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	202.5
Mount	F / M58
Weight(kg)	1.42
Field of View(mm xmm)	
4/3"(18.1x13.6)	30.7x23.1
2"(23.04x23.04)	39.1x39.1
2"(24.58x18.43)	41.7x31.2

BTL-0.451X-200-21(LM)



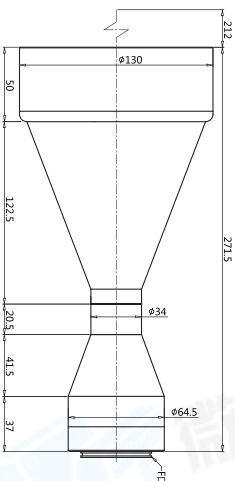
FOV(Φmm)	71
Mag.(x)	0.451
WD(mm)	200
Max Sensor Size(Φmm)	32(2")
F/#	F15
MTF>0.3(lp/mm)	75
DoF(mm)	3.7
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	245.5
Mount	F / M58
Weight(kg)	1.29
Field of View(mm xmm)	
4/3"(18.1x13.6)	40.1x30.2
2"(23.04x23.04)	51.1x51.1
2"(24.58x18.43)	54.5x40.9

BTL-0.4X-222-21(LM)



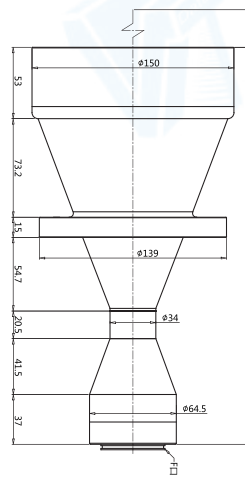
FOV(Φmm)	80
Mag.(x)	0.40
WD(mm)	222
Max Sensor Size(Φmm)	32(2")
F/#	F16
MTF>0.3(lp/mm)	75
DoF(mm)	5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	236.4
Mount	F / M58
Weight(kg)	1.87
Field of View(mm xmm)	
4/3"(18.1x13.6)	45.3x34
2"(23.04x23.04)	57.6x57.6
2"(24.58x18.43)	61.5x46.1

BTL-0.365X-212-21(LM)



FOV(Φmm)	88
Mag.(x)	0.365
WD(mm)	212
Max Sensor Size(Φmm)	32(2")
F/#	F16
MTF>0.3(lp/mm)	75
DoF(mm)	5.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	271.5
Mount	F / M58
Weight(kg)	2.1
Field of View(mm xmm)	
4/3"(18.1x13.6)	49.6x37.3
2"(23.04x23.04)	63.1x63.1
2"(24.58x18.43)	67.3x50.5

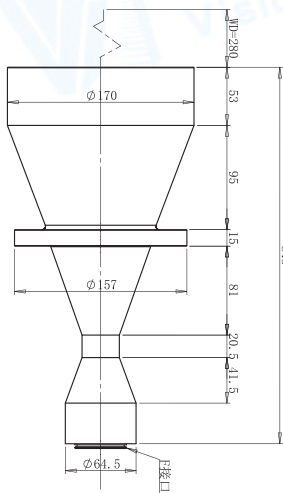
BTL-0.328X-291-21(LM)



FOV(Φmm)	98
Mag.(x)	0.328
WD(mm)	291
Max Sensor Size(Φmm)	32(2")
F/#	F16
MTF>0.3(lp/mm)	75
DoF(mm)	8.1
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	294.9
Mount	F / M58
Weight(kg)	3.94
Field of View(mm xmm)	
4/3"(18.1x13.6)	55.2x41.5
2"(23.04x23.04)	70.2x70.2
2"(24.58x18.43)	74.9x56.2

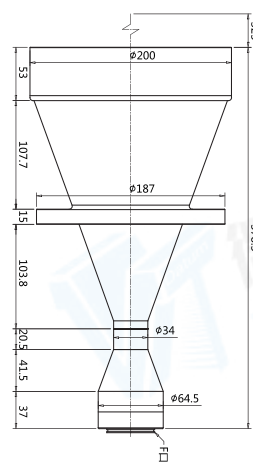
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.28X-280-21(LM)



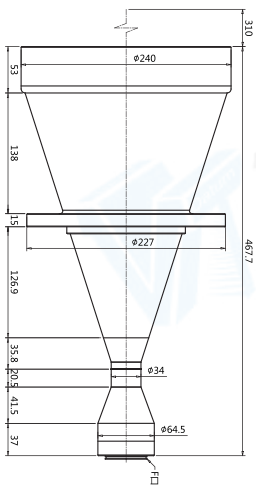
FOV(Φmm)	114
Mag.(x)	0.28
WD(mm)	280
Max Sensor Size(Φmm)	32(2")
F/#	F16
MTF>0.3(lp/mm)	75
DoF(mm)	11.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	343
Mount	F / M58
Weight(kg)	5.42
Field of View(mm xmm)	
4/3"(18.1x13.6)	64.6x48.6
2"(23.04x23.04)	82.3x82.3
2"(24.58x18.43)	87.8x65.8

BTL-0.223X-325-21(LM)



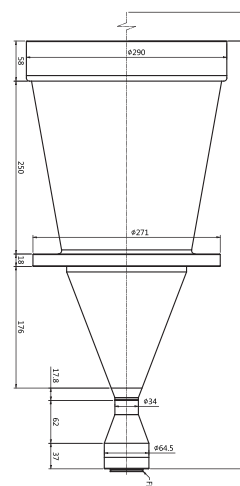
FOV(Φmm)	143
Mag.(x)	0.223
WD(mm)	325
Max Sensor Size(Φmm)	32(2")
F/#	F16
MTF>0.3(lp/mm)	75
DoF(mm)	15
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	378.5
Mount	F / M58
Weight(kg)	6.79
Field of View(mm xmm)	
4/3"(18.1x13.6)	81.2x61
2"(23.04x23.04)	103.3x103.3
2"(24.58x18.43)	110.2x82.6

BTL-0.17X-310-21(LM)



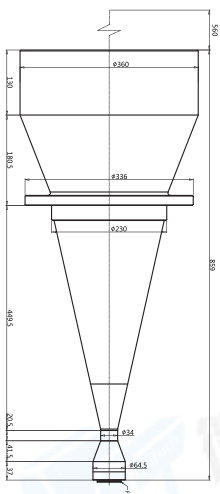
FOV(Φmm)	188
Mag.(x)	0.17
WD(mm)	310
Max Sensor Size(Φmm)	32(2")
F/#	F16
MTF>0.3(lp/mm)	75
DoF(mm)	19
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	457.7
Mount	F / M58
Weight(kg)	10.96
Field of View(mm xmm)	
4/3"(18.1x13.6)	106.5x80
2"(23.04x23.04)	135.5x135.5
2"(24.58x18.43)	144.6x108.4

BTL-0.14X-430-21(LM)



FOV(Φmm)	288
Mag.(x)	0.14
WD(mm)	430
Max Sensor Size(Φmm)	32(2")
F/#	F16
MTF>0.3(lp/mm)	75
DoF(mm)	29
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	618.8
Mount	F / M58
Weight(kg)	-
Field of View(mm xmm)	
4/3"(18.1x13.6)	129.3x97.1
2"(23.04x23.04)	164.6x164.6
2"(24.58x18.43)	175.6x131.6

BTL-0.08X-560-21(LM)



FOV(Φmm)	400
Mag.(x)	0.08
WD(mm)	560
Max Sensor Size(Φmm)	32(2")
F/#	F16
MTF>0.3(lp/mm)	75
DoF(mm)	89
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	859
Mount	F / M58
Weight(kg)	-
Field of View(mm xmm)	
4/3"(18.1x13.6)	226.3x170
2"(23.04x23.04)	288x288
2"(24.58x18.43)	307.3x230.4



Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-71M SERIES

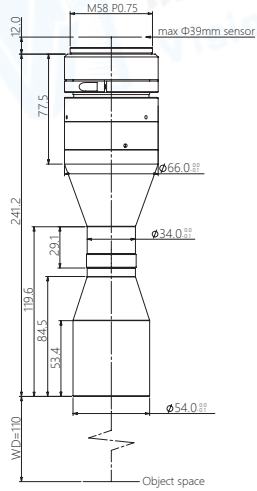
39mm



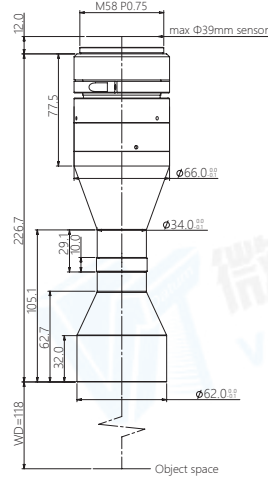
Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-1.083XH-110-71M(LM)	36	1.083	110±2	39	18.3	>43	±0.65@F20	<0.1	<0.1	363±2	241.2	M58	1.1
BTL-0.929XH-118-71M(LM)	42	0.929	118±3	39	15.3	>55	±0.9@F20	<0.1	<0.1	357±3	226.7	M58	1.0
BTL-0.813XH-128-71M(LM)	48	0.813	128±3	39	15.3	>50	±1.2@F20	<0.1	<0.1	380±3	240.2	M58	1.1
BTL-0.813X-138-71M(LM)	48	0.813	138±3	39	22.9	>35	±1.3@F22.9	<0.1	<0.1	375±3	190.7	F / Other	0.8
BTL-0.696XH-138-71M(LM)	56	0.696	138±3	39	13.1	>65	±1.6@F20	<0.1	<0.1	413±3	262.7	M58	1.3
BTL-0.609XH-158-71M(LM)	64	0.609	158±3	39	11.5	>70	±2.4@F22	<0.1	<0.1	445±3	275.2	M58	1.4
BTL-0.542XH-178-71M(LM)	72	0.542	178±3	39	11.5	>75	±2.7@F20	<0.1	<0.1	485±3	295.2	M58	1.7
BTL-0.488XH-228-71M(LM)	80	0.488	228±4	39	6.6	>130	±2.7@F16	<0.1	<0.1	525±4	285.2	M58	2.5
BTL-0.433XH-208-71M(LM)	90	0.433	208±3	39	10.2	>85	±4.2@F20	<0.1	<0.1	540±3	320.2	M58	2.3
BTL-0.39XH-258-71M(LM)	100	0.390	258±4	39	9.2	>100	±4.2@F16	<0.1	<0.1	614±4	343.6	M58	3.7
BTL-0.355X-263-71M(LM)	110	0.355	263±4	39	8.3	>95	±5.1@F16	<0.1	<0.1	648±4	372.8	M58	3.3
BTL-0.325XH-273-71M(LM)	120	0.325	273±5	39	7.6	>115	±6.1@F16	<0.1	<0.1	670±5	384.5	M58	4.8
BTL-0.287X-288-71M(LM)	136	0.287	288±5	39	7.1	>120	±7.8@F16	<0.1	<0.1	758±5	457.8	M58	4.8
BTL-0.26XH-300-71M(LM)	150	0.260	300±5	39	13.1	>65	±11.8@F20	<0.1	<0.1	739±5	427.2	M58	6.3
BTL-0.229X-318-71M(LM)	170	0.229	318±5	39	6.5	>125	±8.4@F11	<0.1	<0.1	819±5	489.1	M58	7.1
BTL-0.205XH-330-71M(LM)	190	0.205	330±5	39	6.5	>135	±10.5@F11	<0.1	<0.1	858±5	516.4	M58	10.2
BTL-0.181X-372-71M(LM)	216	0.181	372±5	39	6.5	>135	±13.4@F11	<0.1	<0.1	996±5	611.9	M58	14.4
BTL-0.163XH-410-71M(LM)	240	0.163	410±6	39	7.5	>130	±24.3@F16	<0.1	<0.1	1080±6	657.7	M58	19.7
BTL-0.151X-338-71M(LM)	258	0.151	338±5	39	6.5	>130	±19.3@F11	<0.1	<0.1	883±5	533.1	M58	-
BTL-0.13XH-465-71M(LM)	300	0.130	465±6	39	6.5	>130	±26@F11	<0.1	<0.1	1213±6	736.2	M58	47.2

1. The back focal length of model with (LM) is adjustable.

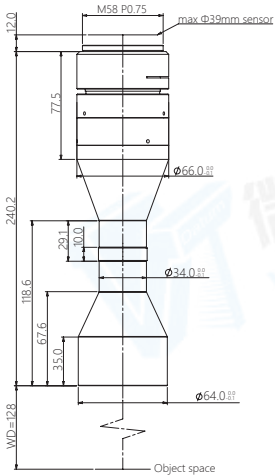
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-1.083XH-110-71M(LM)

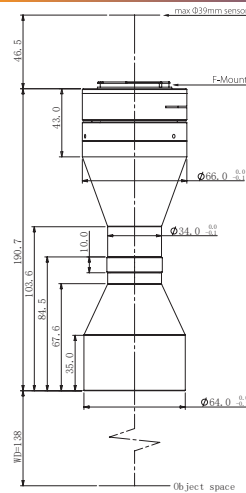
FOV(Φmm)	36
Mag.(x)	1.083
WD(mm)	110±2
Max Sensor Size(Φmm)	39
F/#	18.3
MTF30(lp/mm)	>43
DoF(mm)	±0.65@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	363±2
Length(mm)	241.2
Mount	M58
Weight(kg)	1.1
Field of View(mmxmm)	
CHR70M(31.0x21.7)	28.6x20.0

BTL-0.929XH-118-71M(LM)

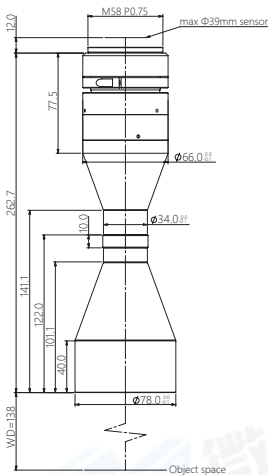
FOV(Φmm)	42
Mag.(x)	0.929
WD(mm)	118±3
Max Sensor Size(Φmm)	39
F/#	15.3
MTF30(lp/mm)	>55
DoF(mm)	±0.9@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	357±3
Length(mm)	226.7
Mount	M58
Weight(kg)	1.0
Field of View(mmxmm)	
CHR70M(31.0x21.7)	33.4x23.4

BTL-0.813XH-128-71M(LM)

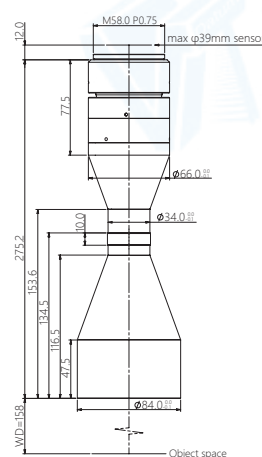
FOV(Φmm)	48
Mag.(x)	0.813
WD(mm)	128±3
Max Sensor Size(Φmm)	39
F/#	15.3
MTF30(lp/mm)	>50
DoF(mm)	±1.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	380±3
Length(mm)	240.2
Mount	M58
Weight(kg)	1.1
Field of View(mmxmm)	
CHR70M(31.0x21.7)	38.1x26.7

BTL-0.813X-138-71M(LM)

FOV(Φmm)	48
Mag.(x)	0.813
WD(mm)	138±3
Max Sensor Size(Φmm)	39
F/#	22.9
MTF30(lp/mm)	>35
DoF(mm)	±1.3@F22.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	375±3
Length(mm)	190.7
Mount	F-Mount/Other
Weight(kg)	0.8
Field of View(mmxmm)	
CHR70M(31.0x21.7)	38.1x26.7

BTL-0.696XH-138-71M(LM)

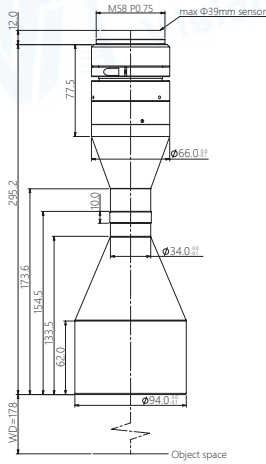
FOV(Φmm)	56
Mag.(x)	0.696
WD(mm)	138±3
Max Sensor Size(Φmm)	39
F/#	13.1
MTF30(lp/mm)	>65
DoF(mm)	±1.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	413±3
Length(mm)	262.7
Mount	M58
Weight(kg)	1.3
Field of View(mmxmm)	
CHR70M(31.0x21.7)	44.5x31.2

BTL-0.609X-158-71M(LM)

FOV(Φmm)	64
Mag.(x)	0.609
WD(mm)	158±3
Max Sensor Size(Φmm)	39
F/#	11.5
MTF30(lp/mm)	>70
DoF(mm)	±2.4@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	445±3
Length(mm)	275.2
Mount	M58
Weight(kg)	1.4
Field of View(mmxmm)	
CHR70M(31.0x21.7)	50.9x35.6

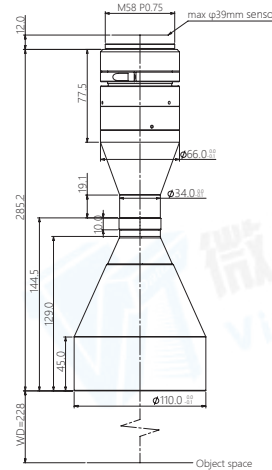
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.542XH-178-71M(LM)



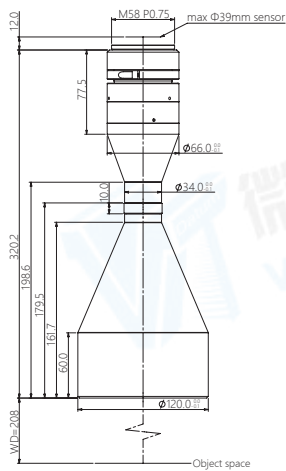
FOV(Φmm)	72
Mag.(x)	0.542
WD(mm)	178±3
Max Sensor Size(Φmm)	39
F/#	11.5
MTF30(lp/mm)	>75
DoF(mm)	±2.7@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	485±3
Length(mm)	295.2
Mount	M58
Weight(kg)	1.7
Field of View(mm×mm)	
CHR70M(31.0x21.7)	57.2x40.0

BTL-0.488XH-228-71M(LM)



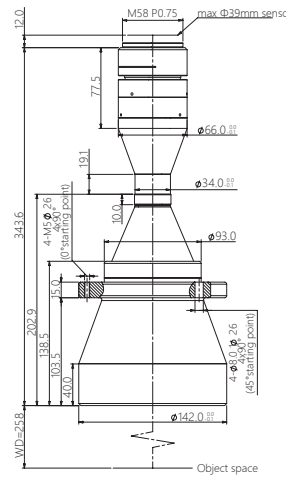
FOV(Φmm)	80
Mag.(x)	0.488
WD(mm)	228±4
Max Sensor Size(Φmm)	39
F/#	6.6
MTF30(lp/mm)	>130
DoF(mm)	±2.7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	525±4
Length(mm)	285.2
Mount	M58
Weight(kg)	2.5
Field of View(mm×mm)	
CHR70M(31.0x21.7)	63.5x44.5

BTL-0.433XH-208-71M(LM)



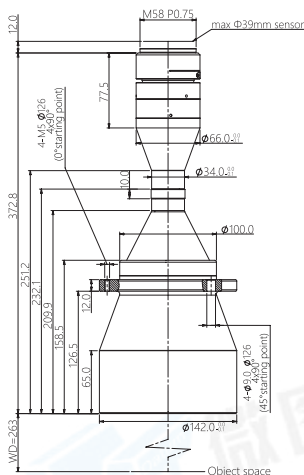
FOV(Φmm)	90
Mag.(x)	0.433
WD(mm)	208±3
Max Sensor Size(Φmm)	39
F/#	10.2
MTF30(lp/mm)	>85
DoF(mm)	±4.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	540±3
Length(mm)	320.2
Mount	M58
Weight(kg)	2.3
Field of View(mm×mm)	
CHR70M(31.0x21.7)	71.6x50.1

BTL-0.39XH-258-71M(LM)



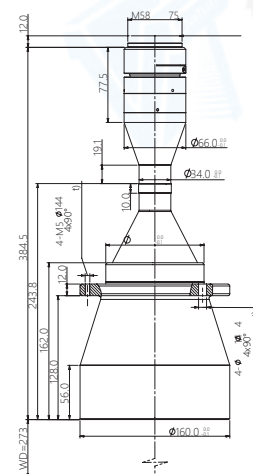
FOV(Φmm)	100
Mag.(x)	0.390
WD(mm)	258±4
Max Sensor Size(Φmm)	39
F/#	9.2
MTF30(lp/mm)	>100
DoF(mm)	±4.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	614±4
Length(mm)	343.6
Mount	M58
Weight(kg)	3.7
Field of View(mm×mm)	
CHR70M(31.0x21.7)	79.5x55.6

BTL-0.355X-263-71M(LM)



FOV(Φmm)	110
Mag.(x)	0.355
WD(mm)	263±4
Max Sensor Size(Φmm)	39
F/#	8.3
MTF30(lp/mm)	>95
DoF(mm)	±5.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	648±4
Length(mm)	372.8
Mount	M58
Weight(kg)	3.3
Field of View(mm×mm)	
CHR70M(31.0x21.7)	87.3x61.1

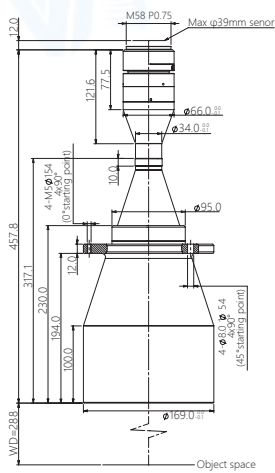
BTL-0.325X-273-71M(LM)



FOV(Φmm)	120
Mag.(x)	0.325
WD(mm)	273±5
Max Sensor Size(Φmm)	39
F/#	7.6
MTF30(lp/mm)	>115
DoF(mm)	±6.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	670±5
Length(mm)	384.5
Mount	M58
Weight(kg)	4.8
Field of View(mm×mm)	
CHR70M(31.0x21.7)	95.4x66.8

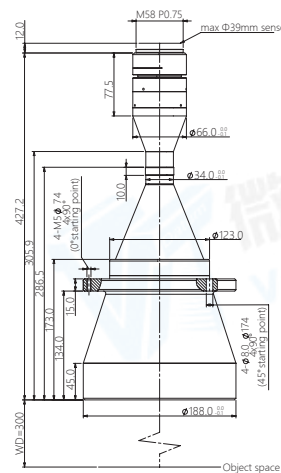
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.287X-288-71M(LM)



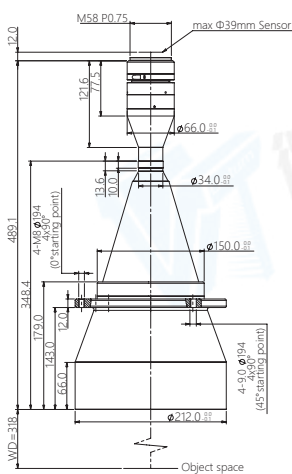
FOV(Φmm)	136
Mag.(x)	0.287
WD(mm)	288±5
Max Sensor Size(Φmm)	39
F/#	7.1
MTF30(lp/mm)	>120
DoF(mm)	±7.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	758±5
Length(mm)	457.8
Mount	M58
Weight(kg)	4.8
Field of View(mm xmm)	
CHR70M(31.0x21.7)	108.0x75.6

BTL-0.26XH-300-71M(LM)



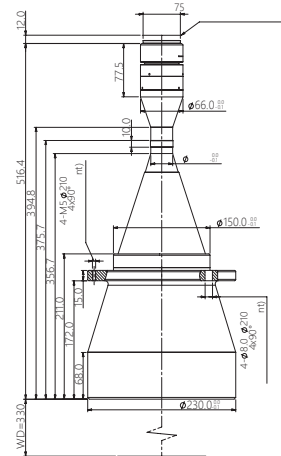
FOV(Φmm)	150
Mag.(x)	0.260
WD(mm)	300±5
Max Sensor Size(Φmm)	39
F/#	13.1
MTF30(lp/mm)	>65
DoF(mm)	±11.8@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	739±5
Length(mm)	427.2
Mount	M58
Weight(kg)	6.3
Field of View(mm xmm)	
CHR70M(31.0x21.7)	119.2x83.5

BTL-0.229X-318-71M(LM)



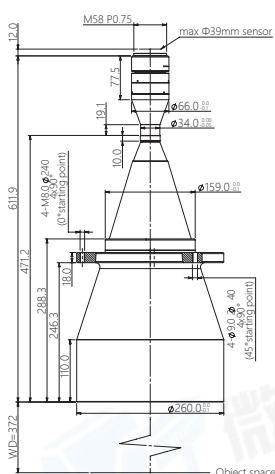
FOV(Φmm)	170
Mag.(x)	0.229
WD(mm)	318±5
Max Sensor Size(Φmm)	39
F/#	6.5
MTF30(lp/mm)	>125
DoF(mm)	±8.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	819±5
Length(mm)	489.1
Mount	M58
Weight(kg)	7.1
Field of View(mm xmm)	
CHR70M(31.0x21.7)	135.4x94.8

BTL-0.205XH-330-71M(LM)



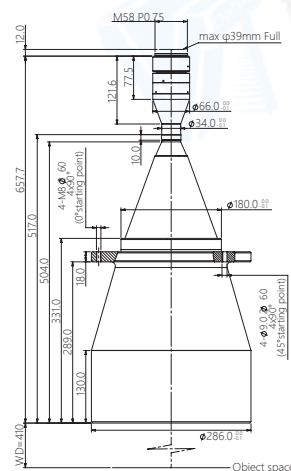
FOV(Φmm)	190
Mag.(x)	0.205
WD(mm)	330±5
Max Sensor Size(Φmm)	39
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±10.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	858±5
Length(mm)	516.4
Mount	M58
Weight(kg)	10.2
Field of View(mm xmm)	
CHR70M(31.0x21.7)	151.2x105.9

BTL-0.181X-372-71M(LM)



FOV(Φmm)	216
Mag.(x)	0.181
WD(mm)	372±5
Max Sensor Size(Φmm)	39
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±13.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	996±5
Length(mm)	611.9
Mount	M58
Weight(kg)	14.4
Field of View(mm xmm)	
CHR70M(31.0x21.7)	171.3x119.9

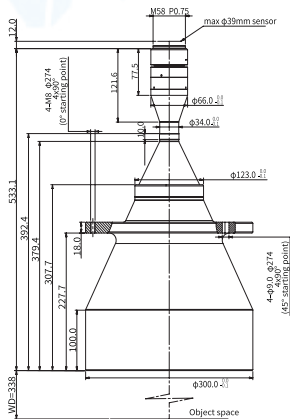
BTL-0.163XH-410-71M(LM)



FOV(Φmm)	240
Mag.(x)	0.163
WD(mm)	410±6
Max Sensor Size(Φmm)	39
F/#	7.5
MTF30(lp/mm)	>130
DoF(mm)	±24.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1080±6
Length(mm)	657.7
Mount	M58
Weight(kg)	19.7
Field of View(mm xmm)	
CHR70M(31.0x21.7)	190.2x133.1

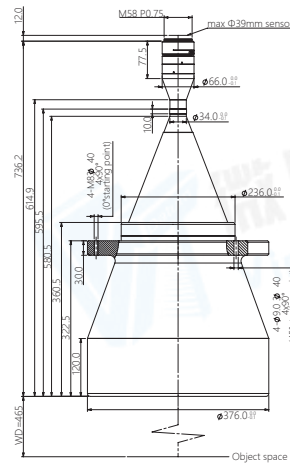
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.151X-338-71M(LM)



FOV(Φmm)	258
Mag.(x)	0.151
WD(mm)	338±5
Max Sensor Size(Φmm)	39
F/#	6.5
MTF30(lp/mm)	>130
DoF(mm)	±19.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	883±5
Length(mm)	533.1
Mount	M58
Weight(kg)	-
Field of View(mmxmm)	
CHR70M(31.0x21.7)	205.3x143.7

BTL-0.13XH-465-71M(LM)



FOV(Φmm)	300
Mag.(x)	0.130
WD(mm)	465±6
Max Sensor Size(Φmm)	39
F/#	6.5
MTF30(lp/mm)	>130
DoF(mm)	±26@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1213±6
Length(mm)	736.2
Mount	M58
Weight(kg)	47.2
Field of View(mmxmm)	
CHR70M(31.0x21.7)	238.5x166.9

