

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



RAPIXEL TECH LLC is a California-based company established in April 2025, specializing in automated manufacturing solutions for machine vision products, including industrial cameras, precision lenses, and intelligent lighting systems. We provide integrated hardware and software solutions for precision inspection, industrial automation, and advanced manufacturing applications, helping engineers and industries achieve higher efficiency and smarter production.

More than a machine vision supplier, RAPIXEL TECH represents a commitment to imaging excellence. We combine high-resolution cameras, precision optics, and intelligent illumination to deliver reliable vision solutions for engineers, researchers, and automation professionals. From micron-level inspection to high-speed production lines, our technologies are designed to provide exceptional clarity, accuracy, and stability — capturing every detail with confidence.

BTL Series

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BTL SERIES

NEW



1
BTL

PRODUCT FEATURES

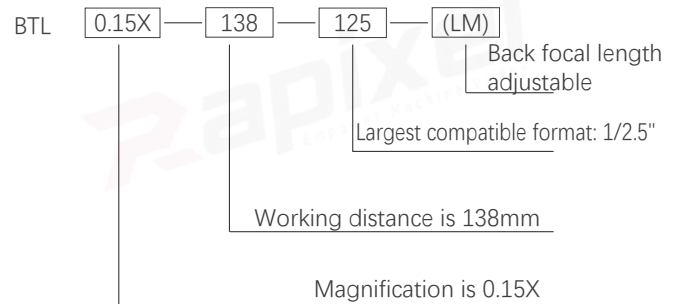
1. Optimized for sensor sizes from 1/2.5" up to $\Phi 82$ mm
2. Largest FOV from 26mm upto 369mm;
3. Excellent resolution for high pixel cameras;
4. Low distortion, good telecentricity, big aperture and big depth of field for high end application.

OVERVIEW

BTL Series Magnification Crosstab

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	

NAMING RULES



BTL-125 SERIES

1/2.5"



Model No.	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-0.277X-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	167.5	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-238-125(LM)	100	0.072	238±4	7.2(1/2.5")	4.2	>210	±84.8@F11	<0.1	<0.1	501±4	245.3	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	±304@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-338-125(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	24.3
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-12 SERIES

1/2"



Model No.	Click to view details/drawings												
	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-0.308X-73-12(LM)	26	0.308	73±1	8.0(1/2")	4.2	>175	±4.6@F11	<0.1	<0.1	198±1	107.2	C Mount	0.3
BTL-0.222X-110-12(LM)	36	0.222	110±2	8.0(1/2")	4.2	>190	±8.9@F11	<0.1	<0.1	255±2	127.2	C Mount	0.4
BTL-0.19X-118-12(LM)	42	0.190	118±3	8.0(1/2")	4.2	>210	±12.1@F11	<0.1	<0.1	248±3	112.7	C Mount	0.4
BTL-0.167X-128-12(LM)	48	0.167	128±3	8.0(1/2")	4.2	>200	±15.7@F11	<0.1	<0.1	272±3	126.2	C Mount	0.4
BTL-0.167X-138-12(LM)	48	0.167	138±3	8.0(1/2")	4.7	>190	±15.7@F11	<0.1	<0.1	267±3	111.2	C Mount	0.4
BTL-0.143X-138-12(LM)	56	0.143	138±3	8.0(1/2")	4.2	>210	±21.5@F11	<0.1	<0.1	304±3	148.7	C Mount	0.6
BTL-0.125X-158-12(LM)	64	0.125	158±3	8.0(1/2")	4.2	>220	±28.2@F11	<0.1	<0.1	337±3	161.2	C Mount	0.8
BTL-0.111X-178-12(LM)	72	0.111	178±3	8.0(1/2")	4.2	>215	±35.7@F11	<0.1	<0.1	377±3	181.2	C Mount	1
BTL-0.1X-228-12(LM)	80	0.100	228±4	8.0(1/2")	4.2	>210	±44@F11	<0.1	<0.1	417±4	171.2	C Mount	1.8
BTL-0.089X-208-12(LM)	90	0.089	208±3	8.0(1/2")	4.2	>210	±55.5@F11	<0.1	<0.1	432±3	206.2	C Mount	1.6
BTL-0.08X-238-12(LM)	100	0.080	238±4	8.0(1/2")	4.2	>210	±68.7@F11	<0.1	<0.1	505±4	249	C Mount	3
BTL-0.073X-263-12(LM)	110	0.073	263±4	8.0(1/2")	4.2	>210	±82.6@F11	<0.1	<0.1	539±4	258.8	C Mount	2.6
BTL-0.067X-273-12(LM)	120	0.067	273±5	8.0(1/2")	4.2	>210	±99@F11	<0.1	<0.1	561±5	270.6	C Mount	4.1
BTL-0.059X-258-12(LM)	136	0.059	288±5	8.0(1/2")	4.2	>215	±126@F11	<0.1	<0.1	649±5	343.8	C Mount	4.2
BTL-0.053X-300-12(LM)	150	0.053	300±5	8.0(1/2")	4.2	>210	±156@F11	<0.1	<0.1	631±5	313.2	C Mount	5.6
BTL-0.047X-318-12(LM)	170	0.047	318±5	8.0(1/2")	4.2	>210	±199@F11	<0.1	<0.1	711±5	375.1	C Mount	6.4
BTL-0.042X-330-12(LM)	190	0.042	330±5	8.0(1/2")	4.2	>210	±248@F11	<0.1	<0.1	750±5	402.5	C Mount	9.6
BTL-0.037X-372-12(LM)	216	0.037	372±5	8.0(1/2")	4.2	>210	±321@F11	<0.1	<0.1	887±5	497.9	C Mount	13.7
BTL-0.033XH-410-12(LM)	240	0.033	410±6	8.0(1/2")	4.2	>210	±397@F11	<0.1	<0.1	971±6	543.8	C Mount	19.0
BTL-0.031X-338-12(LM)	258	0.031	338±5	8.0(1/2")	4.2	>210	±458@F11	<0.1	<0.1	775±5	419.2	C Mount	24.3
BTL-0.027X-465-12(LM)	300	0.027	465±6	8.0(1/2")	4.2	>205	±603@F11	<0.1	<0.1	1105±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. ±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.	Click to view details/drawings												
	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	重量 (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	1.1
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-238-118(LM)	100	0.090	238±4	9.0(1/1.8")	4.6	>200	±54.3@F11	<0.1	<0.1	506±4	250.1	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	271.7	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	>200	±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	544.9	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	24.3
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-23 SERIES

2/3"



Model No.	Click to view details/drawings												
	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-0.438X-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	182.0	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-0.114X-238-23(LM)	100	0.114	238±4	11.4(2/3")	4.9	>185	±33.8@F11	<0.1	<0.1	515±4	259.7	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	281.3	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	508.7	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	785±5	429.9	C Mount	24.3
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-H1 SERIES

1"



Model No.	Click to view details/drawings												
	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	>130	±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	1.2
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-0.111X-300-H1(LM)	150	0.111	300±5	16.6(1")	6.5	>145	±52.8@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	±156.3@F11	<0.1	<0.1	804±5	448.4	C Mount	24.4
BTL-0.055X-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-H1.1 SERIES

1.1"



Model No.	Click to view details/drawings												
	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-238-H1.1(LM)	100	0.184	238±4	18.4(1.1")	6.2	>120	±13.0@F11	<0.1	<0.1	545±4	289.5	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-338-H1.1(LM)	258	0.071	338±5	18.4(1.1")	6.2	>150	±86.5@F11	<0.1	<0.1	815±5	459.7	C Mount	24.4
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-H2 SERIES

4/3"



Model No.	Click to view details/drawings												
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF>30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.908X-73-H2(LM)	26	0.908	73±1	23.6(4/3")	12.3	>68	±1.0@F20	<0.1	<0.1	254±1	168.5	M42/M58	0.8
BTL-0.656X-110-H2(LM)	36	0.656	110±2	23.6(4/3")	11.1	>77	±1.9@F20	<0.1	<0.1	311±2	188.6	M42/M58	0.9
BTL-0.562X-118-H2(LM)	42	0.562	118±3	23.6(4/3")	9.3	>96	±2.5@F20	<0.1	<0.1	304±3	174.1	M42/M58	0.9
BTL-0.492X-128-H2(LM)	48	0.492	128±3	23.6(4/3")	9.3	>92	±3.3@F20	<0.1	<0.1	328±3	187.6	M42/M58	0.9
BTL-0.421X-138-H2(LM)	56	0.421	138±3	23.6(4/3")	7.9	>112	±3.6@F16	<0.1	<0.1	360±3	210.1	M42/M58	1.2
BTL-0.369X-158-H2(LM)	64	0.369	158±3	23.6(4/3")	6.9	>126	±5.9@F20	<0.1	<0.1	393±3	222.6	M42/M58	1.3
BTL-0.328X-178-H2(LM)	72	0.328	178±3	23.6(4/3")	6.9	>132	±6.0@F16	<0.1	<0.1	433±3	242.6	M42/M58	1.5
BTL-0.295X-228-H2(LM)	80	0.295	228±4	23.6(4/3")	4.6	>174	±9.2@F20	<0.1	<0.1	473±4	232.6	M42/M58	2.4
BTL-0.262X-208-H2(LM)	90	0.262	208±3	23.6(4/3")	6.2	>144	±9.3@F16	<0.1	<0.1	488±3	267.6	M42/M58	2.2
BTL-0.236X-238-H2(LM)	100	0.236	238±4	23.6(4/3")	5.6	>164	±14.4@F20	<0.1	<0.1	560±4	310.3	M42/M58	3.5
BTL-0.215X-263-H2(LM)	110	0.215	263±4	23.6(4/3")	5.0	>164	±13.9@F16	<0.1	<0.1	595±4	320.2	M42/M58	3.2
BTL-0.197X-273-H2(LM)	120	0.197	273±5	23.6(4/3")	4.6	>182	±16.5@F16	<0.1	<0.1	617±5	331.9	M42/M58	4.7
BTL-0.174X-288-H2(LM)	136	0.174	288±5	23.6(4/3")	4.6	>184	±21.3@F16	<0.1	<0.1	705±5	405.2	M42/M58	4.7
BTL-0.157X-300-H2(LM)	150	0.157	300±5	23.6(4/3")	7.9	>116	±25.9@F16	<0.1	<0.1	687±5	374.6	M42/M58	6.2
BTL-0.139X-318-H2(LM)	170	0.139	318±5	23.6(4/3")	4.6	>188	±33.2@F16	<0.1	<0.1	766±5	436.5	M42/M58	7.0
BTL-0.124X-330-H2(LM)	190	0.124	330±5	23.6(4/3")	4.6	>176	±41.5@F16	<0.1	<0.1	806±5	463.8	M42/M58	10.1
BTL-0.109X-372-H2(LM)	216	0.109	372±5	23.6(4/3")	4.6	>186	±53.6@F16	<0.1	<0.1	943±5	559.3	M42/M58	14.2
BTL-0.098X-410-H2(LM)	240	0.098	410±6	23.6(4/3")	4.6	>174	±82.7@F20	<0.1	<0.1	1027±6	605.1	M42/M58	19.6
BTL-0.091X-338-H2(LM)	258	0.091	338±5	23.6(4/3")	4.6	>166	±76.5@F16	<0.1	<0.1	831±5	480.5	M42/M58	24.7
BTL-0.079X-465-H2(LM)	300	0.079	465±6	23.6(4/3")	4.6	>176	±103@F16	<0.1	<0.1	1161±6	683.6	M42/M58	47.0

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. ±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.	Click to view details/drawings												
	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-1.115XH-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	>130	±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-238-175(LM)	100	0.29	238±4	29(1.75")	6.8	>132	±7.6@F16	<0.1	<0.1	581±4	331	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	851±5	501.2	M42/M58	24.7
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. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTL-21 SERIES

2"



Model No.	Click to view details/drawings												
	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-0.917X-110-21(LM)	36	0.917	110±2	33(2")	15.5	>50	±0.9@F20	<0.1	<0.1	347±2	225.0	M42/M58	1.0
BTL-0.786X-118-21(LM)	42	0.786	118±3	33(2")	12.9	>65	±1.2@F20	<0.1	<0.1	341±3	210.5	M42/M58	1.0
BTL-0.688X-128-21(LM)	48	0.688	128±3	33(2")	12.9	>60	±1.7@F20	<0.1	<0.1	364±3	224.0	M42/M58	1.0
BTL-0.589X-138-21(LM)	56	0.589	138±3	33(2")	11.1	>75	±2.3@F20	<0.1	<0.1	397±3	246.5	M42/M58	1.3
BTL-0.516X-158-21(LM)	64	0.516	158±3	33(2")	9.7	>90	±3.3@F22	<0.1	<0.1	429±3	259.0	M42/M58	1.4
BTL-0.458X-178-21(LM)	72	0.458	178±3	33(2")	9.7	>90	±3.8@F20	<0.1	<0.1	469±3	279.0	M42/M58	1.6
BTL-0.413X-228-21(LM)	80	0.413	228±4	33(2")	7.8	>110	±3.8@F16	<0.1	<0.1	509±4	269.0	M42/M58	2.5
BTL-0.367X-208-21(LM)	90	0.367	208±3	33(2")	8.6	>100	±4.7@F16	<0.1	<0.1	524±3	304.0	M42/M58	2.3
BTL-0.33X-238-21(LM)	100	0.330	238±4	33(2")	7.8	>118	±5.9@F16	<0.1	<0.1	597±4	346.7	M42/M58	3.6
BTL-0.3X-263-21(LM)	110	0.300	263±4	33(2")	7.8	>110	±7.1@F16	<0.1	<0.1	632±4	356.6	M42/M58	3.3
BTL-0.275X-273-21(LM)	120	0.275	273±5	33(2")	7.8	>115	±8.5@F16	<0.1	<0.1	653±5	368.3	M42/M58	4.8
BTL-0.243X-288-21(LM)	136	0.243	288±5	33(2")	7.8	>110	±10.8@F16	<0.1	<0.1	742±5	441.5	M42/M58	4.8
BTL-0.22X-300-21(LM)	150	0.220	300±5	33(2")	11.1	>80	±16.5@F20	<0.1	<0.1	723±5	410.9	M42/M58	6.3
BTL-0.194X-318-21(LM)	170	0.194	318±5	33(2")	7.8	>110	±17.0@F16	<0.1	<0.1	803±5	472.9	M42/M58	7.1
BTL-0.174X-330-21(LM)	190	0.174	330±5	33(2")	7.8	>115	±21.1@F16	<0.1	<0.1	842±5	500.2	M42/M58	10.2
BTL-0.153X-372-21(LM)	216	0.153	372±5	33(2")	7.8	>115	±27.3@F16	<0.1	<0.1	980±5	595.6	M42/M58	14.3
BTL-0.138X-410-21(LM)	240	0.138	410±6	33(2")	7.8	>110	±33.9@F16	<0.1	<0.1	1064±6	641.5	M42/M58	19.6
BTL-0.128X-338-21(LM)	258	0.128	338±5	33(2")	7.8	>110	±39.1@F16	<0.1	<0.1	867±5	516.9	M42/M58	24.8
BTL-0.11X-465-21(LM)	300	0.110	465±6	33(2")	7.8	>115	±52.8@F16	<0.1	<0.1	1197±6	716.0	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. ±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.	Click to view details/drawings												
	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-1.083XH-110-71M(LM)	36	1.083	110±2	39	18.3	>43	±0.65@F20	<0.1	<0.1	363±2	241.2	M42/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	M42/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	M42/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	M42/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	M42/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	M42/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	M42/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	M42/M58	2.3
BTL-0.39XH-238-71M(LM)	100	0.390	238±4	39	9.2	>102	±4.2@F16	<0.1	<0.1	613±4	362.9	M42/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	M42/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	M42/M58	4.8
BTL-0.288X-300-71M(LM)	135	0.288	300±5	39	6.5	>128	±3.13@F6.5	<0.045	<0.045	745±5	432.7	M42/M58	4.7
BTL-0.26XH-300-71M(LM)	150	0.260	300±5	39	13.1	>70	±11.8@F20	<0.1	<0.1	739±5	427.2	M42/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	M42/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	M42/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	M42/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	M42/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	M42/M58	24.8
BTL-0.13XH-465-71M(LM)	300	0.130	465±6	39	6.5	>130	±26@F11	<0.1	<0.1	1213±6	732.2	M42/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-150M SERIES

67.8mm



Model No.	Click to view details/drawings											
	FOV (°mm)	Mag. (x)	WD (mm)	Max. Sensor Size (mm)	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	<0.1	<0.1	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	<0.1	<0.1	950±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	1088±5	696.1	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	1172±6	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	<0.1	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-FF SERIES

44mm



Model No.	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	43.6(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	43.6(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	0.920	138±3	43.6(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	43.6(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	43.6(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	43.6(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	43.6(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	43.6(35mmFull)	11.4	>75	±3.4@F20	<0.1	<0.1	561±3	341.3	M58	2.4
BTL-0.436X-238-FF(LM)	100	0.436	238±4	43.6(35mmFull)	10.3	>91	±4.2@F20	<0.1	<0.1	634±4	384	M58	3.8
BTL-0.396X-263-FF(LM)	110	0.396	263±4	43.6(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	43.6(35mmFull)	8.5	>105	±4.9@F16	<0.1	<0.1	691±5	405.6	M58	5.0
BTL-0.322X-300-FF(LM)	135	0.322	300±5	43.6(35mmFull)	6.0	>125	±2.3@F6	<0.02	<0.045	766±5	453.8	M58	4.7
BTL-0.291X-300-FF(LM)	150	0.291	300±5	43.6(35mmFull)	14.6	>63	±9.3@F20	<0.1	<0.1	760±5	448.3	M58	6.4
BTL-0.256X-318-FF(LM)	170	0.256	318±5	43.6(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	43.6(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	43.6(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	43.6(35mmFull)	6.0	>120	±15.1@F11	<0.1	<0.1	906±5	556.2	M58	25.4
BTL-0.147X-465-FF(LM)	300	0.145	465±6	43.6(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 LINE SCAN SERIES

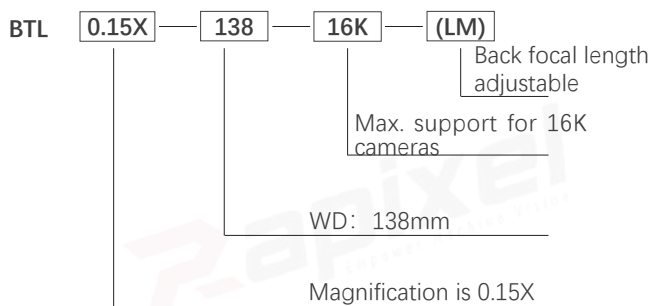
NEW



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

NEW

Support 16K 3.5/5μ Camera



16K3.5μ CAMERA

Model No.	Click to view details/drawings												
	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-0.738X-228-16K(LM)	80	0.738	228±4	59	9.9	>85	±1.6@F22	<0.1	<0.1	580±4	340.0	M72	3.4
BTL-0.59X-238-16K(LM)	100	0.590	238±4	59	13.9	>67	±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-0.436X-300-16K(LM)	135	0.436	300±5	59	8.7	>100	±1.8@F8.7	<0.02	<0.045	799.5±5	487.5	M72	5.5
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	8.7	>100	±6.6@F16	<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-338-16K(LM)	258	0.229	338±5	59	8.7	>100	±12.2@F16	<0.1	<0.1	940±5	589.8	M72	25.8
BTL-0.197X-465-16K(LM)	300	0.197	465±6	59	9.0	>95	±20.6@F20	<0.1	<0.1	1268±6	791.0	M72	48.0

Model No.	Click to view details/drawings										
	Mag. (x)	WD (mm)	Object FOV (Φmm)	Image FOV (Φmm)	DOF (mm)	F/#	MTF (lp/mm)	Resolution (μm)	Telecentricity (° max)	Distortion (% max)	Mount
BTL-1.618X-110-16K(LM)	1.618	110±3%	35.5	57.4	0.6@F15	6-76.6	>0.3@68	6.13	<0.09	<0.1%	M72
BTL-1.319X-120-16K(LM)	1.319	120±3%	43.5	57.4	0.7@F11	6-76.5	>0.3@95	5.5	<0.1	<0.1%	M72
BTL-1.079X-138-16K(LM)	1.079	138±3%	53.2	57.4	1@F11	6-76.5	>0.3@95	6.7	<0.08	<0.1%	M72
BTL-0.912X-160-16K(LM)	0.912	160±3%	62.9	57.4	1.5@F11	6-76.5	>0.3@95	8.0	<0.09	<0.1%	M72
BTL-0.742X-180-16K(LM)	0.742	180±3%	77.4	57.4	2.2@F11	6-76.5	>0.3@95	9.8	<0.06	<0.1%	M72
BTL-0.648X-250-16K(LM)	0.648	250±3%	88.6	57.4	2.9@F11	6-76	>0.3@95	11.2	<0.06	<0.1%	M72/M58
BTL-0.539X-250-16K(LM)	0.539	250±3%	106.5	57.4	4.2@F11	6-76	>0.3@95	13.5	<0.06	<0.063%	M72
BTL-0.486X-260-16K(LM)	0.486	260±3%	118.1	57.4	5.1@F11	6-76	>0.3@95	15	<0.06	<0.081%	M72
BTL-0.433X-280-16K(LM)	0.433	280±3%	132.6	57.4	6.4@F11	6-76	>0.3@95	16.8	<0.06	<0.067%	M72
BTL-0.391X-320-16K(LM)	0.391	320±3%	146.8	57.4	7.9@F11	6-76	>0.3@95	18.6	<0.06	<0.09%	M72
BTL-0.326X-398-16K(LM)	0.326	398±3%	176.1	57.4	11.4@F11	6-76	>0.3@95	22.3	<0.06	<0.075%	M72
BTL-0.305X-400-16K(LM)	0.305	400±3%	188.2	57.4	13.1@F11	6-76	>0.3@95	23.8	<0.06	<0.06%	M72
BTL-0.249X-410-16K(LM)-M58	0.249	410±3%	230.5	57.4	19.3@F11	6-76	>0.3@95	29.1	<0.06	<0.064%	M58
BTL-0.249X-410-16K(LM)-M72	0.249	410±3%	230.5	57.4	19.3@F11	6-76	>0.3@95	29.1	<0.06	<0.064%	M72
BTL-0.222X-410-16K(LM)	0.222	410±3%	258.6	57.4	24.4@F11	6-76	>0.3@95	32.8	<0.06	<0.071%	M72
BTL-0.192X-500-16K(LM)	0.192	500±3%	299	57.4	32.9@F11	6-76	>0.3@95	37.9	<0.06	<0.052%	M72
BTL-0.17X-540-16K(LM)	0.17	540±3%	337.6	57.4	41.7@F11	6-76	>0.3@95	42.8	<0.06	<0.052%	M72
BTL-0.152X-700-16K(LM)	0.152	700±3%	377.6	57.4	52.1@F11	6-76	>0.3@95	47.7	<0.06	<0.052%	M72

16K5 μ CAMERA

Model No.	 Click to view details/drawings										
	Mag. (x)	WD (mm)	Object FOV (Φ mm)	Image FOV (Φ mm)	DOF (mm)	F/#	MTF (lp/mm)	Resolution (μ m)	Telecentricity ($^{\circ}$ max)	Distortion (% max)	Mount
BTL-1.92X-120-16K(LM)	1.92	120 $\pm$ 3%	34.4	66	0.5@F18	8-111.5	>0.3@58	6.2	<0.1	<0.1%	M72
BTL-1.571X-138-16K(LM)	1.571	138 $\pm$ 3%	52.2	82	0.8@F18	8-111.5	>0.3@58	7.57	<0.08	<0.1%	M95
BTL-1.328X-160-16K(LM)	1.328	160 $\pm$ 3%	61.7	82	0.8@F13.5	8-111.5	>0.3@75	6.7	<0.1	<0.1%	M95
BTL-0.631X-160-16K(LM)	0.631	280 $\pm$ 3%	130	82	3.4@F13.5	8-111	>0.3@75	14.1	<0.06	<0.091%	M95
BTL-1.08X-180-16K(LM)	1.08	180 $\pm$ 3%	75.9	82	1.2@F13.5	8-111	>0.3@75	8.3	<0.06	<0.1%	M95
BTL-0.943X-250-16K(LM)	0.943	250 $\pm$ 3%	87	82	1.5@F13.5	8-111	>0.3@75	9.5	<0.06	<0.1%	M90
BTL-0.785X-250-16K(LM)	0.785	250 $\pm$ 3%	104.5	82	2.2@F13.5	8-111	>0.3@75	11.3	<0.06	<0.05%	M95
BTL-0.708X-260-16K(LM)	0.708	260 $\pm$ 3%	115.8	82	2.7@F13.5	8-111	>0.3@75	12.6	<0.06	<0.063%	M95
BTL-0.57X-320-16K(LM)	0.57	320 $\pm$ 3%	143.9	82	4.3@F13.5	8-111	>0.3@75	15.6	<0.06	<0.1%	M95
BTL-0.475X-398-16K(LM)	0.475	398 $\pm$ 3%	172.6	82	6.2@F13.5	8-111	>0.3@75	18.8	<0.06	<0.069%	M95
BTL-0.444X-400-16K(LM)	0.444	400 $\pm$ 3%	184.7	82	7.3@F13.5	8-111	>0.3@75	20.1	<0.06	<0.061%	M95
BTL-0.363X-410-16K(LM)	0.363	410 $\pm$ 3%	225.9	82	11.3@F13.5	8-111	>0.3@75	24.5	<0.06	<0.088%	M95
BTL-0.323X-410-16K(LM)-M88	0.323	410 $\pm$ 3%	253.9	82	14	13.5	>0.3@75	27.6	<0.06	<0.098%	M88
BTL-0.323X-410-16K(LM)-M95	0.323	410 $\pm$ 3%	253.9	82	14@F13.5	8-111	>0.3@75	27.6	<0.06	<0.098%	M95
BTL-0.279X-500-16K(LM)	0.279	500 $\pm$ 3%	293.9	82	19.2@F13.5	8-111	>0.3@75	31.9	<0.08	<0.061%	M95
BTL-0.247X-540-16K(LM)	0.247	540 $\pm$ 3%	332	82	24.3@F13.5	8-111	>0.3@75	36.1	<0.08	<0.061%	M95
BTL-0.222X-700-16K(LM)	0.222	700 $\pm$ 3%	369.4	82	29.3@F13.5	8-111	>0.3@75	40.2	<0.08	<0.061%	M95