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-150M SERIES

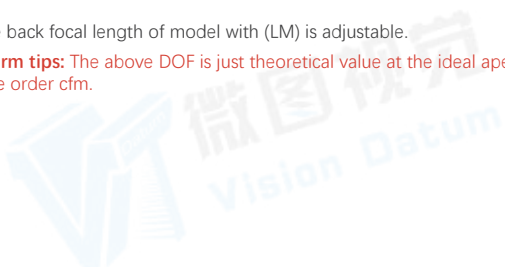
67.6mm



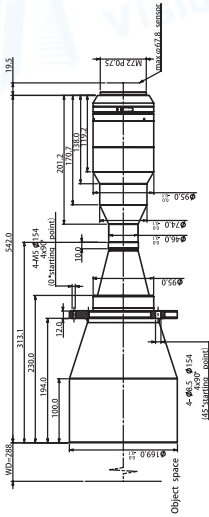
Model No.	Optical specs										Mechanical specs	
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount
BTL-0.497X-288-150M(LM) (FBL=19.5mm)	136	0.497	288±5	67.8	12.2	>70	±3.2@F12.2	<0.1	<0.1	850±5	542	M72
BTL-0.398X-318-150M(LM) (FBL=19.5mm)	170	0.398	318±5	67.6	9.4	>88	±2.4@F9.4	<0.05	<0.05	911±5	573.4	M72
BTL-0.398X-318-150M(LM) (FBL=12mm)	170	0.398	318±5	67.6	9.4	>88	±2.4@F9.4	<0.05	<0.05	911±5	580.9	M72
BTL-0.497X-288-150M-L(LM)	170	0.398	318±5	67.6	9.4	>88	±2.4@F9.4	<0.05	<0.05	-	411.4	M72
BTL-0.356X-330-150M(LM) (FBL=19.5mm)	190	0.356	330±5	67.6	9.4	>95	±3.0@F9.4	<0.05	<0.05	950.2±5	600.7	M72
BTL-0.356X-330-150M(LM) (FBL=12mm)	190	0.356	330±5	67.6	9.4	>95	±3.0@F9.4	<0.05	<0.05	950.2±5	608.2	M72
BTL-0.356X-330-150M-L(LM)	190	0.356	330±5	67.6	9.4	>95	±3.0@F9.4	<0.05	<0.05	-	-	M72
BTL-0.313X-372-150M(LM) (FBL=12mm)	216	0.313	372±5	67.6	7.9	>100	±3.2@F16	<0.1	<0.1	1087.6	703.6	M72
BTL-0.313X-372-150M-L(LM)	216	0.313	372±5	67.6	7.9	>100	±3.2@F16	<0.1	<0.1	-	-	M72
BTL-0.282X-410-150M(LM) (FBL=19.5mm)	240	0.282	410±6	67.6	9.2	>100	±8.0@F16	<0.1	<0.1	1171.5	742.0	M72
BTL-0.282X-410-150M(LM) (FBL=12mm)	240	0.282	410±6	67.6	9.2	>100	±8.0@F16	<0.1	<0.1	1171.5	749.5	M72
BTL-0.262X-338-150M(LM) (FBL=19.5mm)	258	0.262	338±5	67.6	8.8	>95	±5.1@F8.8	<0.1	<0.04	977±5	619.4	M72
BTL-0.262X-338-150M(LM) (FBL=12mm)	258	0.262	338±5	67.6	8.8	>95	±5.1@F8.8	<0.1	<0.04	977±5	626.9	M72
BTL-0.262X-338-150M-L(LM)	258	0.262	338±5	67.6	8.8	>95	±5.1@F8.8	<0.1	<0.04	-	-	M72
BTL-0.225X-465-150M(LM) (FBL=19.5mm)	300	0.225	465±6	67.6	6.6	>98	±5.2@F6.6	<0.1	<0.1	1305±6	820.5	M72
BTL-0.225X-465-150M(LM) (FBL=12mm)	300	0.225	465±6	67.6	6.6	>98	±5.2@F6.6	<0.1	<0.1	1305±6	828.0	M72
BTL-0.225X-465-150M-L(LM)	300	0.225	465±6	67.6	6.6	>98	±5.2@F6.6	<0.1	<0.1	-	-	M72

1. The back focal length of model with (LM) is adjustable.

2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

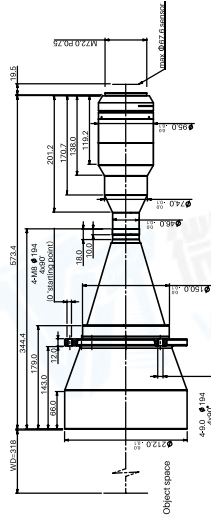


BTL-0.497X-288-150M(LM) (FBL=19.5mm)



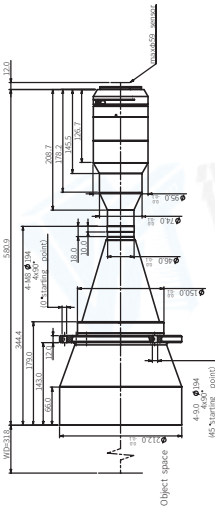
FOV(Φmm)	136
Mag.(x)	0.497
WD(mm)	288±5
Max Sensor Size(Φmm)	67.8
F/#	12.2
MTF30(lp/mm)	>70
DoF(mm)	±3.2@F12.2
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	850±5
Length(mm)	542
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress	107.5x80.5
IMX411(53.42x40mm)	

BTL-0.398X-318-150M(LM) (FBL=19.5mm)



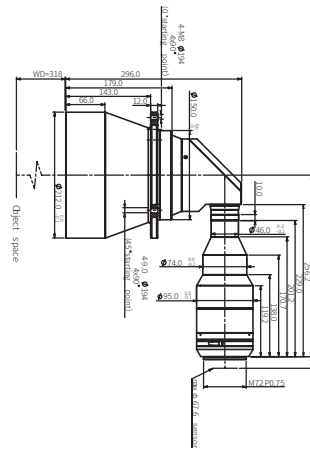
FOV(Φmm)	170
Mag.(x)	0.398
WD(mm)	318±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±2.4@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	911±5
Length(mm)	573.4
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress	134.2x100.5
IMX411(53.42x40mm)	

BTL-0.398X-318-150M(LM) (FBL=12mm)



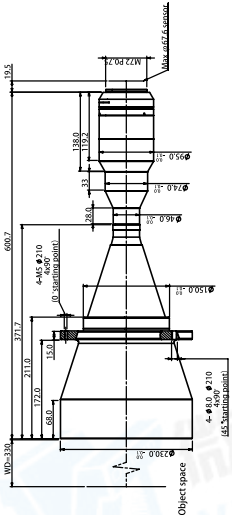
FOV(Φmm)	170
Mag.(x)	0.398
WD(mm)	318±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±2.4@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	911±5
Length(mm)	580.9
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress	134.2x100.5
IMX411(53.42x40mm)	

BTL-0.398X-318-150M(LM) (FBL=12mm)



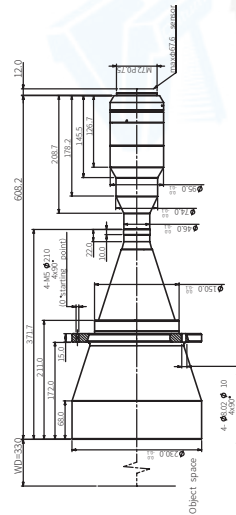
FOV(Φmm)	170
Mag.(x)	0.398
WD(mm)	318±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±2.4@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	-
Length(mm)	411.4
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress	134.2x100.5
IMX411(53.42x40mm)	

BTL-0.356X-330-150M(LM) (FBL=19.5mm)



FOV(Φmm)	190
Mag.(x)	0.356
WD(mm)	330±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>95
DoF(mm)	±3.0@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	950.2±5
Length(mm)	600.7
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress	150.1x112.4
IMX411(53.42x40mm)	

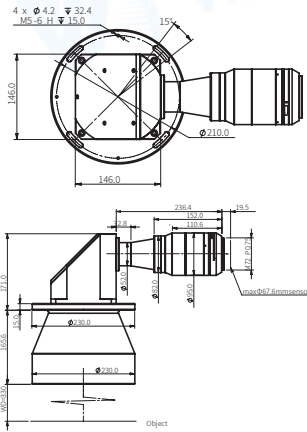
BTL-0.356X-330-150M(LM) (FBL=12mm)



FOV(Φmm)	190
Mag.(x)	0.356
WD(mm)	330±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>95
DoF(mm)	±3.0@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	950.2±5
Length(mm)	608.2
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress	150.1x112.4
IMX411(53.42x40mm)	

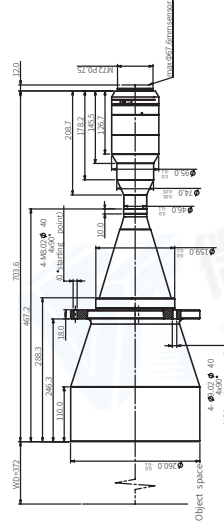
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.356X-330-150M(LM) (FBL=12mm)



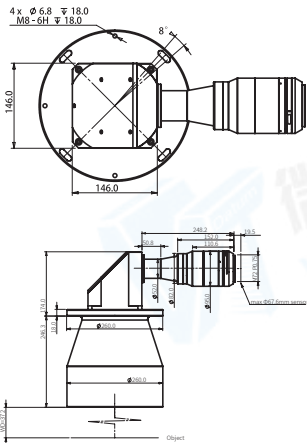
FOV(Φmm)	190
Mag.(x)	0.356
WD(mm)	330±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>95
DoF(mm)	±3.0@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	-
Length(mm)	-
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	150.1x112.4

BTL-0.313X-372-150M(LM) (FBL=12mm)



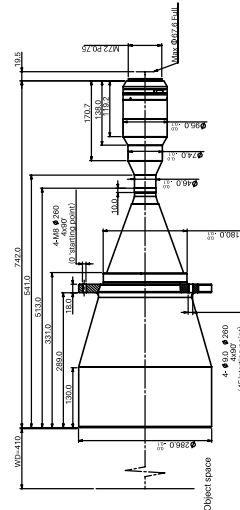
FOV(Φmm)	216
Mag.(x)	0.313
WD(mm)	372±5
Max Sensor Size(Φmm)	67.6
F/#	7.9
MTF30(lp/mm)	>100
DoF(mm)	±3.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1087.6
Length(mm)	703.6
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	170.6x127.8

BTL-0.313X-372-150M-L(LM)



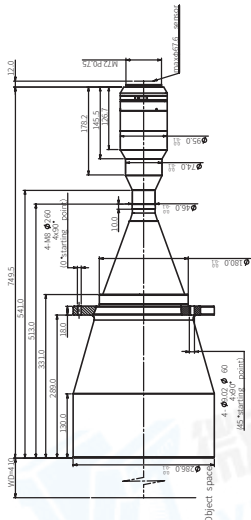
FOV(Φmm)	216
Mag.(x)	0.313
WD(mm)	372±5
Max Sensor Size(Φmm)	67.6
F/#	7.9
MTF30(lp/mm)	>100
DoF(mm)	±3.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1087.6
Length(mm)	-
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	170.6x127.8

BTL-0.282X-410-150M(LM) (FBL=19.5mm)



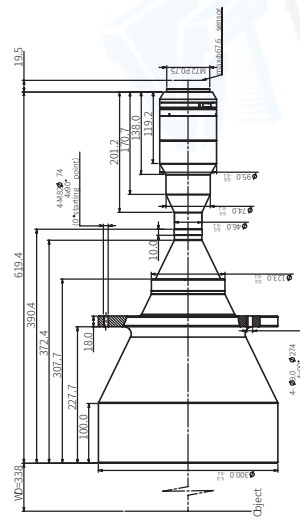
FOV(Φmm)	240
Mag.(x)	0.282
WD(mm)	410±6
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±8.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1171.5
Length(mm)	742.0
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	189.4x141.8

BTL-0.282X-410-150M(LM) (FBL=12mm)



FOV(Φmm)	240
Mag.(x)	0.282
WD(mm)	410±6
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±8.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1171.5
Length(mm)	749.5
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	189.4x141.8

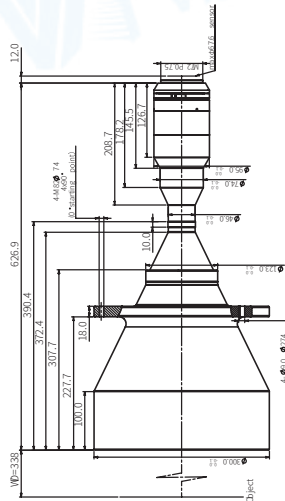
BTL-0.262X-338-150M(LM) (FBL=19.5mm)



FOV(Φmm)	258
Mag.(x)	0.262
WD(mm)	338±5
Max Sensor Size(Φmm)	67.6
F/#	8.8
MTF30(lp/mm)	>95
DoF(mm)	±5.1@F8.8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.04
I/O(mm)	977±5
Length(mm)	619.4
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	203.9x152.6

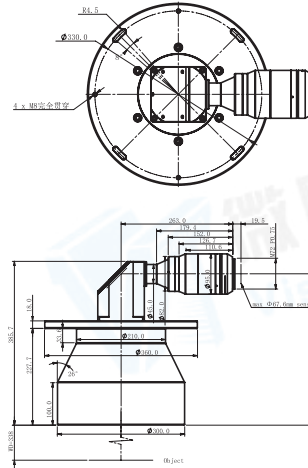
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.262X-338-150M(LM) (FBL=12mm)



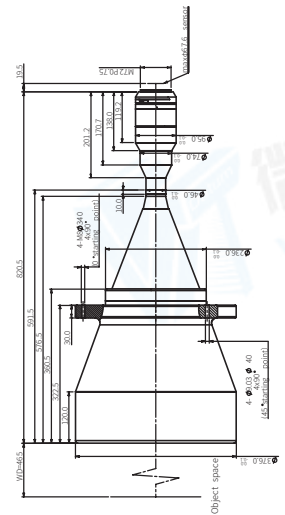
FOV(Φmm)	258
Mag.(x)	0.262
WD(mm)	338±5
Max Sensor Size(Φmm)	67.6
F/#	8.8
MTF30(lp/mm)	>95
DoF(mm)	±5.1@F8.8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.04
I/O(mm)	977±5
Length(mm)	626.9
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	203.9x152.6

BTL-0.262X-338-150M-L(LM)



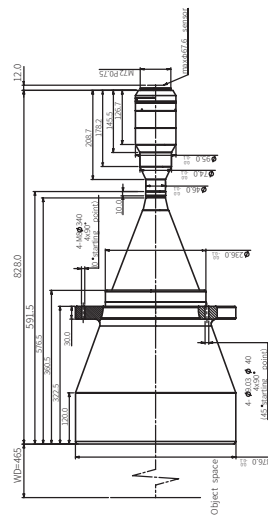
FOV(Φmm)	258
Mag.(x)	0.262
WD(mm)	338±5
Max Sensor Size(Φmm)	67.6
F/#	8.8
MTF30(lp/mm)	>95
DoF(mm)	±5.1@F8.8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.04
I/O(mm)	-
Length(mm)	-
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	203.9x152.6

BTL-0.225X-465-150M(LM) (FBL=19.5mm)



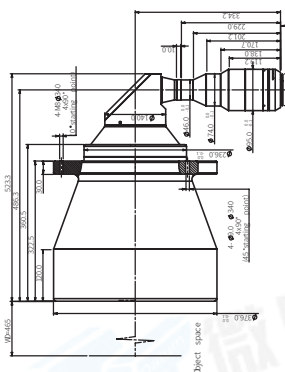
FOV(Φmm)	300
Mag.(x)	0.225
WD(mm)	465±6
Max Sensor Size(Φmm)	67.6
F/#	6.6
MTF30(lp/mm)	>98
DoF(mm)	±5.2@F6.6
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1305±6
Length(mm)	820.5
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	237.4x177.8

BTL-0.225X-465-150M(LM) (FBL=19.5mm)



FOV(Φmm)	300
Mag.(x)	0.225
WD(mm)	465±6
Max Sensor Size(Φmm)	67.6
F/#	6.6
MTF30(lp/mm)	>98
DoF(mm)	±5.2@F6.6
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1305±6
Length(mm)	828.0
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	237.4x177.8

BTL-0.225X-465-150M(LM) (FBL=19.5mm)



FOV(Φmm)	300
Mag.(x)	0.225
WD(mm)	465±6
Max Sensor Size(Φmm)	67.6
F/#	6.6
MTF30(lp/mm)	>98
DoF(mm)	±5.2@F6.6
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	-
Length(mm)	-
Mount	M72
Weight(kg)	-
Field of View(mmxmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	237.4x177.8

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-FF SERIES

44mm

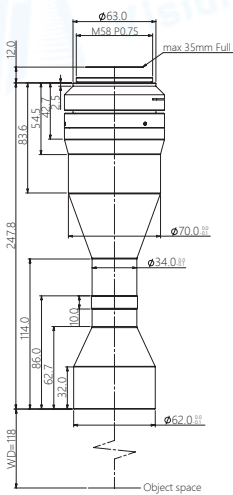


Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-1.038X-118-FF(LM)	42	1.038	118±3	44(35mmFull)	17.1	>50	±0.7@F20	<0.1	<0.1	378±3	247.8	M58	1.2
BTL-0.908X-128-FF(LM)	48	0.908	128±3	44(35mmFull)	17.1	>50	±1.0@F20	<0.1	<0.1	401±3	261.3	M58	1.2
BTL-0.92X-138-FF(LM)	48	0.92	138±3	44(35mmFull)	25.9	>30	±1.2@F25.9	<0.1	<0.1	384±3	199.6	F / Other	0.9
BTL-0.779X-138-FF(LM)	56	0.779	138±3	44(35mmFull)	14.6	>60	±1.3@F20	<0.1	<0.1	434±3	283.8	M58	1.5
BTL-0.681X-158-FF(LM)	64	0.681	158±3	44(35mmFull)	12.8	>65	±1.7@F20	<0.1	<0.1	466±3	296.3	M58	1.5
BTL-0.611X-178-FF(LM)	72	0.606	178±3	44(35mmFull)	12.8	>70	±2.2@F20	<0.1	<0.1	506±3	316.3	M58	1.8
BTL-0.545X-228-FF(LM)	80	0.545	228±4	44(35mmFull)	7.3	>115	±2.2@F16	<0.1	<0.1	546±4	306.3	M58	2.7
BTL-0.489X-208-FF(LM)	90	0.484	208±3	44(35mmFull)	11.4	>75	±3.4@F20	<0.1	<0.1	561±3	341.3	M58	2.4
BTL-0.44X-258-FF(LM)	100	0.436	258±4	43.6	10.3	>90	±4.2@F20	<0.1	<0.1	635±4	364.7	M58	3.8
BTL-0.396X-263-FF(LM)	110	0.396	263±4	44(35mmFull)	9.3	>90	±4.1@F16	<0.1	<0.1	669±6	393.9	M58	3.4
BTL-0.363X-273-FF(LM)	120	0.363	273±5	44(35mmFull)	8.5	>105	±4.9@F16	<0.1	<0.1	691±5	405.6	M58	5.0
BTL-0.321X-288-FF(LM)	136	0.321	288±5	44(35mmFull)	7.9	>110	±6.2@F20	<0.1	<0.1	779±6	478.9	M58	5.0
BTL-0.291X-300-FF(LM)	150	0.291	300±5	44(35mmFull)	14.6	>60	±9.4@F20	<0.1	<0.1	760±5	448.3	M58	6.4
BTL-0.256X-318-FF(LM)	170	0.256	318±5	44(35mmFull)	6.0	>130	±6.7@F11	<0.1	<0.1	840±5	510.2	M58	7.5
BTL-0.229X-330-FF(LM)	190	0.229	330±5	43.6(35mmFull)	6.0	>135	±8.4@F11	<0.1	<0.1	880±5	537.5	M58	10.6
BTL-0.202X-372-FF(LM)	216	0.202	372±5	44(35mmFull)	10.4	>90	±19.6@F20	<0.1	<0.1	1017±5	633.0	M58	14.7
BTL-0.182X-410-FF(LM)	240	0.182	410±6	44(35mmFull)	6.0	>130	±13.3@F11	<0.1	<0.1	1101±6	678.8	M58	20.0
BTL-0.169X-338-FF(LM)	258	0.169	338±5	44(35mmFull)	6.0	>120	±15.1@F11	<0.1	<0.1	906±5	556.2	M58	-
BTL-0.147X-465-FF(LM)	300	0.145	465±6	44(35mmFull)	6.7	>130	±20.9@F11	<0.1	<0.1	1234±6	757.3	M58	47.5

1. The back focal length of model with (LM) is adjustable.

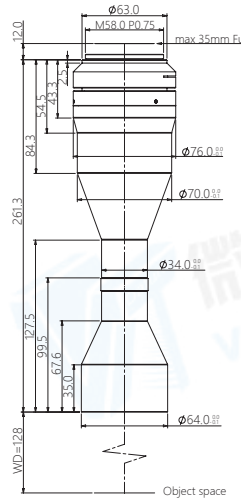
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-1.038X-118-FF(LM)



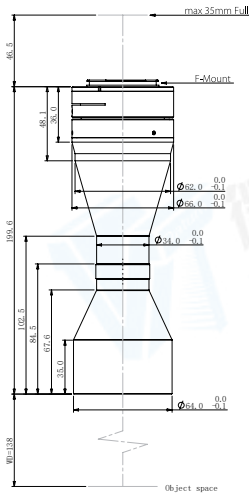
FOV(Φmm)	42
Mag.(x)	1.038
WD(mm)	118±3
Max Sensor Size(Φmm)	44(35mm Full)
F/#	17.1
MTF30(lp/mm)	>50
DoF(mm)	±0.7@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	378±3
Length(mm)	247.8
Mount	M58
Weight(kg)	1.2
Field of View(mm x mm)	
Line-2K(20.48mm)	19.5mm
Line-4K(28.67mm)	27.4mm
Line-8K(40.96mm)	39.1mm
35mm Format(36.0x24.0)	34.4x22.9

BTL-0.908X-128-FF(LM)



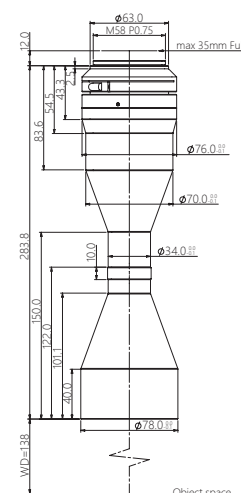
FOV(Φmm)	48
Mag.(x)	0.908
WD(mm)	128±3
Max Sensor Size(Φmm)	44(35mm Full)
F/#	17.1
MTF30(lp/mm)	>50
DoF(mm)	±1.0@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	401±3
Length(mm)	261.3
Mount	M58
Weight(kg)	1.2
Field of View(mm x mm)	
Line-2K(20.48mm)	22.3mm
Line-4K(28.67mm)	31.2mm
Line-8K(40.96mm)	44.5mm
35mm Format(36.0x24.0)	39.1x26.1

BTL-0.92X-138-FF(LM)



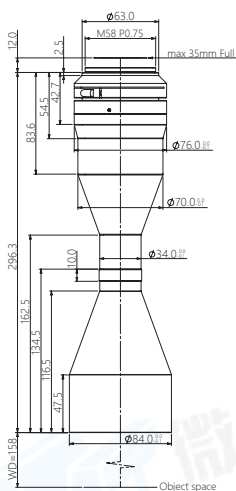
FOV(Φmm)	48
Mag.(x)	0.920
WD(mm)	138±3
Max Sensor Size(Φmm)	44(35mm Full)
F/#	25.9
MTF30(lp/mm)	>30
DoF(mm)	±1.2@F25.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	384±3
Length(mm)	199.6
Mount	F / other
Weight(kg)	0.9
Field of View(mm x mm)	
Line-2K(20.48mm)	22.3mm
Line-4K(28.67mm)	31.2mm
Line-8K(40.96mm)	44.5mm
35mm Format(36.0x24.0)	39.1x26.1

BTL-0.779X-138-FF(LM)



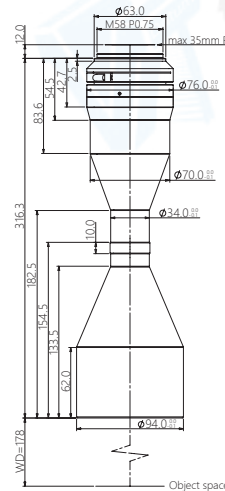
FOV(Φmm)	56
Mag.(x)	0.779
WD(mm)	138±3
Max Sensor Size(Φmm)	44(35mm Full)
F/#	14.6
MTF30(lp/mm)	>60
DoF(mm)	±1.3@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	434±3
Length(mm)	283.8
Mount	M58
Weight(kg)	1.5
Field of View(mm x mm)	
Line-2K(20.48mm)	26.1mm
Line-4K(28.67mm)	36.5mm
Line-8K(40.96mm)	52.2mm
35mm Format(36.0x24.0)	45.9x30.6

BTL-0.681X-189-FF(LM)



FOV(Φmm)	64
Mag.(x)	0.681
WD(mm)	158±3
Max Sensor Size(Φmm)	44(35mm Full)
F/#	12.8
MTF30(lp/mm)	>65
DoF(mm)	±1.7@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	466±3
Length(mm)	296.3
Mount	M58
Weight(kg)	1.5
Field of View(mm x mm)	
Line-2K(20.48mm)	29.8mm
Line-4K(28.67mm)	41.7mm
Line-8K(40.96mm)	59.5mm
35mm Format(36.0x24.0)	52.3x34.9

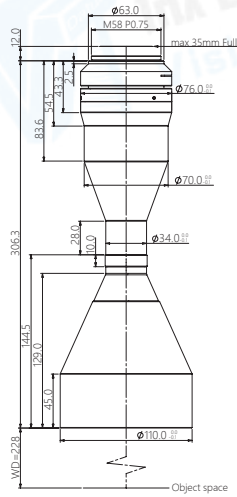
BTL-0.606X-178-FF(LM)



FOV(Φmm)	72
Mag.(x)	0.606
WD(mm)	178±3
Max Sensor Size(Φmm)	44(35mm Full)
F/#	12.8
MTF30(lp/mm)	>70
DoF(mm)	±2.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	506±3
Length(mm)	316.3
Mount	M58
Weight(kg)	1.8
Field of View(mm x mm)	
Line-2K(20.48mm)	33.5mm
Line-4K(28.67mm)	46.9mm
Line-8K(40.96mm)	67.0mm
35mm Format(36.0x24.0)	58.9x39.3

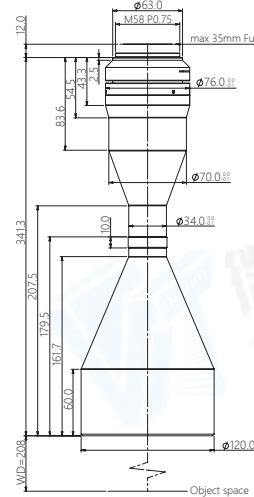
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.545X-228-FF(LM)



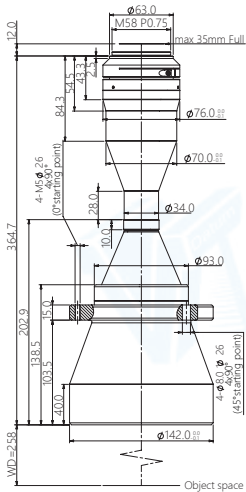
FOV(Φmm)	80
Mag.(x)	0.545
WD(mm)	228±4
Max Sensor Size(Φmm)	44(35mm Full)
F/#	7.3
MTF30(lp/mm)	>115
DoF(mm)	±2.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	546±4
Length(mm)	306.3
Mount	M58
Weight(kg)	2.7
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	66.8x50.7
KAI29050/2 (36.17x24.11)	66.4x44.2
KAI43142 (36.18x24.12)	66.4x44.3

BTL-0.484X-208-FF(LM)



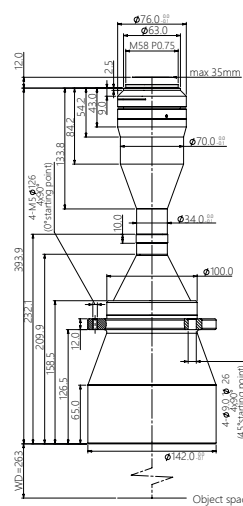
FOV(Φmm)	90
Mag.(x)	0.484
WD(mm)	208±3
Max Sensor Size(Φmm)	44(35mm Full)
F/#	11.4
MTF30(lp/mm)	>75
DoF(mm)	±3.4@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	561±3
Length(mm)	341.3
Mount	M58
Weight(kg)	2.4
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	75.3x57.1
KAI29050/2 (36.17x24.11)	74.7x49.8
KAI43142 (36.18x24.12)	74.8x49.8

BTL-0.436X-258-FF(LM)



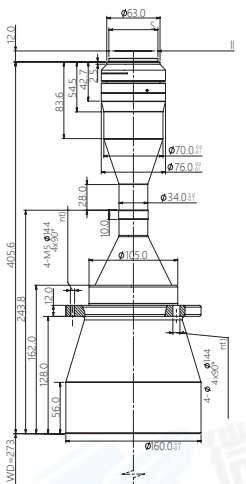
FOV(Φmm)	100
Mag.(x)	0.436
WD(mm)	258±4
Max Sensor Size(Φmm)	44(35mm Full)
F/#	10.3
MTF30(lp/mm)	>90
DoF(mm)	±4.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	635±4
Length(mm)	364.7
Mount	M58
Weight(kg)	3.8
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	83.6x63.3
KAI29050/2 (36.17x24.11)	83.0x55.3
KAI43142 (36.18x24.12)	83.0x55.3

BTL-0.396X-263-FF(LM)



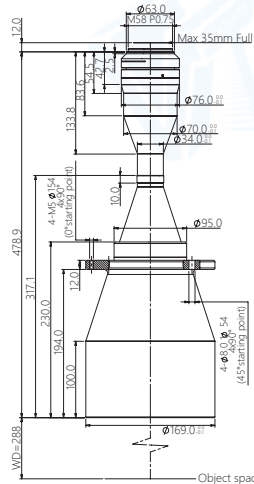
FOV(Φmm)	110
Mag.(x)	0.396
WD(mm)	263±4
Max Sensor Size(Φmm)	44(35mm Full)
F/#	9.3
MTF30(lp/mm)	>90
DoF(mm)	±4.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	669±4
Length(mm)	393.9
Mount	M58
Weight(kg)	3.4
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	92.0x69.7
KAI29050/2 (36.17x24.11)	91.3x60.9
KAI43142 (36.18x24.12)	91.4x60.9

BTL-0.363X-280-FF(LM)



FOV(Φmm)	120
Mag.(x)	0.363
WD(mm)	273±5
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	8.5
MTF30(lp/mm)	>105
DoF(mm)	±4.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	691±5
Length(mm)	405.6
Mount	M58
Weight(kg)	5.0
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	100.4x76.1
KAI29050/2 (36.17x24.11)	99.6x66.4
KAI43142 (36.18x24.12)	99.7x66.4

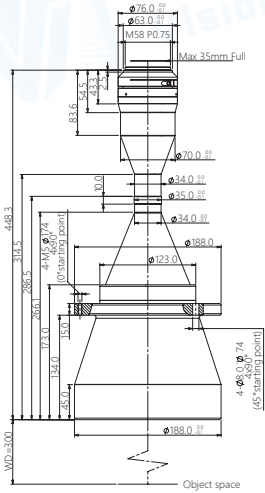
BTL-0.321X-288-FF(LM)



FOV(Φmm)	136
Mag.(x)	0.321
WD(mm)	288±5
Max Sensor Size(Φmm)	44(35mm Full)
F/#	7.9
MTF30(lp/mm)	>110
DoF(mm)	±6.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	779±6
Length(mm)	478.9
Mount	M58
Weight(kg)	5.0
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	113.5x86.0
KAI29050/2 (36.17x24.11)	112.7x75.1
KAI43142 (36.18x24.12)	112.7x75.1

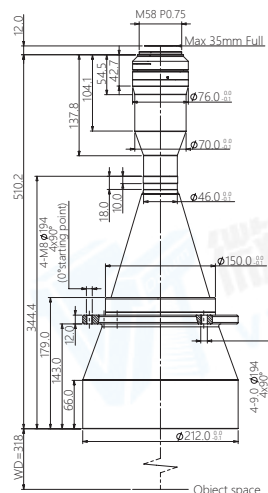
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.291X-300-FF(LM)



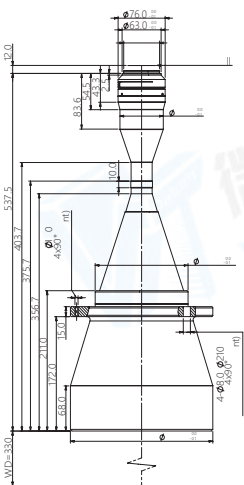
FOV(Φmm)	150
Mag.(x)	0.291
WD(mm)	300±5
Max Sensor Size(Φmm)	44(35mm Full)
F/#	14.6
MTF30(lp/mm)	>60
DoF(mm)	±9.4@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	760±5
Length(mm)	448.3
Mount	M58
Weight(kg)	6.4
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	125.2x94.9
KAI29050/2 (36.17x24.11)	124.3x82.9
KAI43142 (36.18x24.12)	124.3x82.9

BTL-0.256X-318-FF(LM)



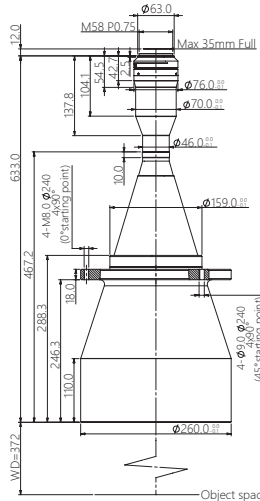
FOV(Φmm)	170
Mag.(x)	0.256
WD(mm)	318±5
Max Sensor Size(Φmm)	44(35mm Full)
F/#	6.0
MTF30(lp/mm)	>130
DoF(mm)	±6.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	840±5
Length(mm)	510.2
Mount	M58
Weight(kg)	7.5
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	142.3x107.9
KAI29050/2 (36.17x24.11)	141.3x94.2
KAI43142 (36.18x24.12)	141.3x94.2

BTL-0.229X-330-FF(LM)



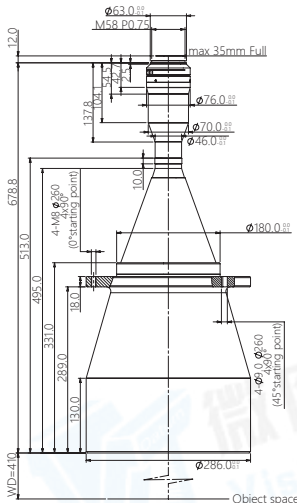
FOV(Φmm)	190
Mag.(x)	0.229
WD(mm)	330±5
Max Sensor Size(Φmm)	44(35mm Full)
F/#	6.0
MTF30(lp/mm)	>135
DoF(mm)	±8.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	880±5
Length(mm)	537.5
Mount	M58
Weight(kg)	10.6
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	159.1x120.6
KAI29050/2 (36.17x24.11)	157.9x105.3
KAI43142 (36.18x24.12)	158.0x105.3

BTL-0.201X-372-FF(LM)



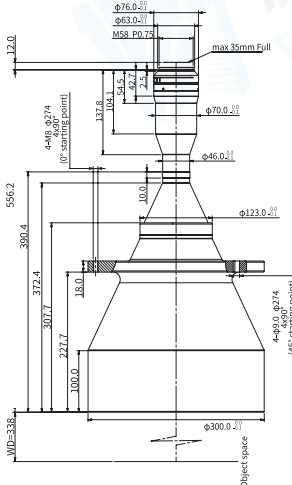
FOV(Φmm)	216
Mag.(x)	0.202
WD(mm)	372±5
Max Sensor Size(Φmm)	44(35mm Full)
F/#	10.4
MTF30(lp/mm)	>90
DoF(mm)	±19.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1017±5
Length(mm)	633.0
Mount	M58
Weight(kg)	14.7
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	180.3x136.7
KAI29050/2 (36.17x24.11)	179.1x119.4
KAI43142 (36.18x24.12)	179.1x119.4

BTL-0.182X-410-FF(LM)



FOV(Φmm)	240
Mag.(x)	0.182
WD(mm)	410±6
Max Sensor Size(Φmm)	44(35mm Full)
F/#	6.0
MTF30(lp/mm)	>130
DoF(mm)	±13.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1101±6
Length(mm)	678.8
Mount	M58
Weight(kg)	20.0
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	200.2x151.8
KAI29050/2 (36.17x24.11)	198.7x132.5
KAI43142 (36.18x24.12)	198.8x132.5

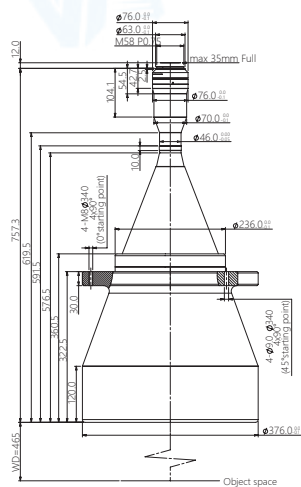
BTL-0.169X-338-FF(LM)



FOV(Φmm)	258
Mag.(x)	0.169
WD(mm)	338±5
Max Sensor Size(Φmm)	44(35mm Full)
F/#	6.0
MTF30(lp/mm)	>120
DoF(mm)	±15.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	906±5
Length(mm)	556.2
Mount	M58
Weight(kg)	-
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	215.6x163.4
KAI29050/2 (36.17x24.11)	214.0x142.7
KAI43142 (36.18x24.12)	214.1x142.7

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.145X-465-FF(LM)



FOV(Φ mm)	300
Mag.(x)	0.145
WD(mm)	465 \pm 6
Max Sensor Size(Φ mm)	44(35mm Full)
F/#	6.7
MTF30(lp/mm)	>130
DoF(mm)	\pm 20.9@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	1234 \pm 6
Length(mm)	757.3
Mount	M58
Weight(kg)	47.5
Field of View(mm \times mm)	
CMV50000 (36.43 \times 27.62)	215.6 \times 163.4
KAI29050/2 (36.17 \times 24.11)	214.0 \times 142.7
KAI43142 (36.18 \times 24.12)	214.1 \times 142.7



Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. \pm 763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL SERIES

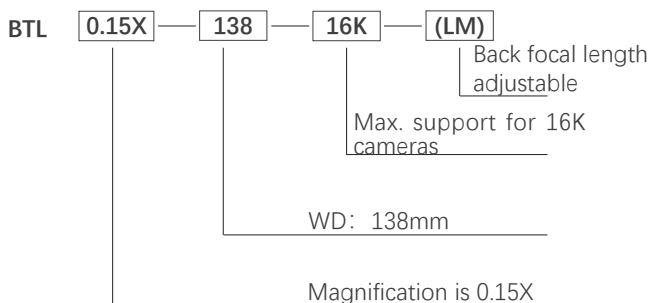
NEW



PRODUCT FEATURES

1. Specially designed for high-precision, especially large-target imaging systems;
2. Large aperture, high telecentricity, ultra-low distortion, and large depth of field;
3. Support the industry's latest 16k/24k line scan and 150 million pixel area scan cameras;
4. Large imaging aperture, extraordinary aberration correction, and diffraction-limited imaging resolution

NAMING RULES



BTL-16K SERIES

Support 16K 3.5μ Camera

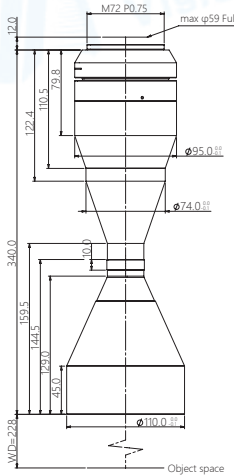


Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.738X-228-16K(LM)	80	0.738	228±4	59	13.9	>67	±2.3@F20	<0.1	<0.1	580±4	340.0	M72	3.4
BTL-0.656X-208-16K(LM)	90	0.656	208±3	59	15.4	>50	±1.3@F20	<0.1	<0.1	595±3	375.0	M72	3.1
BTL-0.59X-238-16K(LM)	100	0.59	238±3	59	13.9	>60	±2.3@F20	<0.1	<0.1	668±4	417.7	M72	3.1
BTL-0.536X-263-16K(LM)	110	0.536	263±4	59	12.6	>60	±2.8@F20	<0.1	<0.1	703±4	427.6	M72	4.1
BTL-0.434X-288-16K(LM)	136	0.434	288±5	59	10.7	>80	±4.2@F20	<0.1	<0.1	813±5	512.6	M72	5.7
BTL-0.393X-300-16K(LM)	150	0.393	300±5	59	19.8	>45	±5.1@F20	<0.1	<0.1	794±5	482.0	M72	7.1
BTL-0.347X-318-16K(LM)	170	0.347	318±5	59	8.7	>90	±5.3@F16	<0.1	<0.1	874±5	543.9	M72	8.0
BTL-0.311X-330-16K(LM)	190	0.311	330±5	59	13.9	>65	±8.2@F20	<0.1	<0.1	913±5	571.2	M72	11.1
BTL-0.273X-372-16K(LM)	216	0.273	372±5	59	8.7	>95	±8.6@F16	<0.1	<0.1	1051±5	666.7	M72	15.2
BTL-0.246XH-410-16K(LM)	240	0.246	410±6	59	8.7	>100	±14.6@F22	<0.1	<0.1	1135±6	712.5	M72	20.5
BTL-0.229X-340-16K(LM)	258	0.229	340±5	59	8.7	>100	±12.2@F16	<0.1	<0.1	942±5	589.9	M72	-
BTL-0.197X-465-16K(LM)	300	0.197	465±6	59	9	>95	±20.6@F20	<0.1	<0.1	1268±6	791.0	M72	48.0
BTL-1.0X-102-16K(LM)	62	1.000	102±2	62	7.0	>110	±0.3@F7.0	<0.1	<0.62	400±2	285.9	M72	3.1
BTL-0.853X-125-16K(LM)	72.7	0.853	125±3	62	6.0	>135	±0.3@F6.0	<0.1	<0.3	650±3	513.0	M72	5.7
BTL-0.705X-125-16K(LM)	88	0.705	125±3	62	7.0	>165	±0.6@F7.0	<0.1	<0.3	601±3	464.4	M72	5.2

1. The back focal length of model with (LM) is adjustable.

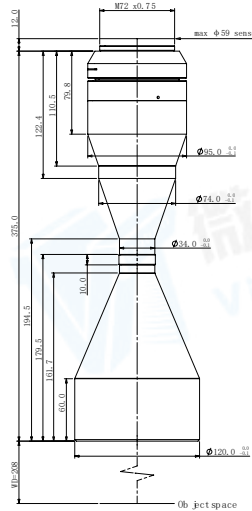
2. Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.738X-228-16K(LM)



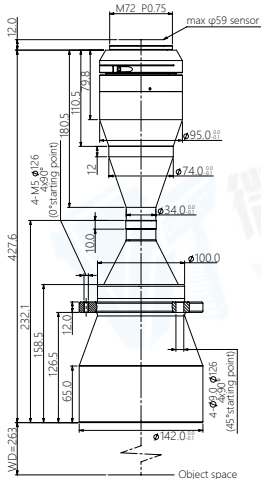
FOV(Φmm)	80
Mag.(x)	0.738
WD(mm)	228±4
Max Sensor Size(Φmm)	59
F/#	9.9
MTF30(lp/mm)	>85
DoF(mm)	±1.6@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	580±4
Length(mm)	340.0
Mount	M72
Weight(kg)	3.4
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	66.0x39.3
Linescan-16K (57.4mm)	77.8
Linescan-8K (57.4mm)	77.8

BTL-0.656X-208-16K(LM)



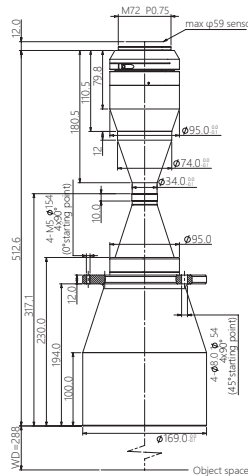
FOV(Φmm)	90
Mag.(x)	0.656
WD(mm)	208±3
Max Sensor Size(Φmm)	59
F/#	15.4
MTF30(lp/mm)	>50
DoF(mm)	±1.3@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	595±3
Length(mm)	375.0
Mount	M72
Weight(kg)	3.1
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	74.2x44.2
Linescan-16K (57.4mm)	87.5
Linescan-8K (57.4mm)	87.5

BTL-0.536X-263-16K(LM)



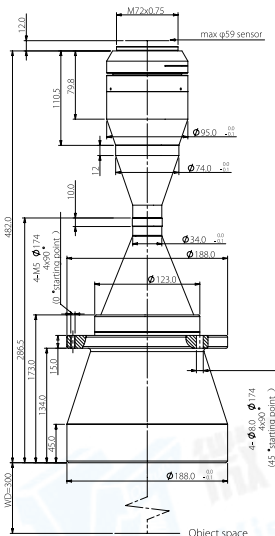
FOV(Φmm)	110
Mag.(x)	0.536
WD(mm)	263±4
Max Sensor Size(Φmm)	59
F/#	12.6
MTF30(lp/mm)	>60
DoF(mm)	±2.8@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	703±4
Length(mm)	427.6
Mount	M72
Weight(kg)	4.1
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	90.9x54.1
Linescan-16K (57.4mm)	107.1
Linescan-8K (57.4mm)	107.1

BTL-0.434X-288-16K(LM)



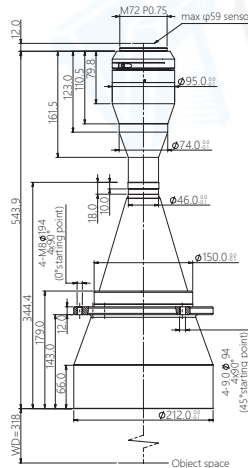
FOV(Φmm)	136
Mag.(x)	0.434
WD(mm)	288±5
Max Sensor Size(Φmm)	59
F/#	10.7
MTF30(lp/mm)	>80
DoF(mm)	±4.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	813±5
Length(mm)	512.6
Mount	M72
Weight(kg)	5.7
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	112.2x66.8
Linescan-16K (57.4mm)	132.3
Linescan-8K (57.4mm)	132.3

BTL-0.393X-300-16K(LM)



FOV(Φmm)	150
Mag.(x)	0.393
WD(mm)	300±5
Max Sensor Size(Φmm)	59
F/#	19.8
MTF30(lp/mm)	>45
DoF(mm)	±5.1@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	794±5
Length(mm)	482.0
Mount	M72
Weight(kg)	7.1
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	123.9x73.8
Linescan-16K (57.4mm)	146.1
Linescan-8K (57.4mm)	146.1

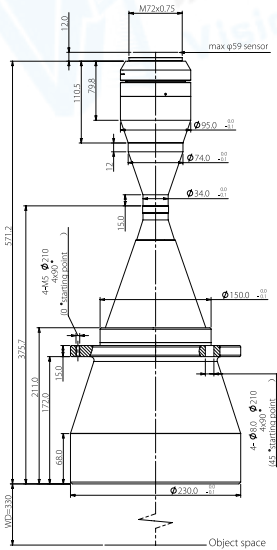
BTL-0.347X-318-16K(LM)



FOV(Φmm)	170
Mag.(x)	0.347
WD(mm)	318±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>90
DoF(mm)	±5.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	874±5
Length(mm)	543.9
Mount	M72
Weight(kg)	8.0
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	140.3x83.6
Linescan-16K (57.4mm)	165.4
Linescan-8K (57.4mm)	165.4

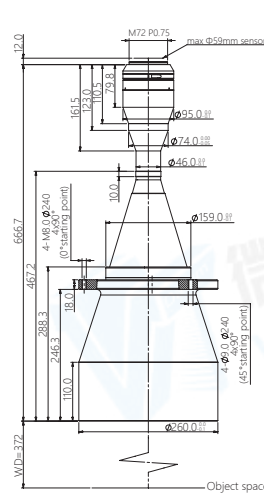
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.311X-330-16K(LM)



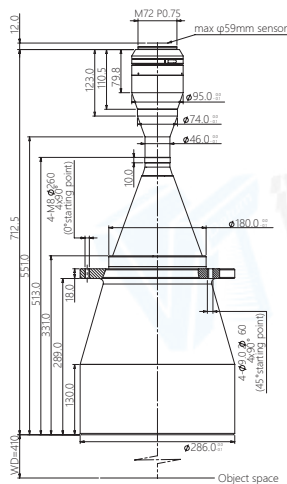
FOV(Φmm)	190
Mag.(x)	0.311
WD(mm)	330±5
Max Sensor Size(Φmm)	59
F/#	13.9
MTF30(lp/mm)	>65
DoF(mm)	±8.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	913±5
Length(mm)	571.2
Mount	M72
Weight(kg)	11.1
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	156.6x93.3
Linescan-16K (57.4mm)	184.6
Linescan-8K (57.4mm)	184.6

BTL-0.273X-372-16K(LM)



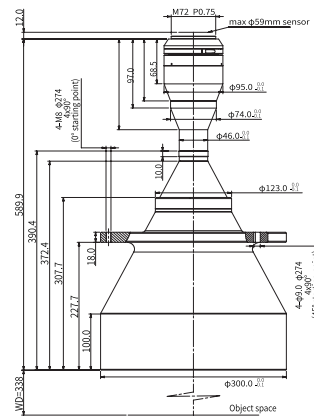
FOV(Φmm)	216
Mag.(x)	0.273
WD(mm)	372±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>95
DoF(mm)	±8.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1051±5
Length(mm)	666.7
Mount	M72
Weight(kg)	15.2
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	178.4x106.2
Linescan-16K (57.4mm)	210.3
Linescan-8K (57.4mm)	210.3

BTL-0.246XH-410-16K(LM)



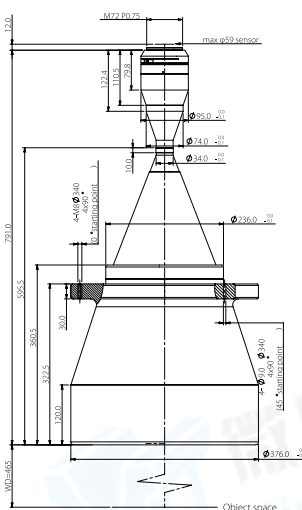
FOV(Φmm)	240
Mag.(x)	0.246
WD(mm)	410±6
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>100
DoF(mm)	±14.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1135±6
Length(mm)	712.5
Mount	M72
Weight(kg)	20.5
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	198.0x117.9
Linescan-16K (57.4mm)	233.3
Linescan-8K (57.4mm)	233.3

BTL-0.229X-338-16K(LM)



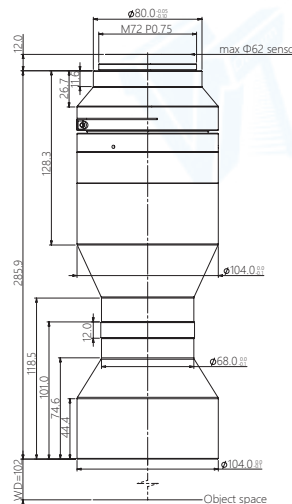
FOV(Φmm)	258
Mag.(x)	0.229
WD(mm)	338±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>100
DoF(mm)	±12.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	942±5
Length(mm)	589.9
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	212.7x126.6
Linescan-16K (57.4mm)	250.7
Linescan-8K (57.4mm)	250.7

BTL-0.197X-465-16K(LM)



FOV(Φmm)	300
Mag.(x)	0.197
WD(mm)	465±6
Max Sensor Size(Φmm)	59
F/#	9
MTF30(lp/mm)	>95
DoF(mm)	±20.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1268±6
Length(mm)	791.0
Mount	M72
Weight(kg)	48.0
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	247.2x147.2
Linescan-16K (57.4mm)	291.4
Linescan-8K (57.4mm)	291.4

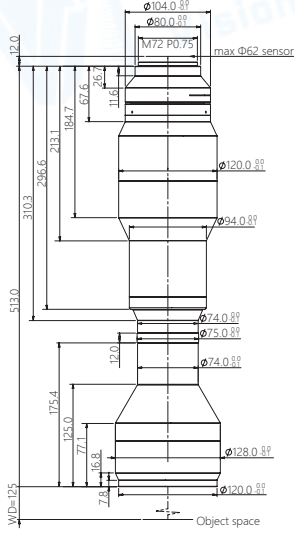
BTL-1.0X-102-16K(LM)



FOV(Φmm)	62
Mag.(x)	1.000
WD(mm)	102±2
Max Sensor Size(Φmm)	62
F/#	7.0
MTF30(lp/mm)	>110
DoF(mm)	±0.3@F7.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.62
I/O(mm)	400±2
Length(mm)	285.9
Mount	M72
Weight(kg)	3.1
Field of View(mm xmm)	
KAI-47051 (48.7x29.0)	78.9x59.8
Linescan-12K 5um (61.44mm)	61.4mm
Linescan-16K 3.5/3.53um (57.4mm)	57.4mm

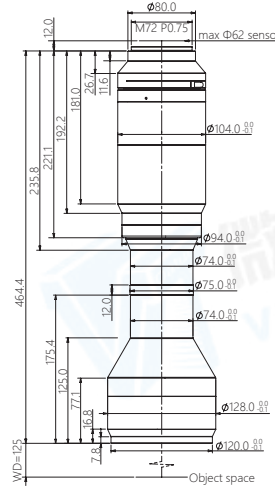
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-0.853X-125-16K(LM)



FOV(Φmm)	72.7
Mag.(x)	0.853
WD(mm)	125±3
Max Sensor Size(Φmm)	62
F/#	6.0
MTF30(lp/mm)	>135
DoF(mm)	±0.3@F6.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.3
I/O(mm)	650±3
Length(mm)	513.0
Mount	M72
Weight(kg)	5.7
Field of View(mm×mm)	
KAI-47051 (48.7×29.0)	57.1×34.0
Linescan-12K 5um (61.44mm)	72.0
Linescan-16K 3.5/3.53um (57.4mm)	67.3

BTL-0.705X-125-16K(LM)



FOV(Φmm)	88
Mag.(x)	0.705
WD(mm)	125±3
Max Sensor Size(Φmm)	62
F/#	7.0
MTF30(lp/mm)	>165
DoF(mm)	±0.6@F7.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.3
I/O(mm)	601±3
Length(mm)	464.4
Mount	M72
Weight(kg)	5.2
Field of View(mm×mm)	
KAI-47051 (48.7×29.0)	69.1×41.1
Linescan-12K 5um (61.44mm)	87.1
Linescan-16K 3.5/3.53um (57.4mm)	81.4

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-24K SERIES

Support 16K 5 μ / 24K 3.5 μ Camera



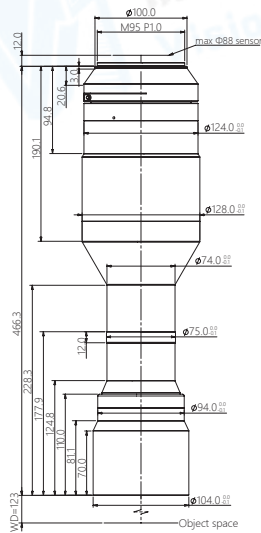
Model No.	Optical specs												Mechanical specs		
	FOV (Φ mm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φ mm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity ($^{\circ}$ max)	I/O (mm)	Variable Iris	Coaxial	Length (mm)	Mount	Weight (kg)
BTL-1.419X-123-24K	62	1.419	123 \pm 3	88	7.0	>115	\pm 0.1@F7.0	<0.1	<0.1	601 \pm 3	No	No	466.3	M95	5.5
BTL-1.173X-152-24K	75	1.173	152 \pm 3	88	7.0	>115	\pm 0.2@F7.0	<0.1	<0.1	650 \pm 3	No	No	486.0	M95	5.6
BTL-1.11X-150-24K	79.2	1.110	150 \pm 3	88	7.0	>100	\pm 0.2@F7.0	<0.1	<0.2	641 \pm 3	No	No	478.5	M95	5.6
BTL-1.0X-162-24K	88	1.000	162 \pm 3	88	8.0	>90	\pm 0.3@F8.0	<0.1	<0.1	627 \pm 3	No	No	453.2	M95	6.0
BTL-0.96X-150-24K (IA)	91.6	0.960	150 \pm 3	88	8.0	>90	\pm 0.3@F8.0	<0.1	<0.1	621 \pm 3	No	No	458.5	M95	6.0

1. The back focal length of model with (LM) is adjustable.

2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. \pm 763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

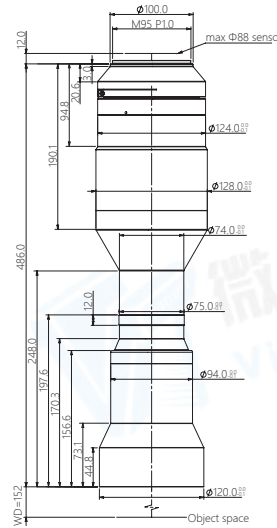


BTL-1.419X-123-24K



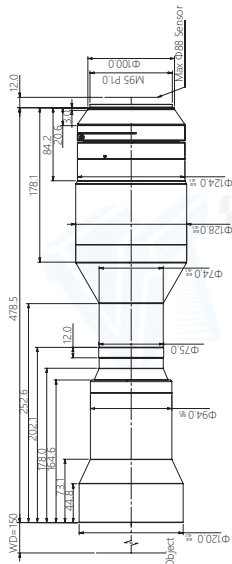
FOV(Φmm)	62
Mag.(x)	1.419
WD(mm)	123±3
Max Sensor Size(Φmm)	88
F/#	7.0
MTF30(lp/mm)	>115
DoF(mm)	±0.1@F7.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	601±3
Length(mm)	466.3
Mount	M95
Weight(kg)	5.5
Coaxial Light	No
Variable Iris	No
Field of View(mm x mm)	
KAI-47051 (48.7x29.0)	45.3x38.3
Linescan-12K 5um (81.9mm)	57.7
Linescan-16K 3.5/3.53um (86.0mm)	60.6

BTL-1.173X-152-24K



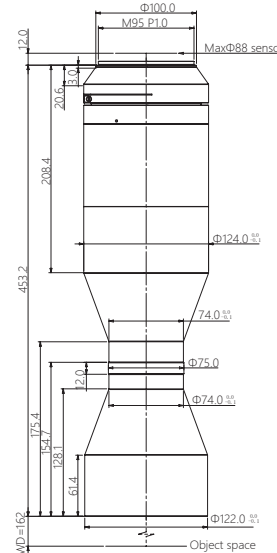
FOV(Φmm)	75
Mag.(x)	1.173
WD(mm)	152±3
Max Sensor Size(Φmm)	88
F/#	7.0
MTF30(lp/mm)	>118
DoF(mm)	±0.2@F7.0
Distortion(% max)	<0.01
Telecentricity(° max)	<0.05
I/O(mm)	650±3
Length(mm)	486.0
Mount	M95
Weight(kg)	5.6
Variable Iris	No
Coaxial Light	No
Field of View(mm x mm)	
DALSA 86M (64.32x48.38)	54.8x46.4
Linescan-16K 5um (81.9mm)	69.8
Linescan-24K 3.5um (86.0mm)	73.3

BTL-1.11X-150-24K



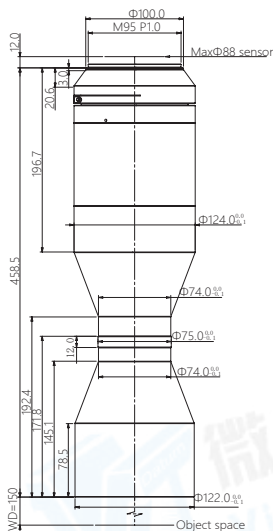
FOV(Φmm)	79.2
Mag.(x)	1.11
WD(mm)	150±3
Max Sensor Size(Φmm)	88
F/#	7.0
MTF30(lp/mm)	>100
DoF(mm)	±0.2@F7.0
Distortion(% max)	<0.01
Telecentricity(° max)	<0.2
I/O(mm)	641±3
Length(mm)	478.5
Mount	M95
Weight(kg)	5.6
Variable Iris	No
Coaxial Light	No
Field of View(mm x mm)	
DALSA 86M (64.32x48.38)	57.9x43.6
Linescan-16K 5um (81.9mm)	73.8
Linescan-24K 3.5um (86.0mm)	77.5

BTL-1.0X-162-24K



FOV(Φmm)	88
Mag.(x)	1.000
WD(mm)	162±3
Max Sensor Size(Φmm)	88
F/#	8.0
MTF30(lp/mm)	>90
DoF(mm)	±0.3@F8.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	627±3
Length(mm)	453.2
Mount	M95
Weight(kg)	6.0
Variable Iris	No
Coaxial Light	No
Field of View(mm x mm)	
DALSA 86M (64.32x48.38)	64.3x48.4
Linescan-16K 5um (81.9mm)	81.9
Linescan-24K 3.5um (86.0mm)	86

BTL-0.96X-150-24K(IA)

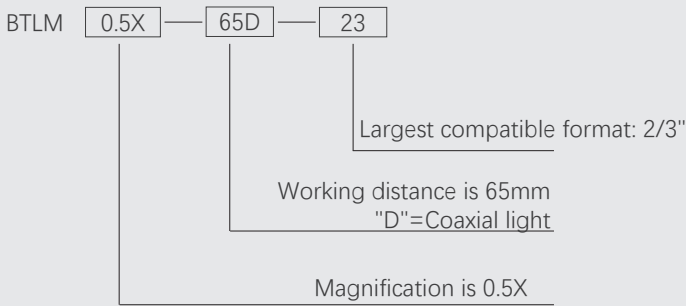


FOV(Φmm)	91.6
Mag.(x)	0.960
WD(mm)	150±3
Max Sensor Size(Φmm)	88
F/#	8.0
MTF30(lp/mm)	>90
DoF(mm)	±0.3@F8.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	621±3
Length(mm)	458.5
Mount	M95
Weight(kg)	6.0
Variable Iris	No
Coaxial Light	No
Field of View(mm x mm)	
DALSA 86M (64.32x48.38)	67.0x50.4
Linescan-16K 5um (81.9mm)	85.3
Linescan-24K 3.5um (86.0mm)	89.6

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTLM SERIES NEW

NAMING RULES



Varible Iris Bi-telecentric Lenses

BTLM series bitelecentric lens are designed and optimized for high accuracy measurement application. These lenses feature variable iris for Depth of Field and resolution adjustment, big F/# for high pixel camera and one style design which is easy for industrial manufacture.