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-24K SERIES

NEW

Support 16K 5μ / 24K 3.5μ Camera



Model No.	Click to view details/drawings									
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
BTL-0.636X-300-24K	135	0.636	300±5	86	10.2	±1.0@F10.2	<0.03	<0.045	548	M90
BTL-0.505X-318-24K	170	0.505	318±5	86	11.9	±1.9@F11.9	<0.045	<0.05	604.4	M90
BTL-0.453X-330-24K	190	0.453	330±5	86	11.9	±2.3@F11.9	<0.075	<0.05	631.8	M90
BTL-0.398X-372-24K	216	0.398	372±5	86	10.1	±2.6@F10.1	<0.045	<0.08	727.2	M90
BTL-0.358X-410-24K	240	0.358	410±6	86	11.9	±3.7@ F11.9	<0.075	<0.05	773.1	M90
BTL-0.333X-338-24K	258	0.333	338±5	86	11.2	±4.0@F11.2	<0.12	<0.08	650.5	M90
BTL-0.287X-465-24K	300	0.287	465±6	86	13.1	±6.4@F13.1	<0.045	<0.08	851.5	M90
BTL-1.3X-146-24K	63	1.3	146±3	82	7.5	±0.18@F7.5	0.03	0.04	513.5	M95
BTL-0.875X-140-24K	93.7	0.875	140±3	82	9.5	±0.5@F9.5	0.03	0.08	468.1	M95
BTL-2.0X-118-24K(IA)	44	2.0	118±2	88	4.8-32	0.1-0.6	0.045	0.1	463.0	M95
BTL-1.419X-123-24K	62	1.419	123±3	88	7.0	±0.1@F7.0	<0.1	<0.1	466.3	M95
BTL-1.173X-152-24K	75	1.173	152±3	88	7.0	±0.2@F7.0	<0.01	<0.05	486.0	M95
BTL-1.11X-150-24K	79.2	1.11	150±3	88	7.0	±0.2@F7.0	<0.01	<0.2	478.5	M95
BTL-1.0X-162-24K	88	1.0	162±3	88	8.0	±0.3@F8.0	<0.1	<0.1	453.2	M95
BTL-0.96X-150-24K	91.6	0.96	150±3	88	8.0	±0.3@F8.0	<0.1	<0.1	458.5	M95

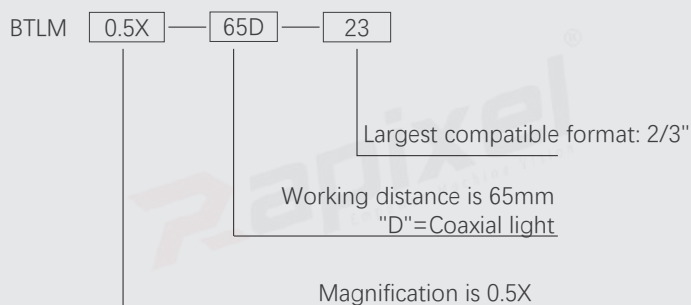
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

BTLM SERIES

NEW

3
BTLM

NAMING RULES



Variable 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

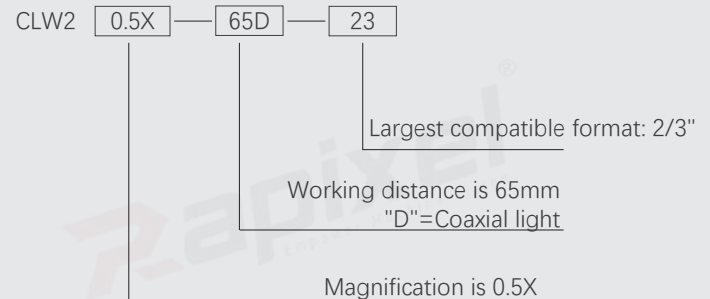
1. Support up to 8M Pixel cameras;
2. Zero perspective error over the entire Field of View;
3. Big depth of field and constant magnification over defined depth of field;
4. Customization available with best performance/cost rate;
5. Equipped with a Manual Iris for adjusting the Depth of Field.

Model No.	Variable Iris	Coaxial	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
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	106.7	C
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	106.7	C
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	142.4	C
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	142.4	C
BTLM-0.166X-173-23(IA)	Yes	No	66	0.166	173±3	11.0(2/3")	3.3	>260	±4.8@F3.3	<0.1	<0.1	146.5	C
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	322.2	C
BTLM-4.0X-60-H1.2	No	No	5	4.000	60±1	20(1.2")	9.9	95	±0.02@F9.9	<0.05	<0.12	195.6	C
BTLM-4.0X-60D-H1.2(IA)	Yes	Yes	5	4.000	60±1	20(1.2")	9.9-31	95-31	0.05-0.16	<0.05	<0.2	195.6	C
BTLM-4.0X-60D-H1.2	No	Yes	5	4.000	60±1	20(1.2")	9.9-32	95-31	0.05-0.16	0.05	<0.2	195.6	C
BTLM-3.025X-61-H1.2	No	No	6.6	3.025	61±1	20(1.2")	9.4	>96	±0.05@F6.6	0.06	0.005	206.2	C
BTLM-3.025X-61D-H1.2	No	Built-in	6.6	3.025	61±1	20(1.2")	9.4	>96	±0.05@F6.6	0.06	0.005	206.2	C
BTLM-2.74X-64-H1.2	No	No	7.3	2.74	64±1	20(1.2")	8.5	>105	±0.05@F7.3	0.02	0.03	188.3	C
BTLM-2.74X-64D-H1.2	No	Built-in	7.3	2.74	64±1	20(1.2")	8.5	>105	±0.05@F7.3	0.02	0.03	188.3	C
BTLM-2.0X-63-H1.2	No	No	10	2.000	63±1	20(1.2")	6.6	>142	±0.07@F6.6	<0.2	<0.1	179.0	C
BTLM-2.0X-63D-H1.2	No	Built-in	10	2.000	63±1	20(1.2")	6.6	>142	±0.07@F6.6	<0.2	<0.1	179.0	C
BTLM-1.5X-65-H1.2(IA)	Yes	No	13.3	1.5	65	20(1.2")	5.6-32	167-32.5	0.2-1.14	0.05	0.1	150.5	C
BTLM-1.5X-65D-H1.2(IA)-A	Yes	Yes	13.3	1.5	65	20(1.2")	5.6-32	167-32.5	0.2-1.14	0.05	0.1	150.5	C
BTLM-1.5X-65D-H1.2(IA)-B	Yes	Yes	13.3	1.5	65	20(1.2")	5.6-32	167-32.5	0.2-1.14	0.05	0.1	150.5	C
BTLM-1.35X-67-H1.2(IA)	Yes	No	14.8	1.35	67	20(1.2")	5.4-32	171-32.5	0.2-1.41	0.04	0.09	150.8	C
BTLM-1.35X-67D-H1.2(IA)-A	Yes	Yes	14.8	1.35	67	20(1.2")	5.4-32	171-32.5	0.2-1.41	0.04	0.09	150.8	C
BTLM-1.35X-67D-H1.2(IA)-B	Yes	Yes	14.8	1.35	67	20(1.2")	5.4-32	171-32.5	0.2-1.41	0.04	0.09	150.8	C
BTLM-1.0X-80-H1.2(IA)	Yes	No	20	1.0	80	20(1.2")	5.3-32	171-32.5	0.4-2.56	0.045	0.1	149.6	C
BTLM-1.0X-80D-H1.2(IA)-A	Yes	Yes	20	1.0	80	20(1.2")	5.3-32	171-32.5	0.4-2.56	0.045	0.1	149.6	C
BTLM-1.0X-80D-H1.2(IA)-B	Yes	Yes	20	1.0	80	20(1.2")	5.3-32	171-32.5	0.4-2.56	0.045	0.1	149.6	C
BTLM-0.9X-90-H1.2(IA)	Yes	No	22.2	0.9	90	20(1.2")	5-32	176-32.5	0.5-3.16	0.043	0.1	138.2	C
BTLM-0.9X-90D-H1.2(IA)-A	Yes	Yes	22.2	0.9	90	20(1.2")	5-32	176-32.5	0.5-3.16	0.043	0.1	138.2	C
BTLM-0.9X-90D-H1.2(IA)-B	Yes	Yes	22.2	0.9	90	20(1.2")	5-32	176-32.5	0.5-3.16	0.043	0.1	138.2	C
BTLM-7.5X-49-Q667(IA)	Yes	No	8.9	7.5	49	66.7(150M)	7.5	49	0.026-0.05	0.04	0.09	386.6	M72
BTLM-7.5X-49D-Q667(IA)	Yes	Yes	8.9	7.5	49	66.7(150M)	7.5	49	0.026-0.05	0.04	0.09	386.6	M72

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.

CLW2-10MP SERIES

NAMING RULES



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

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.



Model No.	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
CLW2-4.0X-110-H1.1	No	4	100±2	18.0(1.1")	26.5	>35	±0.07@F26.5	<0.05	<0.01	187.0	C Mount

[Click to view details/drawings](#)

WD 180-200mm

Model No.	 Click to view details/drawings										
	Coaxial	Mag. (x)	WD (mm)	Max. Sesnor 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
CLW2-0.22X-200-23(LM)	No	0.22	200±3	11.0(2/3")	6.9	>130	±5.7@F6.9	<0.05	<0.05	190.1	C Mount

WD 220-250mm

Model No.	 Click to view details/drawings										
	Coaxial	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
CLW2-0.22XH-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
CLW2-0.23XH-220-H1.1	No	0.23	220±3	18.0(1.1")	8	>110	±6.0@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	No	0.275	220±3	16.0(1")	8	>113	±8.5@F8	<0.03	<0.1	242.9	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
CLW2-0.32X-220-H1	No	0.32	220±3	16.0(1")	12.1	>75	±4.7@F12.1	<0.15	<0.07	210.0	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	No	0.367	220±3	16.0(1")	8	>115	±4.7@F8	<0.1	<0.1	214.9	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
CLW2-0.5X-220-H1.1	No	0.5	220±3	18.0(1.1")	7	>140	±1.1@F7	<0.05	<0.02	205.4	C Mount
CLW2-0.5X-220D-H1.1	Yes	0.5	220±3	18.0(1.1")	7	>140	±1.1@F7	<0.05	<0.02	205.4	C Mount
CLW2-0.55X-220-H1	No	0.55	220±3	16.0(1")	8	>110	±1.1@F8	<0.1	<0.1	215.4	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
CLW2-0.3X-250-H1	No	0.3	250±3	16.0(1")	8	>102	±3.6@F8	<0.2	<0.2	200.6	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. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW-MP SERIES

5
CLW-MP

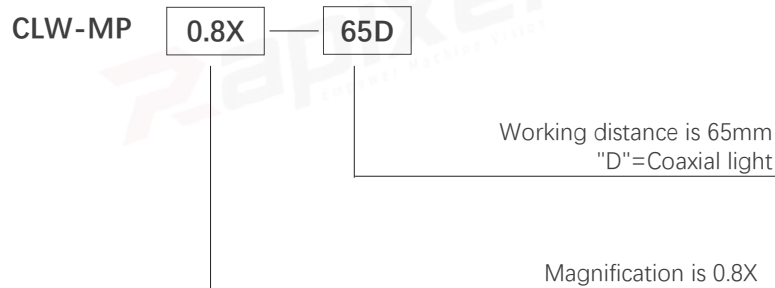
- WD 65mm
- WD 110mm
- WD 130/145mm
- LONG WD 310-510mm
- 3D AOI Supported



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 control.



CLW-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

CLW-MP 0.8X — 65D

Working distance is 65mm
"D"=Coaxial light

Magnification is 0.8X



Model No.	Click to view details/drawings										
	Coaxial	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
CLW-MP-0.5X-65	No	0.5	65±3%	2/3"	9.6	>0.3@110	4.2	<0.001	<0.26	102.1	C Mount
CLW-MP-0.5X-65D	Yes	0.5	65±3%	2/3"	9.6	>0.3@110	4.3	<0.008	<0.25	105.1	C Mount
CLW-MP-0.8X-65	No	0.8	65±3%	2/3"	10	>0.3@100	1.7	<0.086	<0.08	98.3	C Mount
CLW-MP-0.8X-65D	Yes	0.8	65±3%	2/3"	10	>0.3@100	1.7	<0.083	<0.07	101.4	C Mount
CLW-MP-1.0X-65	No	1.0	65±3%	2/3"	11.1	>0.3@90	1.2	<0.038	<0.06	107.6	C Mount
CLW-MP-1.0X-65D	Yes	1.0	65±3%	2/3"	11.1	>0.3@90	1.2	<0.039	<0.06	110.6	C Mount
CLW-MP-1.5X-65	No	1.5	65±3%	2/3"	11.9	>0.3@85	0.55	<0.105	<0.15	86.1	C Mount
CLW-MP-1.5X-65D	Yes	1.5	65±3%	2/3"	11.9	>0.3@85	0.55	<0.105	<0.15	86.1	C Mount
CLW-MP-2.0X-65	No	2.0	65±3%	2/3"	14.4	>0.3@70	0.35	<0.041	<0.11	88.2	C Mount
CLW-MP-2.0X-65D	Yes	2.0	65±3%	2/3"	14.4	>0.3@70	0.35	<0.041	<0.11	88.2	C Mount
CLW-MP-3.0X-65	No	3.0	65±3%	2/3"	15.7	>0.3@65	0.19	<0.038	<0.15	99.5	C Mount
CLW-MP-3.0X-65D	Yes	3.0	65±3%	2/3"	15.7	>0.3@65	0.19	<0.038	<0.15	99.5	C Mount
CLW-MP-4.0X-65	No	4.0	65±3%	2/3"	17.8	>0.3@55	0.11	<0.064	<0.11	103.1	C Mount
CLW-MP-4.0X-65D	Yes	4.0	65±3%	2/3"	17.8	>0.3@55	0.11	<0.064	<0.11	103.1	C Mount
CLW-MP-6.0X-65	No	6.0	65±3%	2/3"	26.6	>0.3@35	0.08	<0.028	<0.15	129.3	C Mount
CLW-MP-6.0X-65D	Yes	6.0	65±3%	2/3"	26.6	>0.3@35	0.08	<0.028	<0.15	129.3	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.

CLW-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

CLW-MP 0.5X 110D



Working distance is 110mm
"D"=Coaxial light

Magnification is 0.5X

Model No.	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
CLW-MP-0.3X-110	No	0.3	110	2/3"	15	70	13.75	<0.1	<0.1	132	C Mount
CLW-MP-0.3X-110D	Yes	0.3	110	2/3"	15	70	13.75	<0.1	<0.1	130.5	C Mount
CLW-MP-0.5X-110	No	0.5	110±3%	2/3"	9.6	>0.3@110	4.3	<0.110	<0.06	126.9	C Mount
CLW-MP-0.5X-110D	Yes	0.5	110±3%	2/3"	9.6	>0.3@110	4.3	<0.092	<0.06	129.5	C Mount
CLW-MP-0.8X-110	No	0.8	110±3%	2/3"	10	>0.3@100	1.7	<0.012	<0.08	117.2	C Mount
CLW-MP-0.8X-110D	Yes	0.8	110±3%	2/3"	10	>0.3@100	1.7	<0.012	<0.08	120.1	C Mount
CLW-MP-1.0X-110	No	1.0	110±3%	2/3"	11.1	>0.3@90	1.2	<0.030	<0.07	126.7	C Mount
CLW-MP-1.0X-110D	Yes	1.0	110±3%	2/3"	11.1	>0.3@90	1.2	<0.032	<0.07	129.5	C Mount
CLW-MP-1.5X-110	No	1.5	110±3%	2/3"	11.8	>0.3@85	0.59	<0.023	<0.15	121.6	C Mount
CLW-MP-1.5X-110D	Yes	1.5	110±3%	2/3"	11.8	>0.3@85	0.59	<0.023	<0.15	121.6	C Mount
CLW-MP-2.0X-110	No	2.0	110±3%	2/3"	13.5	>0.3@75	0.37	<0.036	<0.15	129.6	C Mount
CLW-MP-2.0X-110D	Yes	2.0	110±3%	2/3"	13.5	>0.3@75	0.37	<0.036	<0.15	129.6	C Mount
CLW-MP-3.0X-110	No	3.0	110±3%	2/3"	18.2	>0.3@55	0.22	<0.037	<0.15	132.2	C Mount
CLW-MP-3.0X-110D	Yes	3.0	110±3%	2/3"	18.2	>0.3@55	0.22	<0.037	<0.15	132.2	C Mount
CLW-MP-4.0X-110	No	4.0	110±3%	2/3"	22.1	>0.3@45	0.13	<0.055	<0.04	135.2	C Mount
CLW-MP-4.0X-110D	Yes	4.0	110±3%	2/3"	22.1	>0.3@45	0.13	<0.055	<0.04	135.2	C Mount
CLW-MP-6.0X-110	No	6.0	110±3%	2/3"	33.2	>0.3@30	0.09	<0.030	<0.03	169.5	C Mount
CLW-MP-6.0X-110D	Yes	6.0	110±3%	2/3"	33.2	>0.3@30	0.09	<0.030	<0.03	169.5	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 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.	Click to view details/drawings											
	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 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.	Click to view details/drawings											
	Coaxial	Mag. (x)	WD (mm)	Max. Sesnor 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.

CLW2-3D SERIES

NEW

1. Chromatic Aberration Correction
2. Built-in Coaxial Illumination
3. Supports 3D AOI



Model No.	Click to view details/drawings												
	Variable Iris	Coaxial	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	Length (mm)	Mount
CLW2-3D-0.25X-240-H1.2(IA)	Yes	No	80	0.25	240±3	20(1.2")	6.0	>150	±3.84@F6	0.05	0.1	190.7	C
CLW2-3D-0.25X-240D-H1.2(IA)	Yes	Yes	80	0.25	240±3	20(1.2")	6.0	>150	±3.84@F6	0.05	0.1	190.7	C
CLW2-3D-1.0X-128-175	No	No	28.2	1.0	128±2	28.2(1.75")	11	>76	±0.45@F8	0.01	0.09	315.5	M58
CLW2-3D-1.0X-128D-175	No	Yes	28.2	1.0	128±2	28.2(1.75")	11	>76	±0.45@F8	0.01	0.09	317.9	M58
CLW2-3D-0.55X-220-175(IA)	Yes	No	51.2	0.55	220	28.2(1.75")	8-32	106-30	2.1-8.4	0.05	0.09	192.7	M58
CLW2-3D-0.55X-220D-175(IA)	Yes	Yes	51.2	0.55	220	28.2(1.75")	8-32	106-30	2.1-8.4	0.05	0.09	197.9	M58
CLW2-3D-0.46X-250-175(IA)	Yes	No	61.4	0.46	250	28.2(1.75")	8-32	110-30	3-12.1	0.03	0.21	184.9	M42
CLW2-3D-0.46X-250D-175(IA)	Yes	Yes	61.4	0.46	250	28.2(1.75")	8-32	110-30	3-12.1	0.03	0.21	190.1	M42
CLW2-3D-0.64X-220-185(IA)	Yes	No	46.8	0.64	220	30(1.85")	8-32	121-31	1.6-6.3	0.01	0.02	205.9	M58
CLW2-3D-0.64X-220D-185(IA)	Yes	Yes	46.8	0.64	220	30(1.85")	8-32	121-31	1.6-6.3	0.01	0.02	213.4	M58
CLW2-3D-0.454X-250-185(IA)	Yes	No	66	0.454	250	30(1.85")	8-32	110-30	3.1-12.4	0.03	0.08	188.1	M58
CLW2-3D-0.454X-250D-185(IA)	Yes	Yes	66	0.454	250	30(1.85")	8-32	110-30	3.1-12.4	0.03	0.08	188.1	M58
CLW2-3D-0.37X-250-185(IA)-A	Yes	No	81	0.37	250	30(1.85")	8-32	114-30	7.7-18.7	0.02	0.1	200.0	M58
CLW2-3D-0.37X-250D-185(IA)-A	Yes	Yes	81	0.37	250	30(1.85")	8-32	114-30	7.7-18.7	0.02	0.1	200.0	M58
CLW2-3D-0.31X-250-185(IA)	Yes	No	96	0.31	250	30(1.85")	8-32	111-30	6.7-26.6	0.035	0.1	193	M58
CLW2-3D-0.31X-250D-185(IA)	Yes	Yes	96	0.31	250	30(1.85")	8-32	111-30	6.7-26.6	0.035	0.1	193	M58
CLW2-3D-1.846X-71-175	No	No	15.7	1.846	71±1	29(1.75")	20.0	>45	±2.5@F20	<0.1	<0.1	311.9	M42
CLW2-3D-0.37X-250-185(IA)-B	Yes	No	81	0.37	250	30(1.85")	8-32	114-30	4.7-18.7	0.02	0.1	200	M58
CLW2-3D-0.37X-250D-185(IA)-B	Yes	Yes	81	0.37	250	30(1.85")	8-32	114-30	4.7-18.7	0.02	0.1	200	M58
CLW2-3D-2.8X-90-H2	No	No	11.8	2.8	90±1	33(2")	11	>90	±0.05@F11	<0.02	<0.05	300.9	M58
CLW2-3D-2.8X-90D-H2	No	Yes	11.8	2.8	90±1	33(2")	11	>90	±0.05@F11	<0.02	<0.05	300.9	M58
CLW2-3D-0.7X-92-H2	No	No	44.8	0.7	92±1	33(2")	7.8	>90	±0.05@F7.8	0.1	-	194.2	M58
CLW2-3D-0.1536X-220-H2	No	No	215	0.1536	220±3	33(2")	10.0	>90	±13.6@F8	<0.1	<0.1	369	M42
CLW2-3D-1.0X-102-FF(IA)	Yes	No	44	1.0	102	44(35mm Full)	6.1-32	150-33	0.49-2.56	0.04	0.04	297.3	M58
CLW2-3D-1.0X-102D-FF(IA)	Yes	Yes	44	1.0	102	44(35mm Full)	6.1-32	150-33	0.49-2.56	0.04	0.04	297.3	M58
CLW2-3D-1.5X-92-FF(IA)	Yes	No	29.3	1.5	92.5	44(35mm Full)	7.6-32	120-32	0.29-1.1	0.025	0.03	320	M58
CLW2-3D-1.5X-92D-FF(IA)	Yes	Yes	29.3	1.5	92.5	44(35mm Full)	7.6-32	120-32	0.29-1.1	0.025	0.03	320	M58
CLW2-3D-2.0X-100-FF(IA)	Yes	No	22	2.0	100	44(35mm Full)	8-32	118-32	0.16-0.64	0.045	0.0085	282.5	M58
CLW2-3D-2.0X-100D-FF(IA)	Yes	Yes	22	2.0	100	44(35mm Full)	8-32	118-32	0.16-0.64	0.045	0.0085	282.5	M58
CLW2-3D-3.0X-60-FF(IA)	Yes	No	14.6	3.0	60	44(35mm Full)	8.8-32	106-33	0.08-0.28	0.045	0.0065	359.4	M58
CLW2-3D-3.0X-60D-FF(IA)	Yes	Yes	14.6	3.0	60	44(35mm Full)	8.8-32	106-33	0.08-0.28	0.045	0.0065	359.4	M58
CLW2-3D-4.0X-60-FF(IA)	Yes	No	11	4.0	60±1	44(35mm Full)	11-32	90-32	0.06-0.16	0.02	0.02	365.4	M58
CLW2-3D-4.0X-60D-FF(IA)	Yes	Yes	11	4.0	60±1	44(35mm Full)	11-32	90-32	0.06-0.16	0.02	0.02	365.4	M58
CLW2-3D-5.0X-60-FF(IA)	Yes	No	8.8	5.0	60	44(35mm Full)	13-32	74-31	0.04-0.1	0.02	0.01	387	M58
CLW2-3D-5.0X-60D-FF(IA)	Yes	Yes	8.8	5.0	60	44(35mm Full)	13-32	74-31	0.04-0.1	0.02	0.01	387	M58
CLW2-3D-0.462X-378-Q434	No	No	94	0.462	378±4	43.4	8.0	>115	±1.5@F8.0	<0.1	<0.1	456.9	M58
CLW2-3D-0.462X-378D-Q434	No	Yes	94	0.462	378±4	43.4	8.0	>115	±1.5@F8.0	<0.1	<0.1	456.9	M58
CLW2-3D-0.53X-338-Q434	No	No	82	0.53	338±5	43.4	10.0	>92	±1.4@F10	<0.1	<0.1	464.4	M58
CLW2-3D-0.53X-338D-Q434	No	Yes	82	0.53	338±5	43.4	10.0	>92	±1.4@F10	<0.1	<0.1	464.4	M58

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

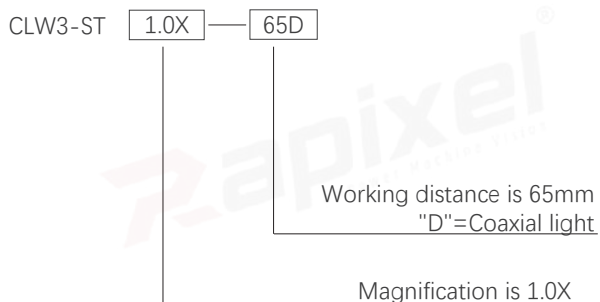


Standard Resolution Telecentric Lenses

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.	Click to view details/drawings						
	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	33 $\pm$ 2	0.83	0.008	3.2 x 2.4	4.2 x 3.2
CLW3-ST-1.5X-40D	Yes	1.5	33 $\pm$ 2	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. $\pm 763@F11$). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW3-ST SERIES

■ WD 65mm

Model No.	Click to view details/drawings						
	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-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 SERIES

■ WD 110mm

Model No.	Click to view details/drawings						
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μ m)	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. $\pm 763@F11$). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW3-ST SERIES

■ WD 130-180mm

Model No.	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	5.32	0.009	16 x 12	21.3 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. $\pm 763@F11$). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

CLW3-ST SERIES

■ WD 250mm

Model No.	 Click to view details/drawings						
	Coaxial	Mag. (x)	WD (mm)	DOF (mm)	Resolution (μ m)	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	00.009	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.

VISIBLE~SWLR SERIES

NEW

7
SWIR

PRODUCT FEATURES

Visible~SWIR Telecentric Lens with Focus Shift Correction

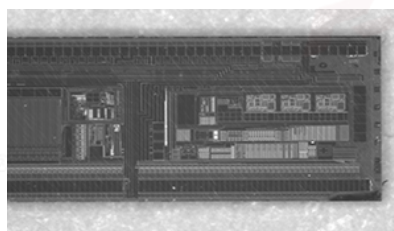
1. Focus shift correction in wide wavelength band from Visible to SWIR
2. Clear images in visible light and transmitted images in SWIR can be captured without focus adjustment
3. Possible to capture differences and defects that cannot be seen in visible ray



Model		Magnification	WD	Image Circle	Wavelength
Coaxial	Non Coaxial				
TLVS-0.7XD-H1.1	TLVS-0.7X-H1.1	0.7x	110mm	Φ20.5	400-1200nm
TLVS-1.0XD-H1.1	TLVS-1.0X-H1.1	1.0x		Φ24	
TLVS-2.0XD-H1.1	TLVS-2.0X-H1.1	2.0x		Φ20.5	
TLVS-4.0XD-H1.1	TLVS-4.0X-H1.1	4.0x		Φ20.5	

Example of SWIR Transparent Images

Possible to image the internal circuitry of IC by transmitting light through silicon at wavelength 1100 nm



Visible (White)



SWIR (1100nm)

SWIR SERIES

NEW

PRODUCT FEATURES

1. Available for SONY IMX990, 1.3MP SWIR image sensor
2. Available for SWIR image sensor 1", InGaAs Sensor
3. Special design to transmit SWIR 950nm-1800nm
4. Possible to capture differences and defects that cannot be seen in visible ray
5. 1.0x/2.0x lenses are adjustable iris, possible to adjust depth of field
6. No coaxial type, TLSW-1.0X-H1.1 and TLSW-2.0X-H1.1 are available



Model No.	Optical Specs									Mechanical Specs	
	Coaxial	Mag. (x)	WD (mm)	Max. Sensor Size (Φmm)	F/#	Object side NA	DOF (mm)	Distortion (% max)	Resolution (μm)	Length (mm)	Mount
TLSW-0.5XD-H1.1	Yes	0.5	116.4	1.1"	6.3	0.040	2.02	0.02	18.4	259.3	C Mount
TLSW-0.7XD-H1.1	Yes	0.7	116.0	1.1"	6.4	0.055	1.05	0.02	13.4	255.6	C Mount
TLSW-1.0XD-H1.1	Yes	1.0	110.0	1.1"	7.0	0.071	0.56	0.02	10.3	259.9	C Mount
TLSW-1.0X-H1.1	No	1.0	110.0	1.1"	7.0	0.071	0.56	0.02	10.3	259.9	C Mount
TLSW-2.0XD-H1.1	Yes	2.0	110.2	1.1"	11.5	0.087	0.23	0.03	8.4	280.1	C Mount
TLSW-2.0X-H1.1	No	2.0	110.2	1.1"	11.5	0.087	0.23	0.03	8.4	280.1	C Mount
TLSW-4.0XD-H1.1	Yes	4.0	110.3	1.1"	20.0	0.100	0.10	0.02	7.3	290.5	C Mount

LIQUID SERIES

NEW

8
LIQUID

PRODUCT FEATURES

1. Liquid Lens for Extended Depth of Field Telecentric Lens
2. Up to 1.1", C-Mount Telecentric Lens
3. Magnification from 0.3X to 4.0X
4. Electronic focusing enables fast and stable working distance adjustment, while maintaining telecentricity, low distortion, and consistent image performance throughout the entire focus range.



Model	Click to view details/drawings						
	Coaxial	Mag.(x)	WD+Liquid Dof (mm)	DOF (mm)	F/#	Sensor Size (mm)	MTF (lp/mm)
VT-TLL03-11	No	0.3	50-200	3	6.8	1.1"	>0.3@140
VT-TLL04-23	No	0.4	100-120	±1.8	6.5	2/3"	>0.3@100
VT-TLL05-23-A	No	0.5	110-120	±1.8	10	2/3"	>0.3@100
VT-TLL05-23-C	No	0.5	100-120	±1.8	10	2/3"	>0.3@100
VT-TLL05-H1	No	0.5	70-140	/	8	1"	>0.3@125
VT-TLL02-11	No	0.23	/	±45	6.6	1.1"	>0.3@120
VT-TLL17-23	No	1.75	100-120	±0.2	13	2/3"	>0.2@60
VT-TLL10-11	No	1.0	108-120	±6	10	1.1"	>0.3@100
VT-TLL10-11-B	No	1.0	100-120	/	6	1.1"	>0.3@165
VT-TLL30-11	No	3.0	63-67	/	11	1.1"	>0.3@85
VT-TLL40-C-23-A	Yes	4.0	64.7	2	17	2/3"	>0.3@50
VT-TLL40-C-23-C	Yes	4.0	62.778	2	17	2/3"	>0.3@50
VT-TLL40-23	No	4.0	/	2	17	2/3"	>0.3@50

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

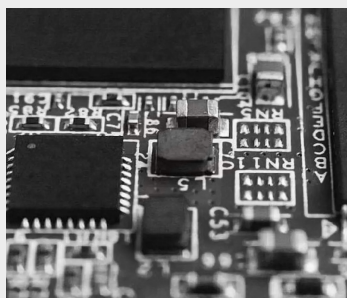
- Complete light coupling, Increased distance between object and illumination source;
- Border effects removal, offer higher edge contrast and higher measurement accuracy;
- Field depth and telecentricity improvement.

Applications

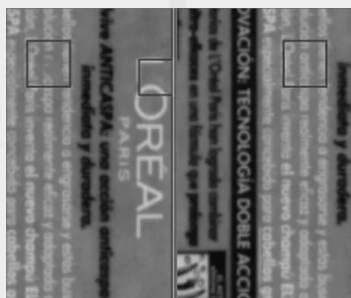
- Inspection of LCD, TP screen, LTO circuit, PCB circuit;
- Appearance inspection of food or medicine.



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 (±mm)	Recommended Collimation (°)	Recommended Parallelism (°)
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

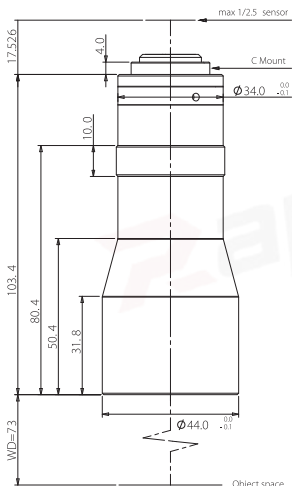
Dimension (mm)

LENS PARAMETER DIAGRAM



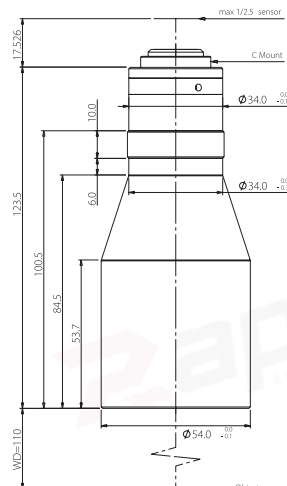
BTL-125 Series

BTL-0.277X-73-125



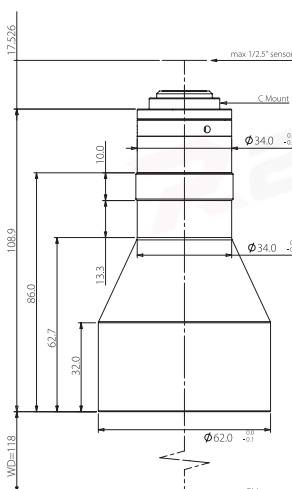
FOV(Φmm)	26
Mag.(x)	0.277
WD(mm)	73±1
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±5.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	194±1
Length(mm)	103.4
Mount	C-Mount
Weight(kg)	0.3
Field of View(mm xmm)	
1/2.5" 9P001/31(5.7x4.28)	20.6x15.5

BTL-0.2X-110-125



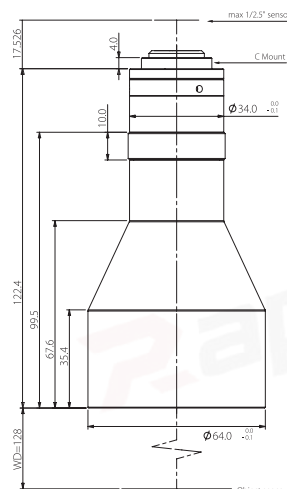
FOV(Φmm)	36
Mag.(x)	0.200
WD(mm)	110±2
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±11.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	251±2
Length(mm)	123.5
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/2.5" 9P001/31(5.7x4.28)	28.5x21.4

BTL-0.171X-118-125



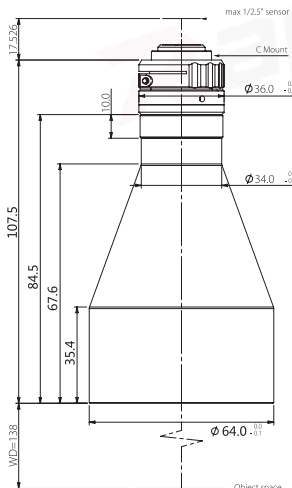
FOV(Φmm)	42
Mag.(x)	0.171
WD(mm)	118±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±15.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	244±3
Length(mm)	108.9
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/2.5" 9P001/31(5.7x4.28)	33.3x25.0

BTL-0.15X-128-125



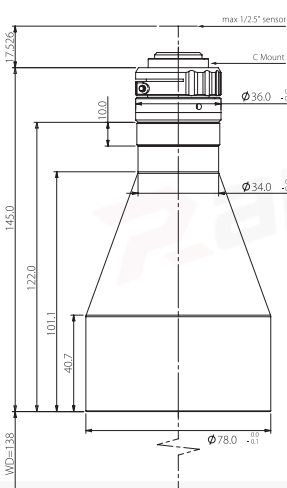
FOV(Φmm)	48
Mag.(x)	0.150
WD(mm)	128±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±19.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	268±3
Length(mm)	122.4
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/2.5" 9P001/31(5.7x4.28)	38.0x28.5

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 xmm)	
1/2.5" 9P001/31(5.7x4.28)	38.0x28.5

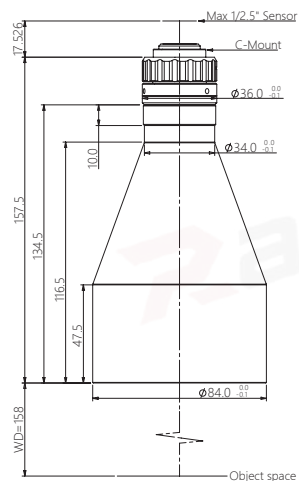
BTL-0.129X-138-125(LM)



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 xmm)	
1/2.5" 9P001/31(5.7x4.28)	44.2x33.2
1/3" AR130/RJ33 (4.8x3.6)	37.2x27.9

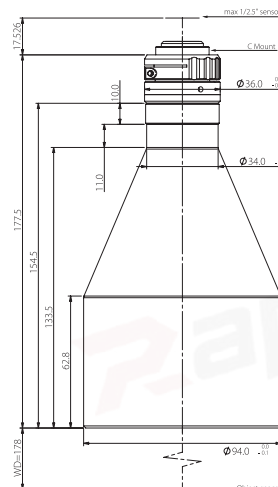
BTL-125 Series

BTL-0.113X-158-125(LM)



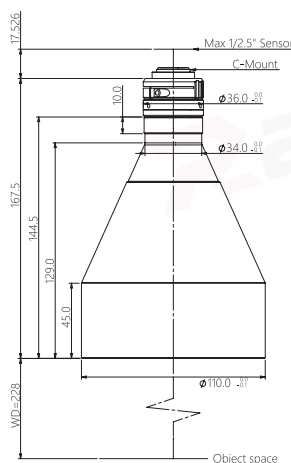
FOV(Φmm)	64
Mag.(x)	0.113
WD(mm)	158±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±34.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	333±3
Length(mm)	157.5
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm x mm)	
1/2.5" 9P001/31(5.7x4.28)	50.4x37.9
1/3"AR130/RJ33 (4.8x3.6)	42.5x31.9

BTL-0.1X-178-125(LM)



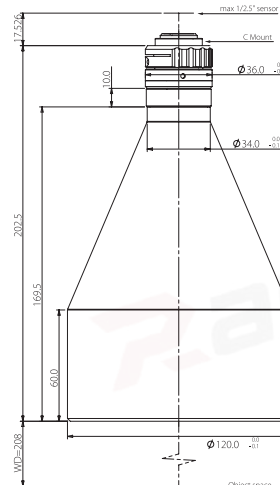
FOV(Φmm)	72
Mag.(x)	0.100
WD(mm)	178±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>195
DoF(mm)	±44.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	373±3
Length(mm)	177.5
Mount	C-Mount
Weight(kg)	1.0
Field of View(mm x mm)	
1/2.5" 9P001/31(5.7x4.28)	57.0x42.8
1/3"AR130/RJ33 (4.8x3.6)	48.0x36.0

BTL-0.09X-228-125(LM)



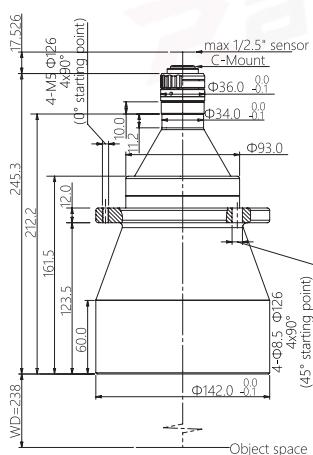
FOV(Φmm)	80
Mag.(x)	0.090
WD(mm)	228±4
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>205
DoF(mm)	±54.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	413±4
Length(mm)	167.5
Mount	C-Mount
Weight(kg)	1.9
Field of View(mm x mm)	
1/2.5" 9P001/31(5.7x4.28)	63.3x47.6
1/3"AR130/RJ33 (4.8x3.6)	53.3x40.0

BTL-0.08X-208-125(LM)



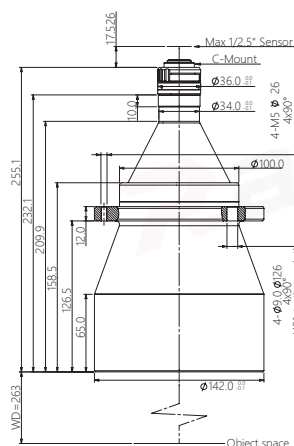
FOV(Φmm)	90
Mag.(x)	0.080
WD(mm)	208±3
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±68.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	428±3
Length(mm)	202.5
Mount	C-Mount
Weight(kg)	1.7
Field of View(mm x mm)	
1/2.5" 9P001/31(5.7x4.28)	71.3x53.5
1/3"AR130/RJ33 (4.8x3.6)	60.0x45.0

BTL-0.072X-238-125(LM)



FOV(Φmm)	100
Mag.(x)	0.072
WD(mm)	238±4
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±84.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	501±4
Length(mm)	245.3
Mount	C-Mount
Weight(kg)	3.1
Field of View(mm x mm)	
1/2.5" 9P001/31(5.7x4.28)	79.2x59.4
1/3"AR130/RJ33 (4.8x3.6)	66.7x50.0

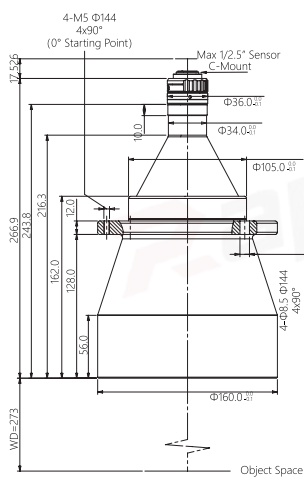
BTL-0.066X-263-125(LM)



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 x mm)	
1/2.5" 9P001/31(5.7x4.28)	86.4x64.8
1/3"AR130/RJ33 (4.8x3.6)	72.7x54.5

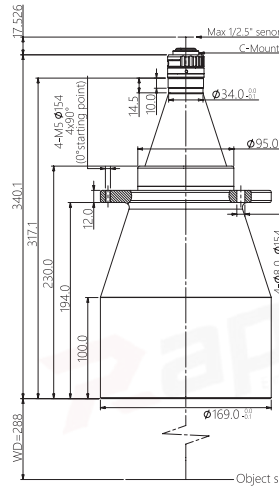
BTL-125 Series

BTL-0.06X-273-125(LM)



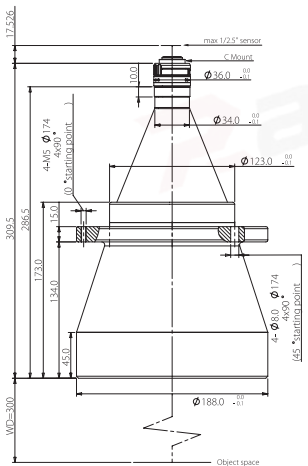
FOV(Φmm)	120
Mag.(x)	0.060
WD(mm)	273±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±122@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	557±5
Length(mm)	266.9
Mount	C-Mount
Weight(kg)	4.2
Field of View(mm xmm)	
1/2.5" 9P001/31(5.7x4.28)	95.0x71.3
1/3"AR130/RJ33 (4.8x3.6)	80.0x60.0

BTL-0.053X-288 -125(LM)



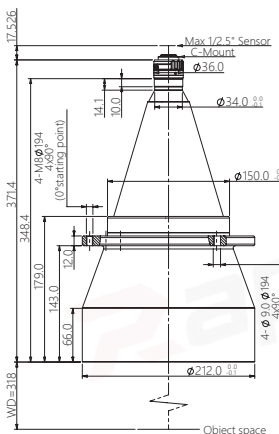
FOV(Φmm)	136
Mag.(x)	0.053
WD(mm)	288±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±157@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	646±5
Length(mm)	340.1
Mount	C-Mount
Weight(kg)	4.2
Field of View(mm xmm)	
1/2.5" 9P001/31(5.7x4.28)	107.5x80.8
1/3"AR130/RJ33 (4.8x3.6)	90.6x67.9

BTL-0.048X-300-125(LM)



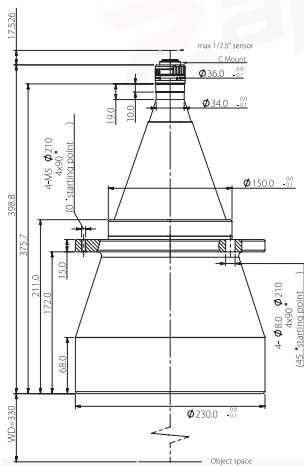
FOV(Φmm)	150
Mag.(x)	0.048
WD(mm)	300±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±190@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	627±5
Length(mm)	309.5
Mount	C-Mount
Weight(kg)	5.7
Field of View(mm xmm)	
1/2.5" 9P001/31(5.7x4.28)	118.8x89.2
1/3"AR130/RJ33 (4.8x3.6)	100.0x75.0

BTL-0.042X-318-125(LM)



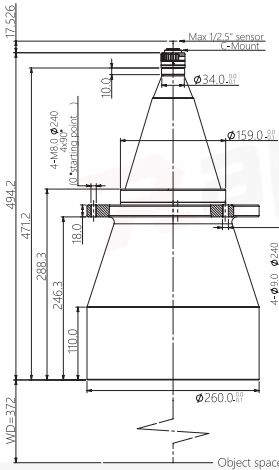
FOV(Φmm)	170
Mag.(x)	0.042
WD(mm)	318±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±249@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	707±5
Length(mm)	371.4
Mount	C-Mount
Weight(kg)	6.5
Field of View(mm xmm)	
1/2.5" 9P001/31(5.7x4.28)	135.7x101.9
1/3"AR130/RJ33 (4.8x3.6)	114.3x85.7

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)	±304@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
1/3"AR130/RJ33 (4.8x3.6)	126.3x94.7

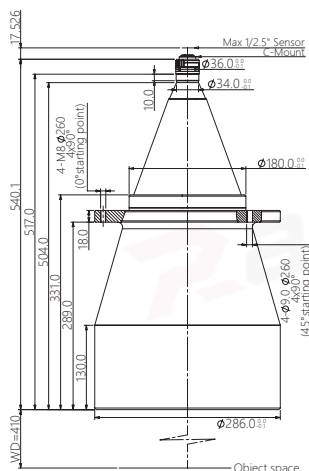
BTL-0.033X-372-125(LM)



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
1/3"AR130/RJ33 (4.8x3.6)	145.5x109.1

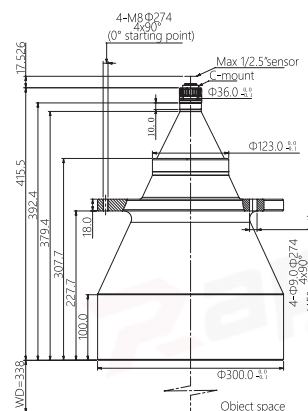
BTL-125 Series

BTL-0.03XH-410-125(LM)



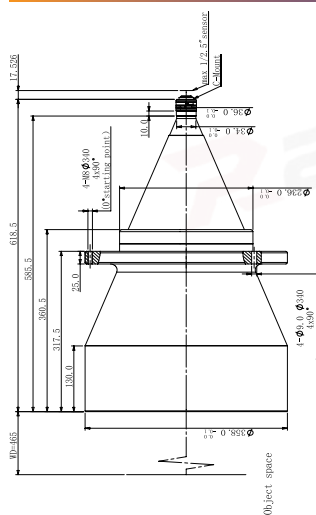
FOV(Φmm)	240
Mag.(x)	0.030
WD(mm)	410±6
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±489@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	968±6
Length(mm)	540.1
Mount	C-Mount
Weight(kg)	19.1
Field of View(mm x mm)	
1/2.5" 9P001/31(5.7x4.28)	190.0x142.7
1/3"AR130/RJ33 (4.8x3.6)	160.0x120.0

BTL-0.028X-338-125(LM)



FOV(Φmm)	258
Mag.(x)	0.028
WD(mm)	338±5
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±565@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	771±5
Length(mm)	415.5
Mount	C-Mount
Weight(kg)	24.3
Field of View(mm x mm)	
1/2.5" 9P001/31(5.7x4.28)	203.6x152.9
1/3"AR130/RJ33 (4.8x3.6)	171.4x128.6

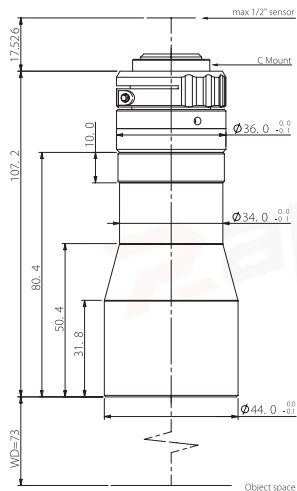
BTL-0.024X-465-125(LM)



FOV(Φmm)	300
Mag.(x)	0.024
WD(mm)	465±6
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	4.2
MTF30(lp/mm)	>205
DoF(mm)	±763@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1101±6
Length(mm)	618.5
Mount	C-Mount
Weight(kg)	46.6
Field of View(mm x mm)	
1/2.5" 9P001/31(5.7x4.28)	237.5x178.3
1/3"AR130/RJ33 (4.8x3.6)	200.0x150.0

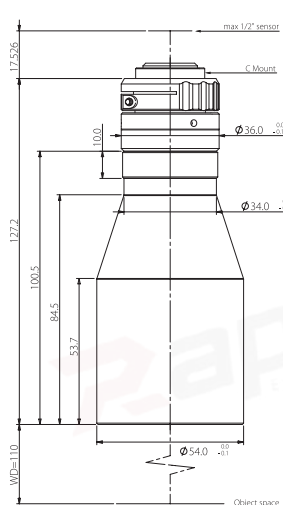
BTL-12 Series

BTL-0.308X-73-12(LM)