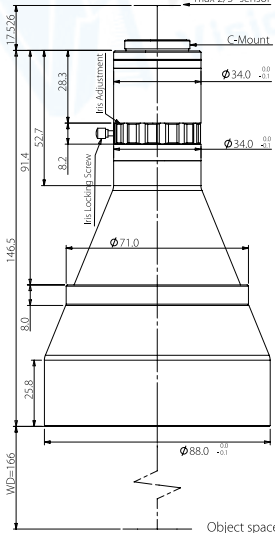
PRODUCT FEATURES

1. Support up to 8M Pixel cameras;
2. Zero perspective error over the entire Field of View;
3. Big depth of field and constant magnification over defined depth of field;
4. Customization available with best performance/cost rate;
5. Equipped with a Manual Iris for adjusting the Depth of Field.

Model No.	Optical specs											Mechanical specs			
	Variable Iris	Coaxial	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecen-tricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTLM-0.5X-65-23	No	No	22	0.500	65±1	11.0(2/3")	5.0	>160	±0.8@F5	<0.1	<0.1	189±1	106.7	C	0.2
BTLM-0.5X-65D-23	No	Yes	22	0.500	65±1	11.0(2/3")	5.0	>160	±0.8@F5	<0.1	<0.1	189±1	106.7	C	0.2
BTLM-0.4X-85-23	No	No	27.5	0.400	85±2	11.0(2/3")	4.5	>205	±1.1@F4.5	<0.03	<0.1	245±2	142.4	C	0.3
BTLM-0.4X-85D-23	No	Yes	27.5	0.400	85±2	11.0(2/3")	4.5	>205	±1.1@F4.5	<0.03	<0.1	245±2	142.4	C	0.3
BTLM-0.3X-110-23	Yes	No	37	0.300	110±2	11.0(2/3")	3.75	>220	±1.6@F3.75	<0.1	<0.1	273±2	145.5	C	0.4
BTLM-0.3X-110D-23	Yes	Yes	37	0.300	110±2	11.0(2/3")	3.75	>220	±1.6@F3.75	<0.1	<0.1	273±2	145.5	C	0.4
BTLM-0.166X-166-23	Yes	No	66	0.166	166±3	11.0(2/3")	3.3	>260	±4.8@F3.3	<0.1	<0.1	329±3	146.5	C	0.6
BTLM-0.075X-220-H1	No	No	215	0.075	220±3	16.0(1")	4.35	>195	±30.9@F4.35	<0.05	<0.1	560±3	322.2	C	8.45
BTLM-4X-45-H1.2	No	No	5	4.000	45±1	20(1.2")	11.7	>73	±0.03@F11.7	<0.08	<0.1	243±1	180.5	C	0.1
BTLM-4X-45D-H1.2	No	Yes	5	4.000	45±1	20(1.2")	11.7	>73	±0.03@F11.7	<0.08	<0.1	243±1	180.5	C	0.1
BTLM-4X-45-H1.2 (IA)	Yes	No	5	4.000	45±1	20(1.2")	11.7 _{-Close}	>73	±0.03@F11.7	<0.08	<0.1	243±1	180.5	C	0.1
BTLM-2X-66-H1.2	No	Yes	10	2.000	66±1	20(1.2")	7.1	>130	±0.05@F7.1	<0.1	<0.1	254±1	171.4	C	/
BTLM-2X-66D-H1.2	No	Yes	10	2.000	66±1	20(1.2")	7.1	>130	±0.05@F7.1	<0.1	<0.1	254±1	177.9	C	/
BTLM-2.0X-39-H2	No	No	11.5	2.000	39±1	23(4/3")	9.5	>85	±0.1@F9.5	<0.1	<0.1	189±1	133.4	C	0.2
BTLM-0.55X-83-H2	No	No	42	0.550	83±1	23(4/3")	8.0	>110	±1.1@F8.0	<0.1	<0.1	198±1	97.5	C	0.2
BTLM-0.1536X-220-21	No	No	215	0.1536	220±3	33(2")	10.0	>90	±13.6@F8	<0.1	<0.1	601±3	369.0	M42	8.7
BTLM-0.462X-378-Q434	No	No	94	0.462	378±4	43.4	8.0	>115	±1.5@F8.0	<0.1	<0.1	847±4	456.9	M58	3.7
BTLM-0.462X-378D-Q434	No	Yes	94	0.462	378±4	43.4	8.0	>115	±1.5@F8.0	<0.1	<0.1	847±4	456.9	M58	3.7
BTLM-0.53X-338-Q434	No	No	82	0.530	338±5	43.4	10.0	>92	±1.4@F10	<0.1	<0.1	814±5	464.4	M58	3.8
BTLM-0.53X-338D-Q434	No	Yes	82	0.530	338±5	43.4	10.0	>92	±1.4@F10	<0.1	<0.1	814±5	464.4	M58	3.8

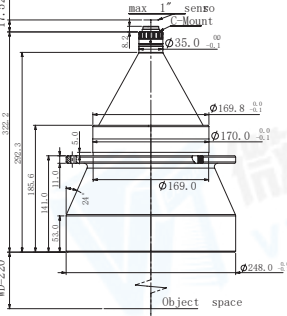
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTLM-0.166X-166-23



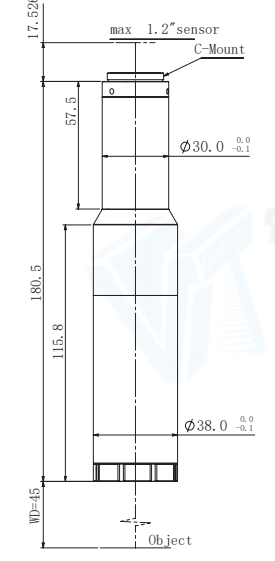
FOV(Φmm)	66
Mag.(x)	0.166
WD(mm)	166±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	3.3
MTF30(lp/mm)	>260
DoF(mm)	±4.8@F3.3
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	329±3
Length(mm)	146.5
Mount	C Mount
Weight(kg)	0.6
Coaxial Light	No
Variable Iris	Yes
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	51.0x42.8

BTLM-0.075X-220-H1



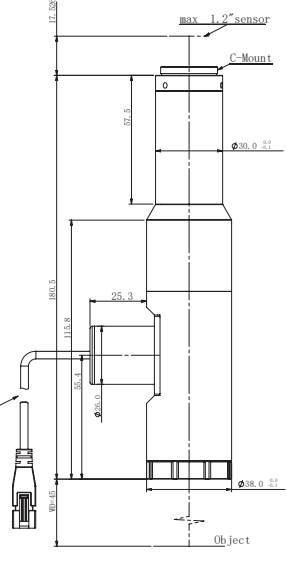
FOV(Φmm)	215
Mag.(x)	0.075
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	4.35
MTF30(lp/mm)	>195
DoF(mm)	±30.9@F4.35
Distortion(% max)	<0.05
Telecentricity(° max)	<0.1
I/O(mm)	560±3
Length(mm)	322.2
Mount	C
Weight(kg)	8.45
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	165.7x131.1
1/1.7" IMX226 (7.5x5.6)	189.2x100.1
2/3" IMX250/264 (8.45x7.1)	175.1x116.8

BTLM-4.0X-45-H1.2



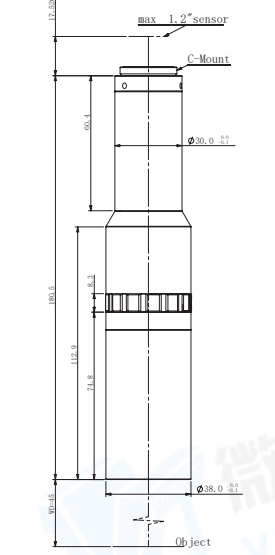
FOV(Φmm)	5
Mag.(x)	4.000
WD(mm)	45±1
Max Sensor Size(Φmm)	20(1.2")
F/#	11.7
MTF30(lp/mm)	>73
DoF(mm)	±0.03@F11.7
Distortion(% max)	<0.08
Telecentricity(° max)	<0.1
I/O(mm)	243±1
Length(mm)	180.5
Mount	C
Weight(kg)	0.1
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
1.2" IMX530/540 (14.6X12.6)	3.65x3.15

BTLM-4.0X-45D-H1.2



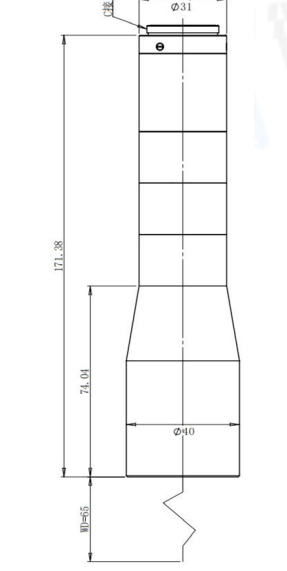
FOV(Φmm)	5
Mag.(x)	4.000
WD(mm)	45±1
Max Sensor Size(Φmm)	20(1.2")
F/#	11.7
MTF30(lp/mm)	>73
DoF(mm)	±0.03@F11.7
Distortion(% max)	<0.08
Telecentricity(° max)	<0.1
I/O(mm)	243±1
Length(mm)	180.5
Mount	C
Weight(kg)	0.1
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	
1.2" IMX530/540 (14.6X12.6)	3.65x3.15

BTLM-4.0X-45-H1.2 (IA)



FOV(Φmm)	5
Mag.(x)	4.000
WD(mm)	45±1
Max Sensor Size(Φmm)	20(1.2")
F/#	11.7-Close
MTF30(lp/mm)	>73
DoF(mm)	±0.03@F11.7
Distortion(% max)	<0.08
Telecentricity(° max)	<0.1
I/O(mm)	243±1
Length(mm)	180.5
Mount	C
Weight(kg)	0.1
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
1.2" IMX530/540 (14.6X12.6)	3.65x3.15

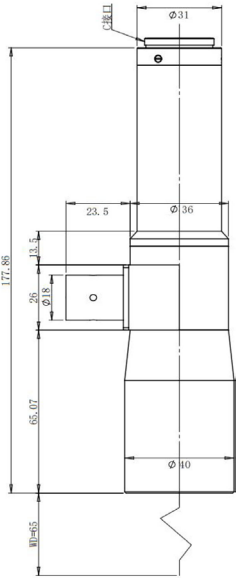
BTLM-2.0X-66-H1.2 (IA)



FOV(Φmm)	10
Mag.(x)	2.000
WD(mm)	66±1
Max Sensor Size(Φmm)	20(1.2")
F/#	7.1
MTF30(lp/mm)	>130
DoF(mm)	±0.05@F7.1
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	254±1
Length(mm)	171.4
Mount	C
Weight(kg)	/
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	
1" Sensor Size(13.13*8.76)	6.6x4.4
1.1" Sensor Size(14.19*10.3)	7.1x5.2
1.2" Sensor Size(14.5*12.6)	7.3x6.3

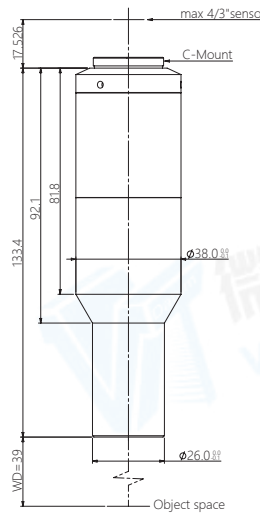
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTLM-2.0X-66D-H1.2



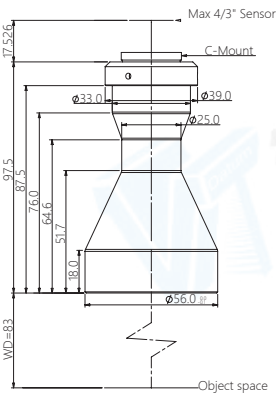
FOV(Φmm)	10
Mag.(x)	2.000
WD(mm)	66±1
Max Sensor Size(Φmm)	20(1.2")
F/#	7.1
MTF30(lp/mm)	>130
DoF(mm)	±0.05@F7.1
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	254±1
Length(mm)	177.9
Mount	C
Weight(kg)	/
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	
1" Sensor Size(13.13x8.76)	6.6x4.4
1.1" Sensor Size (14.19x10.3)	7.1x5.2
1.2" Sensor Size(14.5x12.6)	7.3x6.3

BTLM-2.0X-39-H2



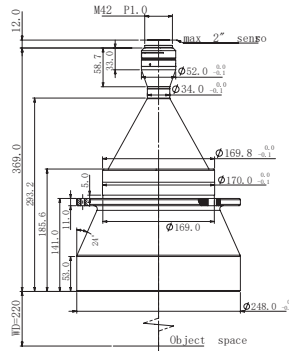
FOV(Φmm)	11.5
Mag.(x)	2.000
WD(mm)	39±1
Max Sensor Size(Φmm)	23(4/3")
F/#	9.5
MTF30(lp/mm)	>85
DoF(mm)	±0.1@F9.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	189±1
Length(mm)	133.4
Mount	C Mount
Weight(kg)	0.2
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
4/3" CMV8000 (18.48x13.73)	9.2x6.9
4/3" PYTHON 12K (18.43x13.82)	9.2x6.9

BTLM-0.55X-83-H2



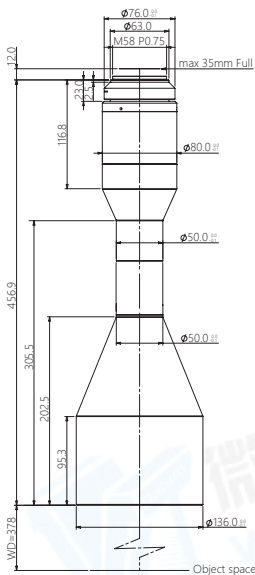
FOV(Φmm)	42
Mag.(x)	0.550
WD(mm)	83±1
Max Sensor Size(Φmm)	23(4/3")
F/#	8.0
MTF30(lp/mm)	>110
DoF(mm)	±1.1@F8.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	198±1
Length(mm)	97.5
Mount	C Mount
Weight(kg)	0.2
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
4/3" CMV8000 (18.48x13.73)	9.2x6.9
4/3" PYTHON 12K (18.43x13.82)	9.2x6.9

BTLM-0.1536X-220-21



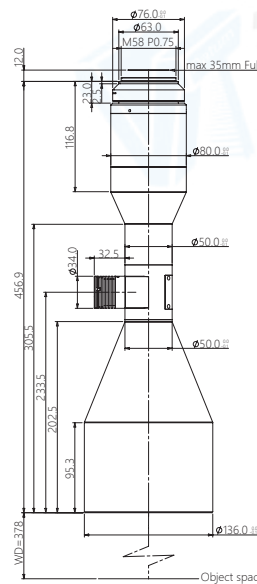
FOV(Φmm)	215
Mag.(x)	0.1536
WD(mm)	220±3
Max Sensor Size(Φmm)	33(2")
F/#	10.0
MTF30(lp/mm)	>90
DoF(mm)	±13.6@F8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	601±3
Length(mm)	369
Mount	M42
Weight(kg)	8.7
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
2" DALSA 12M (24.58x18.43)	160.0x120.0
2" PYTHON 25K (23.04x23.04)	150.0x150.0

BTLM-0.462X-378-Q434



FOV(Φmm)	94
Mag.(x)	0.462
WD(mm)	378±4
Max Sensor Size(Φmm)	43.4
F/#	8.0
MTF30(lp/mm)	>115
DoF(mm)	±1.5@F8.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	847±4
Length(mm)	456.9
Mount	M58
Weight(kg)	3.7
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
KAI29050/2 (36.17x24.11)	78.3x52.2
KAI43142 (36.18x24.12)	78.3x52.2

BTLM-0.462X-378D-Q434

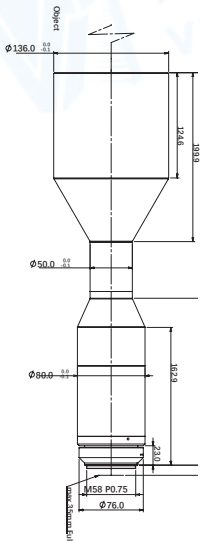


FOV(Φmm)	94
Mag.(x)	0.462
WD(mm)	378±4
Max Sensor Size(Φmm)	43.4
F/#	8.0
MTF30(lp/mm)	>115
DoF(mm)	±1.5@F8.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	847±4
Length(mm)	456.9
Mount	M58
Weight(kg)	3.7
Coaxial Light	Yes
Variable Iris	No
Field of View(mm xmm)	
CMV50000 (36.43x27.62)	78.9x59.8
KAI43142 (36.18x24.12)	78.3x52.2
KAI29050/2 (36.17x24.11)	78.3x52.2

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

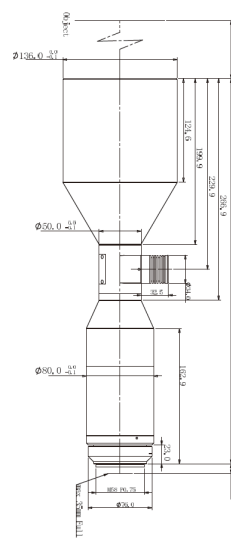
For more info, pls visit: www.visiondatum.com

BTLM-0.53X-338-Q434



FOV(ϕ mm)	82
Mag.(x)	0.530
WD(mm)	338 \pm 5
Max Sensor Size(ϕ mm)	43.4
F/#	10.0
MTF30(lp/mm)	>92
DoF(mm)	$\pm 1.4@F10$
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	814 \pm 5
Length(mm)	464.4
Mount	M58
Weight(kg)	3.8
Variable Iris	No
Coaxial Light	No
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	68.7x52.1
KAI29050/2 (36.17x24.11)	68.2x45.5
KAI43142 (36.18x24.12)	68.3x45.5

BTLM-0.53X-338D-Q434



FOV(ϕ mm)	82
Mag.(x)	0.53
WD(mm)	338 \pm 5
Max Sensor Size(ϕ mm)	43.4
F/#	10.00
MTF30(lp/mm)	>92
DoF(mm)	$\pm 1.4@F10$
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	814 \pm 5
Length(mm)	464.4
Mount	M58
Weight(kg)	3.8
Variable Iris	No
Coaxial Light	Yes
Field of View(mmxmm)	
CMV50000 (36.43x27.62)	7.3x6.3
KAI29050/2 (36.17x24.11)	68.2x45.5
KAI43142 (36.18x24.12)	68.3x45.5

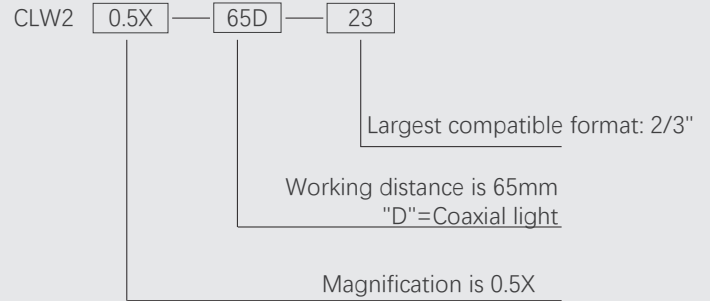
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. $\pm 763@F11$). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-10MP SERIES

4 CLW2- 10MP

- WD 110mm
- WD 180mm
- WD 190mm
- WD 200mm
- WD 220mm

NAMING RULES



■ HIGH RESOLUTION

PRODUCT FEATURES

1. Optimized for AOI application;
2. Large FOV with low magnification;
3. Long working distance easy for illuminations and object allocation design;
4. High accuracy, low distortion, high telecentricity, support up to 1.1" 12M class high-speed camera.



WD 110mm

Model No.	Optical specs									Mechanical specs	
	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
CLW2-0.3X-110-23	No	0.3	110±2	11.0(2/3")	5.6	>170	±2.5@F5.6	<0.02	<0.04	118.0	C Mount
CLW2-0.3X-110D-23	Yes	0.3	110±2	11.0(2/3")	5.6	>170	±2.5@F5.6	<0.02	<0.04	118.0	C Mount
CLW2-0.4X-110-23	No	0.4	110±2	11.0(2/3")	7	>140	±1.8@F7	<0.02	<0.03	140.2	C Mount
CLW2-0.4X-110D-23	Yes	0.4	110±2	11.0(2/3")	7	>140	±1.8@F7	<0.02	<0.03	140.2	C Mount
CLW2-0.5X-110-23	No	0.5	110±2	11.0(2/3")	7	>140	±1.1@F7	<0.03	<0.03	127.3	C Mount
CLW2-0.5X-110D-23	Yes	0.5	110±2	11.0(2/3")	7	>140	±1.1@F7	<0.03	<0.03	127.3	C Mount
CLW2-0.8X-110-H1.1	No	0.8	110±2	18.0(1.1")	7.9	>85	±0.5@F7.9	<0.1	<0.1	122.7	C Mount
CLW2-0.8X-110D-H1.1	Yes	0.8	110±2	18.0(1.1")	7.9	>85	±0.5@F7.9	<0.1	<0.1	122.7	C Mount
CLW2-1.0X-110-H1.1	No	1	110±2	18.0(1.1")	7	>105	±0.3@F7	<0.13	<0.18	133.3	C Mount
CLW2-1.0X-110D-H1.1	Yes	1	110±2	18.0(1.1")	7	>105	±0.3@F7	<0.13	<0.18	133.3	C Mount
CLW2-1.5X-110-H1.1	No	1.5	110±2	18.0(1.1")	10	>78	±0.18@F10	<0.1	<0.1	128.8	C Mount
CLW2-1.5X-110D-H1.1	Yes	1.5	110±2	18.0(1.1")	10	>78	±0.18@F10	<0.1	<0.1	128.8	C Mount
CLW2-2.0X-110-H1.1	No	2	110±2	18.0(1.1")	13.5	>60	±0.14@F13.5	<0.1	<0.1	133.2	C Mount
CLW2-2.0X-110D-H1.1	Yes	2	110±2	18.0(1.1")	13.5	>60	±0.14@F13.5	<0.1	<0.1	133.2	C Mount
CLW2-3.0X-110-H1.1	No	3	110±2	18.0(1.1")	20.1	>40	±0.09@F20.1	<0.1	<0.1	161.8	C Mount
CLW2-3.0X-110D-H1.1	Yes	3	110±2	18.0(1.1")	20.1	>40	±0.09@F20.1	<0.1	<0.1	166.1	C Mount

WD 180-200mm

Model No.	Optical specs									Mechanical specs	
	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
CLW2-0.3X-180-118	No	0.3	180±2	9.0(1/1.8")	8	>100	±7@F16	<0.1	<0.1	166.2	C Mount
CLW2-0.3X-180-23	No	0.3	180±2	11.0(2/3")	10	>83	±7@F16	<0.1	<0.1	166.3	C Mount
CLW2-0.3X-180D-23	Yes	0.3	180±2	11.0(2/3")	10	>83	±7@F16	<0.1	<0.1	166.2	C Mount
CLW2-0.14X-190-125	No	0.14	190±2	7.2(1/2.5")	8	>100	±32.5@F16	<0.2	<0.1	132.8	C Mount
CLW2-0.22X-200-118	No	0.22	200±3	9.0(1/1.8")	8	>95	±13@F16	<0.1	<0.1	150	C Mount
CLW2-0.22X-200-23	No	0.22	200±3	11.0(2/3")	10	>80	±13@F16	<0.1	<0.1	150	C Mount

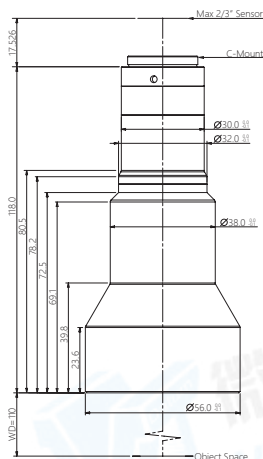
WD 220mm

Model No.	Optical specs									Mechanical specs	
	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
CLW2-0.22X-220-H1.1	No	0.22	220±3	18.0(1.1")	8	>110	±6.6@F8	<0.1	<0.15	232.9	C Mount
CLW2-0.23X-220-H1.1	No	0.23	220±3	18.0(1.1")	8	>110	±6@F8	<0.1	<0.18	233.0	C Mount
CLW2-0.246X-220-H1.1	No	0.246	220±3	18.0(1.1")	8	>100	±5.3@F8	<0.1	<0.13	232.9	C Mount
CLW2-0.275X-220-H1.1	No	0.275	220±3	18.0(1.1")	8	>105	±4.2@F8	<0.1	<0.15	242.9	C Mount
CLW2-0.3X-220-23	No	0.3	220±3	11.0(2/3")	13.6	>63	±9.7@F22	<0.1	<0.1	167.7	C Mount
CLW2-0.3X-220D-23	Yes	0.3	220±3	11.0(2/3")	13.6	>63	±9.7@F22	<0.1	<0.1	167.7	C Mount
CLW2-0.345XH-220-H1.1	No	0.345	220±3	18.0(1.1")	8	>115	±2.7@F8	<0.1	<0.1	212.2	C Mount
CLW2-0.367XH-220-H1.1	No	0.367	220±3	18.0(1.1")	8	>115	±2.4@F8	<0.1	<0.1	213.1	C Mount
CLW2-0.46X-220-H1	No	0.46	220±3	16.0(1")	11.6	>80	±2.2@F11.6	<0.25	<0.1	205.2	C Mount
CLW2-0.46X-220D-H1	Yes	0.46	220±3	16.0(1")	11.6	>80	±2.2@F11.6	<0.25	<0.1	205.2	C Mount
CLW2-0.5X-220-H1	No	0.5	220±3	16.0(1")	8	>110	±1.3@F8	<0.1	<0.1	205.7	C Mount
CLW2-0.5X-220D-H1	Yes	0.5	220±3	16.0(1")	8	>110	±1.3@F8	<0.1	<0.1	205.7	C Mount
CLW2-0.55XH-220-H1.1	No	0.55	220±3	18.0(1.1")	10.1	>90	±1.3@F10.1	<0.1	<0.1	215.6	C Mount
CLW2-0.55X-220D-H1.1	Yes	0.55	220±3	18.0(1.1")	10.1	>90	±1.3@F10.1	<0.1	<0.1	215.6	C Mount

1. Models with letter "D" support coaxial lights. The back focal length of model with (LM) is adjustable.

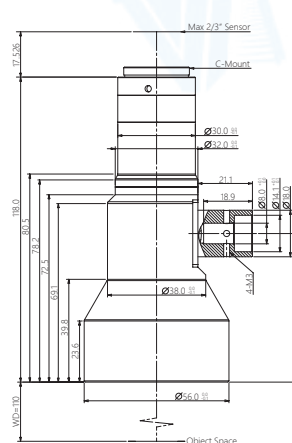
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±7@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-0.3X-110-23



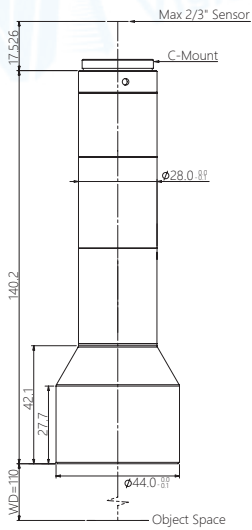
Mag.(x)	0.3
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	5.6
MTF30(lp/mm)	>170
DoF(mm)	±2.5@F5.6
Distortion(% max)	<0.02
Telecentricity(° max)	<0.04
Length(mm)	118.0
Mount	C Mount
Coaxial Light	No
Field of View(mm x mm)	
1/1.8" EV76C570 (7.2x5.4)	24.0x18.0
1/1.7" IMX226 (7.5x5.6)	25.0x18.7
2/3" IMX250/264 (8.45x7.1)	28.2x23.7

CLW2-0.3X-110D-23



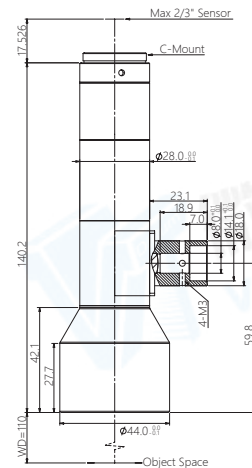
Mag.(x)	0.3
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	5.6
MTF30(lp/mm)	>170
DoF(mm)	±2.5@F5.6
Distortion(% max)	<0.02
Telecentricity(° max)	<0.04
Length(mm)	118.0
Mount	C Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/1.8" EV76C570 (7.2x5.4)	24.0x18.0
1/1.7" IMX226 (7.5x5.6)	25.0x18.7
2/3" IMX250/264 (8.45x7.1)	28.2x23.7