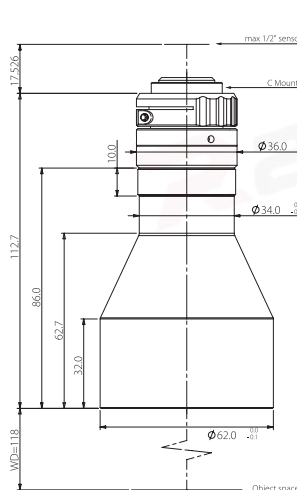
FOV(Φmm)	26
Mag.(x)	0.308
WD(mm)	73±1
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>175
DoF(mm)	±4.6@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	198±1
Length(mm)	107.2
Mount	C-Mount
Weight(kg)	0.3
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	20.9x15.0
1/2.5" 9P001/31 (5.7x4.28)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

BTL-0.222X-110-12(LM)



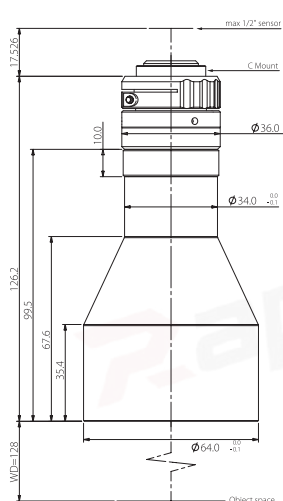
FOV(Φmm)	36
Mag.(x)	0.222
WD(mm)	110±2
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>190
DoF(mm)	±8.9@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	255±2
Length(mm)	127.2
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	29.0x20.8
1/2.5" 9P001/31 (5.7x4.28)	25.7x19.3

BTL-0.19X-118-12(LM)



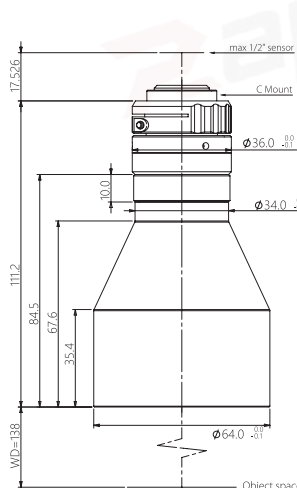
FOV(Φmm)	42
Mag.(x)	0.190
WD(mm)	118±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±12.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	248±3
Length(mm)	112.7
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	33.9x24.3
1/2.5" 9P001/31 (5.7x4.28)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

BTL-0.167X-128-12(LM)



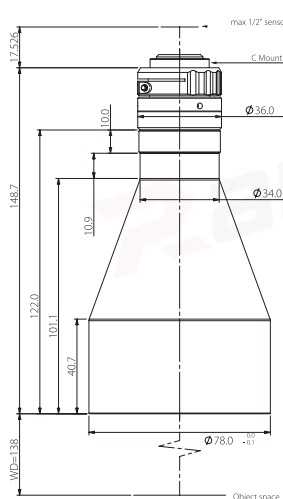
FOV(Φmm)	48
Mag.(x)	0.167
WD(mm)	128±3
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>200
DoF(mm)	±15.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	272±3
Length(mm)	126.2
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	38.6x27.7
1/2.5" 9P001/31 (5.7x4.28)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

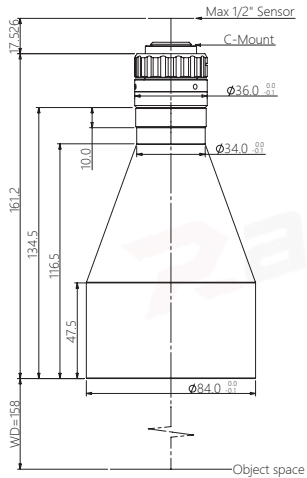
BTL-0.143X-138-12(LM)



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(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	45.0x32.3
1/2.5" 9P001/31 (5.7x4.28)	39.9x29.9

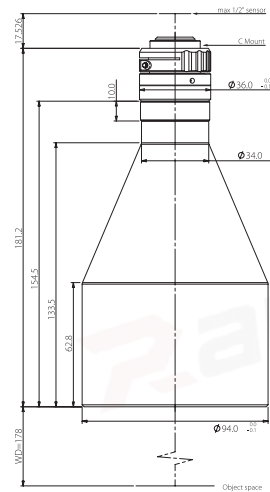
BTL-12 Series

BTL-0.125X-158-12(LM)



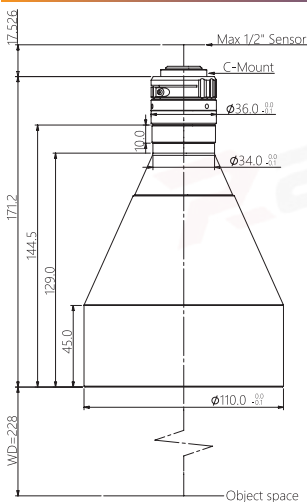
FOV(Φ mm)	64
Mag.(x)	0.125
WD(mm)	158 $\pm$ 3
Max Sensor Size(Φ mm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>220
DoF(mm)	$\pm$ 28.2@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	337 $\pm$ 3
Length(mm)	161.2
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm $\times$ mm)	
1/2.3" 9J003 (6.44x4.62)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

BTL-0.111X-178-12(LM)



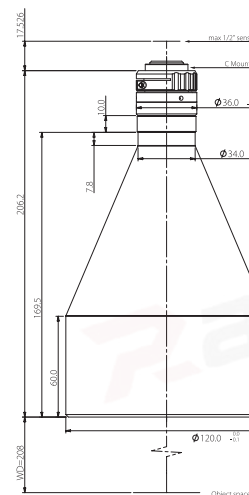
FOV(Φ mm)	72
Mag.(x)	0.111
WD(mm)	178 $\pm$ 3
Max Sensor Size(Φ mm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>215
DoF(mm)	$\pm$ 35.7@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	377 $\pm$ 3
Length(mm)	181.2
Mount	C-Mount
Weight(kg)	1.0
Field of View(mm $\times$ mm)	
1/2.3" 9J003 (6.44x4.62)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

BTL-0.1X-228-12(LM)



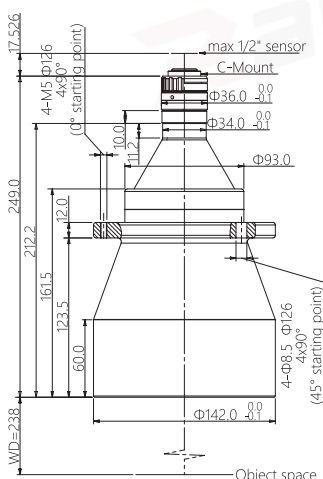
FOV(Φ mm)	80
Mag.(x)	0.100
WD(mm)	228 $\pm$ 4
Max Sensor Size(Φ mm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	$\pm$ 44@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	417 $\pm$ 4
Length(mm)	171.2
Mount	C-Mount
Weight(kg)	1.8
Field of View(mm $\times$ mm)	
1/2.3" 9J003 (6.44x4.62)	64.4x46.2
1/2.5" 9P001/31 (5.7x4.28)	57.0x42.8

BTL-0.089X-208-12(LM)



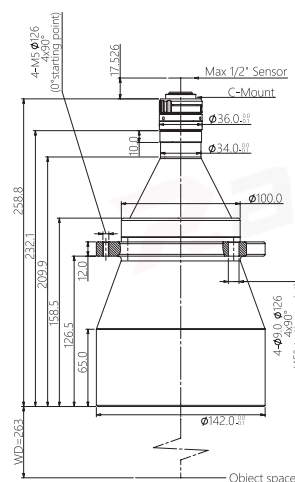
FOV(Φ mm)	90
Mag.(x)	0.089
WD(mm)	208 $\pm$ 3
Max Sensor Size(Φ mm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	$\pm$ 55.5@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	432 $\pm$ 3
Length(mm)	206.2
Mount	C-Mount
Weight(kg)	1.6
Field of View(mm $\times$ mm)	
1/2.3" 9J003 (6.44x4.62)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

BTL-0.08X-238-12(LM)



FOV(Φ mm)	100
Mag.(x)	0.080
WD(mm)	238 $\pm$ 4
Max Sensor Size(Φ mm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	$\pm$ 68.7@F11
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	505 $\pm$ 4
Length(mm)	249
Mount	C-Mount
Weight(kg)	3.0
Field of View(mm $\times$ mm)	
1/2.3" 9J003 (6.44x4.62)	80.5x57.8
1/2.5" 9P001/31 (5.7x4.28)	71.3x53.5

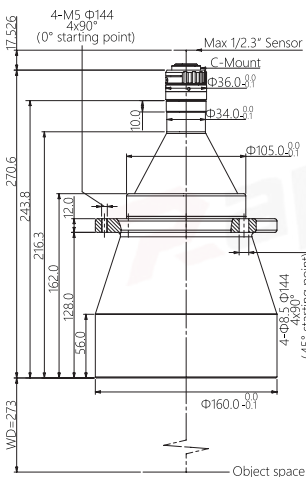
BTL-0.073X-263-12(LM)



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

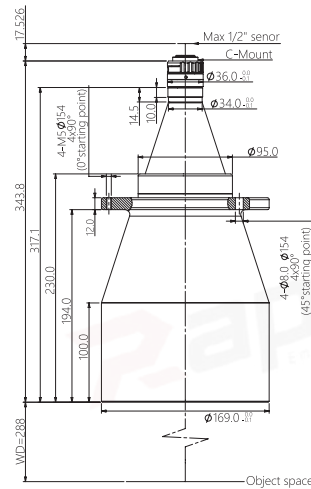
BTL-12 Series

BTL-0.067X-273-12(LM)



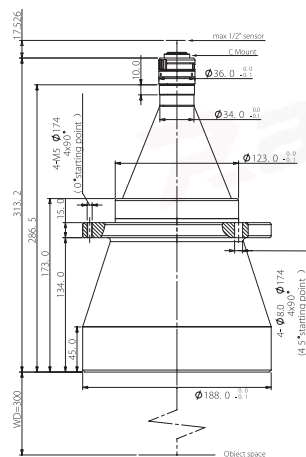
FOV(Φmm)	120
Mag.(x)	0.067
WD(mm)	273±5
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±99@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	561±5
Length(mm)	270.6
Mount	C-Mount
Weight(kg)	4.1
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	96.1x69.0
1/2.5" 9P001/31 (5.7x4.28)	96.1x69.0

BTL-0.059X-288-12(LM)



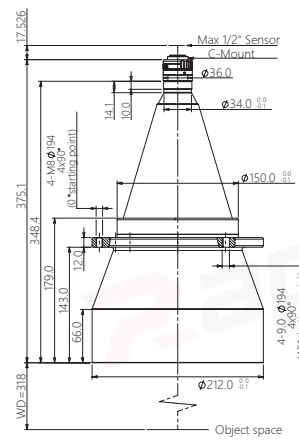
FOV(Φmm)	136
Mag.(x)	0.059
WD(mm)	288±5
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>215
DoF(mm)	±126@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	649±5
Length(mm)	343.8
Mount	C-Mount
Weight(kg)	4.2
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	109.2x78.3
1/2.5" 9P001/31 (5.7x4.28)	96.6x72.5

BTL-0.053X-300-12(LM)



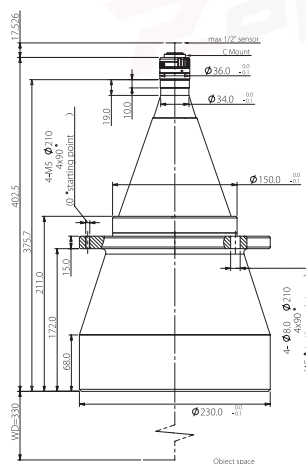
FOV(Φmm)	150
Mag.(x)	0.053
WD(mm)	300±5
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±156@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	631±5
Length(mm)	313.2
Mount	C-Mount
Weight(kg)	5.6
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	121.5x87.2
1/2.5" 9P001/31 (5.7x4.28)	107.5x80.8

BTL-0.047X-318-12(LM)



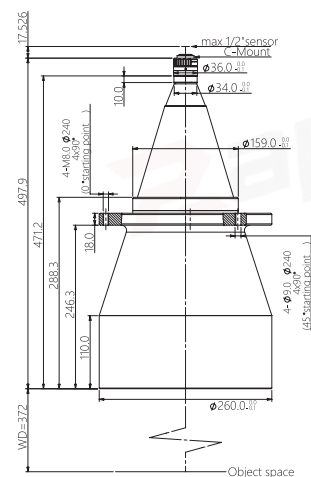
FOV(Φmm)	170
Mag.(x)	0.047
WD(mm)	318±5
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±199@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	711±5
Length(mm)	375.1
Mount	C-Mount
Weight(kg)	6.4
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	137.0x98.3
1/2.5" 9P001/31 (5.7x4.28)	121.3x91.1

BTL-0.042X-330-12(LM)



FOV(Φmm)	190
Mag.(x)	0.042
WD(mm)	330±5
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±248@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	750±5
Length(mm)	402.5
Mount	C-Mount
Weight(kg)	9.6
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	153.3x110.0
1/2.5" 9P001/31 (5.7x4.28)	135.7x101.9

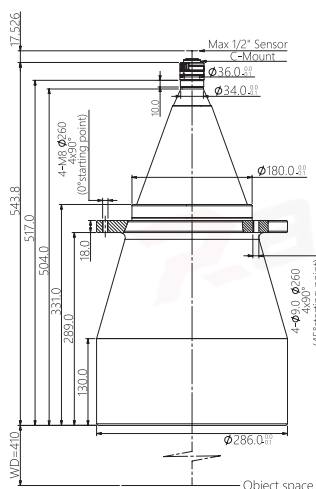
BTL-0.037X-372-12(LM)



FOV(Φmm)	216
Mag.(x)	0.037
WD(mm)	372±5
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±321@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	887±5
Length(mm)	497.9
Mount	C-Mount
Weight(kg)	13.7
Field of View(mm xmm)	
1/2.3" 9J003 (6.44x4.62)	174.1x124.9
1/2.5" 9P001/31 (5.7x4.28)	154.1x115.7

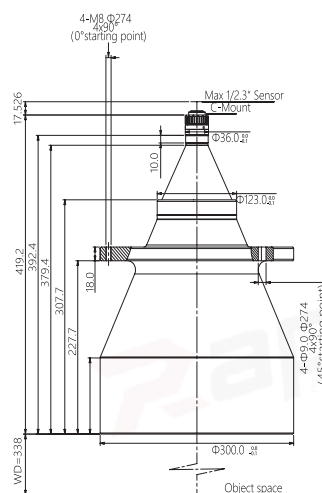
BTL-12 Series

BTL-0.033XH-410-12(LM)



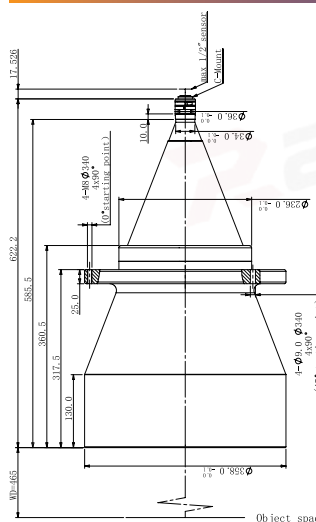
FOV(Φmm)	240
Mag.(x)	0.033
WD(mm)	410±6
Max Sensor Size(Φmm)	8.0(1/2")
F/#	4.2
MTF30(lp/mm)	>210
DoF(mm)	±397@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	971±6
Length(mm)	543.8
Mount	C-Mount
Weight(kg)	19.0
Field of View(mmxmm)	
1/2.3" 9J003 (6.44x4.62)	195.2x140.0
1/2.5" 9P001/31 (5.7x4.28)	172.7x129.7

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)	24.3
Field of View(mmxmm)	
1/2.5" 9P001/31 (5.7x4.28)	183.9x138.1
1/2.3" 9J003 (6.44x4.62)	207.7x149.0

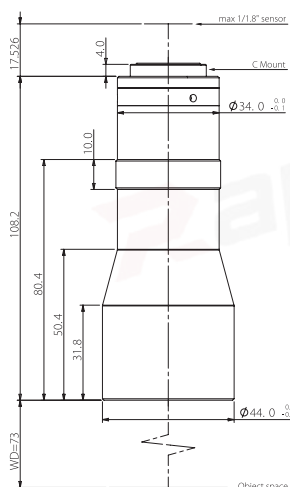
BTL-0.027X-465-12(LM)



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

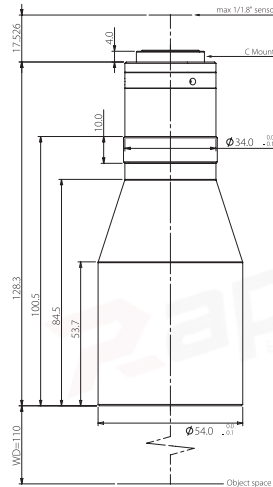
BTL-118 Series

BTL-0.346X-73-118



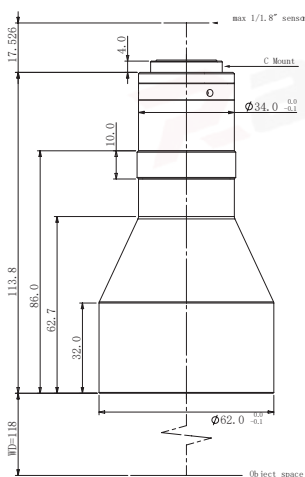
FOV(Φmm)	26
Mag.(x)	0.346
WD(mm)	73±1
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>170
DoF(mm)	±3.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	199±1
Length(mm)	108.2
Mount	C-Mount
Weight(kg)	0.3
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	21.5x14.2
1/1.8" IMX252/265 (7.1x5.3)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

BTL-0.25X-110-118



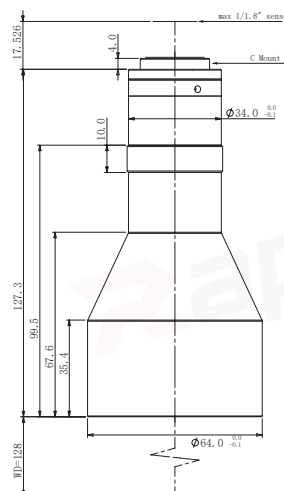
FOV(Φmm)	36
Mag.(x)	0.250
WD(mm)	110±2
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>180
DoF(mm)	±7.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	256±2
Length(mm)	128.3
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	29.7x19.6
1/1.8" IMX252/265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

BTL-0.214X-118-118



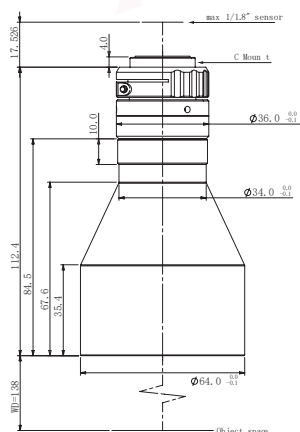
FOV(Φmm)	42
Mag.(x)	0.214
WD(mm)	118±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±9.6@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	249±3
Length(mm)	113.8
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	34.7x22.9
1/1.8" IMX252/265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

BTL-0.188X-128-118



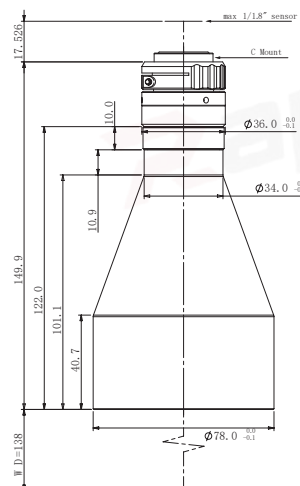
FOV(Φmm)	48
Mag.(x)	0.188
WD(mm)	128±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>190
DoF(mm)	±12.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	273±3
Length(mm)	127.3
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	39.5x26.1
1/1.8" IMX252/265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

BTL-0.188X-138-118(LM)



FOV(Φmm)	48
Mag.(x)	0.188
WD(mm)	138±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>165
DoF(mm)	±12.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	268±3
Length(mm)	112.4
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/1.8" ICX274/687 (7.16x5.44)	38.1x29.0
1/1.8" EV76C570 (7.2x5.4)	38.3x28.7

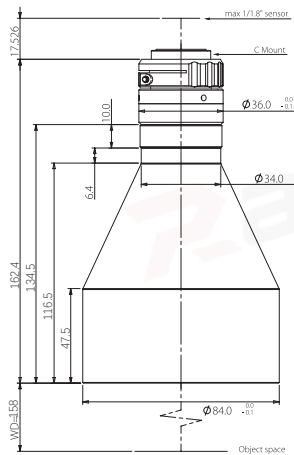
BTL-0.161X-138-118(LM)



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

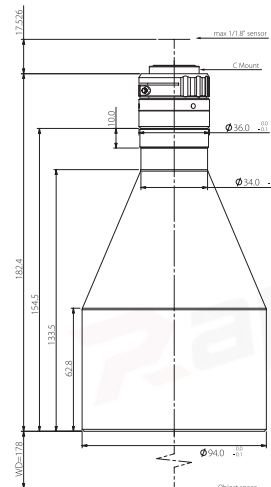
BTL-118 Series

BTL-0.141X-158-118(LM)



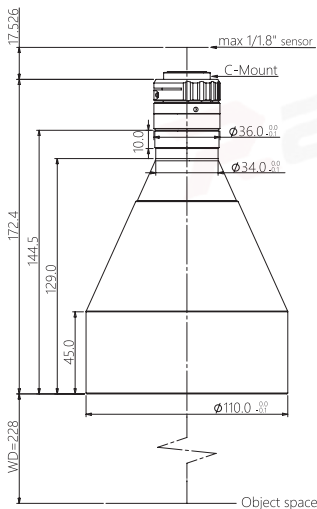
FOV(Φmm)	64
Mag.(x)	0.141
WD(mm)	158±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±22.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	338±3
Length(mm)	162.4
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	52.7x34.8
1/1.8" IMX252/265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

BTL-0.125X-178-118(LM)



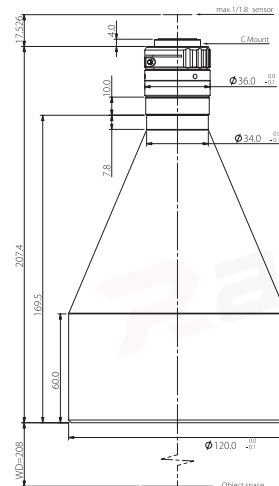
FOV(Φmm)	72
Mag.(x)	0.125
WD(mm)	178±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±28.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	378±3
Length(mm)	182.4
Mount	C-Mount
Weight(kg)	1.1
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	59.4x39.2
1/1.8" IMX252/265 (7.1x5.3)	56.8x42.4

BTL-0.113XH-228-118(LM)



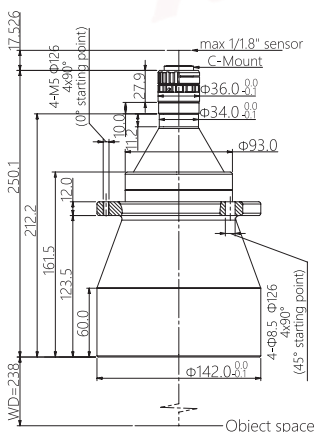
FOV(Φmm)	80
Mag.(x)	0.113
WD(mm)	228±4
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±34.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	418±4
Length(mm)	172.4
Mount	C-Mount
Weight(kg)	1.9
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	65.8x43.4
1/1.8" IMX252/265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

BTL-0.1X-208-118(LM)



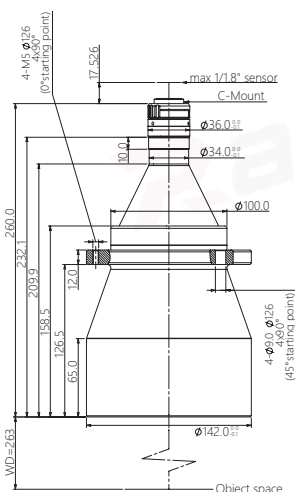
FOV(Φmm)	90
Mag.(x)	0.100
WD(mm)	208±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>195
DoF(mm)	±44.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	433±3
Length(mm)	207.4
Mount	C-Mount
Weight(kg)	1.7
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	74.3x49.0
1/1.8" IMX252/265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

BTL-0.09X-238-118(LM)



FOV(Φmm)	100
Mag.(x)	0.090
WD(mm)	238±4
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±54.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	506±4
Length(mm)	250.1
Mount	C-Mount
Weight(kg)	3.1
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	82.6x54.4
1/1.8" IMX252/265 (7.1x5.3)	78.9x58.9

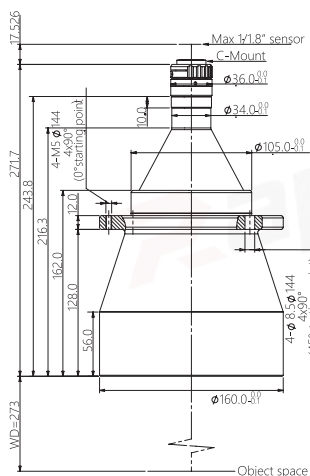
BTL-0.082X-263-118(LM)



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 xmm)	
1/1.8" IMX178 (7.43x4.9)	90.6x59.8
1/1.8" IMX252/265 (7.1x5.3)	86.6x64.6

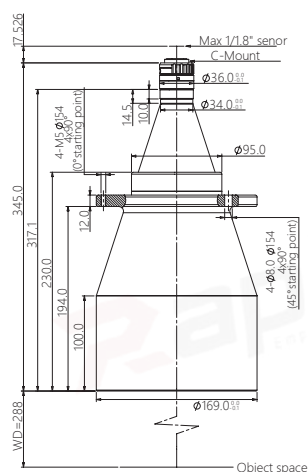
BTL-118 Series

BTL-0.075X-273-118(LM)



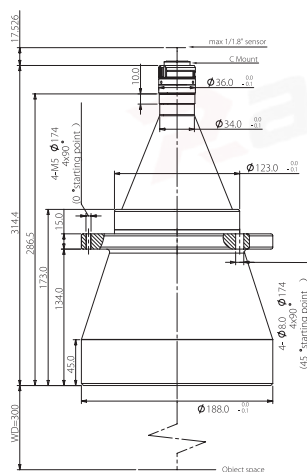
FOV(Φmm)	120
Mag.(x)	0.075
WD(mm)	273±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.5
MTF30(lp/mm)	>200
DoF(mm)	±78.2@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	562±5
Length(mm)	271.7
Mount	C-Mount
Weight(kg)	4.2
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	99.1x65.3
1/1.8" IMX252/265 (7.1x5.3)	94.7x70.7

BTL-0.066X-288-118(LM)



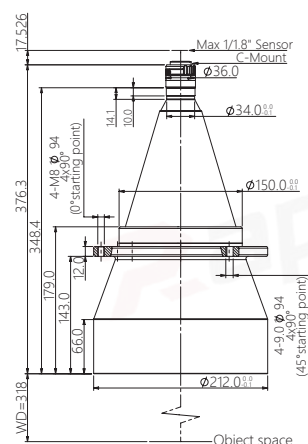
FOV(Φmm)	136
Mag.(x)	0.066
WD(mm)	288±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±101@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	651±5
Length(mm)	345.0
Mount	C-Mount
Weight(kg)	4.2
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	112.6x74.2
1/1.8" IMX252/265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

BTL-0.06X-300-118(LM)



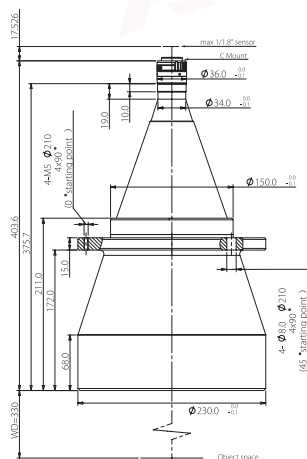
FOV(Φmm)	150
Mag.(x)	0.060
WD(mm)	300±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±122@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	632±5
Length(mm)	314.4
Mount	C-Mount
Weight(kg)	5.7
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	123.8x81.7
1/1.8" IMX252/265 (7.1x5.3)	118.3x88.3

BTL-0.053X-318-118(LM)



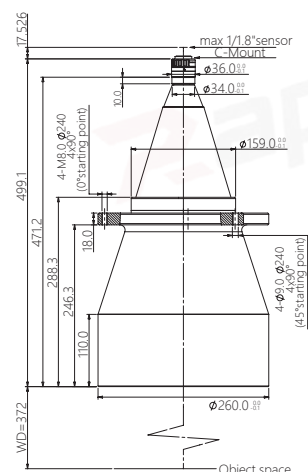
FOV(Φmm)	170
Mag.(x)	0.053
WD(mm)	318±5
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±157@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	712±5
Length(mm)	376.3
Mount	C-Mount
Weight(kg)	6.5
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	140.2x92.5
1/1.8" IMX252/265 (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(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	158.1x104.3
1/1.8" IMX252/265 (7.1x5.3)	151.1x112.8

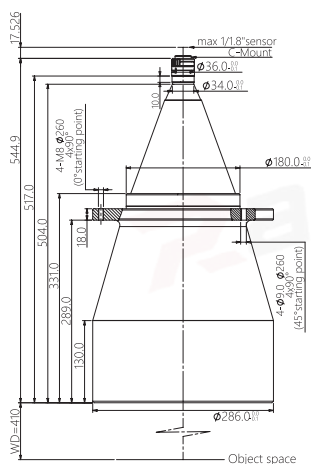
BTL-0.042X-372-118(LM)



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(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	176.9x116.7
1/1.8" IMX252/265 (7.1x5.3)	169.0x126.2

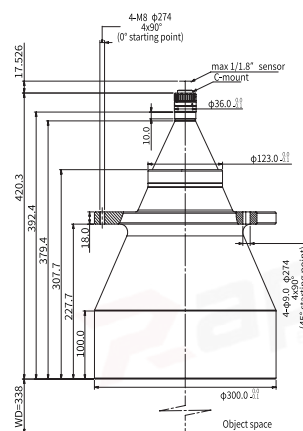
BTL-118 Series

BTL-0.038XH-410-118(LM)



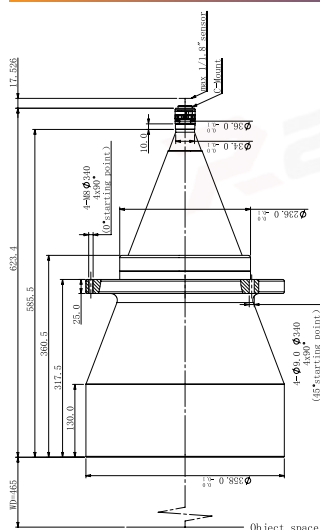
FOV(Φmm)	240
Mag.(x)	0.038
WD(mm)	410±6
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	4.6
MTF30(lp/mm)	>200
DoF(mm)	±313@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	972±6
Length(mm)	544.9
Mount	C-Mount
Weight(kg)	19.1
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	195.5x128.9
1/1.8" IMX252/265 (7.1x5.3)	186.8x139.5

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)	24.3
Field of View(mm xmm)	
1/1.8" IMX178 (7.43x4.9)	212.3x140.0
1/1.8" IMX252/265 (7.1x5.3)	202.9x151.4

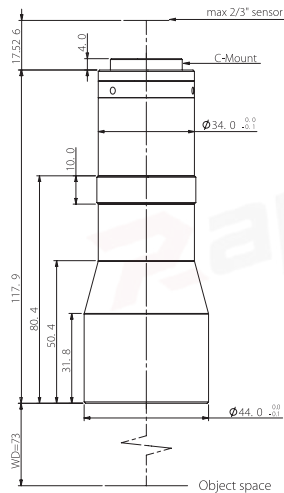
BTL-0.03X-465-118(LM)



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 xmm)	
1/1.8" IMX178 (7.43x4.9)	247.7x163.3
1/1.8" IMX252/265 (7.1x5.3)	236.7x176.7

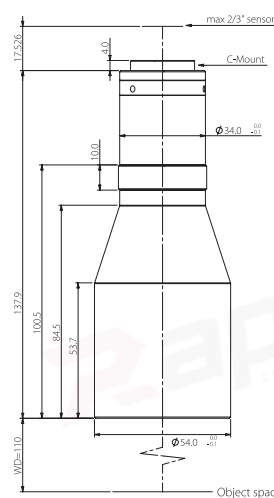
BTL-23 Series

BTL-0.438X-73-23



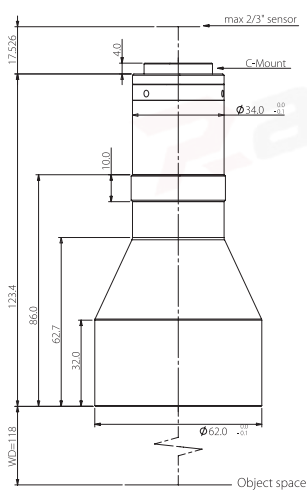
FOV(Φmm)	26
Mag.(x)	0.438
WD(mm)	73±1
Max Sensor Size(Φmm)	11.4(2/3")
F/#	6.0
MTF30(lp/mm)	>130
DoF(mm)	±2.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	208±1
Length(mm)	117.9
Mount	C-Mount
Weight(kg)	0.3
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	16.4x12.3
1/1.7" IMX226 (7.5x5.6)	17.1x12.8
2/3" IMX250/264 (8.45x7.1)	19.3x16.2

BTL-0.317X-110-23



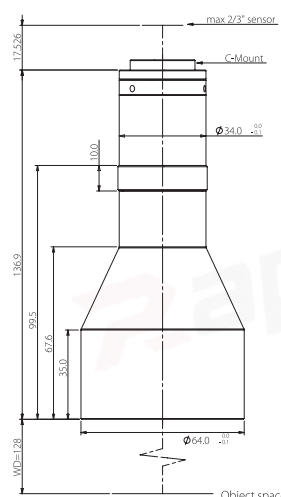
FOV(Φmm)	36
Mag.(x)	0.317
WD(mm)	110±2
Max Sensor Size(Φmm)	11.4(2/3")
F/#	5.4
MTF30(lp/mm)	>145
DoF(mm)	±4.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	265±2
Length(mm)	137.9
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	22.7x17.0
1/1.7" IMX226 (7.5x5.6)	23.7x17.7
2/3" IMX250/264 (8.45x7.1)	26.7x22.4

BTL-0.271X-118-23



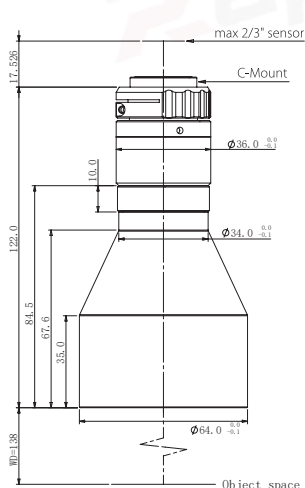
FOV(Φmm)	42
Mag.(x)	0.271
WD(mm)	118±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±6.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	259±3
Length(mm)	123.4
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	26.6x19.9
1/1.7" IMX226 (7.5x5.6)	27.7x20.7
2/3" IMX250/264 (8.45x7.1)	31.2x26.2

BTL-0.238X-128-23



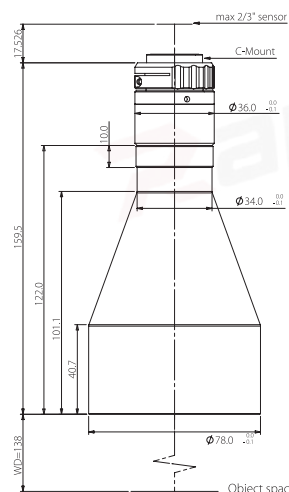
FOV(Φmm)	48
Mag.(x)	0.238
WD(mm)	128±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	5.4
MTF30(lp/mm)	>165
DoF(mm)	±7.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	282±3
Length(mm)	136.9
Mount	C-Mount
Weight(kg)	0.5
Field of View(mm xmm)	
1/1.8" EV76C570 (7.2x5.4)	30.3x22.7
1/1.7" IMX226 (7.5x5.6)	31.5x23.5
2/3" IMX250/264 (8.45x7.1)	35.5x29.8

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(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	35.6x29.8

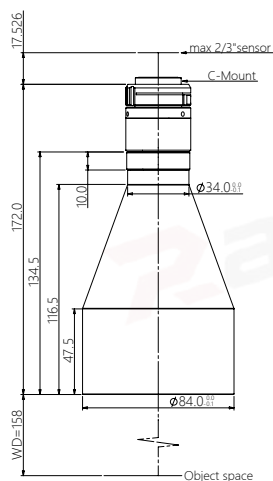
BTL-0.204X-138-23(LM)



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(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	41.4x34.8
1/1.8" EV76C570 (7.2x5.4)	35.3x26.5
1/1.7" IMX226 (7.5x5.6)	36.8x27.5

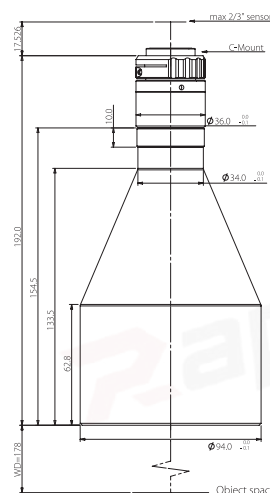
BTL-23 Series

BTL-0.178X-158-23(LM)



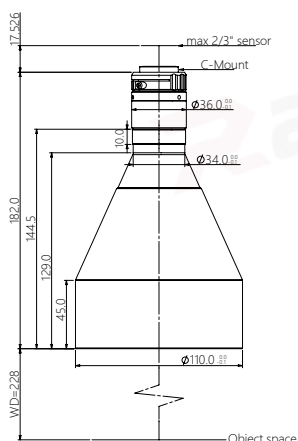
FOV(Φmm)	64
Mag.(x)	0.178
WD(mm)	158±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±13.9@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	348±3
Length(mm)	172.0
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	47.5x39.9
1/1.8" EV76C570 (7.2x5.4)	40.4x30.3
1/1.7" IMX226 (7.5x5.6)	42.1x31.5

BTL-0.158X-178-23(LM)



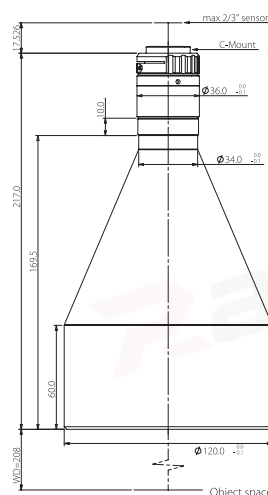
FOV(Φmm)	72
Mag.(x)	0.158
WD(mm)	178±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±17.6@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	388±3
Length(mm)	192.0
Mount	C-Mount
Weight(kg)	1.1
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	53.5x44.9
1/1.8" EV76C570 (7.2x5.4)	45.6x34.2
1/1.7" IMX226 (7.5x5.6)	47.5x35.4

BTL-0.142XH-228-23(LM)



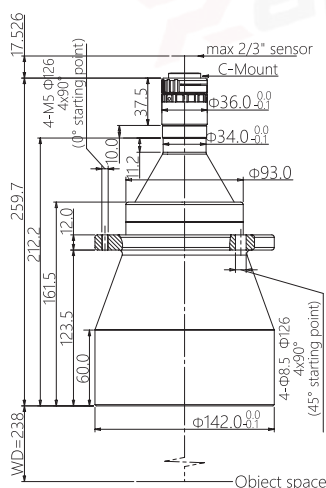
FOV(Φmm)	80
Mag.(x)	0.142
WD(mm)	228±4
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±21.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	427±4
Length(mm)	182
Mount	C-Mount
Weight(kg)	1.9
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	59.7x50.0
1/1.8" EV76C570 (7.2x5.4)	50.7x38.0
1/1.7" IMX226 (7.5x5.6)	52.8x39.4

BTL-0.127X-208-23(LM)



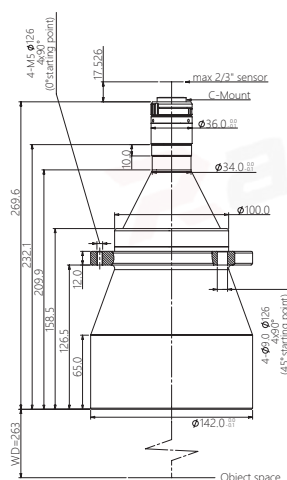
FOV(Φmm)	90
Mag.(x)	0.127
WD(mm)	208±3
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±27.2@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	443±3
Length(mm)	217.0
Mount	C-Mount
Weight(kg)	1.7
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	66.7x55.9
1/1.8" EV76C570 (7.2x5.4)	56.7x42.5
1/1.7" IMX226 (7.5x5.6)	59.1x44.1

BTL-0.114X-238-23(LM)



FOV(Φmm)	100
Mag.(x)	0.114
WD(mm)	238±4
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±33.8@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	515±4
Length(mm)	259.7
Mount	C-Mount
Weight(kg)	3.1
Field of View(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	74.1x62.3
1/1.8" EV76C570 (7.2x5.4)	63.2x47.4
1/1.7" IMX226 (7.5x5.6)	65.8x49.1

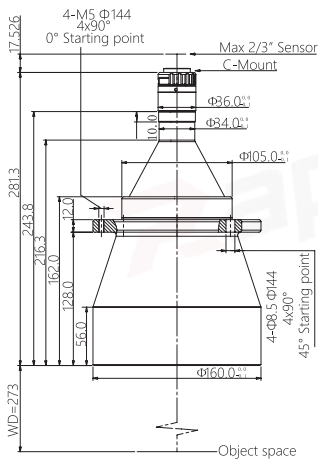
BTL-0.104X-263-23(LM)



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(mm xmm)	
2/3" IMX250/264 (8.45x7.1)	81.3x68.3
1/1.8" EV76C570 (7.2x5.4)	69.2x51.9
1/1.7" IMX226 (7.5x5.6)	72.1x53.8

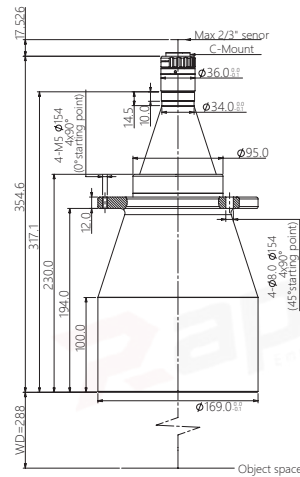
BTL-23 Series

BTL-0.095X-273-23(LM)



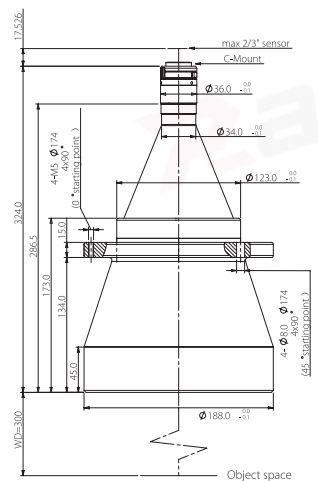
FOV(Φmm)	120
Mag.(x)	0.095
WD(mm)	273±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±48.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	572±5
Length(mm)	281.3
Mount	C-Mount
Weight(kg)	4.2
Field of View(mmxxmm)	
2/3" IMX250/264 (8.45x7.1)	88.9x74.7
1/1.8" EV76C570 (7.2x5.4)	75.8x56.8
1/1.7" IMX226 (7.5x5.6)	78.9x58.9

BTL-0.084X-288-23(LM)



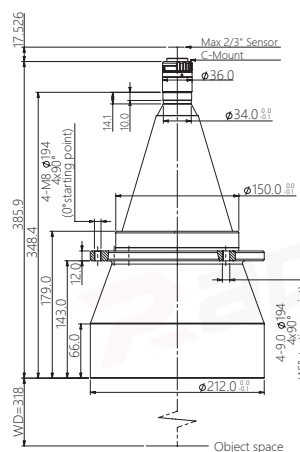
FOV(Φmm)	136
Mag.(x)	0.084
WD(mm)	288±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±62.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	659±5
Length(mm)	354.6
Mount	C-Mount
Weight(kg)	4.3
Field of View(mmxxmm)	
2/3" IMX250/264 (8.45x7.1)	100.6x84.5
1/1.8" EV76C570 (7.2x5.4)	85.7x64.3
1/1.7" IMX226 (7.5x5.6)	89.3x66.7

BTL-0.076X-300-23(LM)



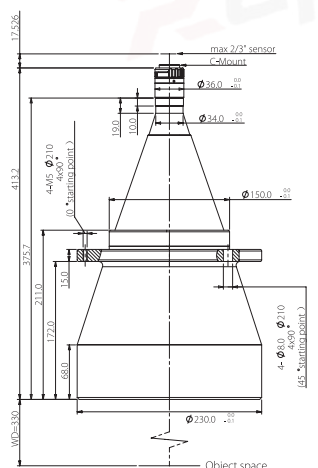
FOV(Φmm)	150
Mag.(x)	0.076
WD(mm)	300±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>185
DoF(mm)	±76.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	642.5±5
Length(mm)	324.0
Mount	C-Mount
Weight(kg)	5.7
Field of View(mmxxmm)	
2/3" IMX250/264 (8.45x7.1)	111.5x93.4
1/1.8" EV76C570 (7.2x5.4)	94.7x71.1
1/1.7" IMX226 (7.5x5.6)	98.7x73.7

BTL-0.067X-318-23(LM)



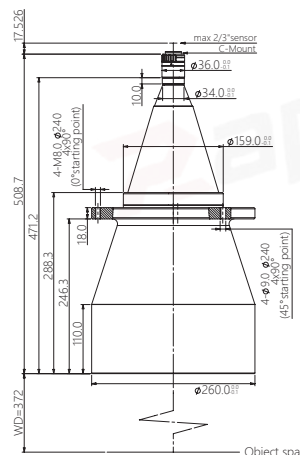
FOV(Φmm)	170
Mag.(x)	0.067
WD(mm)	318±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±98@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	721±5
Length(mm)	385.9
Mount	C-Mount
Weight(kg)	6.5
Field of View(mmxxmm)	
2/3" IMX250/264 (8.45x7.1)	126.1x106
1/1.8" EV76C570 (7.2x5.4)	107.5x80.6
1/1.7" IMX226 (7.5x5.6)	111.9x83.6

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(mmxxmm)	
2/3" IMX250/264 (8.45x7.1)	141.2x118.3
1/1.8" EV76C570 (7.2x5.4)	120.0x90.0
1/1.7" IMX226 (7.5x5.6)	125.0x93.3

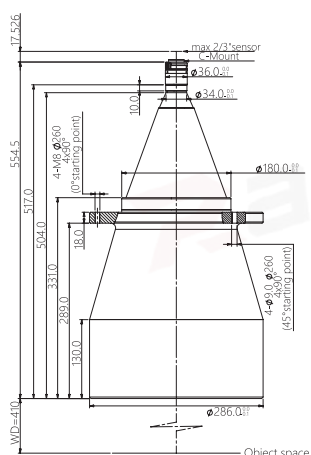
BTL-0.053X-372-23(LM)



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(mmxxmm)	
2/3" IMX250/264 (8.45x7.1)	159.4x134.0
1/1.8" EV76C570 (7.2x5.4)	135.8x101.9
1/1.7" IMX226 (7.5x5.6)	141.5x105.7

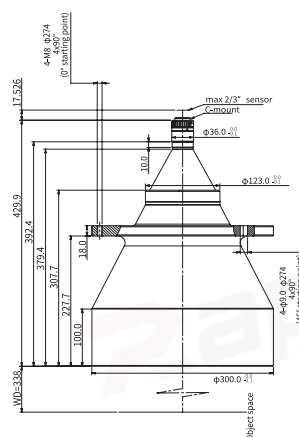
BTL-23 Series

BTL-0.048XH-410-23(LM)



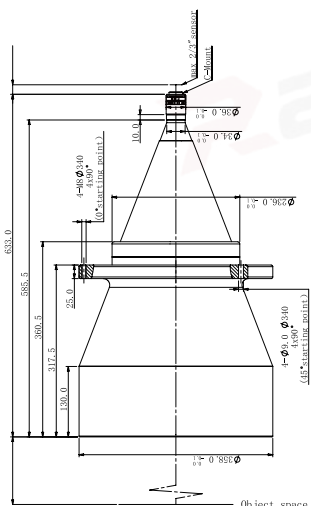
FOV(Φmm)	240
Mag.(x)	0.048
WD(mm)	410±6
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±195@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	982±6
Length(mm)	554.5
Mount	C-Mount
Weight(kg)	19.1
Field of View(mm x mm)	
2/3" IMX250/264 (8.45x7.1)	176.0x147.9
1/1.8" EV76C570 (7.2x5.4)	150.0x112.5
1/1.7" IMX226 (7.5x5.6)	156.3x116.7

BTL-0.044X-338-23(LM)



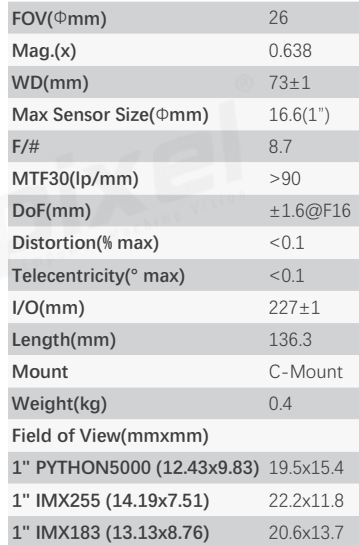
FOV(Φmm)	258
Mag.(x)	0.044
WD(mm)	338±5
Max Sensor Size(Φmm)	11.4(2/3")
F/#	4.9
MTF30(lp/mm)	>180
DoF(mm)	±225@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	785±5
Length(mm)	429.9
Mount	C-Mount
Weight(kg)	24.3
Field of View(mm x mm)	
2/3" IMX250/264 (8.45x7.1)	192.0x161.4
1/1.8" EV76C570 (7.2x5.4)	163.6x122.7
1/1.7" IMX226 (7.5x5.6)	170.5x127.3

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(mm x mm)	
2/3" IMX250/264 (8.45x7.1)	222.4x186.8
1/1.8" EV76C570 (7.2x5.4)	189.5x142.1
1/1.7" IMX226 (7.5x5.6)	197.4x147.4

BTL-0.638X-73-H1



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

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(mmxxmm)	
1" PYTHON5000 (12.43x9.83)	31.5x24.9
1" IMX255 (14.19x7.51)	35.9x19.0
1" IMX183 (13.13x8.76)	33.2x22.2

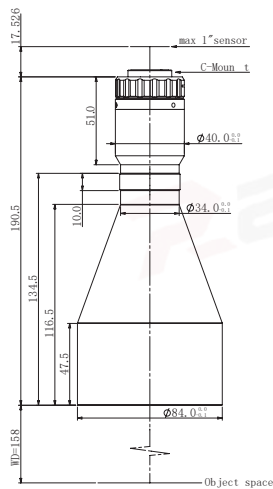
FOV(Φmm)	48
Mag.(x)	0.346
WD(mm)	128±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>130
DoF(mm)	±5.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	301±3
Length(mm)	155.4
Mount	C-Mount
Weight(kg)	0.5
Field of View(mm×mm)	
1" PYTHON5000 (12.43×9.83)	35.9×28.4
1" IMX255 (14.19×7.51)	41.0×21.7
1" IMX183 (13.13×8.76)	37.9×25.3