CLW2-0.4X-110-23



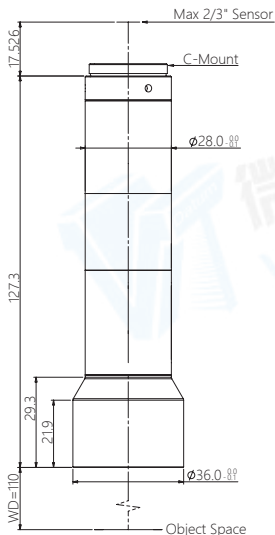
Mag.(x)	0.4
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7
MTF30(lp/mm)	>140
DoF(mm)	±1.8@F7
Distortion(% max)	<0.02
Telecentricity(° max)	<0.03
Length(mm)	140.2
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	18.0x13.5
1/1.7" IMX226 (7.5x5.6)	18.8x14.0
2/3" IMX250/264 (8.45x7.1)	21.1x17.8

CLW2-0.4X-110D-23



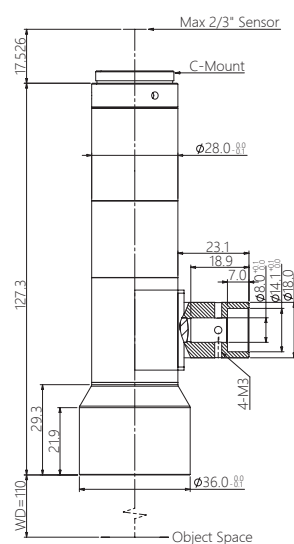
Mag.(x)	0.4
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7
MTF30(lp/mm)	>140
DoF(mm)	±1.8@F7
Distortion(% max)	<0.02
Telecentricity(° max)	<0.03
Length(mm)	140.2
Mount	C Mount
Coaxial Light	Yes
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	18.0x13.5
1/1.7" IMX226 (7.5x5.6)	18.8x14.0
2/3" IMX250/264 (8.45x7.1)	21.1x17.8

CLW2-0.5X-110-23



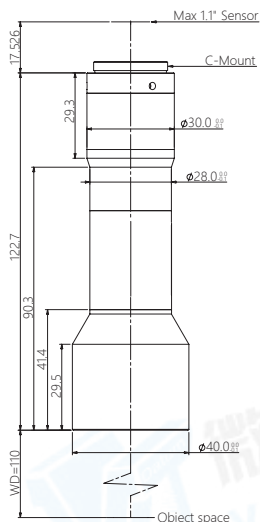
Mag.(x)	0.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7
MTF30(lp/mm)	>140
DoF(mm)	±1.1@F7
Distortion(% max)	<0.03
Telecentricity(° max)	<0.03
Length(mm)	127.3
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	14.4x10.8
1/1.7" IMX226 (7.5x5.6)	15.0x11.2
2/3" IMX250/264 (8.45x7.1)	16.9x14.2

CLW2-0.5X-110D-23



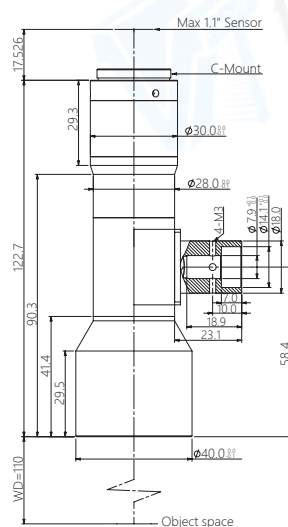
Mag.(x)	0.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7
MTF30(lp/mm)	>140
DoF(mm)	±1.1@F7
Distortion(% max)	<0.03
Telecentricity(° max)	<0.03
Length(mm)	127.3
Mount	C Mount
Coaxial Light	Yes
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	14.4x10.8
1/1.7" IMX226 (7.5x5.6)	15.0x11.2
2/3" IMX250/264 (8.45x7.1)	16.9x14.2

CLW2-0.8X-110-H1.1



Mag.(x)	0.8
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	7.9
MTF30(lp/mm)	>85
DoF(mm)	±0.5@F7.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	122.7
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	16.4x11.0
1.1" IMX253 (14.19x10.38)	17.7x13.0

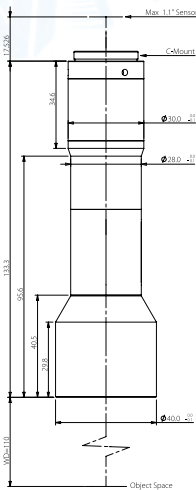
CLW2-0.8X-110D-H1.1



Mag.(x)	0.8
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	7.9
MTF30(lp/mm)	>85
DoF(mm)	±0.5@F7.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	122.7
Mount	C Mount
Coaxial Light	Yes
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	16.4x11.0
1.1" IMX253 (14.19x10.38)	17.7x13.0

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

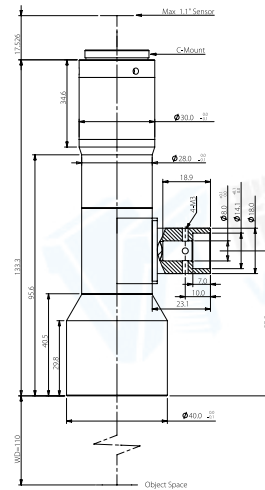
CLW2-1.0X-110-H1.1



Mag.(x)	1.0
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	7
MTF30(lp/mm)	>105
DoF(mm)	±0.3@F7
Distortion(% max)	<0.13
Telecentricity(° max)	<0.18
Length(mm)	133.3
Mount	C Mount
Coaxial Light	No

Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	14.2x10.4

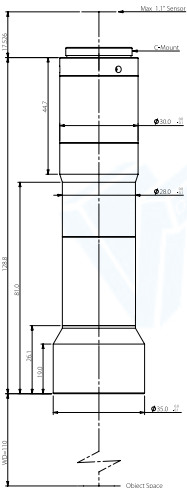
CLW2-1.0X-110D-H1.1



Mag.(x)	1.0
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	7
MTF30(lp/mm)	>105
DoF(mm)	±0.3@F7
Distortion(% max)	<0.13
Telecentricity(° max)	<0.18
Length(mm)	133.3
Mount	C Mount
Coaxial Light	Yes

Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	14.2x10.4

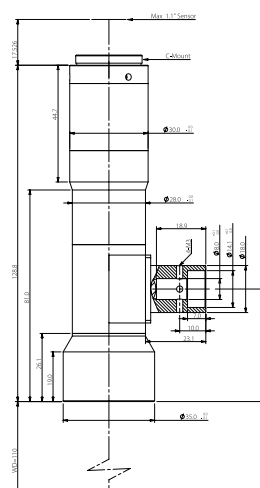
CLW2-1.5X-110-H1.1



Mag.(x)	1.5
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	10
MTF30(lp/mm)	>78
DoF(mm)	±0.18@F10
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	128.8
Mount	C Mount
Coaxial Light	No

Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	9.5x6.9

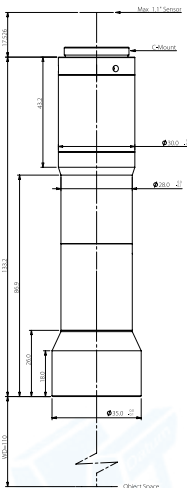
CLW2-1.5X-110D-H1.1



Mag.(x)	1.5
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	10
MTF30(lp/mm)	>78
DoF(mm)	±0.18@F10
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	128.8
Mount	C Mount
Coaxial Light	Yes

Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	9.5x6.9

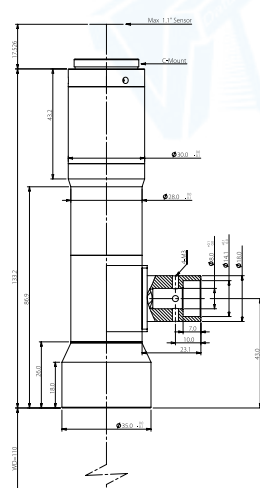
CLW2-2.0X-110-H1.1



Mag.(x)	2.0
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	13.5
MTF30(lp/mm)	>60
DoF(mm)	±0.14@F13.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	133.2
Mount	C Mount
Coaxial Light	No

Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	7.1x5.2

CLW2-2.0X-110D-H1.1

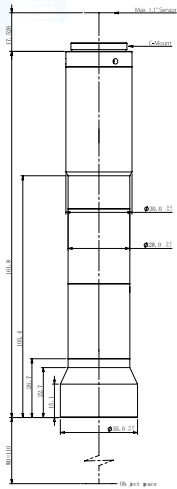


Mag.(x)	2.0
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	13.5
MTF30(lp/mm)	>60
DoF(mm)	±0.14@F13.5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	133.2
Mount	C Mount
Coaxial Light	Yes

Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	7.1x5.2

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

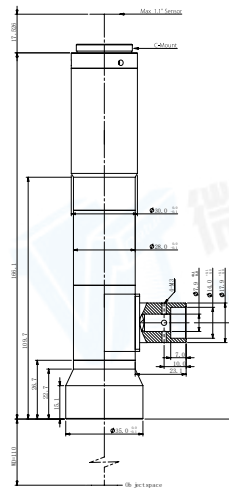
CLW2-3.0X-110-H1.1



Mag.(x)	3.0
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	20.1
MTF30(lp/mm)	>40
DoF(mm)	±0.09@F20.1
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	161.8
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	4.7x3.5

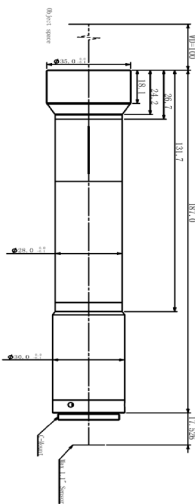
CLW2-3.0X-110D-H1.1



Mag.(x)	3.0
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	20.1
MTF30(lp/mm)	>40
DoF(mm)	±0.09@F20.1
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	161.8
Mount	C Mount
Coaxial Light	Yes

Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	4.7x3.5

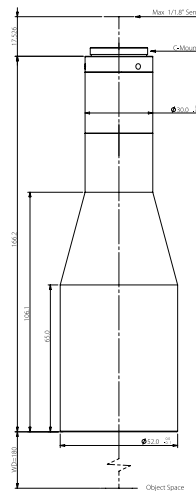
CLW2-4.0X-110-H1.1



Mag.(x)	4.0
WD(mm)	100±2
Max Sensor Size(Φmm)	18(1.1")
F/#	26.5
MTF30(lp/mm)	>35
DoF(mm)	±0.07@F26.5
Distortion(% max)	<0.05
Telecentricity(° max)	<0.01
Length(mm)	187
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1" IMX183 (13.13x8.76)	3.3x2.2
1.1" IMX253 (14.19x10.38)	3.5x2.6

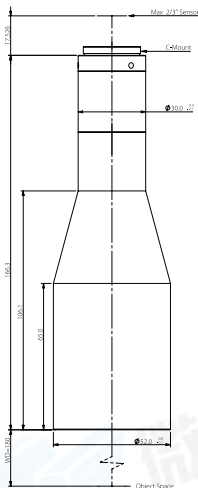
CLW2-0.3X-180-118



Mag.(x)	0.3
WD(mm)	180±2
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	8
MTF30(lp/mm)	>100
DoF(mm)	±7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	166.2
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1/1.8" ICX274/687(7.16x5.44)	23.9x18.1
1/1.8" EV76C570(7.2x5.4)	24.0x18.0

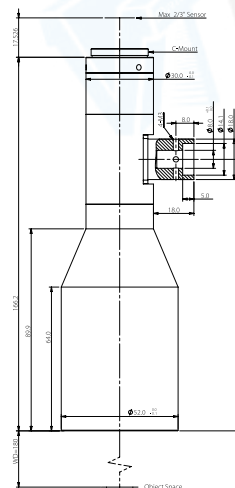
CLW2-0.3X-180-23



Mag.(x)	0.3
WD(mm)	180±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
MTF30(lp/mm)	>83
DoF(mm)	±7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	166.3
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
2/3" ICX625/655(8.47x7.1)	28.2x23.7

CLW2-0.3X-180D-23

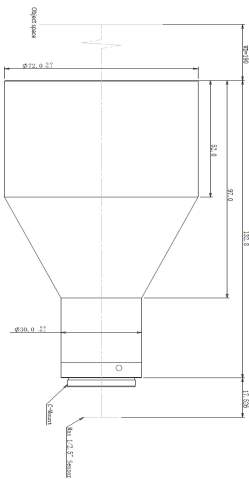


Mag.(x)	0.3
WD(mm)	180±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
MTF30(lp/mm)	>83
DoF(mm)	±7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	166.3
Mount	C Mount
Coaxial Light	Yes

Field of View(mm x mm)	
2/3" ICX625/655(8.47x7.1)	28.2x23.7

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

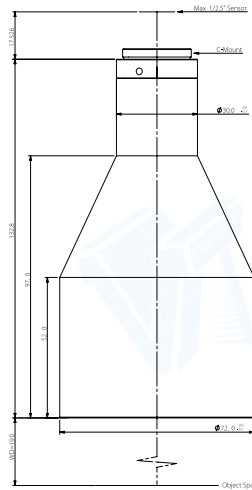
CLW2-0.14X-190-125



Mag.(x)	0.14
WD(mm)	190±2
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	8
MTF30(lp/mm)	>100
DoF(mm)	±32.5@F16
Distortion(% max)	<0.2
Telecentricity(° max)	<0.1
Length(mm)	132.8
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
2/3" ICX625/655(8.47x7.1)	40.7x30.6

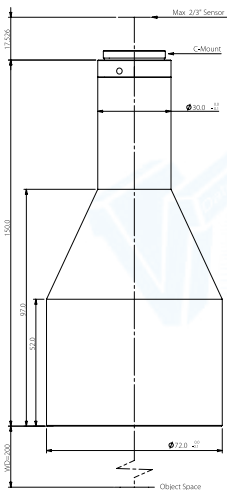
CLW2-0.22X-200-118



Mag.(x)	0.22
WD(mm)	200±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	8
MTF30(lp/mm)	>95
DoF(mm)	±13@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	150.0
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1/1.8" ICX274/687(7.16x5.44)	32.6x24.7
1/1.8" EV76C570(7.2x5.4)	32.7x24.6

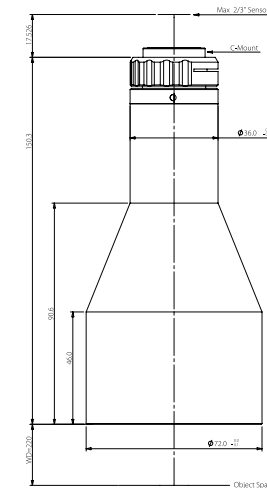
CLW2-0.22X-200-23



Mag.(x)	0.22
WD(mm)	200±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
MTF30(lp/mm)	>80
DoF(mm)	±13@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	150.0
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
2/3" ICX625/655(8.47x7.1)	38.5x32.3

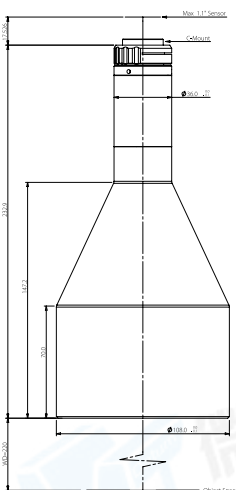
CLW2-0.22X-200-23(LM)



Mag.(x)	0.22
WD(mm)	200±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
MTF30(lp/mm)	>80
DoF(mm)	±13@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	150.0
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
2/3" ICX625/655(8.47x7.1)	38.5x32.3

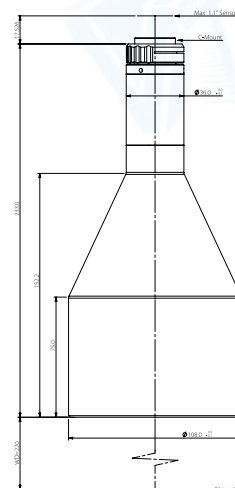
CLW2-0.22XH-220-H1.1



Mag.(x)	0.22
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>110
DoF(mm)	±13@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.15
Length(mm)	232.9
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	64.5x47.2

CLW2-0.23XH-220-H1.1

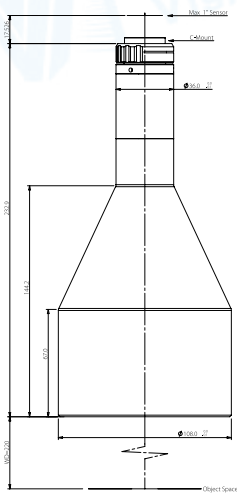


Mag.(x)	0.23
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>110
DoF(mm)	±12@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.18
Length(mm)	233.0
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	61.7x45.1

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

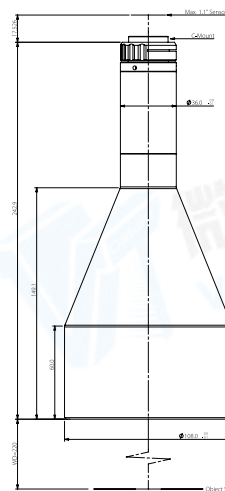
CLW2-0.246X-220-H1.1



Mag.(x)	0.246
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>100
DoF(mm)	±10@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.13
Length(mm)	232.9
Mount	C Mount
Coaxial Light	No

Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	57.7x42.2

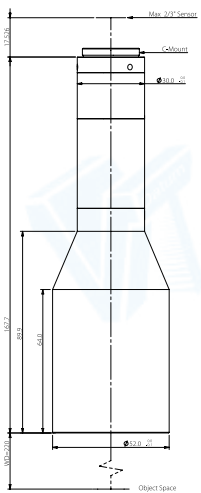
CLW2-0.275X-220-H1.1



Mag.(x)	0.275
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>105
DoF(mm)	±8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.15
Length(mm)	242.9
Mount	C Mount
Coaxial Light	No

Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	51.6x37.8

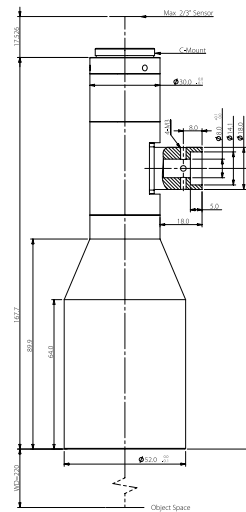
CLW2-0.3X-220-23



Mag.(x)	0.3
WD(mm)	220±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	13.6
MTF30(lp/mm)	>63
DoF(mm)	±9.7@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	167.7
Mount	C Mount
Coaxial Light	No

Field of View(mm xmm)	
2/3" ICX625/655(8.47x7.1)	28.2x23.7

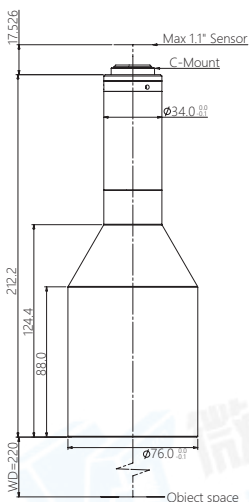
CLW2-0.3X-220D-23



Mag.(x)	0.3
WD(mm)	220±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	13.6
MTF30(lp/mm)	>63
DoF(mm)	±9.7@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	167.7
Mount	C Mount
Coaxial Light	Yes

Field of View(mm xmm)	
2/3" ICX625/655(8.47x7.1)	28.2x23.7

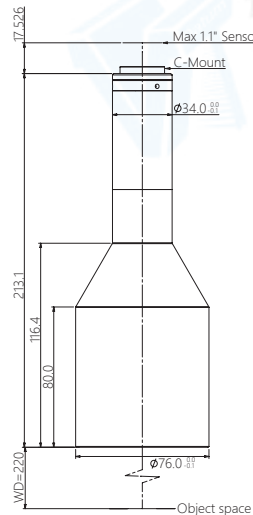
CLW2-0.345XH-220-H1



Mag.(x)	0.345
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	8
MTF30(lp/mm)	>115
DoF(mm)	±5.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	212.2
Mount	C Mount
Coaxial Light	No

Field of View(mm xmm)	
1"KAI-04050(12.85x9.64)	37.3x27.9
1"CMV4000(11.26x11.26)	32.6x32.6
1"ICX674/694/814(12.5x10.0)	36.2x29.0

CLW2-0.367XH-220-H1

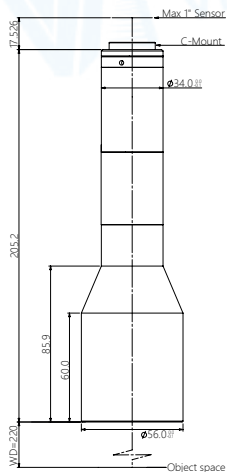


Mag.(x)	0.367
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	8
MTF30(lp/mm)	>115
DoF(mm)	±4.7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	213.1
Mount	C Mount
Coaxial Light	No

Field of View(mm xmm)	
1"KAI-04050(12.85x9.64)	35.0x26.3
1"CMV4000(11.26x11.26)	30.7x30.7
1"ICX674/694/814(12.5x10.0)	34.1x27.3

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

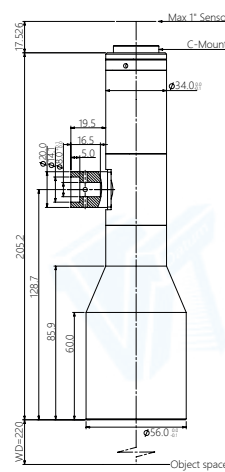
CLW2-0.46X-220-H1



Mag.(x)	0.46
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	11.6
MTF30(lp/mm)	>80
DoF(mm)	±2.2@F11.6
Distortion(% max)	<0.25
Telecentricity(° max)	<0.1
Length(mm)	205.2
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1" PYTHON 5000(12.43x9.83)	27.0x21.4
1" IMX255 (14.19x7.51)	30.8x16.3
1" IMX183 (13.13x8.76)	28.5x19.0

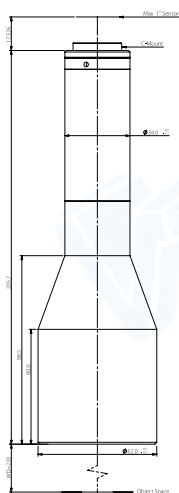
CLW2-0.46X-220-H1



Mag.(x)	0.46
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	11.6
MTF30(lp/mm)	>80
DoF(mm)	±2.2@F11.6
Distortion(% max)	<0.25
Telecentricity(° max)	<0.1
Length(mm)	205.2
Mount	C Mount
Coaxial Light	Yes

Field of View(mm x mm)	
1" PYTHON 5000(12.43x9.83)	27.0x21.4
1" IMX255 (14.19x7.51)	30.8x16.3
1" IMX183 (13.13x8.76)	28.5x19.0

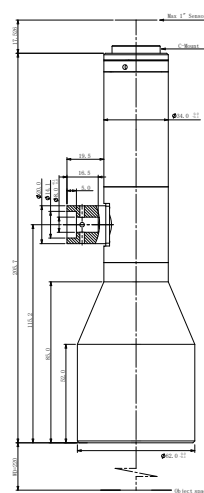
CLW2-0.5X-220-H1



Mag.(x)	0.5
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	8
MTF30(lp/mm)	>110
DoF(mm)	±2.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	205.7
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1" KAI-04050(12.85x9.64)	25.7x19.3
1" CMV4000(11.26x11.26)	22.5x22.5
1" ICX674/694/814(12.5x10.0)	25.0x20.0

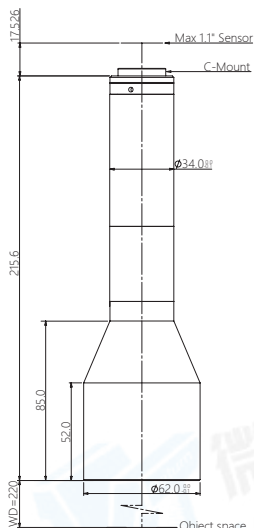
CLW2-0.5X-220D-H1



Mag.(x)	0.5
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	8
MTF30(lp/mm)	>110
DoF(mm)	±2.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	205.7
Mount	C Mount
Coaxial Light	Yes

Field of View(mm x mm)	
1" KAI-04050(12.85x9.64)	25.7x19.3
1" CMV4000(11.26x11.26)	22.5x22.5
1" ICX674/694/814(12.5x10.0)	25.0x20.0

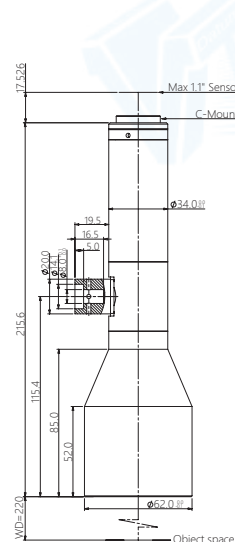
CLW2-0.55XH-220-H1.1



Mag.(x)	0.55
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	10.1
MTF30(lp/mm)	>90
DoF(mm)	±1.3@F10.1
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	215.6
Mount	C Mount
Coaxial Light	No

Field of View(mm x mm)	
1" KAI-04050(12.85x9.64)	23.4x17.5
1" CMV4000(11.26x11.26)	20.5x20.5
1" ICX674/694/814(12.5x10.0)	22.7x18.2

CLW2-0.55X-220D-H1.1



Mag.(x)	0.55
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	10.1
MTF30(lp/mm)	>90
DoF(mm)	±1.3@F10.1
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	215.6
Mount	C Mount
Coaxial Light	Yes

Field of View(mm x mm)	
1" KAI-04050(12.85x9.64)	23.4x17.5
1" CMV4000(11.26x11.26)	20.5x20.5
1" ICX674/694/814(12.5x10.0)	22.7x18.2

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP SERIES

- WD 65mm
- WD 110mm
- WD 130/145mm
- LONG WD 310-510mm



Large object distance

PRODUCT FEATURES

1. Compact design with coaxial illumination options
2. Perfect image and supports all kinds of Mega camera;
3. High contrast, low distortion, high resolution.
4. Optional adjustable Iris for resolution and DOF contro



CLW2-MP

0.8X

65D

Working distance is 65mm
"D"=Coaxial light

Magnification is 0.8X

CLW2-MP SERIES

WD 65mm

1. Compact design with coaxial illumination options
2. Perfect image and supports all kinds of Mega camera;
3. High contrast, low distortion, high resolution.