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×mm)	
1" KAI-04050(12.85×9.64)	37.1×27.9
1" CMV4000(11.26×11.26)	32.5×32.5
1" CX674/694/814(12.5×10.0)	36.1×28.9

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)	334±3
Length(mm)	178.0
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm×mm)	
1" PYTHON5000 (12.43x9.83)	42.0x33.2
1" IMX255 (14.19x7.51)	47.9x25.4
1" IMX183 (13.13x8.76)	44.4x29.6

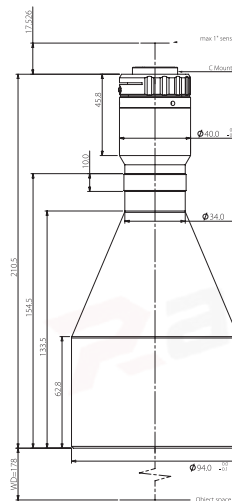
BTL-H1 Series

BTL-0.259X-158-H1(LM)



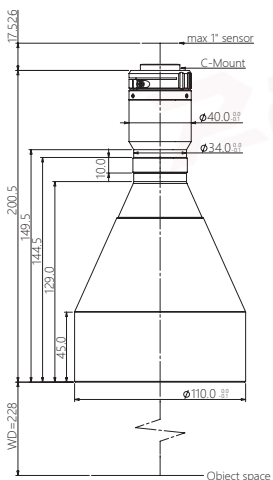
FOV(Φmm)	64
Mag.(x)	0.259
WD(mm)	158±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>130
DoF(mm)	±9.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	366±3
Length(mm)	190.5
Mount	C-Mount
Weight(kg)	0.9
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	48.0x38.0
1" IMX255 (14.19x7.51)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

BTL-0.231X-178-H1(LM)



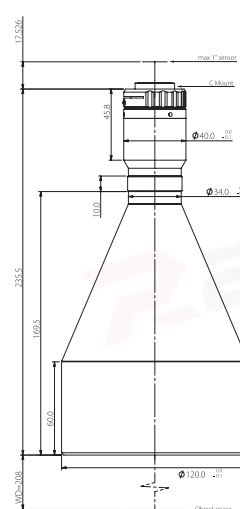
FOV(Φmm)	72
Mag.(x)	0.231
WD(mm)	178±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±12@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	406±3
Length(mm)	210.5
Mount	C-Mount
Weight(kg)	1.2
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	53.8x42.6
1" IMX255 (14.19x7.51)	61.4x32.5
1" IMX183 (13.13x8.76)	56.8x37.9

BTL-0.208X-228-H1(LM)



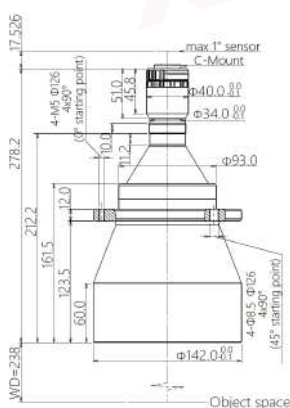
FOV(Φmm)	80
Mag.(x)	0.208
WD(mm)	228±4
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±14.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	446±4
Length(mm)	200.5
Mount	C-Mount
Weight(kg)	2.0
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	59.8x47.3
1" IMX255 (14.19x7.51)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

BTL-0.184X-208-H1(LM)



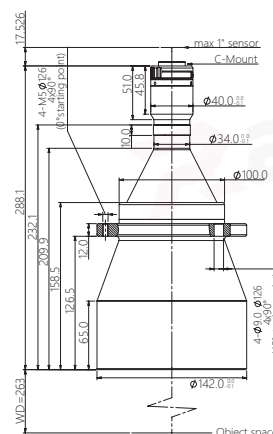
FOV(Φmm)	90
Mag.(x)	0.184
WD(mm)	208±3
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±18.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	461±3
Length(mm)	235.5
Mount	C-Mount
Weight(kg)	1.8
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	67.6x53.4
1" IMX255 (14.19x7.51)	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(mm x mm)	
1" PYTHON5000 (12.43x9.83)	74.9x59.2
1" IMX255 (14.19x7.51)	85.5x45.2
1" IMX183 (13.13x8.76)	79.1x52.8

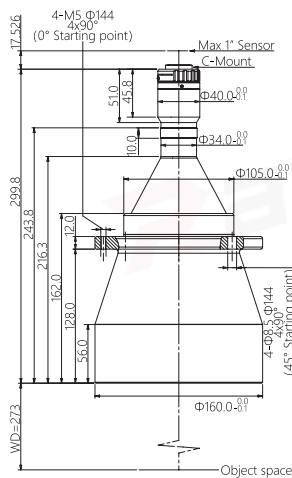
BTL-0.151X-263-H1(LM)



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(mm x mm)	
1" PYTHON5000 (12.43x9.83)	82.3x65.1
1" IMX255 (14.19x7.51)	94.0x49.7
1" IMX183 (13.13x8.76)	87.0x58.0

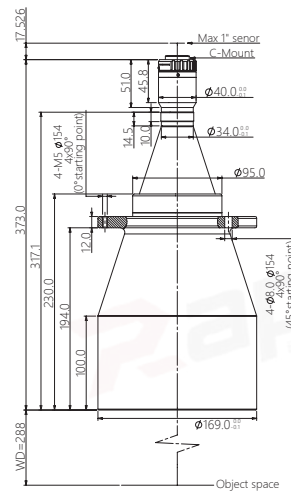
BTL-H1 Series

BTL-0.138X-273-H1(LM)



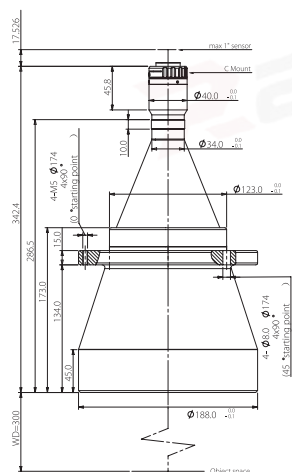
FOV(Φmm)	120
Mag.(x)	0.138
WD(mm)	273±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±33.4@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	590±5
Length(mm)	299.8
Mount	C-Mount
Weight(kg)	4.3
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	90.1x71.2
1" IMX255 (14.19x7.51)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

BTL-0.122X-288-H1(LM)



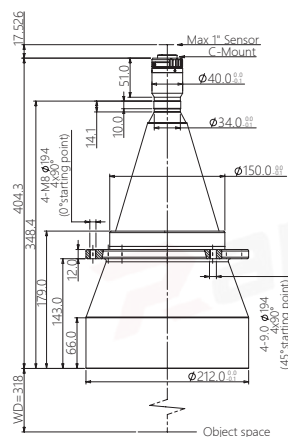
FOV(Φmm)	136
Mag.(x)	0.122
WD(mm)	288±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±43.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	679±5
Length(mm)	373.0
Mount	C-Mount
Weight(kg)	4.3
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	101.9x80.6
1" IMX255 (14.19x7.51)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

BTL-0.111X-300-H1(LM)



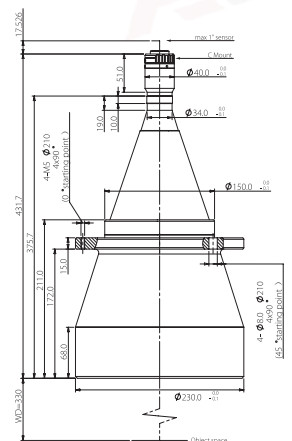
FOV(Φmm)	150
Mag.(x)	0.111
WD(mm)	300±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>145
DoF(mm)	±52.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	660±5
Length(mm)	342.4
Mount	C-Mount
Weight(kg)	5.8
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	112.0x88.6
1" IMX255 (14.19x7.51)	127.8x67.7
1" IMX183 (13.13x8.76)	118.3x78.9

BTL-0.098X-318-H1(LM)



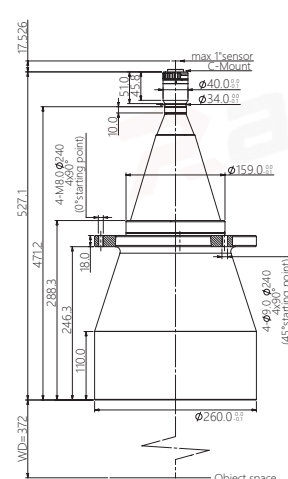
FOV(Φmm)	170
Mag.(x)	0.098
WD(mm)	318±5
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±66.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	740±5
Length(mm)	404.3
Mount	C-Mount
Weight(kg)	6.6
Field of View(mm xmm)	
1" PYTHON5000 (12.43x9.83)	126.8x100.3
1" IMX255 (14.19x7.51)	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 xmm)	
1" PYTHON5000 (12.43x9.83)	142.9x113.0
1" IMX255 (14.19x7.51)	163.1x86.3
1" IMX183 (13.13x8.76)	150.9x100.7

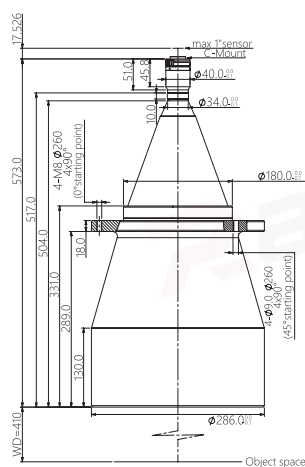
BTL-0.077X-372-H1(LM)



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 xmm)	
1" PYTHON5000 (12.43x9.83)	161.4x127.7
1" IMX255 (14.19x7.51)	184.3x97.5
1" IMX183 (13.13x8.76)	170.5x113.8

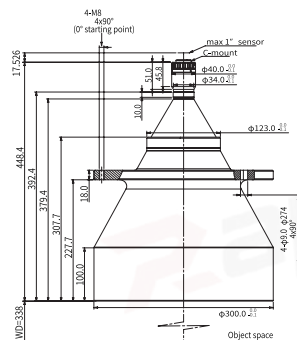
BTL-H1 Series

BTL-0.069XH-410-H1(LM)



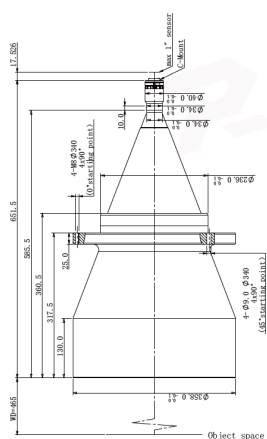
FOV(Φmm)	240
Mag.(x)	0.069
WD(mm)	410±6
Max Sensor Size(Φmm)	16.6(1")
F/#	6.5
MTF30(lp/mm)	>140
DoF(mm)	±134.4@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1001±6
Length(mm)	573.0
Mount	C-Mount
Weight(kg)	19.2
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	180.1x142.5
1" IMX255 (14.19x7.51)	205.7x108.8
1" IMX183 (13.13x8.76)	190.3x127.0

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)	±156.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	804±5
Length(mm)	448.4
Mount	C-Mount
Weight(kg)	24.4
Field of View(mm x mm)	
1" PYTHON5000 (12.43x9.83)	194.2x153.6
1" IMX255 (14.19x7.51)	221.7x117.3
1" IMX183 (13.13x8.76)	205.2x136.9

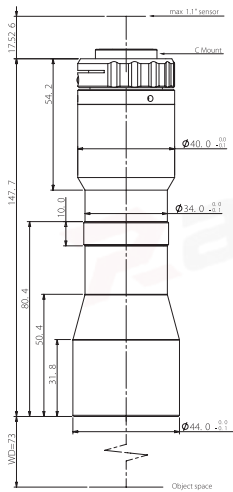
BTL-0.055X-465-H1(LM)



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(mm x mm)	
1" PYTHON5000 (12.43x9.83)	226.0x178.7
1" IMX255 (14.19x7.51)	258.0x136.5
1" IMX183 (13.13x8.76)	238.7x159.3

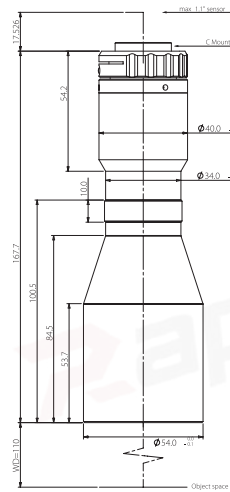
BTL-H1.1 Series

BTL-0.708X-73-H1.1(LM)



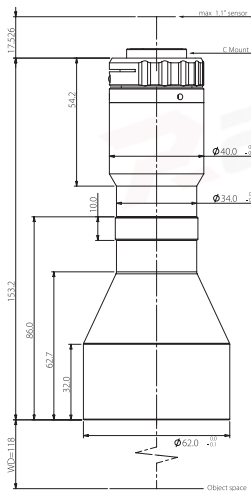
FOV(Φmm)	26
Mag.(x)	0.708
WD(mm)	73±1
Max Sensor Size(Φmm)	18.4(1.1")
F/#	9.6
MTF30(lp/mm)	>75
DoF(mm)	±1.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	238±1
Length(mm)	147.7
Mount	C-Mount
Weight(kg)	0.4
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	20.0x14.7
1" IMX183 (13.13x8.76)	18.5x12.4

BTL-0.511X-110-H1.1(LM)



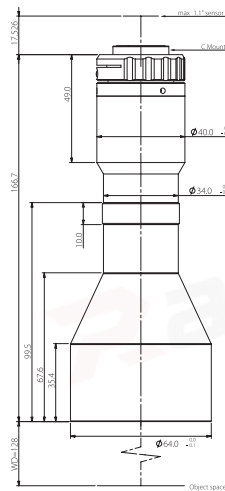
FOV(Φmm)	36
Mag.(x)	0.511
WD(mm)	110±2
Max Sensor Size(Φmm)	18.4(1.1")
F/#	8.7
MTF30(lp/mm)	>85
DoF(mm)	±3.0@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	295±2
Length(mm)	167.7
Mount	C-Mount
Weight(kg)	0.6
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	27.8x20.3
1" IMX183 (13.13x8.76)	25.7x17.1

BTL-0.438X-118-H1.1(LM)



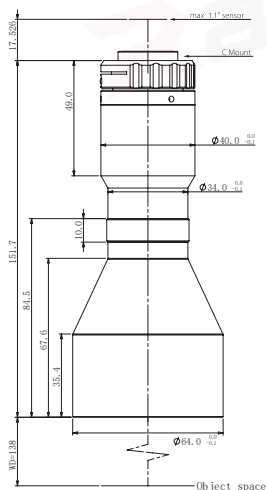
FOV(Φmm)	42
Mag.(x)	0.438
WD(mm)	118±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	7.2
MTF30(lp/mm)	>115
DoF(mm)	±3.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	289±3
Length(mm)	153.2
Mount	C-Mount
Weight(kg)	0.5
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	32.4x23.7
1" IMX183 (13.13x8.76)	30.0x20.0

BTL-0.383X-128-H1.1(LM)



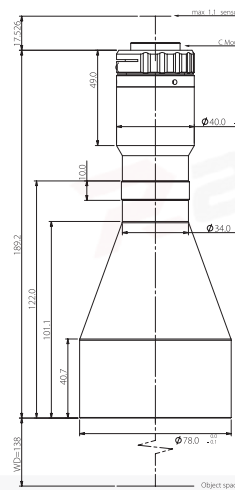
FOV(Φmm)	48
Mag.(x)	0.383
WD(mm)	128±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	7.2
MTF30(lp/mm)	>115
DoF(mm)	±4.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	312±3
Length(mm)	166.7
Mount	C-Mount
Weight(kg)	0.6
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	37.1x27.1
1" IMX183 (13.13x8.76)	34.3x22.9

BTL-0.383X-138-H1.1(LM)



FOV(Φmm)	48
Mag.(x)	0.383
WD(mm)	138±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	10.8
MTF30(lp/mm)	>80
DoF(mm)	±4.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	307±3
Length(mm)	151.7
Mount	C-Mount
Weight(kg)	0.6
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	37.1x27.1

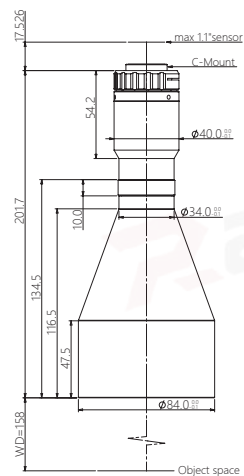
BTL-0.329X-138-H1.1(LM)



FOV(Φmm)	56
Mag.(x)	0.329
WD(mm)	138±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±4.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	345±3
Length(mm)	189.2
Mount	C-Mount
Weight(kg)	0.8
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	43.1x31.6
1" IMX183 (13.13x8.76)	39.9x26.6

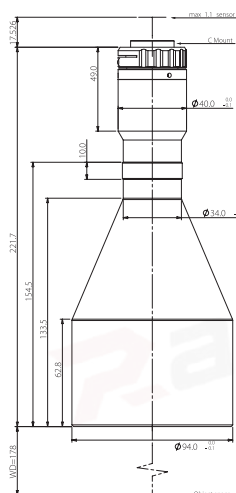
BTL-H1.1 Series

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



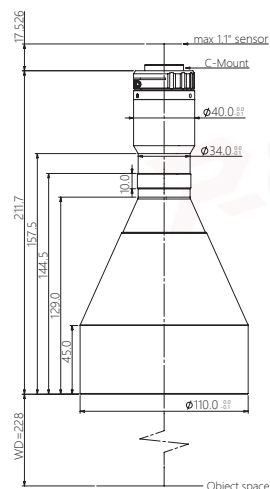
FOV(Φmm)	64
Mag.(x)	0.288
WD(mm)	158±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±7.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	377±3
Length(mm)	201.7
Mount	C-Mount
Weight(kg)	0.9
Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	49.4x36.2
1" IMX183 (13.13x8.76)	45.6x30.4

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



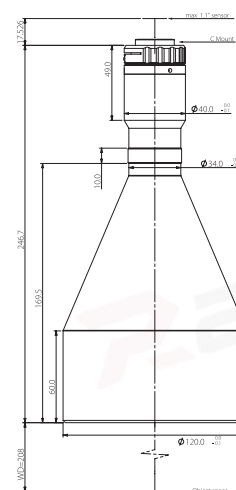
FOV(Φmm)	72
Mag.(x)	0.256
WD(mm)	178±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±6.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	417±3
Length(mm)	221.7
Mount	C-Mount
Weight(kg)	1.2
Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	55.4x40.6
1" IMX183 (13.13x8.76)	51.3x34.2

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



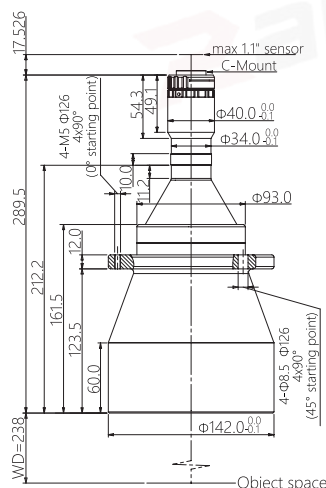
FOV(Φmm)	80
Mag.(x)	0.230
WD(mm)	228±4
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±12.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	457±4
Length(mm)	211.7
Mount	C-Mount
Weight(kg)	2.0
Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	61.7x45.1
1" IMX183 (13.13x8.76)	57.1x38.1

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



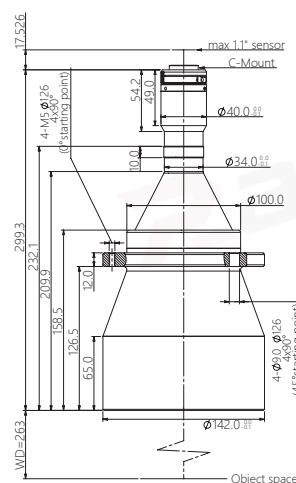
FOV(Φmm)	90
Mag.(x)	0.204
WD(mm)	208±3
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±10.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	472±3
Length(mm)	246.7
Mount	C-Mount
Weight(kg)	1.8
Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	69.6x50.9
1" IMX183 (13.13x8.76)	64.4x42.9

BTL-0.184X-238-H1.1(LM)



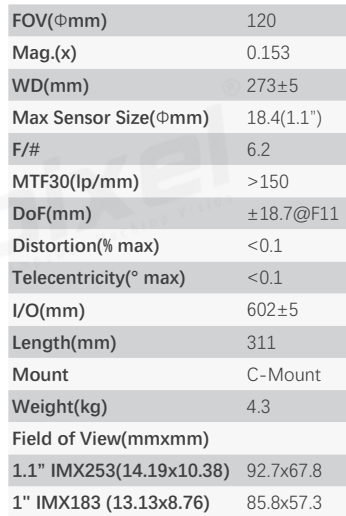
FOV(Φmm)	100
Mag.(x)	0.184
WD(mm)	238±4
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>120
DoF(mm)	±13.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	545±4
Length(mm)	289.5
Mount	C-Mount
Weight(kg)	3.2
Field of View(mm x mm)	
1.1" IMX253(14.19x10.38)	77.1x56.4
1" IMX183 (13.13x8.76)	71.4x47.6

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 x mm)	
1.1" IMX253(14.19x10.38)	85.0x62.2
1" IMX183 (13.13x8.76)	78.6x52.5

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

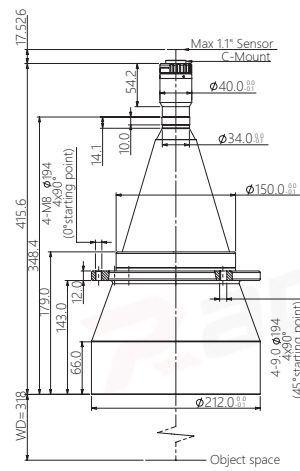


Technical drawing of the C-Mount showing dimensions and mounting details. The drawing includes the following specifications:

- Max 1" sensor** and **C-Mount** label at the top.
- Dimensions (mm):**
 - Overall height: 17.526
 - Mounting flange diameter: $\phi 40.0$
 - Mounting flange thickness: 54.2
 - Mounting flange inner diameter: 49.0
 - Mounting flange hole diameter: $\phi 34.0$
 - Mounting flange hole spacing: 14.5
 - Mounting flange hole diameter: $\phi 95.0$
 - Mounting flange hole spacing: 10.0
 - Mounting flange hole diameter: $\phi 169.0$
 - Mounting flange hole spacing: 12.0
 - Mounting flange hole diameter: $\phi 100.0$
 - Mounting flange hole spacing: 194.0
 - Mounting flange hole diameter: $\phi 54$
 - Mounting flange hole spacing: 230.0
 - Mounting flange hole diameter: $\phi 54$
 - Mounting flange hole spacing: 317.1
 - Mounting flange hole diameter: $\phi 54$
 - Mounting flange hole spacing: 384.3
 - Mounting flange hole diameter: $\phi 54$
 - Mounting flange hole spacing: 457.0
- Mounting details:**
 - 4-M5 $\phi 54$ (0" starting point)
 - 4- $\phi 10 \times 54$ (45" starting point)
- Object space** label at the bottom right.