NAMING RULES

CLW2-MP 0.8X 65D

Working distance is 65mm
"D"=Coaxial light

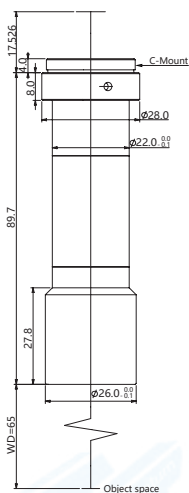
Magnification is 0.8X



Model No.	Optical specs									Mechanical specs	
	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	Distortion (% max)	Telecentricity (° max)	NA	Length (mm)	Mount
CLW2-MP-0.8X-65	No	0.8	65±1	11.0(2/3")	10	1.3	<0.1	<0.1	0.04	89.7	C Mount
CLW2-MP-0.8X-65D	Yes	0.8	65±1	11.0(2/3")	10	1.3	<0.1	<0.1	0.04	89.7	C Mount
CLW2-MP-1.0X-65	No	1.0	65±1	11.0(2/3")	11.1	0.9	<0.1	<0.1	0.045	79.9	C Mount
CLW2-MP-1.0X-65D	Yes	1.0	65±1	11.0(2/3")	11.1	0.9	<0.1	<0.1	0.045	79.9	C Mount
CLW2-MP-1.5XH-65	No	1.5	65±1	11.0(2/3")	12.5	0.4	<0.1	<0.1	0.06	74.4	C Mount
CLW2-MP-1.5XH-65D	Yes	1.5	65±1	11.0(2/3")	12.5	0.4	<0.1	<0.1	0.06	74.4	C Mount
CLW2-MP-2.0X-65	No	2.0	65±1	11.0(2/3")	13.2	0.3	<0.1	<0.1	0.074	80.0	C Mount
CLW2-MP-2.0X-65D	Yes	2.0	65±1	11.0(2/3")	13.2	0.3	<0.1	<0.1	0.074	80.0	C Mount
CLW2-MP-3.0X-65	No	3.0	65±1	11.0(2/3")	20.2	0.2	<0.1	1.6	0.0703	84.7	C Mount
CLW2-MP-3.0X-65D	Yes	3.0	65±1	11.0(2/3")	20.2	0.2	<0.1	1.6	0.0703	84.7	C Mount
CLW2-MP-4.0X-65	No	4.0	65±1	11.0(2/3")	17.9	0.1	<0.1	0.13	0.1078	101.9	C Mount
CLW2-MP-4.0X-65D	Yes	4.0	65±1	11.0(2/3")	17.9	0.1	<0.1	0.13	0.1078	106.2	C Mount
CLW2-MP-6.0X-65	No	6.0	65±1	11.0(2/3")	24.6	0.1	<0.1	0.1	0.116	116.1	C Mount
CLW2-MP-6.0X-65D	Yes	6.0	65±1	11.0(2/3")	24.6	0.1	<0.1	0.1	0.116	120.4	C Mount

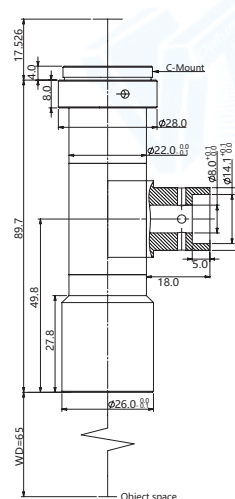
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP-0.8X-65



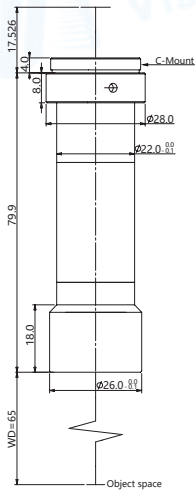
Mag.(x)	0.8
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
Telecentricity(° max)	<0.1
Distortion(% max)	<0.24
MTF30(lp/mm)	75
NA	0.04
Resolution(μm)	8.4
DoF(mm)	1.3
Length(mm)	89.7
Mount	C-Mount
Coaxial Light	No
Field of View(mm x mm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)	8.9x6.7
2/3" (8.8x6.6)	11.0x8.3

CLW2-MP-0.8X-65D



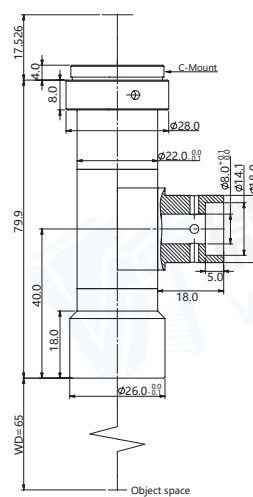
Mag.(x)	0.8
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
Telecentricity(° max)	<0.1
Distortion(% max)	<0.24
MTF30(lp/mm)	75
NA	0.04
Resolution(μm)	8.4
DoF(mm)	1.3
Length(mm)	89.7
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)	8.9x6.7
2/3" (8.8x6.6)	11.0x8.3

CLW2-MP-1.0X-65



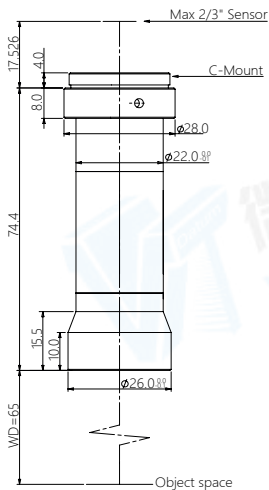
Mag.(x)	1.0
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	11.1
Telecentricity(° max)	<0.1
Distortion(% max)	<0.36
MTF30(lp/mm)	70
NA	0.045
Resolution(μm)	7.5
DoF(mm)	0.9
Length(mm)	79.9
Mount	C-Mount
Coaxial Light	No
Field of View(mmxmm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (8.8x6.6)	8.8x6.6

CLW2-MP-1.0X-65D



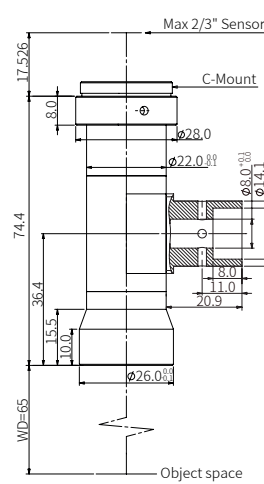
Mag.(x)	1.0
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	11.1
Telecentricity(° max)	<0.1
Distortion(% max)	<0.36
MTF30(lp/mm)	70
NA	0.045
Resolution(μm)	7.5
DoF(mm)	0.9
Length(mm)	79.9
Mount	C-Mount
Coaxial Light	Yes
Field of View(mmxmm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (8.8x6.6)	8.8x6.6

CLW2-MP-1.5XH-65



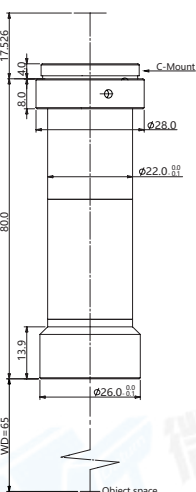
Mag.(x)	1.5
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.5
Telecentricity(° max)	<0.1
Distortion(% max)	<0.5
MTF30(lp/mm)	65
NA	0.06
Resolution(μm)	5.6
DoF(mm)	0.4
Length(mm)	74.4
Mount	C-Mount
Coaxial Light	No
Field of View(mmxmm)	
1/2" (6.4x4.8)	4.3x3.2
1/1.8" (7.13x5.37)	4.8x3.6
2/3" (8.8x6.6)	5.9x4.4

CLW2-MP-1.5XH-65D



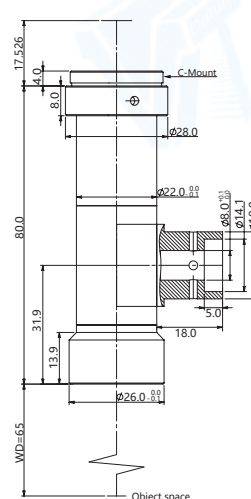
Mag.(x)	1.5
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.5
Telecentricity(° max)	<0.1
Distortion(% max)	<0.5
MTF30(lp/mm)	65
NA	0.06
Resolution(μm)	5.6
DoF(mm)	0.4
Length(mm)	74.4
Mount	C-Mount
Coaxial Light	Yes
Field of View(mmxmm)	
1/2" (6.4x4.8)	4.3x3.2
1/1.8" (7.13x5.37)	4.8x3.6
2/3" (8.8x6.6)	5.9x4.4

CLW2-MP-2.0X-65



Mag.(x)	2.0
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	13.2
Telecentricity(° max)	<0.1
Distortion(% max)	<0.23
MTF30(lp/mm)	60
NA	0.074
Resolution(μm)	4.5
DoF(mm)	0.3
Length(mm)	80.0
Mount	C-Mount
Coaxial Light	No
Field of View(mmxmm)	
1/2" (6.4x4.8)	3.2x2.4
1/1.8" (7.13x5.37)	3.6x2.7
2/3" (8.8x6.6)	4.4x3.3

CLW2-MP-2.0X-65D



Mag.(x)	2.0
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	13.2
Telecentricity(° max)	<0.1
Distortion(% max)	<0.23
MTF30(lp/mm)	60
NA	0.074
Resolution(μm)	4.5
DoF(mm)	0.3
Length(mm)	80.0
Mount	C-Mount
Coaxial Light	Yes
Field of View(mmxmm)	
1/2" (6.4x4.8)	3.2x2.4
1/1.8" (7.13x5.37)	3.6x2.7
2/3" (8.8x6.6)	4.4x3.3

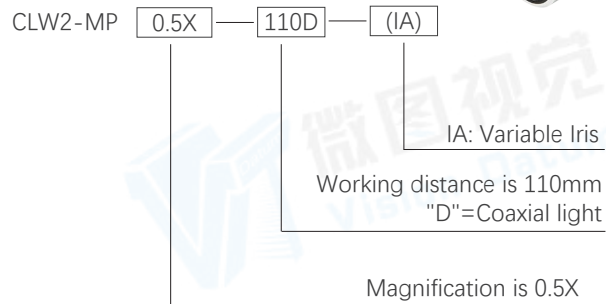
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP SERIES

■ WD 110mm

1. Compact design with coaxial illumination options;
2. Perfect image and supports all kinds of Mega camera;
3. High contrast, low distortion, high resolution;
4. Optional adjustable Iris for resolution and DOF control.

NAMING RULES

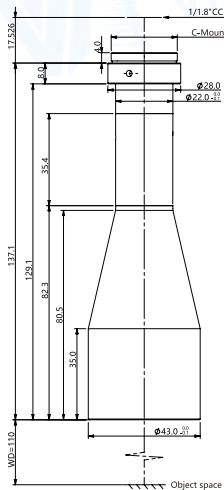


Model No.	Optical specs										Mechanical specs	
	Variable Iris	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	DOF (mm)	Distortion (% max)	Telecentricity (° max)	NA	Length (mm)	Mount
CLW2-MP-0.3X-110	No	No	0.3	110±2	9.0(1/1.8")	9	<0.1	<0.1	0.0167	8.0	137.1	C Mount
CLW2-MP-0.3X-110D	No	Yes	0.3	110±2	9.0(1/1.8")	9	<0.1	<0.1	0.0167	8.0	137.1	C Mount
CLW2-MP-0.5X-110	No	No	0.5	110±2	11.0(2/3")	9.6	<0.1	<0.1	0.0260	3.1	135.2	C Mount
CLW2-MP-0.5X-110(IA)	Yes	No	0.5	110±2	11.0(2/3")	9.6	<0.1	<0.1	0.0260	3.1	135.2	C Mount
CLW2-MP-0.5X-110D	No	Yes	0.5	110±2	11.0(2/3")	9.6	<0.1	<0.1	0.0260	3.1	135.2	C Mount
CLW2-MP-0.5X-110D(IA)	Yes	Yes	0.5	110±2	11.0(2/3")	9.6	<0.1	<0.1	0.0260	3.1	135.2	C Mount
CLW2-MP-0.8X-110	No	No	0.8	110±2	11.0(2/3")	7.9	<0.1	<0.1	0.05028	1.0	122.7	C Mount
CLW2-MP-0.8X-110D	No	Yes	0.8	110±2	11.0(2/3")	7.9	<0.1	<0.1	0.05028	1.0	122.7	C Mount
CLW2-MP-1.0XH-110	No	No	1.0	110±2	11.0(2/3")	7	<0.1	<0.1	0.07158	0.6	133.3	C Mount
CLW2-MP-1.0X-110(IA)	Yes	No	1.0	110±2	11.0(2/3")	10.7	<0.1	<0.1	0.0470	0.9	133.9	C Mount
CLW2-MP-1.0XH-110D	No	Yes	1.0	110±2	11.0(2/3")	7	<0.1	<0.1	0.07158	0.6	133.3	C Mount
CLW2-MP-1.0X-110D(IA)	Yes	Yes	1.0	110±2	11.0(2/3")	10.7	<0.1	<0.1	0.0470	0.9	138.2	C Mount
CLW2-MP-1.5X-110	No	No	1.5	110±2	11.0(2/3")	10	<0.1	<0.1	0.07488	0.4	128.9	C Mount
CLW2-MP-1.5X-110D	No	Yes	1.5	110±2	11.0(2/3")	10	<0.1	<0.1	0.07488	0.4	128.9	C Mount
CLW2-MP-2.0XH-110	No	No	2.0	110±2	11.0(2/3")	12.2	<0.1	<0.1	0.0815	0.2	133.5	C Mount
CLW2-MP-2.0X-110(IA)	Yes	No	2.0	110±2	11.0(2/3")	18.2	<0.1	<0.1	0.0536	0.4	147.4	C Mount
CLW2-MP-2.0XH-110D	No	Yes	2.0	110±2	11.0(2/3")	12.2	<0.1	<0.1	0.0815	0.2	133.5	C Mount
CLW2-MP-2.0X-110D(IA)	Yes	Yes	2.0	110±2	11.0(2/3")	18.2	<0.1	<0.1	0.0536	0.4	151.7	C Mount
CLW2-MP-3.0X-110	No	No	3.0	110±2	11.0(2/3")	18.3	<0.1	<0.1	0.08255	0.2	165.7	C Mount
CLW2-MP-3.0X-110D	No	Yes	3.0	110±2	11.0(2/3")	18.3	<0.1	<0.1	0.08255	0.2	165.7	C Mount
CLW2-MP-4.0X-110	No	No	4.0	110±2	11.0(2/3")	25.6	<0.1	<0.1	0.0750	0.1	128.8	C Mount
CLW2-MP-4.0X-110D	No	Yes	4.0	110±2	11.0(2/3")	25.6	<0.1	<0.1	0.0750	0.1	133.1	C Mount
CLW2-MP-6.0X-110	No	No	6.0	110±2	11.0(2/3")	38.9	<0.1	<0.1	0.0750	0.1	152.7	C Mount
CLW2-MP-6.0X-110D	No	Yes	6.0	110±2	11.0(2/3")	38.9	<0.1	<0.1	0.0750	0.1	157.0	C Mount

1. Models with letter "D" support coaxial lights. Models with "IA" support Variable Iris.

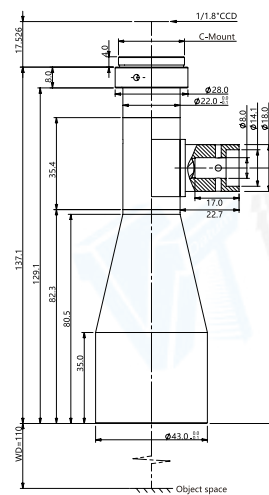
2. Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP-0.3X-110



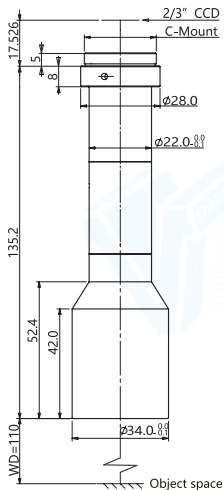
Mag.(x)	0.3
WD(mm)	110±2
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	9
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	100
NA	0.0167
Resolution(μm)	20.1
DoF(mm)	8.0
Length(mm)	137.1
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm x mm)	
1/3" (4.8x3.6)	16.0x12.0
1/2" (6.4x4.8)	21.3x16.0
1/1.8" (7.13x5.37)	23.8x17.9

CLW2-MP-0.3X-110D



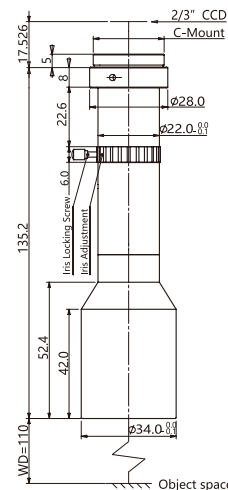
Mag.(x)	0.3
WD(mm)	110±2
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	9
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	100
NA	0.0167
Resolution(μm)	20.1
DoF(mm)	8.0
Length(mm)	137.1
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm x mm)	
1/3" (4.8x3.6)	16.0x12.0
1/2" (6.4x4.8)	21.3x16.0
1/1.8" (7.13x5.37)	23.8x17.9

CLW2-MP-0.5X-110



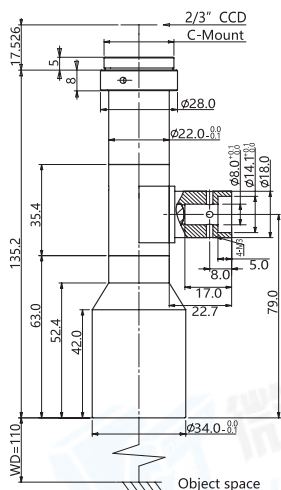
Mag.(x)	0.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	9.6
Telecentricity(° max)	<0.1
Distortion(% max)	<1.0
MTF30(lp/mm)	80
NA	0.026
Resolution(μm)	12.9
DoF(mm)	3.1
Length(mm)	135.2
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm x mm)	
1/2" (6.4x4.8)	12.8x9.6
1/1.8" (7.13x5.37)	14.3x10.7
2/3" (8.8x6.6)	17.6x13.2

CLW2-MP-0.5X-110(IA)



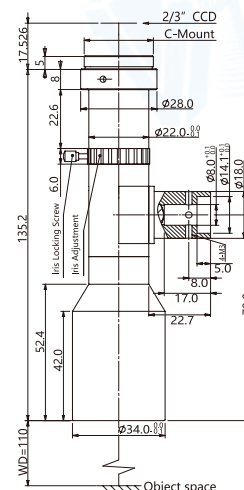
Mag.(x)	0.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	9.6
Telecentricity(° max)	<0.1
Distortion(% max)	<1.0
MTF30(lp/mm)	80
NA	0.026
Resolution(μm)	12.9
DoF(mm)	3.1
Length(mm)	135.2
Mount	C-Mount
Coaxial Light	No
Variable Iris	Yes
Field of View(mm x mm)	
1/2" (6.4x4.8)	12.8x9.6
1/1.8" (7.13x5.37)	14.3x10.7
2/3" (8.8x6.6)	17.6x13.2

CLW2-MP-0.5X-110D



Mag.(x)	0.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	9.6
Telecentricity(° max)	<0.1
Distortion(% max)	<1.0
MTF30(lp/mm)	80
NA	0.026
Resolution(μm)	12.9
DoF(mm)	3.1
Length(mm)	135.2
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm x mm)	
1/2" (6.4x4.8)	12.8x9.6
1/1.8" (7.13x5.37)	14.3x10.7
2/3" (8.8x6.6)	17.6x13.2

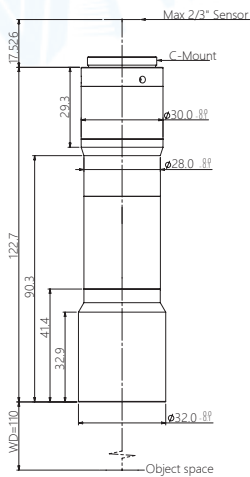
CLW2-MP-0.5X-110D(IA)



Mag.(x)	0.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	9.6
Telecentricity(° max)	<0.1
Distortion(% max)	<1.0
MTF30(lp/mm)	80
NA	0.026
Resolution(μm)	12.9
DoF(mm)	3.1
Length(mm)	135.2
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	Yes
Field of View(mm x mm)	
1/2" (6.4x4.8)	12.8x9.6
1/1.8" (7.13x5.37)	14.3x10.7
2/3" (8.8x6.6)	17.6x13.2

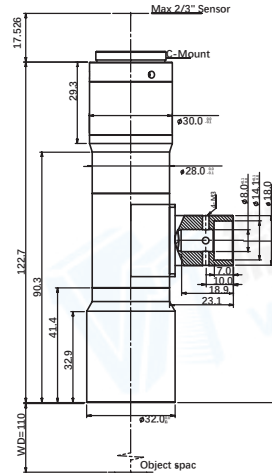
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF that you need, please check with our sales engineer before order cfm.

CLW2-MP-0.8X-110



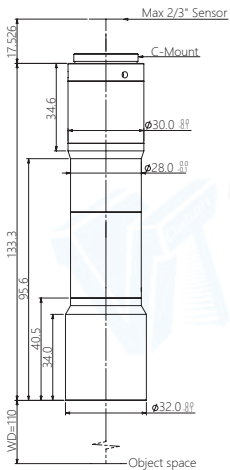
Mag.(x)	0.8
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7.9
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
NA	0.05028
Resolution(μm)	6.7
DoF(mm)	1.0
Length(mm)	122.7
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)	8.9x6.7
2/3" (8.8x6.6)	11.0x8.3

CLW2-MP-0.8X-110D



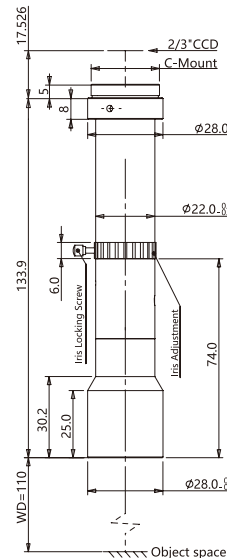
Mag.(x)	0.8
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7.9
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
NA	0.05028
Resolution(μm)	6.7
DoF(mm)	1.0
Length(mm)	122.7
Mount	C-Mount
Coaxial Light	No
Variable Iris	Yes
Field of View(mm xmm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)	8.9x6.7
2/3" (8.8x6.6)	11.0x8.3

CLW2-MP-1.0XH-110



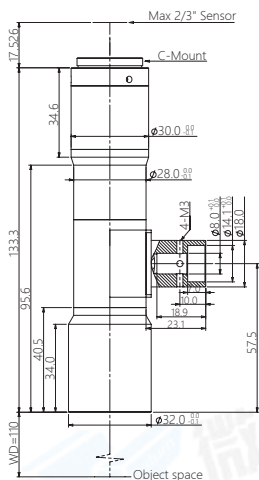
Mag.(x)	1.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	70
NA	0.07158
Resolution(μm)	7.1
DoF(mm)	0.6
Length(mm)	133.3
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (8.8x6.6)	8.8x6.6

CLW2-MP-1.0X-110(IA)



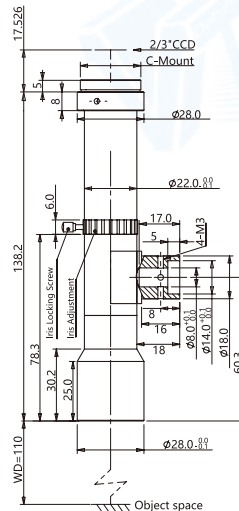
Mag.(x)	1.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10.7
Telecentricity(° max)	<0.1
Distortion(% max)	<0.25
MTF30(lp/mm)	70
NA	0.047
Resolution(μm)	7.1
DoF(mm)	0.9
Length(mm)	133.9
Mount	C-Mount
Coaxial Light	No
Variable Iris	Yes
Field of View(mm xmm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (8.8x6.6)	8.8x6.6

CLW2-MP-1.0XH-110D



Mag.(x)	1.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	70
NA	0.07158
Resolution(μm)	4.7
DoF(mm)	0.9
Length(mm)	133.3
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (8.8x6.6)	8.8x6.6

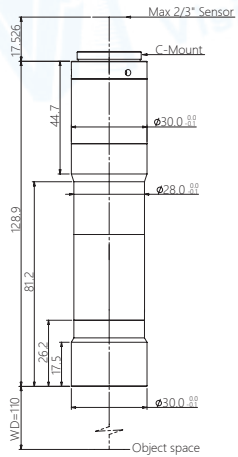
CLW2-MP-1.0X-110D(IA)



Mag.(x)	1.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10.7
Telecentricity(° max)	<0.1
Distortion(% max)	<0.25
MTF30(lp/mm)	70
NA	0.047
Resolution(μm)	7.1
DoF(mm)	0.9
Length(mm)	138.2
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	Yes
Field of View(mm xmm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (8.8x6.6)	8.8x6.6

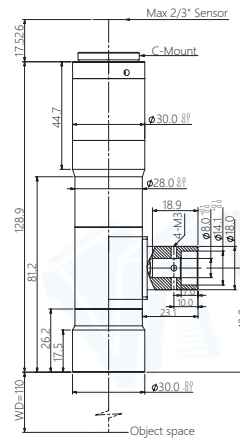
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP-1.5X-110



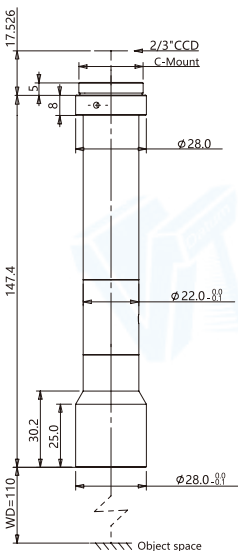
Mag.(x)	1.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
NA	0.07488
Resolution(μm)	4.5
DoF(mm)	0.4
Length(mm)	128.9
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	4.3x3.2
1/1.8" (7.13x5.37)	4.8x3.6
2/3" (8.8x6.6)	5.9x4.4

CLW2-MP-1.5X-110D



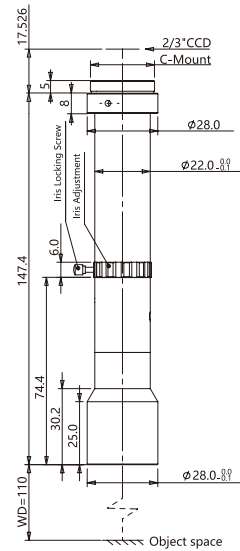
Mag.(x)	1.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
NA	0.07488
Resolution(μm)	4.5
DoF(mm)	0.4
Length(mm)	128.9
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	4.3x3.2
1/1.8" (7.13x5.37)	4.8x3.6
2/3" (8.8x6.6)	5.9x4.4

CLW2-MP-2.0XH-110



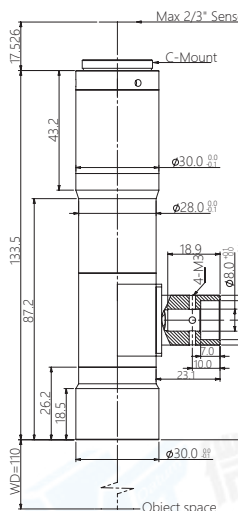
Mag.(x)	2.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.2
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	45
NA	0.0815
Resolution(μm)	6.3
DoF(mm)	0.2
Length(mm)	133.5
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	3.2x2.4
1/1.8" (7.13x5.37)	3.6x2.7
2/3" (8.8x6.6)	4.4x3.3

CLW2-MP-2.0X-110(IA)



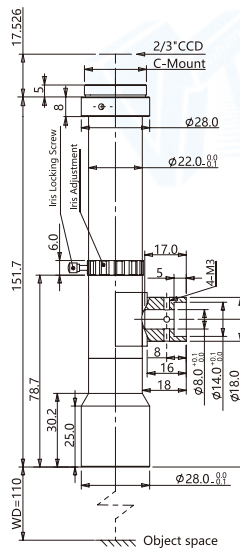
Mag.(x)	2.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	18.2
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	45
NA	0.0536
Resolution(μm)	6.3
DoF(mm)	0.4
Length(mm)	147.4
Mount	C-Mount
Coaxial Light	No
Variable Iris	Yes
Field of View(mm xmm)	
1/2" (6.4x4.8)	3.2x2.4
1/1.8" (7.13x5.37)	3.6x2.7
2/3" (8.8x6.6)	4.4x3.3

CLW2-MP-2.0X-110D



Mag.(x)	2.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.2
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	45
NA	0.0815
Resolution(μm)	6.3
DoF(mm)	0.2
Length(mm)	133.5
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	3.2x2.4
1/1.8" (7.13x5.37)	3.6x2.7
2/3" (8.8x6.6)	4.4x3.3

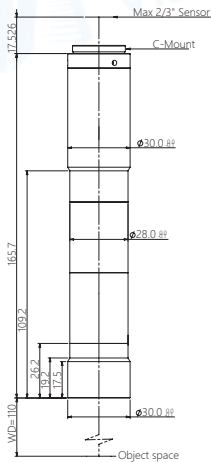
CLW2-MP-2.0XH-110D(IA)



Mag.(x)	2.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	18.2
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	45
NA	0.0536
Resolution(μm)	6.3
DoF(mm)	0.4
Length(mm)	151.7
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	Yes
Field of View(mm xmm)	
1/2" (6.4x4.8)	3.2x2.4
1/1.8" (7.13x5.37)	3.6x2.7
2/3" (8.8x6.6)	4.4x3.3

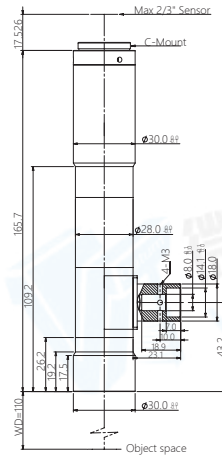
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP-3.0X-110



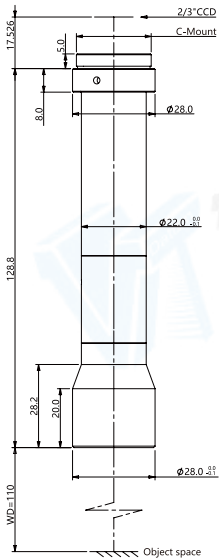
Mag.(x)	3.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	18.3
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	-
NA	0.08255
Resolution(μm)	4.1
DoF(mm)	0.2
Length(mm)	165.7
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	2.1x1.6
1/1.8" (7.13x5.37)	2.4x1.8
2/3" (8.8x6.6)	2.9x2.2

CLW2-MP-3.0X-110D



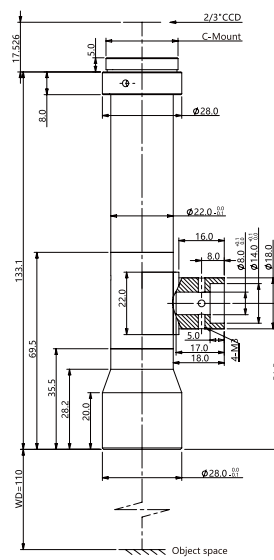
Mag.(x)	3.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	18.3
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	-
NA	0.08255
Resolution(μm)	4.1
DoF(mm)	0.2
Length(mm)	165.7
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	2.1x1.6
1/1.8" (7.13x5.37)	2.4x1.8
2/3" (8.8x6.6)	2.9x2.2

CLW2-MP-4.0X-110



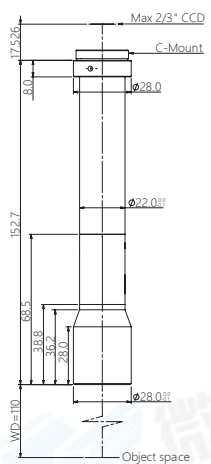
Mag.(x)	4.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	25.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	35
NA	0.075
Resolution(μm)	4.5
DoF(mm)	0.1
Length(mm)	128.8
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	1.6x1.2
1/1.8" (7.13x5.37)	1.8x1.3
2/3" (8.8x6.6)	2.2x1.7

CLW2-MP-4.0X-110D



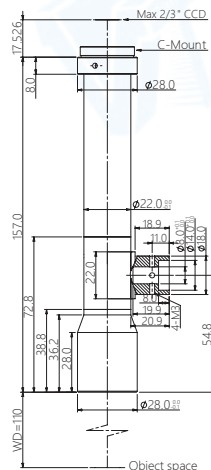
Mag.(x)	4.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	25.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	35
NA	0.075
Resolution(μm)	4.5
DoF(mm)	0.1
Length(mm)	133.1
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	1.6x1.2
1/1.8" (7.13x5.37)	1.8x1.3
2/3" (8.8x6.6)	2.2x1.7

CLW2-MP-6.0X-110



Mag.(x)	6.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	38.9
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
NA	0.075
Resolution(μm)	4.5
DoF(mm)	0.1
Length(mm)	152.7
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	1.1x0.8
1/1.8" (7.13x5.37)	1.2x0.9
2/3" (8.8x6.6)	1.5x1.1

CLW2-MP-6.0X-110D



Mag.(x)	6.0
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	38.9
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
NA	0.075
Resolution(μm)	4.5
DoF(mm)	0.1
Length(mm)	152.7
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm xmm)	
1/2" (6.4x4.8)	1.1x0.8
1/1.8" (7.13x5.37)	1.2x0.9
2/3" (8.8x6.6)	1.5x1.1

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP SERIES

■ WD 130/145mm

1. Compact design with coaxial illumination options;
2. Perfect image and supports all kinds of Mega camera;
3. High contrast, low distortion, high resolution;
4. Optional adjustable Iris for resolution and DOF control.