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(mmxxmm)	
1.1" IMX253(14.19x10.38)	105.1x76.9
1" IMX183 (13.13x8.76)	97.3x64.9

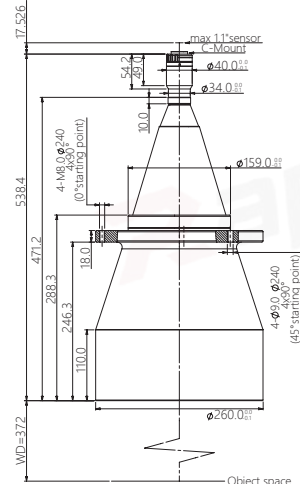
FOV(Φmm)	150
Mag.(x)	0.123
WD(mm)	300±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>145
DoF(mm)	±29.0@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	671±5
Length(mm)	353.7
Mount	C-Mount
Weight(kg)	5.8
Field of View(mm×mm)	
1.1" IMX253(14.19×10.38)	115.4×84.4
1" IMX183 (13.13×8.76)	106.7×71.2



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(mmxxmm)	
1.1" IMX253(14.19x10.38)	131.4x96.1
1" IMX183 (13.13x8.76)	121.6x81.1

[illegible]

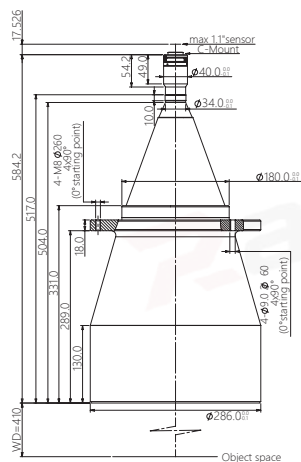
FOV(Φmm)	190
Mag.(x)	0.097
WD(mm)	330±5
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±46.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	791±5
Length(mm)	443.0
Mount	C-Mount
Weight(kg)	9.7
Field of View(mm×mm)	
1.1" IMX253(14.19×10.38)	146.3×107.0
1" IMX183 (13.13×8.76)	135.4×90.3



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(mmxmm)	
1.1" IMX253(14.19x10.38)	166.9x122.1
1" IMX183 (13.13x8.76)	154.5x103.1

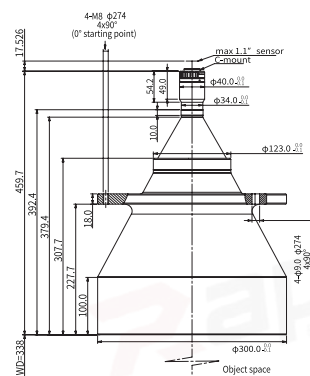
BTL-H1.1 Series

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



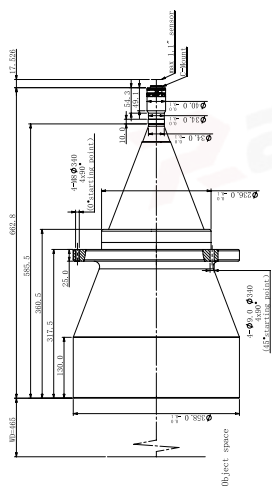
FOV(Φmm)	240
Mag.(x)	0.077
WD(mm)	410±6
Max Sensor Size(Φmm)	18.4(1.1")
F/#	6.2
MTF30(lp/mm)	>150
DoF(mm)	±109@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1012±6
Length(mm)	584.2
Mount	C-Mount
Weight(kg)	19.2
Field of View(mmxmm)	
1.1" IMX253(14.19x10.38)	184.3x134.8
1" IMX183 (13.13x8.76)	170.5x113.8

BTL-0.071X-338-H1.1(LM)



FOV(Φmm)	258
Mag.(x)	0.071
WD(mm)	338±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)	815±5
Length(mm)	459.7
Mount	C-Mount
Weight(kg)	24.4
Field of View(mmxmm)	
1.1" IMX253(14.19x10.38)	199.9x146.2
1" IMX183 (13.13x8.76)	184.9x123.4

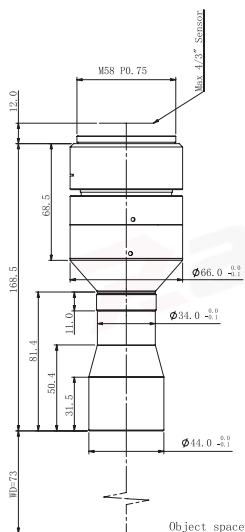
BTL-0.061X-465-H1.1(LM)



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
1" IMX183 (13.13x8.76)	215.2x143.6

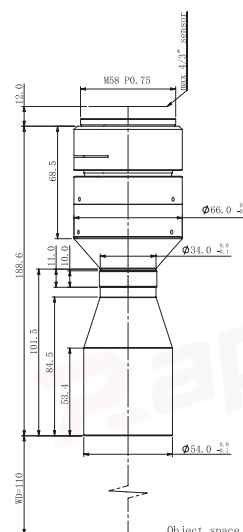
BTL-H2 Series

BTL-0.908X-73-H2(LM)



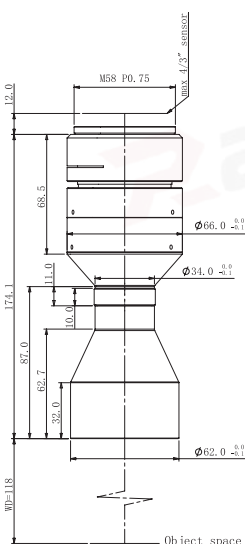
FOV(Φmm)	26
Mag.(x)	0.908
WD(mm)	73±1
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F12.3
MTF30(lp/mm)	>68
DoF(mm)	±1.0@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	254±1
Length(mm)	168.5
Mount	M42/ M58
Weight(kg)	0.8
Field of View(mm xmm)	
4/3"KEYENCE21M(17.86x14.32)	19.7x15.8
4/3"PYTHON12K(18.43x13.82)	20.3x15.2
4/3"CMV8000(18.48x13.73)	20.4x15.1

BTL-0.656X-110-H2(LM)



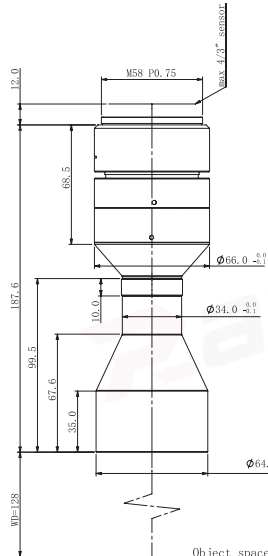
FOV(Φmm)	36
Mag.(x)	0.656
WD(mm)	110±2
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F11.1
MTF30(lp/mm)	>77
DoF(mm)	±1.9@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	311±1
Length(mm)	188.6
Mount	M42/ M58
Weight(kg)	0.9
Field of View(mm xmm)	
4/3"KEYENCE21M(17.86x14.32)	27.2x21.8
4/3"PYTHON12K(18.43x13.82)	28.1x21.1
4/3"CMV8000(18.48x13.73)	28.1x20.9

BTL-0.562X-118-H2(LM)



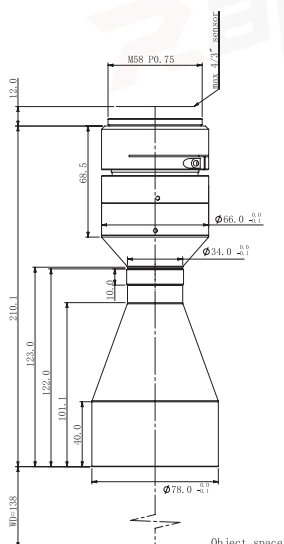
FOV(Φmm)	42
Mag.(x)	0.562
WD(mm)	118±3
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F9.3
MTF30(lp/mm)	>96
DoF(mm)	±2.5@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	304±3
Length(mm)	174.1
Mount	M42/ M58
Weight(kg)	0.9
Field of View(mm xmm)	
4/3"KEYENCE21M(17.86x14.32)	31.8x25.5
4/3"PYTHON12K(18.43x13.82)	32.8x24.6
4/3"CMV8000(18.48x13.73)	32.9x24.4

BTL-0.492X-128-H2(LM)



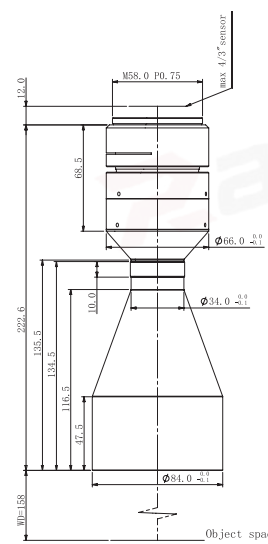
FOV(Φmm)	48
Mag.(x)	0.492
WD(mm)	128±3
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F9.3
MTF30(lp/mm)	>92
DoF(mm)	±3.3@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	328±3
Length(mm)	187.6
Mount	M42/ M58
Weight(kg)	0.9
Field of View(mm xmm)	
4/3"KEYENCE21M(17.86x14.32)	36.3x29.1
4/3"PYTHON12K(18.43x13.82)	37.5x28.1
4/3"CMV8000(18.48x13.73)	37.6x27.9

BTL-0.421X-138-H2(LM)



FOV(Φmm)	56
Mag.(x)	0.421
WD(mm)	138±3
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F7.9
MTF30(lp/mm)	>112
DoF(mm)	±3.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	360±3
Length(mm)	210.1
Mount	M42/ M58
Weight(kg)	1.2
Field of View(mm xmm)	
4/3"KEYENCE21M(17.86x14.32)	42.4x34.0
4/3"PYTHON12K(18.43x13.82)	43.8x32.8
4/3"CMV8000(18.48x13.73)	43.8x32.6

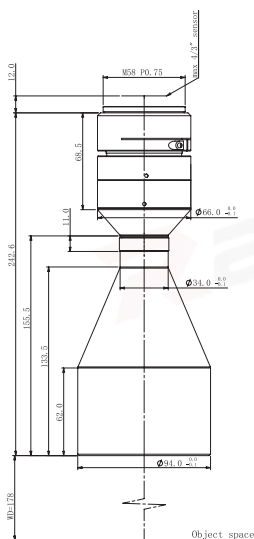
BTL-0.369X-158-H2(LM)



FOV(Φmm)	64
Mag.(x)	0.369
WD(mm)	158±3
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F6.9
MTF30(lp/mm)	>126
DoF(mm)	±5.9@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	393±3
Length(mm)	222.6
Mount	M42/ M58
Weight(kg)	1.3
Field of View(mm xmm)	
4/3"KEYENCE21M(17.86x14.32)	48.4x38.8
4/3"PYTHON12K(18.43x13.82)	49.9x37.5
4/3"CMV8000(18.48x13.73)	50.1x37.2

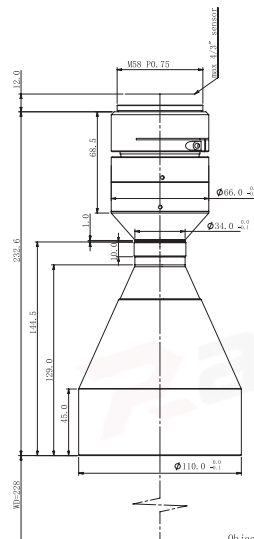
BTL-H2 Series

BTL-0.328X-178-H2(LM)



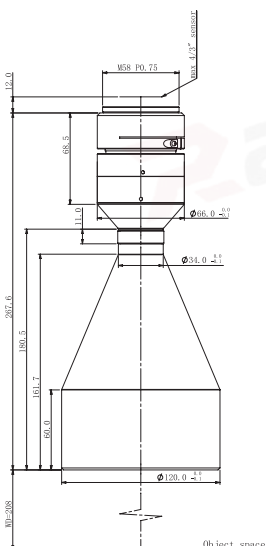
FOV(Φmm)	72
Mag.(x)	0.328
WD(mm)	178±3
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F6.9
MTF30(lp/mm)	>132
DoF(mm)	±6.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	433±3
Length(mm)	242.6
Mount	M42/ M58
Weight(kg)	1.5
Field of View(mm x mm)	
4/3" KEYENCE21M(17.86x14.32)	54.5x43.7
4/3" PYTHON12K(18.43x13.82)	56.2x42.1
4/3" CMV8000(18.48x13.73)	56.3x41.9

BTL-0.295X-228-H2(LM)



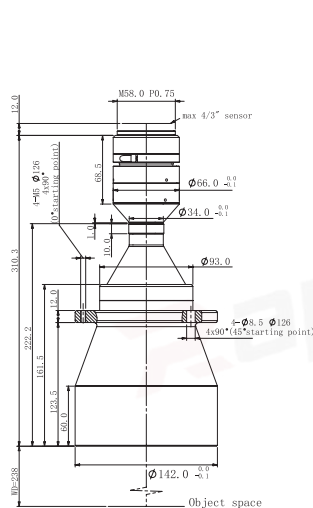
FOV(Φmm)	80
Mag.(x)	0.295
WD(mm)	228±4
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>174
DoF(mm)	±9.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	473±4
Length(mm)	232.6
Mount	M42/ M58
Weight(kg)	2.4
Field of View(mm x mm)	
4/3" KEYENCE21M(17.86x14.32)	60.5x48.5
4/3" PYTHON12K(18.43x13.82)	62.5x46.8
4/3" CMV8000(18.48x13.73)	62.6x46.5

BTL-0.262X-208-H2(LM)



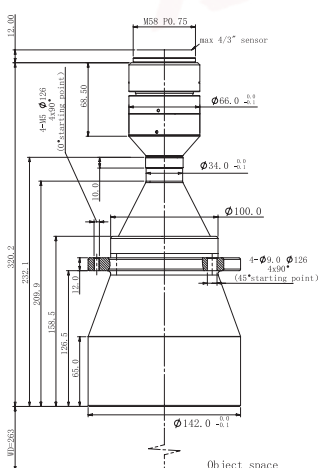
FOV(Φmm)	90
Mag.(x)	0.262
WD(mm)	208±3
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F6.2
MTF30(lp/mm)	>144
DoF(mm)	±9.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	488±3
Length(mm)	267.6
Mount	M42/ M58
Weight(kg)	2.2
Field of View(mm x mm)	
4/3" KEYENCE21M(17.86x14.32)	68.2x54.7
4/3" PYTHON12K(18.43x13.82)	70.3x52.7
4/3" CMV8000(18.48x13.73)	70.5x52.4

BTL-0.236X-238-H2(LM)



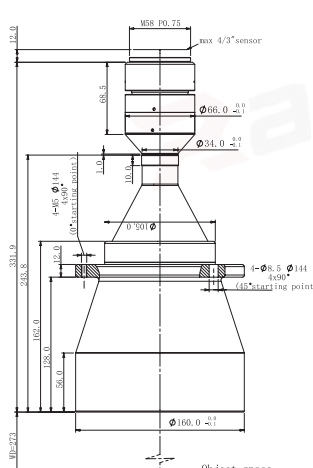
FOV(Φmm)	100
Mag.(x)	0.236
WD(mm)	238±4
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F5.6
MTF30(lp/mm)	>164
DoF(mm)	±14.4@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	560±4
Length(mm)	310.3
Mount	M42/ M58
Weight(kg)	3.5
Field of View(mm x mm)	
4/3" KEYENCE21M(17.86x14.32)	75.7x60.7
4/3" PYTHON12K(18.43x13.82)	78.1x58.6
4/3" CMV8000(18.48x13.73)	78.3x58.2

BTL-0.215X-263-H2(LM)



FOV(Φmm)	110
Mag.(x)	0.215
WD(mm)	263±4
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F5.0
MTF30(lp/mm)	>164
DoF(mm)	±13.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	595±4
Length(mm)	320.2
Mount	M42/ M58
Weight(kg)	3.2
Field of View(mm x mm)	
4/3" KEYENCE21M(17.86x14.32)	83.1x66.7
4/3" PYTHON12K(18.43x13.82)	85.7x64.3
4/3" CMV8000(18.48x13.73)	85.9x63.9

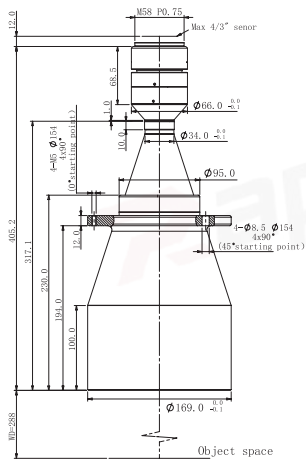
BTL-0.197X-273-H2(LM)



FOV(Φmm)	120
Mag.(x)	0.197
WD(mm)	273±5
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>182
DoF(mm)	±16.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	617±5
Length(mm)	331.9
Mount	M42/ M58
Weight(kg)	4.7
Field of View(mm x mm)	
4/3" KEYENCE21M(17.86x14.32)	90.7x72.7
4/3" PYTHON12K(18.43x13.82)	93.6x70.2
4/3" CMV8000(18.48x13.73)	93.8x69.7

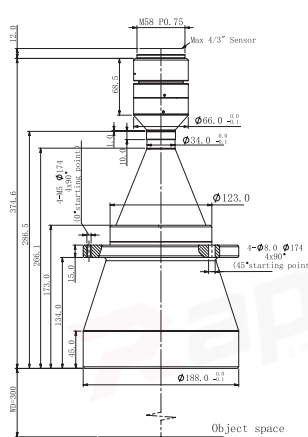
BTL-H2 Series

BTL-0.174X-288-H2(LM)



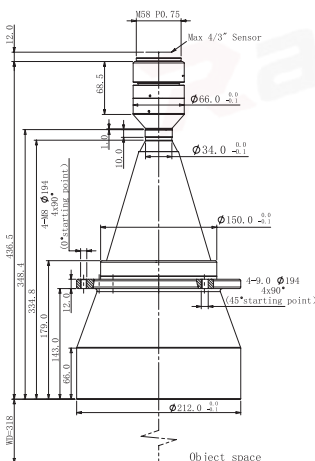
FOV(Φmm)	136
Mag.(x)	0.174
WD(mm)	288±5
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>184
DoF(mm)	±21.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	705±5
Length(mm)	405.2
Mount	M42/ M58
Weight(kg)	4.7
Field of View(mm xmm)	
4/3" KEYENCE21M(17.86x14.32)	102.6x82.3
4/3" PYTHON12K(18.43x13.82)	105.9x79.4
4/3" CMV8000(18.48x13.73)	106.2x78.9

BTL-0.157X-300-H2(LM)



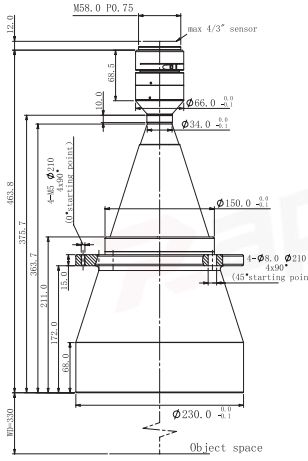
FOV(Φmm)	150
Mag.(x)	0.157
WD(mm)	300±5
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F7.9
MTF30(lp/mm)	>116
DoF(mm)	±25.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	687±5
Length(mm)	374.6
Mount	M42/ M58
Weight(kg)	6.2
Field of View(mm xmm)	
4/3" KEYENCE21M(17.86x14.32)	113.8x91.2
4/3" PYTHON12K(18.43x13.82)	117.4x88.0
4/3" CMV8000(18.48x13.73)	117.7x87.5

BTL-0.139X-318-H2(LM)



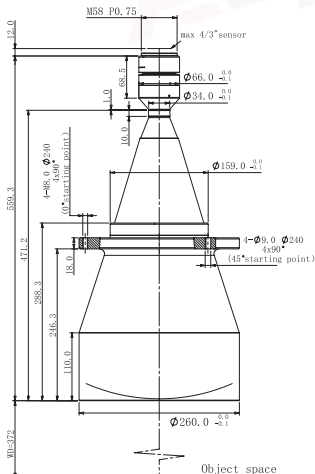
FOV(Φmm)	170
Mag.(x)	0.139
WD(mm)	318±5
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>188
DoF(mm)	±33.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	766±5
Length(mm)	436.5
Mount	M42/ M58
Weight(kg)	7.0
Field of View(mm xmm)	
4/3" KEYENCE21M(17.86x14.32)	128.5x103.0
4/3" PYTHON12K(18.43x13.82)	132.6x99.4
4/3" CMV8000(18.48x13.73)	132.9x98.8

BTL-0.124X-330-H2(LM)



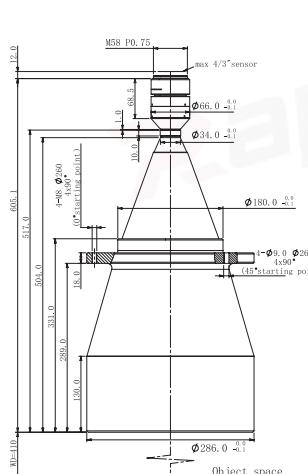
FOV(Φmm)	190
Mag.(x)	0.124
WD(mm)	330±5
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>176
DoF(mm)	±41.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	806±5
Length(mm)	463.8
Mount	M42/ M58
Weight(kg)	10.1
Field of View(mm xmm)	
4/3" KEYENCE21M(17.86x14.32)	144.0x115.5
4/3" PYTHON12K(18.43x13.82)	131.6x111.5
4/3" CMV8000(18.48x13.73)	149.0x110.7

BTL-0.109X-372-H2(LM)



FOV(Φmm)	216
Mag.(x)	0.109
WD(mm)	372±5
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>186
DoF(mm)	±53.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	943±5
Length(mm)	559.3
Mount	M42/ M58
Weight(kg)	14.2
Field of View(mm xmm)	
4/3" KEYENCE21M(17.86x14.32)	163.9x131.4
4/3" PYTHON12K(18.43x13.82)	169.1x126.8
4/3" CMV8000(18.48x13.73)	169.5x125.9

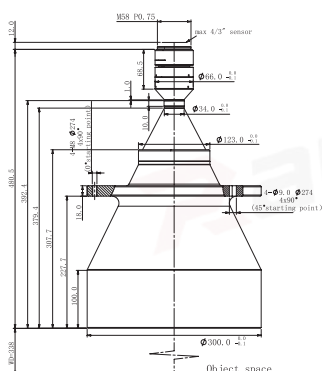
BTL-0.098X-410-H2(LM)



FOV(Φmm)	240
Mag.(x)	0.098
WD(mm)	410±6
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>174
DoF(mm)	±82.7@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1027±6
Length(mm)	605.1
Mount	M42/ M58
Weight(kg)	19.6
Field of View(mm xmm)	
4/3" KEYENCE21M(17.86x14.32)	182.2x146.1
4/3" PYTHON12K(18.43x13.82)	188.1x141.0
4/3" CMV8000(18.48x13.73)	188.6x140.1

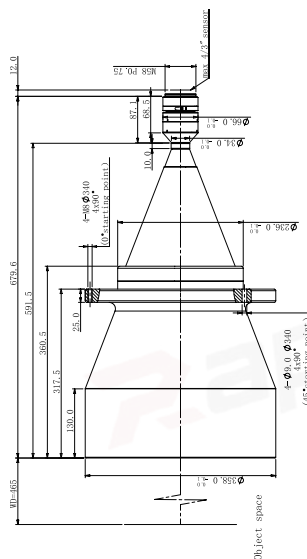
BTL-H2 Series

BTL-0.091X-338-H2(LM)



FOV(Φmm)	258
Mag.(x)	0.091
WD(mm)	338±5
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>166
DoF(mm)	±76.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	831±5
Length(mm)	480.5
Mount	M42/ M58
Weight(kg)	24.7
Field of View(mm xmm)	
4/3"KEYENCE21M(17.86x14.32)	196.3x157.4
4/3"PYTHON12K(18.43x13.82)	202.5x151.9
4/3"CMV8000(18.48x13.73)	203.1x150.9

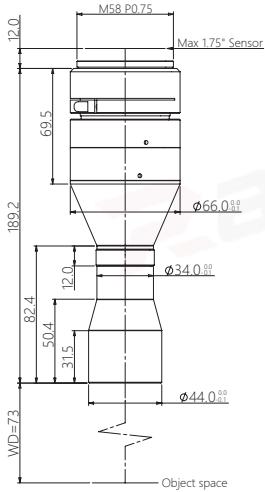
BTL-0.079X-465-H2(LM)



FOV(Φmm)	300
Mag.(x)	0.079
WD(mm)	465±6
Max Sensor Size(Φmm)	23.6(4/3")
F/#	F4.6
MTF30(lp/mm)	>176
DoF(mm)	±103@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1161±6
Length(mm)	683.6
Mount	M42/ M58
Weight(kg)	47.0
Field of View(mm xmm)	
4/3"KEYENCE21M(17.86x14.32)	226.1x181.3
4/3"PYTHON12K(18.43x13.82)	233.3x174.9
4/3"CMV8000(18.48x13.73)	233.9x173.8

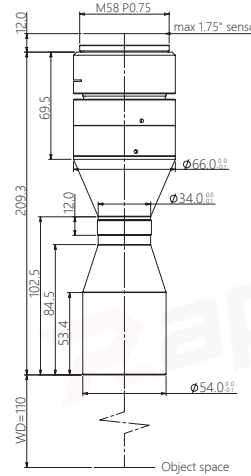
BTL-175 Series

BTL-1.115XH-73-175(LM)



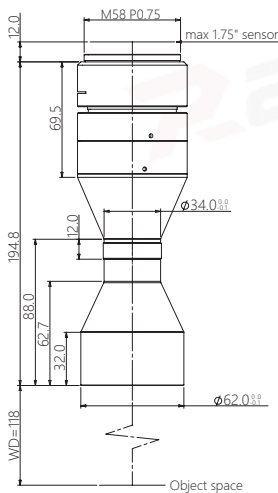
FOV(Φmm)	26
Mag.(x)	1.115
WD(mm)	73±1
Max Sensor Size(Φmm)	29(1.75")
F/#	15.0
MTF30(lp/mm)	>50
DoF(mm)	±0.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	274±1
Length(mm)	189.2
Mount	M42/M58
Weight(kg)	0.8
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	20.2x15.2
1.75"PYTHON16k(18.43x18.43)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

BTL-0.806XH-110-175(LM)



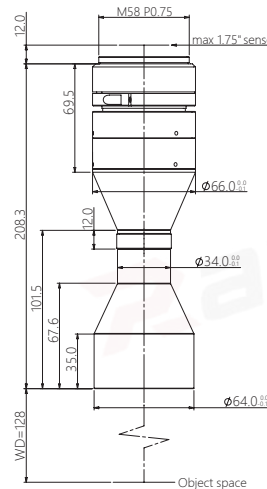
FOV(Φmm)	36
Mag.(x)	0.806
WD(mm)	110±2
Max Sensor Size(Φmm)	29(1.75")
F/#	13.5
MTF30(lp/mm)	>60
DoF(mm)	±1.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	331±2
Length(mm)	209.3
Mount	M42/M58
Weight(kg)	1.0
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	28.0x21.0
1.75"PYTHON16k(18.43x18.43)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

BTL-0.69XH-118-175(LM)



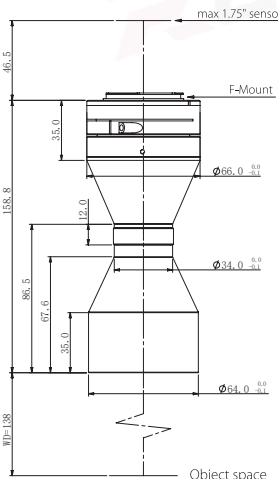
FOV(Φmm)	42
Mag.(x)	0.690
WD(mm)	118±3
Max Sensor Size(Φmm)	29(1.75")
F/#	11.4
MTF30(lp/mm)	>70
DoF(mm)	±1.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	325±3
Length(mm)	194.8
Mount	M42/M58
Weight(kg)	0.9
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	32.7x24.5
1.75"PYTHON16k(18.43x18.43)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

BTL-0.604XH-128-175(LM)