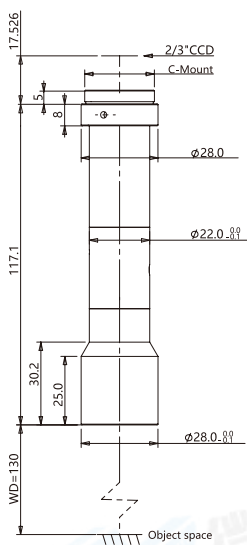


Model No.	Optical specs										Mechanical specs	
	Variable Iris	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	DOF (mm)	Distortion (% max)	Telecentricity (° max)	NA	Length (mm)	Mount
CLW2-MP-0.8X-130	No	No	0.8	130±2	11.0(2/3")	12.6	1.6	<0.1	<0.1	0.0316	117.1	C Mount
CLW2-MP-0.8X-130(IA)	Yes	No	0.8	130±2	11.0(2/3")	12.6	1.6	<0.1	<0.1	0.0316	117.1	C Mount
CLW2-MP-0.8X-130D	No	Yes	0.8	130±2	11.0(2/3")	12.6	1.6	<0.1	<0.1	0.0316	121.4	C Mount
CLW2-MP-0.8X-130D(IA)	Yes	Yes	0.8	130±2	11.0(2/3")	12.6	1.6	<0.1	<0.1	0.0316	121.4	C Mount
CLW2-MP-0.7X-145	No	No	0.7	145±2	11.0(2/3")	16.8	2.7	<0.1	<0.1	0.0207	110.4	C Mount
CLW2-MP-0.7X-145(IA)	Yes	No	0.7	145±2	11.0(2/3")	16.8	2.7	<0.1	<0.1	0.0207	110.4	C Mount
CLW2-MP-0.7X-145D	No	Yes	0.7	145±2	11.0(2/3")	16.8	2.7	<0.1	<0.1	0.0207	114.7	C Mount
CLW2-MP-0.7X-145D(IA)	Yes	Yes	0.7	145±2	11.0(2/3")	16.8	2.7	<0.1	<0.1	0.0207	114.7	C Mount

1. Models with letter "D" support coaxial lights. Models with IA support Variable Iris.

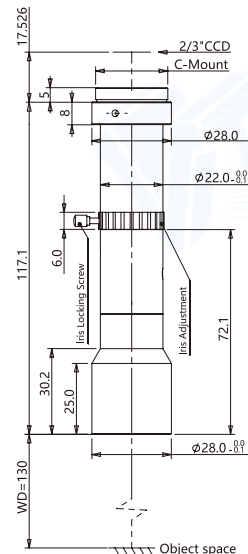
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP-0.8X-130



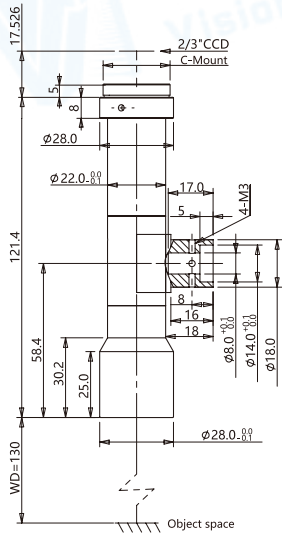
Mag.(x)	0.8
WD(mm)	130±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	65
NA	0.0316
Resolution(μm)	10.6
DoF(mm)	1.6
Length(mm)	117.1
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm x mm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)	8.9x6.7
2/3" (8.8x6.6)	11.0x8.3

CLW2-MP-0.8X-130(IA)



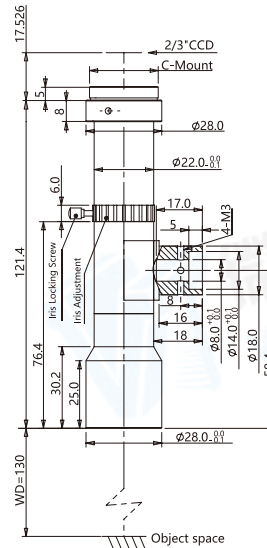
Mag.(x)	0.8
WD(mm)	130±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	65
NA	0.0316
Resolution(μm)	10.6
DoF(mm)	1.6
Length(mm)	117.1
Mount	C-Mount
Coaxial Light	No
Variable Iris	Yes
Field of View(mm x mm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)	8.9x6.7
2/3" (8.8x6.6)	11.0x8.3

CLW2-MP-0.8X-130D



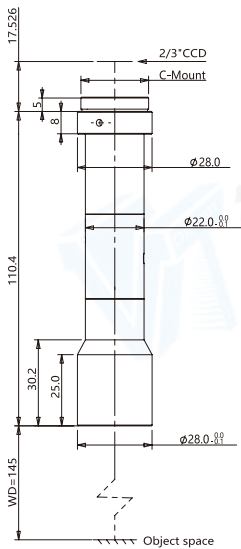
Mag.(x)	0.8
WD(mm)	130±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	65
NA	0.0316
Resolution(μm)	10.6
DoF(mm)	1.6
Length(mm)	121.4
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mmxmm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)	8.9x6.7
2/3" (8.8x6.6)	11.0x8.3

CLW2-MP-0.8X-130D(IA)



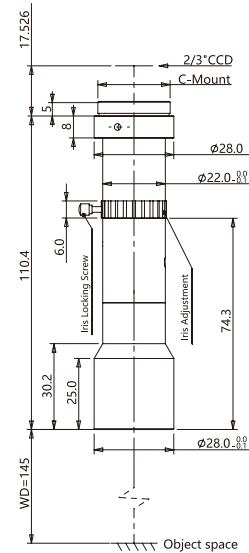
Mag.(x)	0.8
WD(mm)	130±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	65
NA	0.0316
Resolution(μm)	10.6
DoF(mm)	1.6
Length(mm)	121.4
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	Yes
Field of View(mmxmm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)	8.9x6.7
2/3" (8.8x6.6)	11.0x8.3

CLW2-MP-0.7X-145



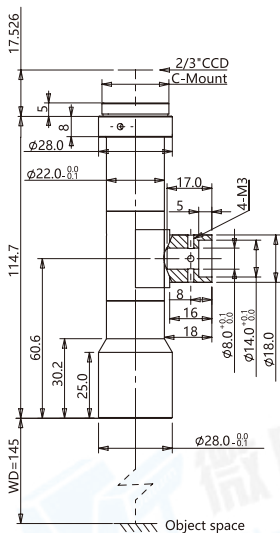
Mag.(x)	0.7
WD(mm)	145±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	16.8
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	55
NA	0.0207
Resolution(μm)	16.2
DoF(mm)	2.7
Length(mm)	110.4
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mmxmm)	
1/2" (6.4x4.8)	9.1x6.9
1/1.8" (7.13x5.37)	10.2x7.7
2/3" (8.8x6.6)	12.6x9.4

CLW2-MP-0.7X-145(IA)



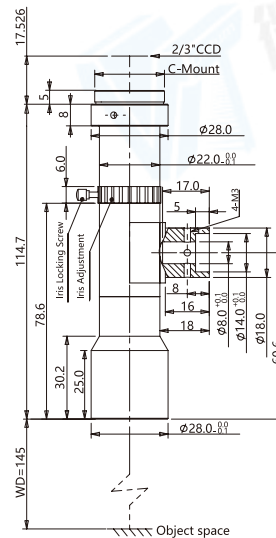
Mag.(x)	0.7
WD(mm)	145±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	16.8
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	55
NA	0.0207
Resolution(μm)	16.2
DoF(mm)	2.7
Length(mm)	110.4
Mount	C-Mount
Coaxial Light	No
Variable Iris	Yes
Field of View(mmxmm)	
1/2" (6.4x4.8)	9.1x6.9
1/1.8" (7.13x5.37)	10.2x7.7
2/3" (8.8x6.6)	12.6x9.4

CLW2-MP-0.7X-145D



Mag.(x)	0.7
WD(mm)	145±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	16.8
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	55
NA	0.0207
Resolution(μm)	16.2
DoF(mm)	2.7
Length(mm)	114.7
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mmxmm)	
1/2" (6.4x4.8)	9.1x6.9
1/1.8" (7.13x5.37)	10.2x7.7
2/3" (8.8x6.6)	12.6x9.4

CLW2-MP-0.7X-145D(IA)



Mag.(x)	0.7
WD(mm)	145±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	16.8
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	55
NA	0.0207
Resolution(μm)	16.2
DoF(mm)	2.7
Length(mm)	114.7
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	Yes
Field of View(mmxmm)	
1/2" (6.4x4.8)	9.1x6.9
1/1.8" (7.13x5.37)	10.2x7.7
2/3" (8.8x6.6)	12.6x9.4

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP SERIES

LONG WD 330-510mm

1. Compact design with coaxial illumination options;
2. Perfect image and supports all kinds of Mega camera;
3. High contrast, low distortion, high resolution;
4. Long working distance up to 510mm.

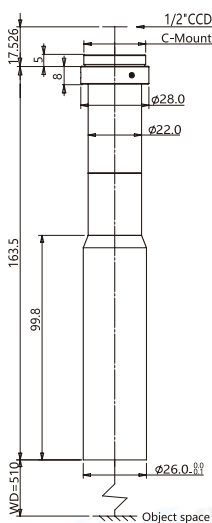


Model No.	Optical specs										Mechanical specs	
	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Resolution (μm)	NA	Length (mm)	Mount
CLW2-MP-0.5X-510	No	0.5	510±3	9.0(1/1.8")	14.2	4.5	<0.1	/	19.3	0.0174	163.5	C Mount
CLW2-MP-0.5X-510D	Yes	0.5	510±3	9.0(1/1.8")	14.2	4.5	<0.1	/	19.3	0.0174	166.3	C Mount
CLW2-MP-1.0X-330	No	1.0	330±3	11.0(2/3")	28.6	2.3	<0.1	<0.1	19.3	0.0174	199.7	C Mount
CLW2-MP-1.0X-330D	Yes	1.0	330±3	11.0(2/3")	28.6	2.3	<0.1	<0.1	19.3	0.0174	197.6	C Mount
CLW2-MP-1.0X-410	No	1.0	410±3	11.0(2/3")	17.9	1.4	<0.1	<0.1	12.3	0.0273	178.9	C Mount
CLW2-MP-1.0X-410D	Yes	1.0	410±3	11.0(2/3")	17.9	1.4	<0.1	<0.1	12.3	0.0273	182.2	C Mount
CLW2-MP-1.0X-510	No	1.0	510±3	11.0(2/3")	25.7	2.1	<0.1	<0.1	17.0	0.0197	175.0	C Mount
CLW2-MP-1.0X-510D	Yes	1.0	510±3	11.0(2/3")	25.7	2.1	<0.1	<0.1	17.0	0.0197	178.5	C Mount

1. Models with letter "D" support coaxial lights. Models with IA support Variable Iris.

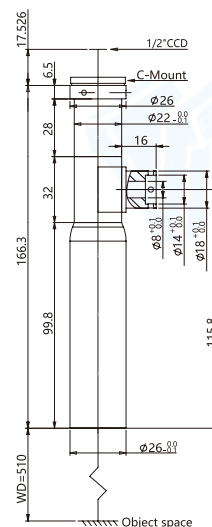
2. **Warm tips:** The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW2-MP-0.5X-510



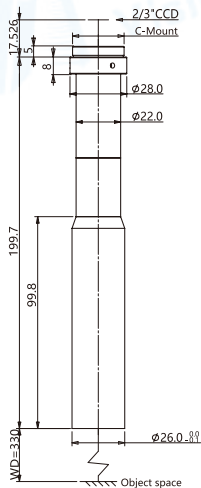
Mag.(x)	0.5
WD(mm)	510±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	14.2
Telecentricity(° max)	/
Distortion(% max)	<0.1
MTF30(lp/mm)	60
NA	0.0174
Resolution(μm)	19.3
DoF(mm)	4.5
Length(mm)	163.5
Mount	C-Mount
Coaxial Light	No
Field of View(mmxmm)	
1/3" (4.8x3.6)	9.6x7.2
1/2" (6.4x4.8)	12.8x9.6

CLW2-MP-0.5X-510D



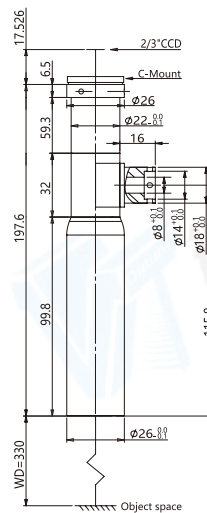
Mag.(x)	0.5
WD(mm)	510±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	14.2
Telecentricity(° max)	/
Distortion(% max)	<0.1
MTF30(lp/mm)	60
NA	0.0174
Resolution(μm)	19.3
DoF(mm)	4.5
Length(mm)	166.3
Mount	C-Mount
Coaxial Light	Yes
Field of View(mmxmm)	
1/3" (4.8x3.6)	9.6x7.2
1/2" (6.4x4.8)	12.8x9.6

CLW2-MP-1.0X-330



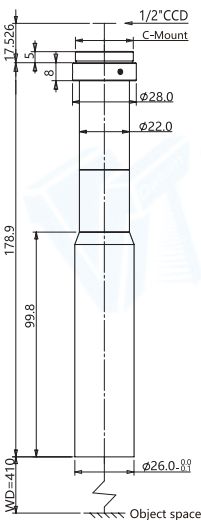
Mag.(x)	1.0
WD(mm)	330±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	28.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	30
NA	0.0174
Resolution(μm)	19.3
DoF(mm)	2.3
Length(mm)	199.7
Mount	C-Mount
Coaxial Light	No
Field of View(mmxmm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (8.8x6.6)	8.8x6.6

CLW2-MP-1.0X-330D



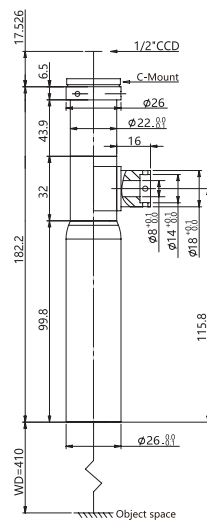
Mag.(x)	1.0
WD(mm)	330±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	28.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	30
NA	0.0174
Resolution(μm)	19.3
DoF(mm)	2.3
Length(mm)	197.6
Mount	C-Mount
Coaxial Light	Yes
Field of View(mmxmm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (8.8x6.6)	8.8x6.6

CLW2-MP-1.0X-410



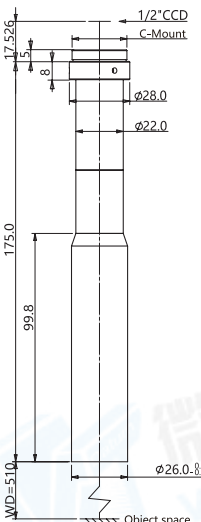
Mag.(x)	1.0
WD(mm)	410±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	17.9
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	37
NA	0.0273
Resolution(μm)	12.3
DoF(mm)	1.4
Length(mm)	178.9
Mount	C-Mount
Coaxial Light	No
Field of View(mmxmm)	
1/3" (4.8x3.6)	4.8x3.6
1/2" (6.4x4.8)	6.4x4.8

CLW2-MP-1.0X-410D



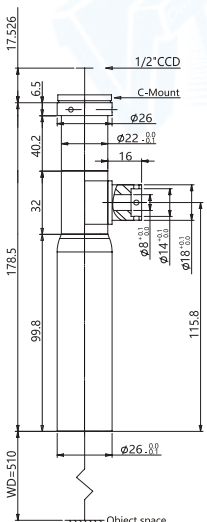
Mag.(x)	1.0
WD(mm)	410±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	17.9
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	37
NA	0.0273
Resolution(μm)	12.3
DoF(mm)	1.4
Length(mm)	182.2
Mount	C-Mount
Coaxial Light	Yes
Field of View(mmxmm)	
1/3" (4.8x3.6)	4.8x3.6
1/2" (6.4x4.8)	6.4x4.8

CLW2-MP-1.0X-510



Mag.(x)	1.0
WD(mm)	510±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	25.7
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	30
NA	0.0197
Resolution(μm)	17.0
DoF(mm)	2.1
Length(mm)	175.0
Mount	C-Mount
Coaxial Light	No
Field of View(mmxmm)	
1/3" (4.8x3.6)	4.8x3.6
1/2" (6.4x4.8)	6.4x4.8

CLW2-MP-1.0X-510D



Mag.(x)	1.0
WD(mm)	510±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	25.7
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	30
NA	0.0197
Resolution(μm)	17.0
DoF(mm)	2.1
Length(mm)	178.5
Mount	C-Mount
Coaxial Light	Yes
Field of View(mmxmm)	
1/3" (4.8x3.6)	4.8x3.6
1/2" (6.4x4.8)	6.4x4.8

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW3-ST SERIES

- WD 40mm
- WD 65mm
- WD 110mm
- WD 130-180mm
- WD 250mm

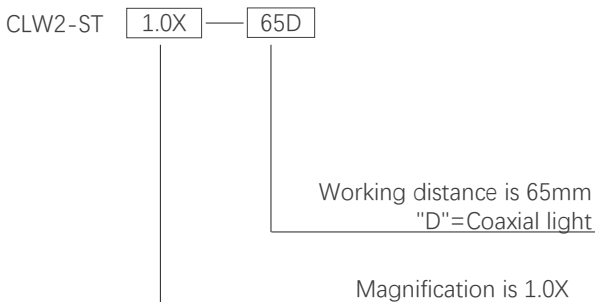


Standard Resolution Telecentric Lenses

CLW ST series C-Mount Macro lens have telecentric lens elements to achieve high performance at reasonable prices.

The required magnification and working distance can be accommodated to meet your individual requirements by using an optional closed-up ring adapter.

NAMING RULES



PRODUCT FEATURES

1. Fixed magnification telecentric lenses, with a wide selection of working distance and magnification;
2. Compact design with 16mm diameter, ideal for limited space;
3. Ideal for manufacturing equipment;
4. High cost performance.

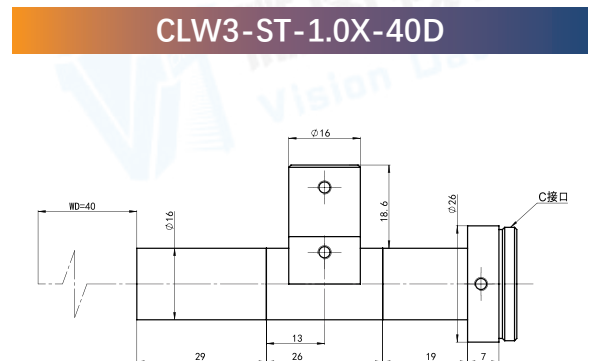
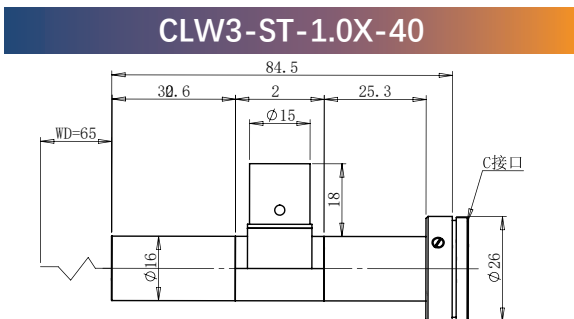


CLW3-ST SERIES

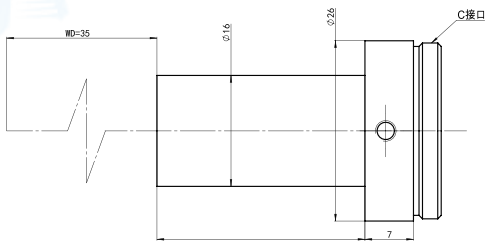
■ WD 40mm

Model No.	Optical specs					Measuring range	
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD (6.4 x 4.8)
CLW3-ST-0.5X-40	No	0.5	40	1.3	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-40	No	0.8	40	1	0.009	6 x 4.5	8 x 6
CLW3-ST-1.0X-40	No	1.0	40	1.26	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-40D	Yes	1.0	40	1.26	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-40	No	1.5	40	0.83	0.008	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-40D	Yes	1.5	40	0.83	0.008	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-40	No	2.0	40	0.68	0.008	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-40D	Yes	2.0	40	0.68	0.008	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-40	No	3.0	40	0.5	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-40	No	4.0	40	0.45	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-40D	Yes	4.0	40	0.45	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-6.0X-40	No	6.0	40	0.35	0.008	0.8 x 0.6	1.06 x 0.8
CLW3-ST-6.0X-40D	Yes	6.0	40	0.35	0.008	0.8 x 0.6	1.06 x 0.8
CLW3-ST-8.0X-40	No	8.0	40	0.21	0.008	0.6 x 0.45	0.8 x 0.6
CLW3-ST-8.0X-40D	Yes	8.0	40	0.21	0.008	0.6 x 0.45	0.8 x 0.6

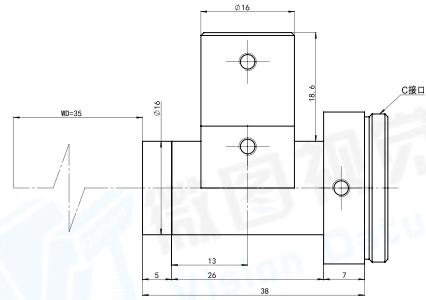
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.



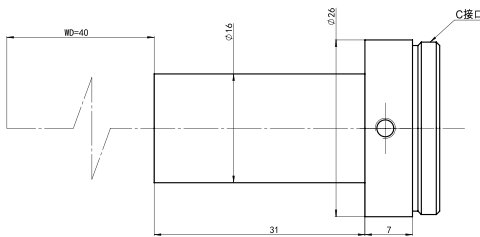
CLW3-ST-1.5X-40



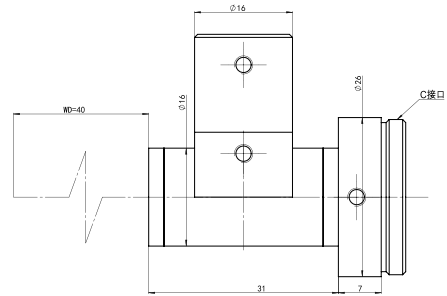
CLW3-ST-1.5X-40D



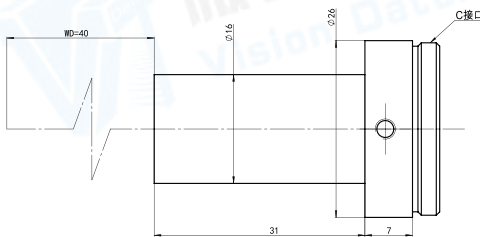
CLW3-ST-2.0X-40



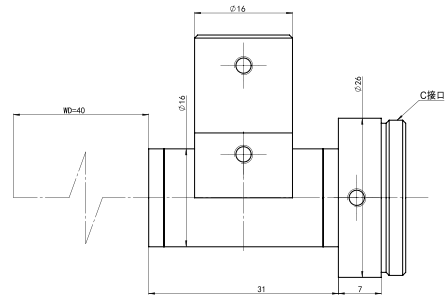
CLW3-ST-2.0X-40D



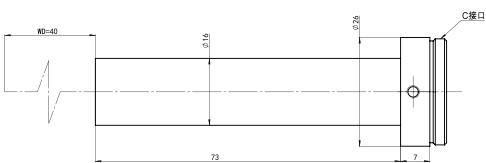
CLW3-ST-4.0X-40



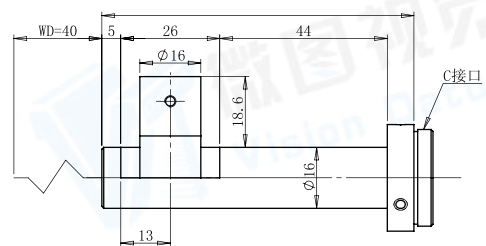
CLW3-ST-4.0X-40D



CLW3-ST-6.0X-40



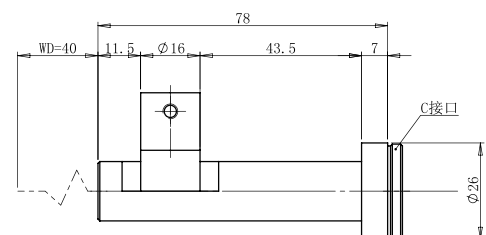
CLW3-ST-6.0X-40D



CLW3-ST-8.0X-40



CLW3-ST-8.0X-40D



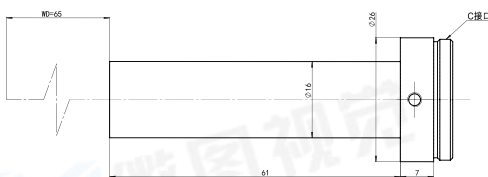
CLW3-ST SERIES

WD 65mm

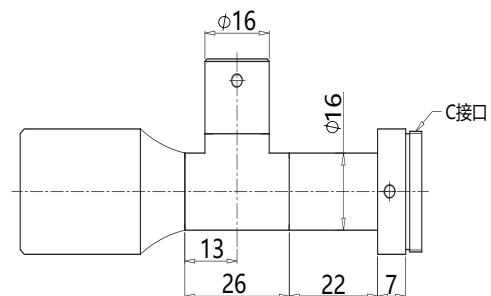
Model No.	Optical specs					Measuring range	
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD (6.4 x 4.8)
CLW3-ST-0.5X-65	No	0.5	65	2.2	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.5X-65D	Yes	0.5	65	2.2	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-65	No	0.8	65	3	0.011	6 x 4.5	8 x 6
CLW3-ST-0.8X-65D	Yes	0.8	65	3	0.011	6 x 4.5	8 x 6
CLW3-ST-1.0X-65	No	1.0	65	1.3	0.009	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-65D	Yes	1.0	65	1.3	0.009	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-65	No	1.5	65	0.8	0.006	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-65D	Yes	1.5	65	0.8	0.006	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-65	No	2.0	65	0.6	0.005	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-65D	Yes	2.0	65	0.6	0.005	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-65	No	3.0	65	0.35	0.007	1.6 x 1.2	2.1 x 1.6
CLW3-ST-3.0X-65D	Yes	3.0	65	0.35	0.007	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-65	No	4.0	65	0.2	0.007	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-65D	Yes	4.0	65	0.2	0.007	1.2 x 0.9	1.6 x 1.2
CLW3-ST-5.0X-65	No	5.0	65	0.28	0.008	0.96 x 0.72	1.2 x 0.96
CLW3-ST-5.0X-65D	Yes	5.0	65	0.28	0.008	0.96 x 0.72	1.2 x 0.96
CLW3-ST-6.0X-65	No	6.0	65	0.2	0.007	0.8 x 0.6	1.1 x 0.8
CLW3-ST-6.0X-65D	Yes	6.0	65	0.2	0.007	0.8 x 0.6	1.1 x 0.8
CLW3-ST-7.0X-65	No	7.0	65	0.2	0.007	0.68 x 0.51	0.91 x 0.68
CLW3-ST-7.0X-65D	Yes	7.0	65	0.2	0.007	0.68 x 0.51	0.91 x 0.68
CLW3-ST-8.0X-65	No	8.0	65	0.2	0.007	0.6 x 0.45	0.8 x 0.6
CLW3-ST-8.0X-65D	Yes	8.0	65	0.2	0.007	0.6 x 0.45	0.8 x 0.6

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

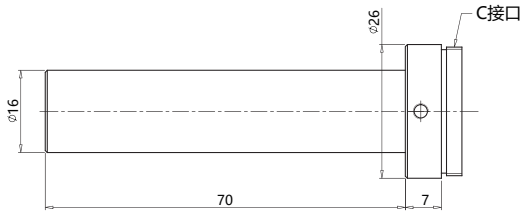
CLW3-ST-0.5X-65



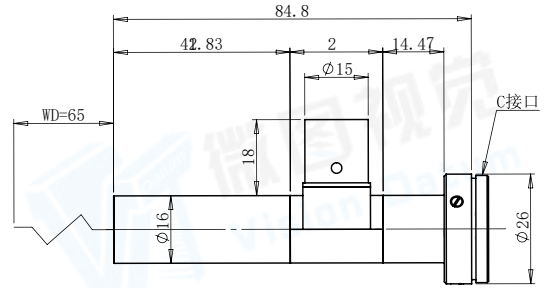
CLW2-ST-0.5X-65D



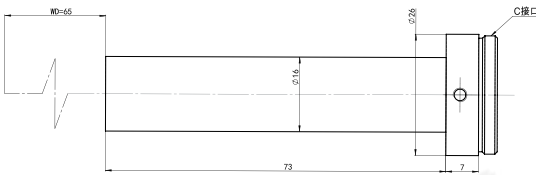
CLW3-ST-0.8X-65



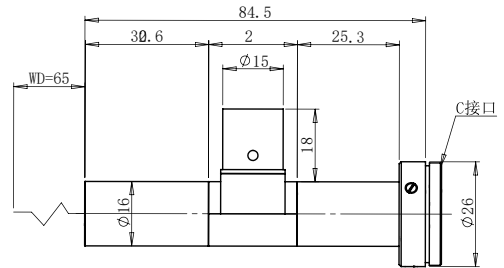
CLW3-ST-0.8X-65D



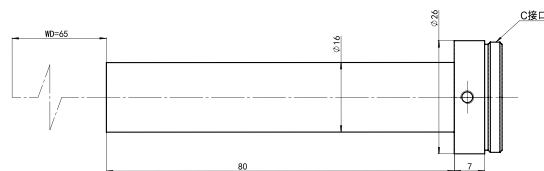
CLW3-ST-1.0X-65



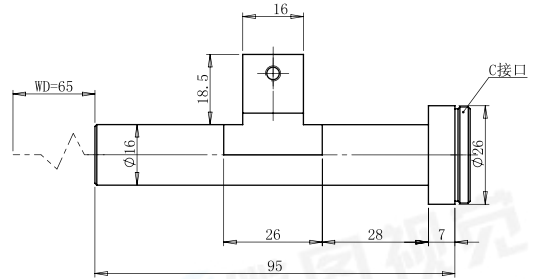
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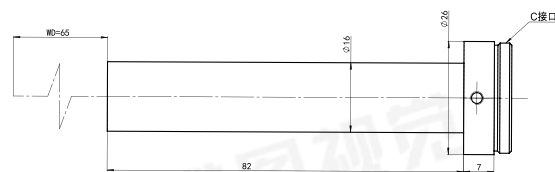
CLW3-ST-1.5X-65



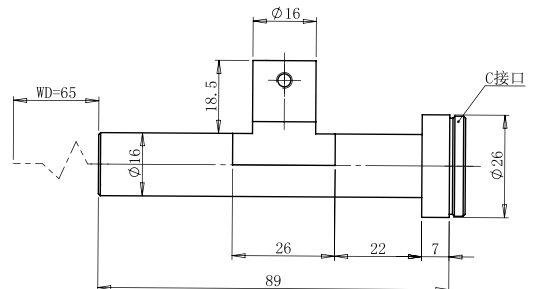
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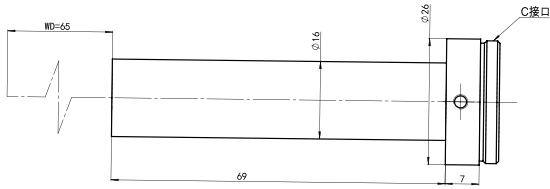
CLW3-ST-2.0X-65



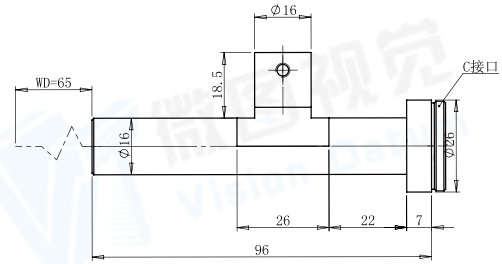
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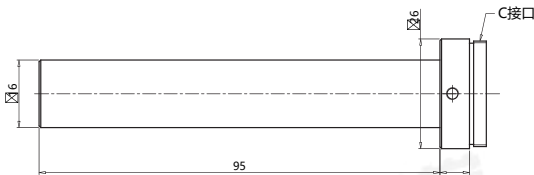
CLW3-ST-3.0X-65



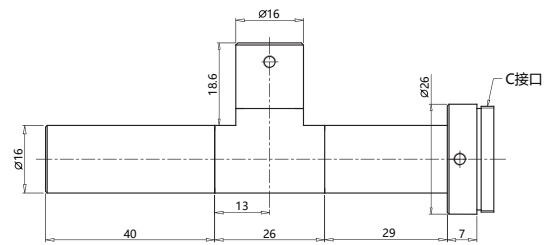
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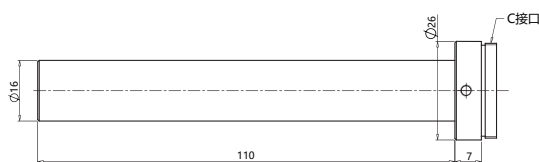
CLW3-ST-4.0X-65



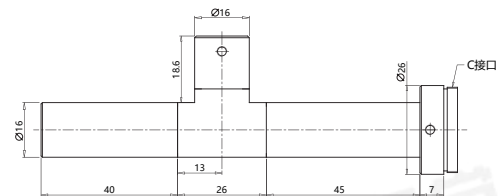
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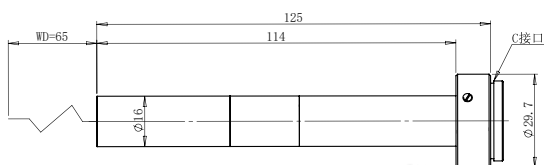
CLW3-ST-5.0X-65



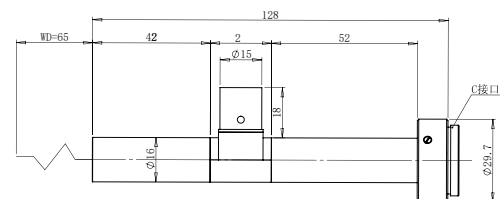
CLW3-ST-5.0X-65D



CLW3-ST-6.0X-65



CLW3-ST-6.0X-65D



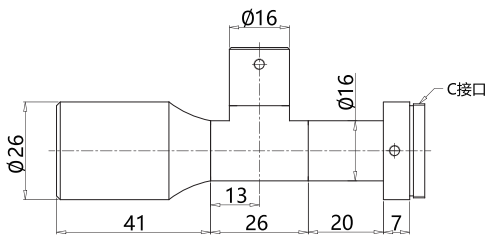
CLW3-ST SERIES

■ WD 110mm

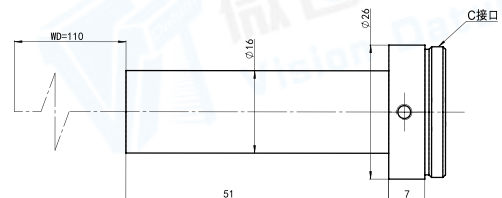
Model No.	Optical specs					Measuring range	
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD (6.4 x 4.8)
CLW3-ST-0.5X-110D	Yes	0.5	110	2.3	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-110	No	0.8	110	3.0	0.011	6 x 4.5	8 x 6
CLW3-ST-0.8X-110D	Yes	0.8	110	2.0	0.011	6 x 4.5	8 x 6
CLW3-ST-1.0X-110	No	1.0	110	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-110D	Yes	1.0	110	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-110	No	1.5	110	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-110D	Yes	1.5	110	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-110	No	2.0	110	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-110D	Yes	2.0	110	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-110	No	3.0	110	0.35	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-3.0X-110D	Yes	3.0	110	0.35	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-110	No	4.0	110	0.3	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-110D	Yes	4.0	110	0.3	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-6.0X-110	No	6.0	110	0.18	0.008	0.8 x 0.6	1.1 x 0.8
CLW3-ST-6.0X-110D	Yes	6.0	110	0.18	0.008	0.8 x 0.6	1.1 x 0.8

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

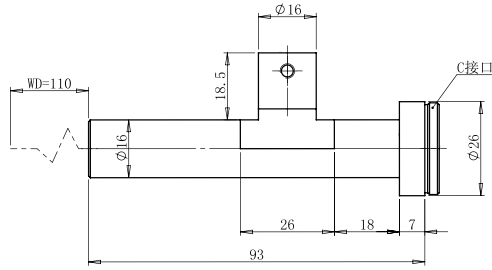
CLW3-ST-0.5X-110D



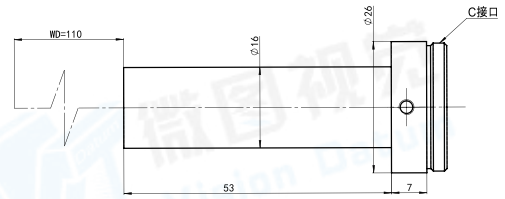
CLW3-ST-0.8X-110



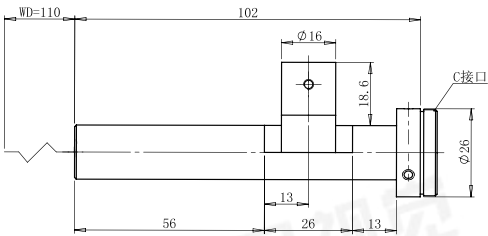
CLW3-ST-0.8X-110D



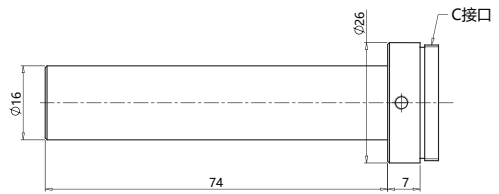
CLW3-ST-1.0X-110



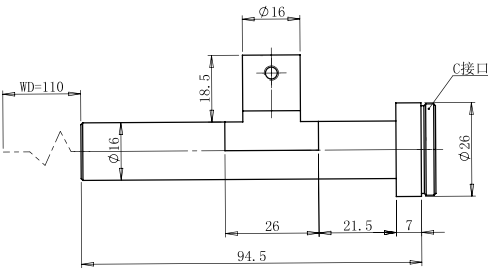
CLW3-ST-1.0X-110D



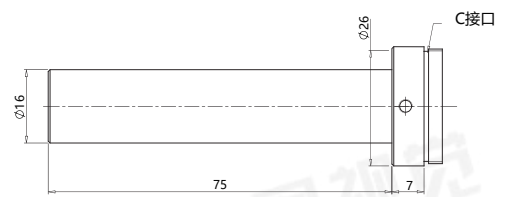
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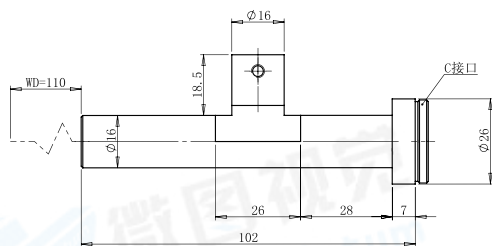
CLW3-ST-1.5X-110D



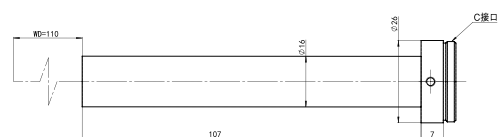
CLW3-ST-2.0X-110



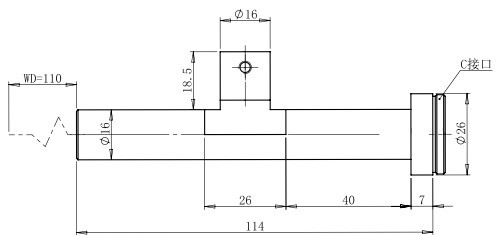
CLW3-ST-2.0X-110D



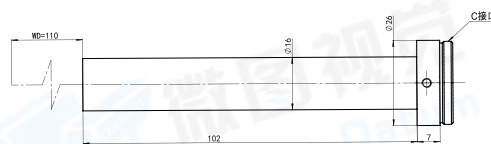
CLW3-ST-3.0X-110



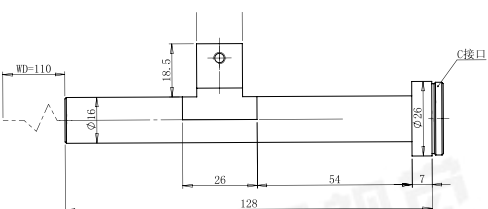
CLW3-ST-3.0X-110D



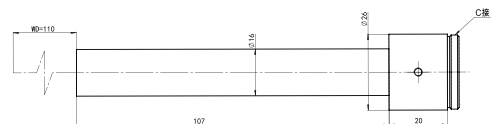
CLW3-ST-4.0X-110



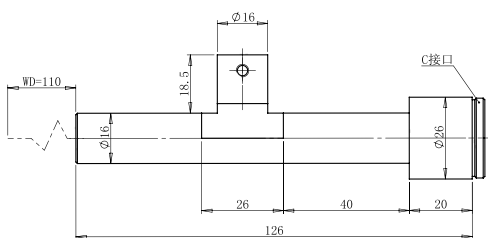
CLW3-ST-4.0X-110D



CLW3-ST-6.0X-110



CLW3-ST-6.0X-110D



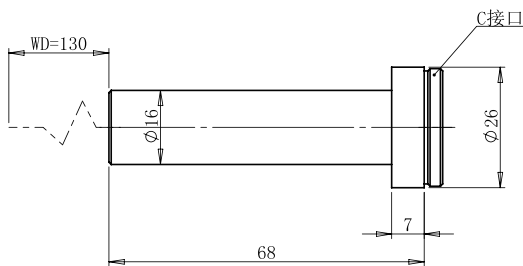
CLW3-ST SERIES

WD 130-180mm

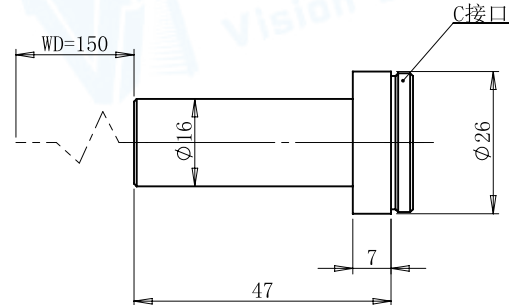
Model No.	Optical specs					Measuring range	
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD(6.4 x 4.8)
CLW3-ST-0.5X-130	No	0.5	130	2.3	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.3X-150	No	0.3	150	2.8	0.009	16 x 12	21 x 16
CLW3-ST-0.5X-150	No	0.5	150	2.3	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-150	No	0.8	150	3.0	0.011	6 x 4.5	8 x 6
CLW3-ST-0.8X-150D	Yes	0.8	150	2.0	0.011	6 x 4.5	8 x 6
CLW3-ST-1.0X-150	No	1.0	150	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-150D	Yes	1.0	150	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-150	No	1.5	150	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-150D	Yes	1.5	150	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-150	No	2.0	150	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-150D	Yes	2.0	150	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-150	No	3.0	150	0.58	0.01	1.6 x 1.2	2.1 x 1.6
CLW3-ST-3.0X-150D	Yes	3.0	150	0.58	0.01	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-150	No	4.0	150	0.3	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-150D	Yes	4.0	150	0.3	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-6.0X-150D	No	6.0	150	0.18	0.008	0.8 x 0.6	1.1 x 0.8
CLW3-ST-6.0X-150D	Yes	6.0	150	0.18	0.008	0.8 x 0.6	1.1 x 0.8
CLW3-ST-0.3X-180	Yes	0.3	180	3.2	0.009	16 x 12	21 x 16

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

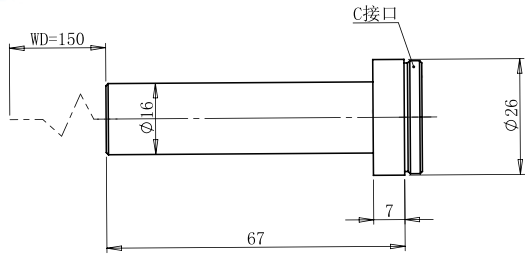
CLW3-ST-0.5X-130



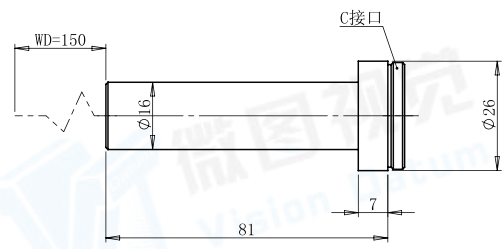
CLW3-ST-0.3X-150



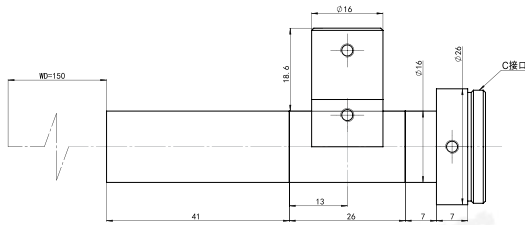
CLW3-ST-0.5X-150



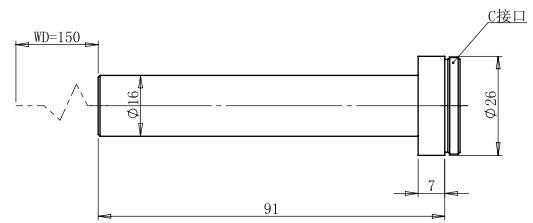
CLW3-ST-0.8X-150



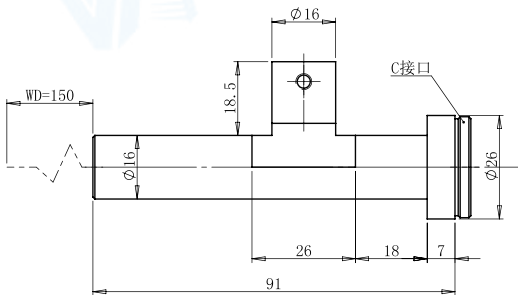
CLW3-ST-0.8X-150D



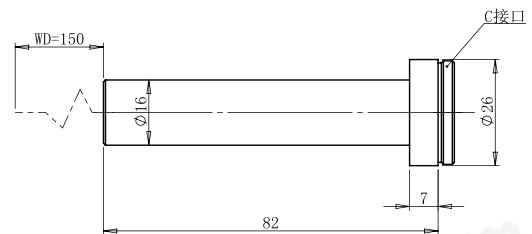
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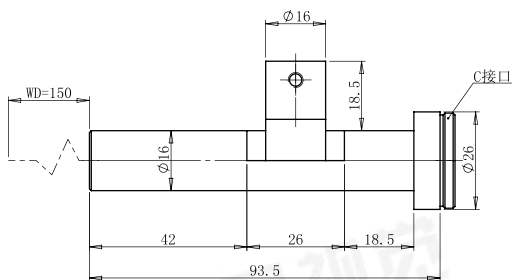
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CLW3-ST-1.5X-150



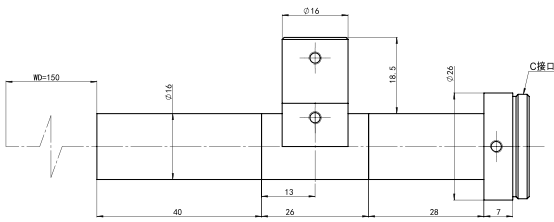
CLW3-ST-1.5X-150D



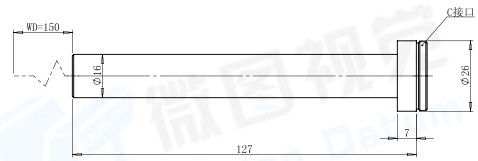
CLW3-ST-2.0X-150



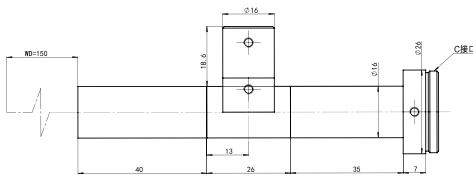
CLW3-ST-2.0X-150D



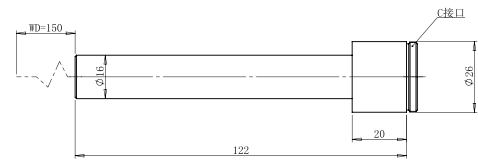
CLW3-ST-3.0X-150



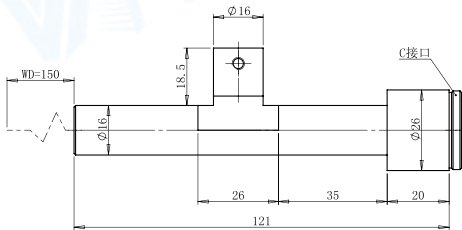
CLW3-ST-3.0X-150D



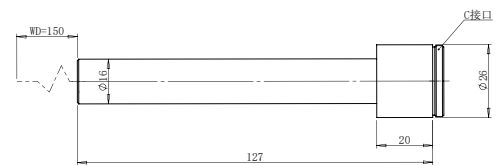
CLW3-ST-4.0X-150



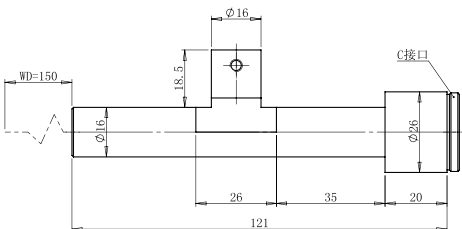
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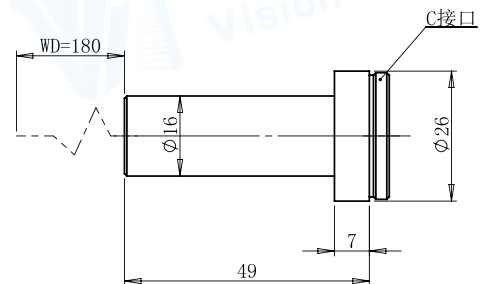
CLW3-ST-6.0X-150



CLW3-ST-6.0X-150D



CLW3-ST-0.3X-180



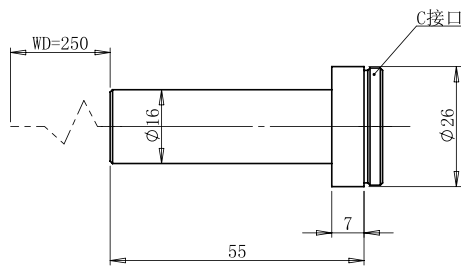
CLW3-ST SERIES

■ WD 250mm

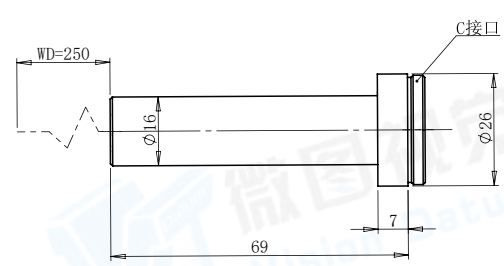
Model No.	Optical specs					Measuring range	
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μm)	1/3" CCD (4.8 x 3.6)	1/2" CCD (6.4 x 4.8)
CLW3-ST-0.3X-250	No	0.3	250	2.8	0.008	16 x 12	21 x 16
CLW3-ST-0.5X-250	No	0.5	250	2	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.5X-250D	Yes	0.5	250	2	0.009	9.6 x 7.2	12.8 x 9.6
CLW3-ST-0.8X-250	No	0.8	250	1.8	0.011	6 x 4.5	8 x 6
CLW3-ST-0.8X-250D	Yes	0.8	250	1.8	0.011	6 x 4.5	8 x 6
CLW3-ST-1.0X-250	No	1.0	250	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.0X-250D	Yes	1.0	250	1.6	0.01	4.8 x 3.6	6.4 x 4.8
CLW3-ST-1.5X-250	No	1.5	250	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-250D	Yes	1.5	250	1.1	0.009	3.2 x 2.4	4.2 x 3.2
CLW3-ST-2.0X-250	No	2.0	250	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-2.0X-250D	Yes	2.0	250	0.8	0.01	2.4 x 1.8	3.2 x 2.4
CLW3-ST-3.0X-250	No	3.0	250	0.35	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-3.0X-250D	Yes	3.0	250	0.35	0.008	1.6 x 1.2	2.1 x 1.6
CLW3-ST-4.0X-250	No	4.0	250	0.22	0.008	1.2 x 0.9	1.6 x 1.2
CLW3-ST-4.0X-250D	Yes	4.0	250	0.22	0.009	1.2 x 0.9	1.6 x 1.2

Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. $\pm 763@F11$). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

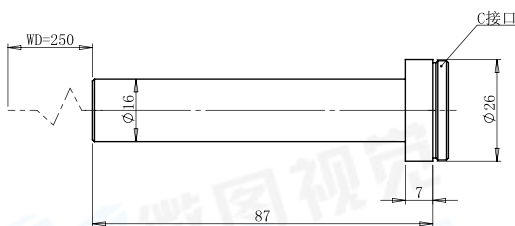
CLW3-ST-0.3X-250



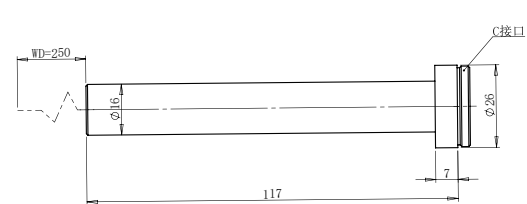
CLW3-ST-0.5X-250



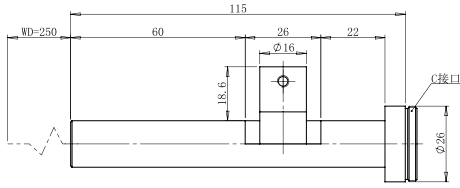
CLW3-ST-0.8X-250



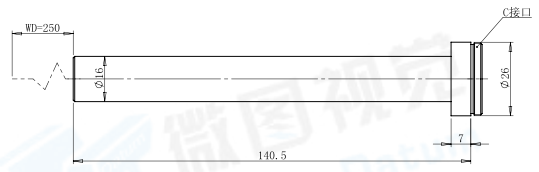
CLW3-ST-1.0X-250



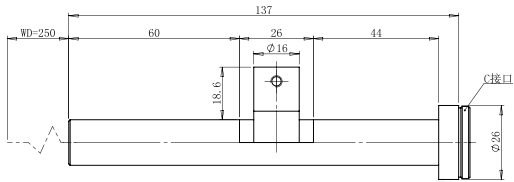
CLW3-ST-1.0X-250D



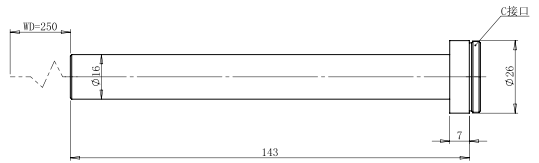
CLW3-ST-1.5X-250



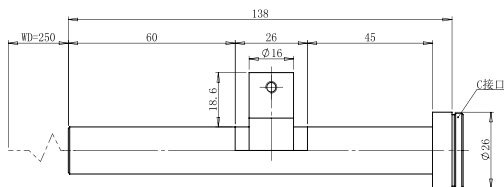
CLW3-ST-1.5X-250D



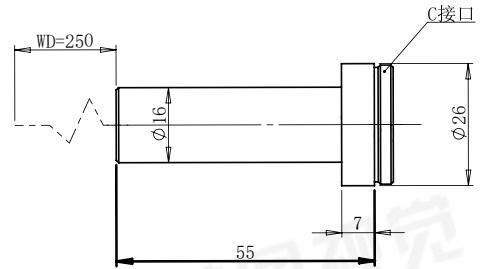
CLW3-ST-2.0X-250



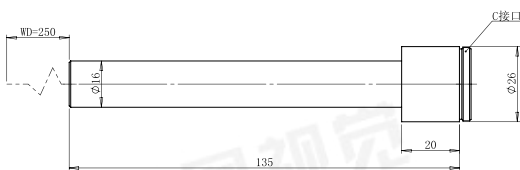
CLW3-ST-2.0X-250D



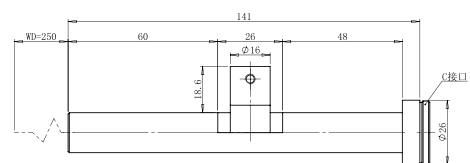
CLW3-ST-3.0X-250



CLW3-ST-4.0X-250



CLW3-ST-4.0X-250D



VT-BTLP SERIES

PRODUCT FEATURE

1. Side testing for 1-10mm small parts;
2. All visual sides have the same optical magnification;
3. Various three-dimensional co-construction of multi-faceted imaging at one time greatly improve detection efficiency and reduce equipment costs;
4. Perfectly compatible with all industrial cameras on the market.



Model		VT-BTLP-V1-118	VT-BTLP-V1-120	VT-BTLP-V1-230
Sensor Size		1/1.8"	1/2"	2/3"
Optical Specifications	Wavelength range (nm)	400~680	400~600	400~600
	Working Distance (mm)	19-23	1.5-5	1.5-5
	MTF30	>190 lp/mm	>200 lp/mm	>135 lp/mm
	Best Aperture (F/#)	4.6	4.2	6.5
Mechanical Specifications	Diameter (mm)	123	123	123
	Length (mm)	239.4	238.3	256
	Mount	C	C	C
Electrical specs	Illuminator voltage (V.D.C)	24	24	24
	Illuminator Power (W)	18	18	18
Max object inspection height (mm)	M1.0	1.5	1.5	1.5
	M1.2	1.75	1.75	1.75
	M1.7	1.8	1.8	1.8
	M2.0	2.4	2.4	2.4
	M2.5	2.7	2.7	2.7
	MΦ3	4	4	4
	MΦ4	4.9	4.9	4.9
	MΦ5	5	5	5
	MΦ6	6	6	6
	MΦ8	5	5	5
MΦ10	4.5	4.5	4.5	

* Special note: The imaging device must be used with a telecentric lens on the object side, with its own lighting system, and the lens can be selected according to different inspection objects

Telecentric Illumination TI Series

Features

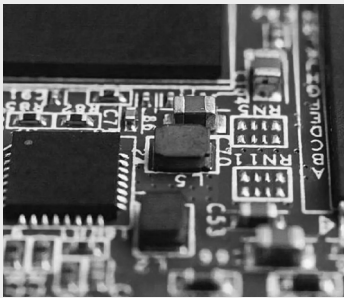
- Complete light coupling, Increased distance between object and illumination source;
- Border effects removal, offer higher edge contrast and higher measurement accuracy;
- Field depth and telecentricity improvement.

Applications

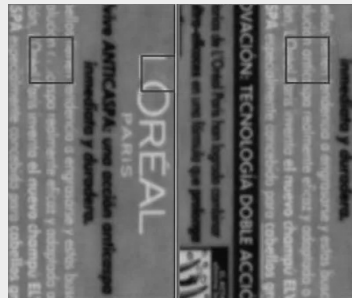
- Inspection of LCD, TP screen, LTO circuit, PCB circuit;
- Appearance inspection of food or medicine.



Examples of Telecentric Light Images



PBC detection



Printing defect detection

Common Specifications

Output beam diameter	20-200mm
LED power rating	1W/3W (Standard 1W)
Color	Red 630nm: 3.5V / 350mA Blue 460nm: 3.5V / 350mA Green 520nm: 3.5V / 350mA White 430~680nm: 3.5V/350mA

Explanation of Model Code

VT-TI	20
Series	Illum. Diam.

Model No.	EFL (mm)	Power cons. (W)	Supply Voltage (v)	Max Current (mA)	Effective Illum. Dia. (mm)	Recommend WD (mm)	WD Variation Range (\pm mm)	Recommended Collimation ($^{\circ}$)	Recommended Parallelism ($^{\circ}$)
VT-TI-20	100.000	3	3	1000	20	110	50	0.52	0.060
VT-TI-37	79.300	5	24	208	37	56	40	1.73	3.480
VT-TI-50	-	3	3	1000	50	110	34	0.29	0.048
VT-TI-60	131.400	5	24	208	60	90	66	1.05	2.556
VT-TI-70	-	3	3	1000	70	150	77	0.33	0.060
VT-TI-80	160.300	5	24	208	80	120	80	0.86	1.800
VT-TI-80-L	160.300	5	24	208	80	120	80	0.86	1.800
VT-TI-100-L	220.700	5	24	208	100	165	110	0.62	1.740
VT-TI-120	-	3	3	1000	120	250	47	0.55	0.048
VT-TI-152-L	418.992	5	24	208	152	419	209	0.33	0.144
VT-TI-195-L	508.382	5	24	208	195	508	254	0.27	0.173
VT-TI-238-L	753.723	5	24	208	238	751	377	0.18	0.079
VT-TI-300	-	1W / 3W	5V(External Controller)/ 12V(Direct Current)	700	300	155-310	155-310	0.11	0.09

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