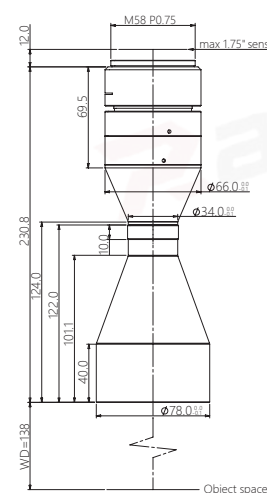
FOV(Φmm)	48
Mag.(x)	0.604
WD(mm)	128±3
Max Sensor Size(Φmm)	29(1.75")
F/#	11.3
MTF30(lp/mm)	>70
DoF(mm)	±2.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	348±3
Length(mm)	208.3
Mount	M42/M58
Weight(kg)	1.0
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	37.3x28.0
1.75"PYTHON16k(18.43x18.43)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

BTL-0.604X-138-175(LM)



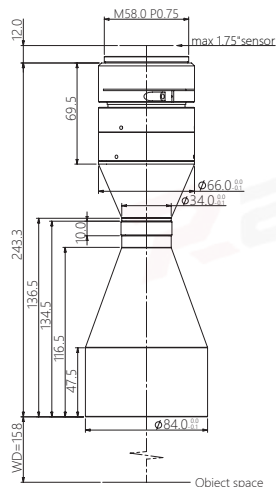
FOV(Φmm)	48
Mag.(x)	0.604
WD(mm)	138±3
Max Sensor Size(Φmm)	29(1.75")
F/#	17.1
MTF30(lp/mm)	>50
DoF(mm)	±2.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	343±3
Length(mm)	158.8
Mount	F / Other
Weight(kg)	0.9
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	37.3x28.0
1.75"PYTHON16k(18.43x18.43)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

BTL-0.518XH-138-175(LM)



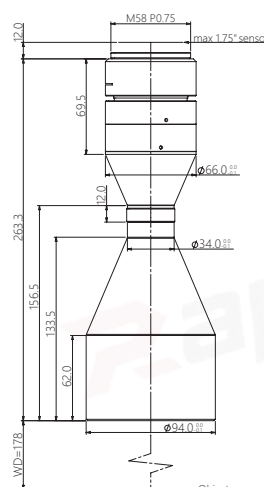
FOV(Φmm)	56
Mag.(x)	0.518
WD(mm)	138±3
Max Sensor Size(Φmm)	29(1.75")
F/#	9.7
MTF30(lp/mm)	>85
DoF(mm)	±3.0@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	381±3
Length(mm)	230.8
Mount	M42/M58
Weight(kg)	1.2
Field of View(mm xmm)	
1.75"CMV12000(22.53x16.90)	43.5x32.6
1.75"PYTHON16k(18.43x18.43)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

BTL-0.453X-158-175(LM)



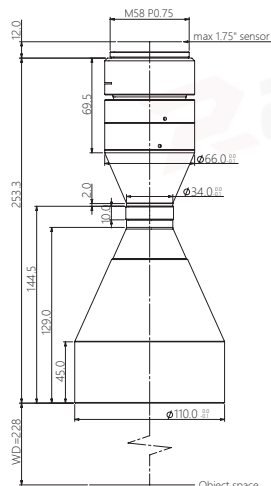
FOV(Φmm)	64
Mag.(x)	0.453
WD(mm)	158±3
Max Sensor Size(Φmm)	29(1.75")
F/#	8.5
MTF30(lp/mm)	>100
DoF(mm)	±3.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	413±3
Length(mm)	243.3
Mount	M42/M58
Weight(kg)	1.3
Field of View(mm×mm)	
1.75"CMV12000(22.53×16.90)	49.7×37.3
1.75"PYTHON16k(18.43×18.43)	40.7×40.7
1.75"LineScan-2k/4k/8k(28.8)	63.6

BTL-0.403XH-178-175(LM)



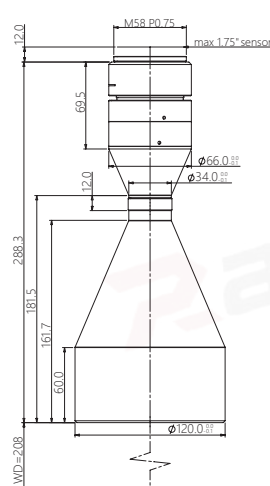
FOV(Φmm)	72
Mag.(x)	0.403
WD(mm)	178±3
Max Sensor Size(Φmm)	29(1.75")
F/#	8.5
MTF30(lp/mm)	>105
DoF(mm)	±3.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	453±3
Length(mm)	263.3
Mount	M42/M58
Weight(kg)	1.6
Field of View(mm×mm)	
1.75"CMV12000(22.53x16.90)	55.9x41.9
1.75"PYTHON16k(18.43x18.43)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

BTL-0.363XH-228-175(LM)



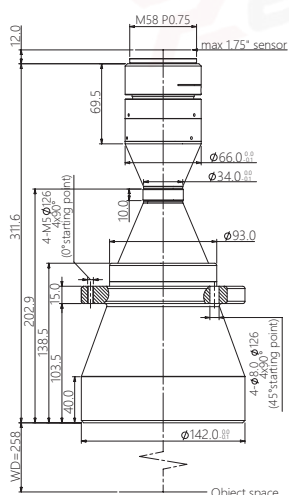
FOV(Φmm)	80
Mag.(x)	0.363
WD(mm)	228±4
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>130
DoF(mm)	±4.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	493±4
Length(mm)	253.3
Mount	M42/M58
Weight(kg)	2.4
Field of View(mm×mm)	
1.75"CMV12000(22.53x16.90)	62.1x46.6
1.75"PYTHON16k(18.43x18.43)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

BTL-0.322XH-208-175(LM)



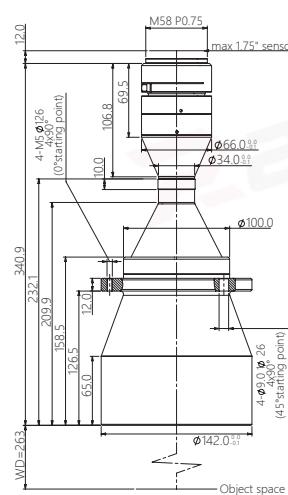
FOV(Φmm)	90
Mag.(x)	0.322
WD(mm)	208±3
Max Sensor Size(Φmm)	29(1.75")
F/#	8.5
MTF30(lp/mm)	>100
DoF(mm)	±6.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	508±3
Length(mm)	288.3
Mount	M42/M58
Weight(kg)	2.2
Field of View(mm×mm)	
1.75"CMV12000(22.53x16.90)	70.0x52.5
1.75"PYTHON16k(18.43x18.43)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

BTL-0.29XH-238-175(LM)



FOV(Φmm)	100
Mag.(x)	0.290
WD(mm)	238±4
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>132
DoF(mm)	±7.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	581±4
Length(mm)	331
Mount	M42/M58
Weight(kg)	3.6
Field of View(mmxxmm)	
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

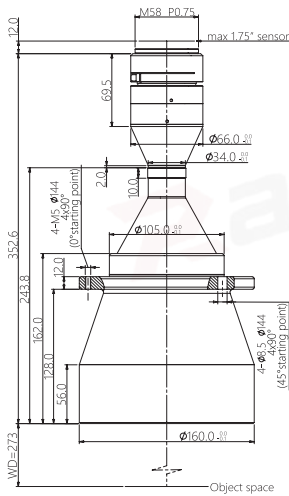
BTL-0.264X-263-175(LM)



FOV(Φ mm)	110
Mag.(x)	0.264
WD(mm)	263 $\pm$ 4
Max Sensor Size(Φ mm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>120
DoF(mm)	$\pm$ 9.2@F16
Distortion(% max)	<0.1
Telecentricity($^{\circ}$ max)	<0.1
I/O(mm)	616 $\pm$ 4
Length(mm)	340.9
Mount	M42/M58
Weight(kg)	3.2
Field of View(mm $\times$ mm)	
1.75"CMV12000(22.53 $\times$ 16.90)	85.3 $\times$ 64.0
1.75"PYTHON16k(18.43 $\times$ 18.43)	69.8 $\times$ 69.8
1.75"LineScan-2k(4k/8k(28.8)	109.1

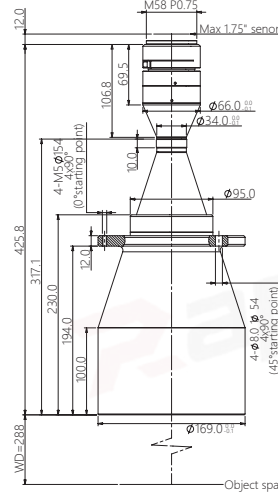
BTL-175 Series

BTL-0.242XH-273-175(LM)



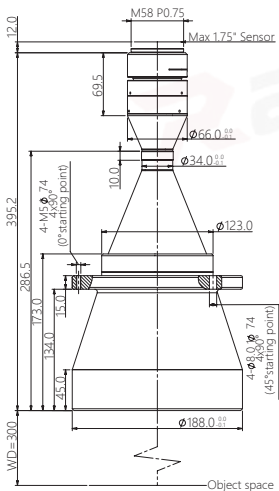
FOV(Φmm)	120
Mag.(x)	0.242
WD(mm)	273±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>130
DoF(mm)	±11.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	638±5
Length(mm)	352.6
Mount	M42/M58
Weight(kg)	4.7
Field of View(mm x mm)	
1.75"CMV12000(22.53x16.90)	93.1x69.8
1.75"PYTHON16k(18.43x18.43)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

BTL-0.213X-288-175(LM)



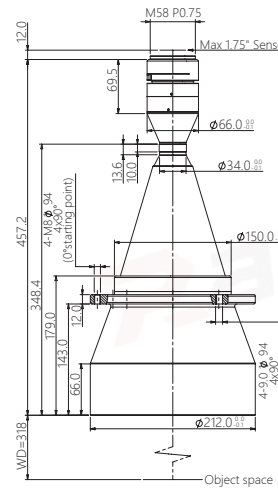
FOV(Φmm)	136
Mag.(x)	0.213
WD(mm)	288±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>125
DoF(mm)	±14.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	726±5
Length(mm)	425.8
Mount	M42/M58
Weight(kg)	4.7
Field of View(mm x mm)	
1.75"CMV12000(22.53x16.90)	105.8x79.3
1.75"PYTHON16k(18.43x18.43)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

BTL-0.193XH-300-175(LM)



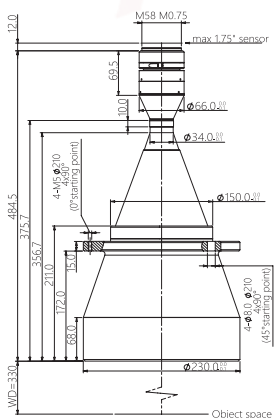
FOV(Φmm)	150
Mag.(x)	0.193
WD(mm)	300±5
Max Sensor Size(Φmm)	29(1.75")
F/#	9.7
MTF30(lp/mm)	>90
DoF(mm)	±21.5@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	707±5
Length(mm)	395.2
Mount	M42/M58
Weight(kg)	6.2
Field of View(mm x mm)	
1.75"CMV12000(22.53x16.90)	116.7x87.6
1.75"PYTHON16k(18.43x18.43)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

BTL-0.171X-318-175(LM)



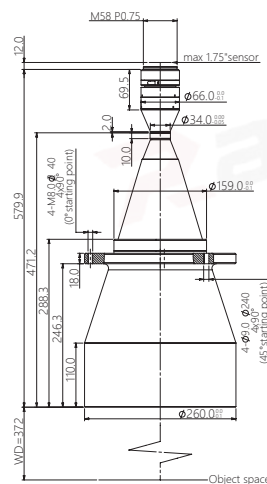
FOV(Φmm)	170
Mag.(x)	0.171
WD(mm)	318±5
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>125
DoF(mm)	±21.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	787±5
Length(mm)	457.2
Mount	M42/M58
Weight(kg)	7.0
Field of View(mm x mm)	
1.75"CMV12000(22.53x16.90)	131.8x98.8
1.75"PYTHON16k(18.43x18.43)	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/M58
Weight(kg)	10.1
Field of View(mm x mm)	
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

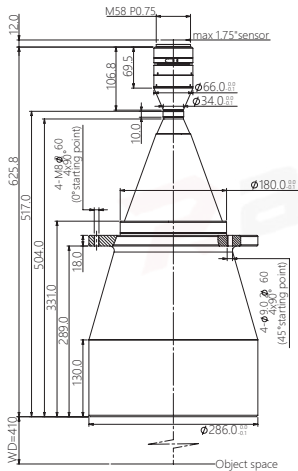
BTL-0.134X-372-175(LM)



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(mm x mm)	
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

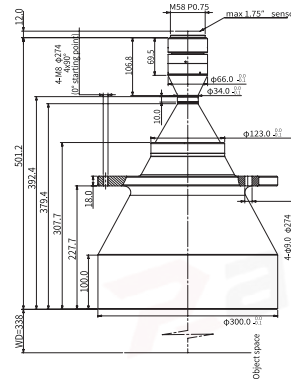
BTL-175 Series

BTL-0.121XH-410-175(LM)



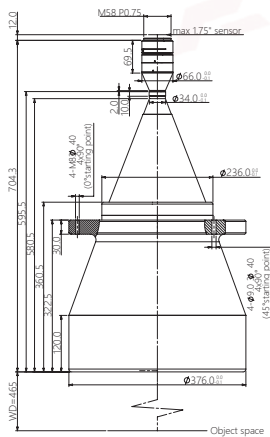
FOV(Φmm)	240
Mag.(x)	0.121
WD(mm)	410±6
Max Sensor Size(Φmm)	29(1.75")
F/#	6.8
MTF30(lp/mm)	>125
DoF(mm)	±43.7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1048±6
Length(mm)	625.8
Mount	M42/M58
Weight(kg)	19.6
Field of View(mm x mm)	
1.75"CMV12000(22.53x16.90)	186.2x139.7
1.75"PYTHON16k(18.43x18.43)	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)	851±5
Length(mm)	501.2
Mount	M42/M58
Weight(kg)	24.7
Field of View(mm x mm)	
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

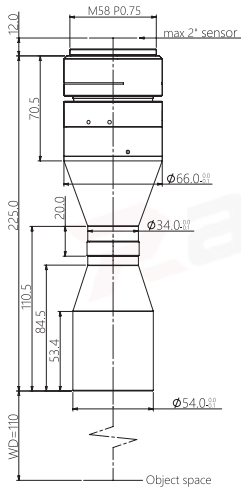
BTL-0.097XH-465-175(LM)



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 x mm)	
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

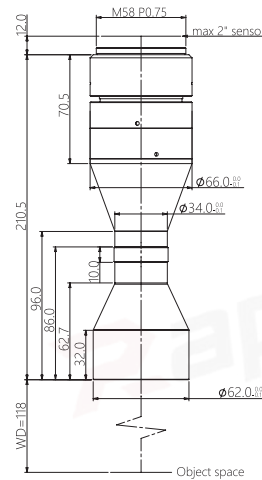
BTL-21 Series

BTL-0.917X-110-21(LM)



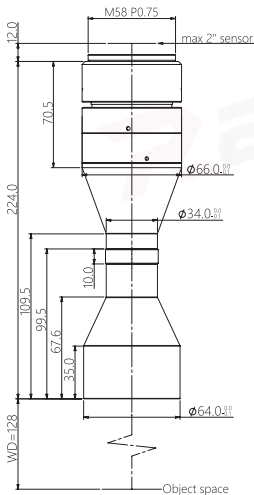
FOV(Φmm)	36
Mag.(x)	0.917
WD(mm)	110±2
Max Sensor Size(Φmm)	33(2")
F/#	15.5
MTF30(lp/mm)	>50
DoF(mm)	±0.9@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	347±2
Length(mm)	225.0
Mount	M42/M58
Weight(kg)	1.0
Field of View(mm xmm)	
2" DALSA 12M (24.58x18.43)	26.8x20.1
2" PYTHON 25K (23.04x23.04)	25.1x25.1

BTL-0.786X-118-21(LM)



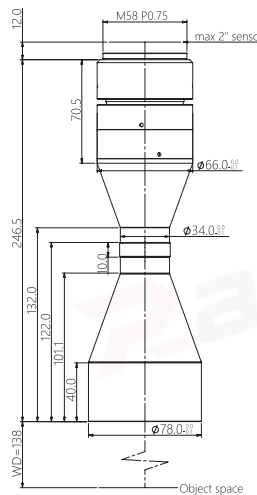
FOV(Φmm)	42
Mag.(x)	0.786
WD(mm)	118±3
Max Sensor Size(Φmm)	33(2")
F/#	12.9
MTF30(lp/mm)	>65
DoF(mm)	±1.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	341±3
Length(mm)	210.5
Mount	M42/M58
Weight(kg)	1.0
Field of View(mm xmm)	
2" DALSA 12M (24.58x18.43)	31.3x23.4
2" PYTHON 25K (23.04x23.04)	29.3x29.3

BTL-0.688X-128-21(LM)



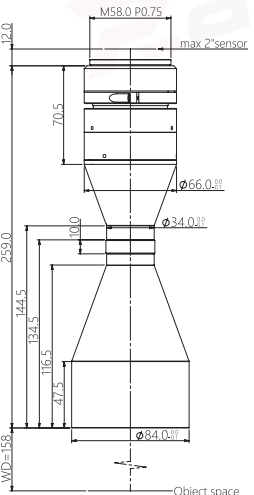
FOV(Φmm)	48
Mag.(x)	0.688
WD(mm)	128±3
Max Sensor Size(Φmm)	33(2")
F/#	12.9
MTF30(lp/mm)	>60
DoF(mm)	±1.7@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	364±3
Length(mm)	224.0
Mount	M42/M58
Weight(kg)	1.0
Field of View(mm xmm)	
2" DALSA 12M (24.58x18.43)	35.7x26.8
2" PYTHON 25K (23.04x23.04)	33.5x33.5

BTL-0.589X-138-21(LM)



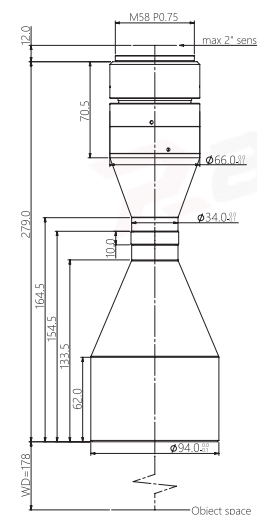
FOV(Φmm)	56
Mag.(x)	0.589
WD(mm)	138±3
Max Sensor Size(Φmm)	33(2")
F/#	11.1
MTF30(lp/mm)	>75
DoF(mm)	±2.3@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	397±3
Length(mm)	246.5
Mount	M42/M58
Weight(kg)	1.3
Field of View(mm xmm)	
2" DALSA 12M (24.58x18.43)	41.7x31.3
2" PYTHON 25K (23.04x23.04)	39.1x39.1

BTL-0.516X-158-21(LM)



FOV(Φmm)	64
Mag.(x)	0.516
WD(mm)	158±3
Max Sensor Size(Φmm)	33(2")
F/#	9.7
MTF30(lp/mm)	>90
DoF(mm)	±3.3@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	429±3
Length(mm)	259.0
Mount	M42/M58
Weight(kg)	1.4
Field of View(mm xmm)	
2" DALSA 12M (24.58x18.43)	47.6x35.7
2" PYTHON 25K (23.04x23.04)	44.7x44.7

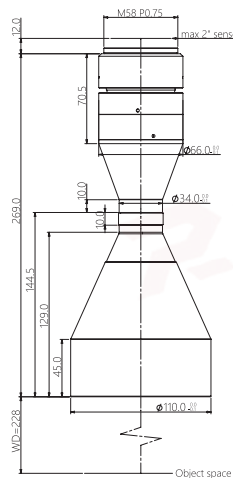
BTL-0.458X-178-21(LM)



FOV(Φmm)	72
Mag.(x)	0.458
WD(mm)	178±3
Max Sensor Size(Φmm)	33(2")
F/#	9.7
MTF30(lp/mm)	>90
DoF(mm)	±3.8@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	469±3
Length(mm)	279.0
Mount	M42/M58
Weight(kg)	1.6
Field of View(mm xmm)	
2" DALSA 12M (24.58x18.43)	53.7x40.2
2" PYTHON 25K (23.04x23.04)	50.3x50.3

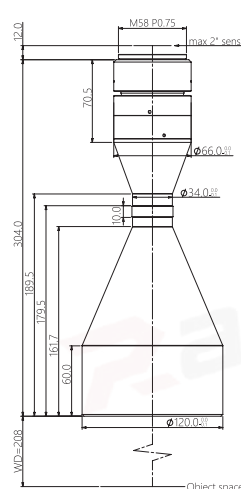
BTL-21 Series

BTL-0.413X-228-21(LM)



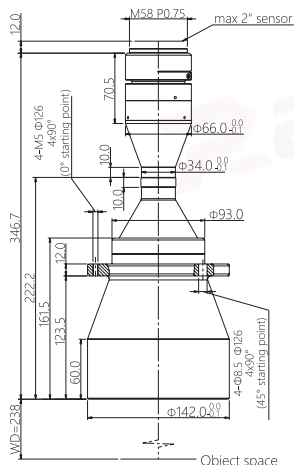
FOV(Φmm)	80
Mag.(x)	0.413
WD(mm)	228±4
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>110
DoF(mm)	±3.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	509±4
Length(mm)	269.0
Mount	M42/M58
Weight(kg)	2.5
Field of View(mm x mm)	
2" DALSA 12M (24.58x18.43)	59.5x44.6
2" PYTHON 25K (23.04x23.04)	55.8x55.8

BTL-0.367X-208-21(LM)



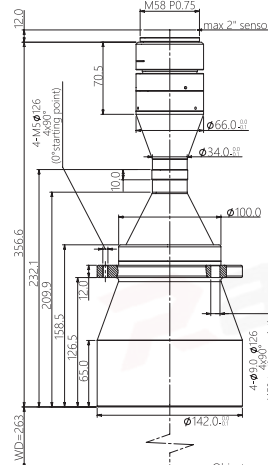
FOV(Φmm)	90
Mag.(x)	0.367
WD(mm)	208±3
Max Sensor Size(Φmm)	33(2")
F/#	8.6
MTF30(lp/mm)	>100
DoF(mm)	±4.7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	524±3
Length(mm)	304.0
Mount	M42/M58
Weight(kg)	2.3
Field of View(mm x mm)	
2" DALSA 12M (24.58x18.43)	67.0x50.2
2" PYTHON 25K (23.04x23.04)	62.8x62.8

BTL-0.33X-238-21(LM)



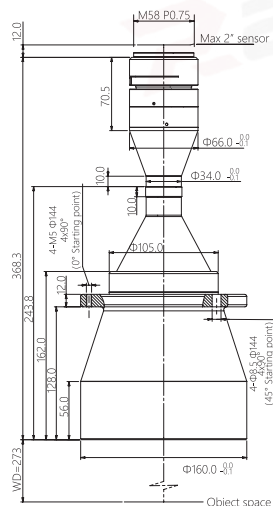
FOV(Φmm)	100
Mag.(x)	0.330
WD(mm)	238±4
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>118
DoF(mm)	±5.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	597±4
Length(mm)	346.7
Mount	M42/M58
Weight(kg)	3.6
Field of View(mm x mm)	
2" DALSA 12M (24.58x18.43)	74.5x55.8
2" PYTHON 25K (23.04x23.04)	69.8x69.8

BTL-0.3X-263-21(LM)



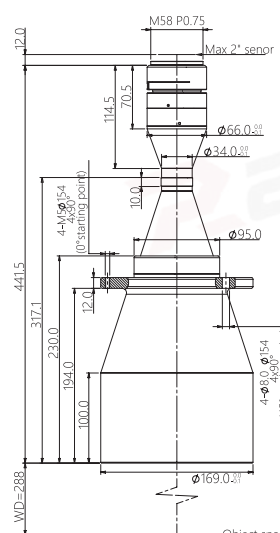
FOV(Φmm)	110
Mag.(x)	0.300
WD(mm)	263±4
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>110
DoF(mm)	±7.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	632±4
Length(mm)	356.6
Mount	M42/M58
Weight(kg)	3.3
Field of View(mm x mm)	
2" DALSA 12M (24.58x18.43)	81.9x61.4
2" PYTHON 25K (23.04x23.04)	76.8x76.8

BTL-0.275X-273-21(LM)



FOV(Φmm)	120
Mag.(x)	0.275
WD(mm)	273±5
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>115
DoF(mm)	±8.5@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	653±5
Length(mm)	368.3
Mount	M42/M58
Weight(kg)	4.8
Field of View(mm x mm)	
2" DALSA 12M (24.58x18.43)	89.4x67.0
2" PYTHON 25K (23.04x23.04)	83.8x83.8

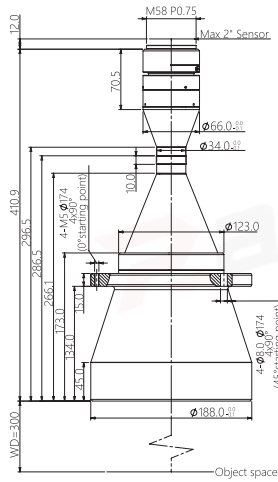
BTL-0.243X-288-21(LM)



FOV(Φmm)	136
Mag.(x)	0.243
WD(mm)	288±5
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>110
DoF(mm)	±10.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	742±5
Length(mm)	441.5
Mount	M42/M58
Weight(kg)	4.8
Field of View(mm x mm)	
2" DALSA 12M (24.58x18.43)	101.2x75.8
2" PYTHON 25K (23.04x23.04)	94.8x94.8

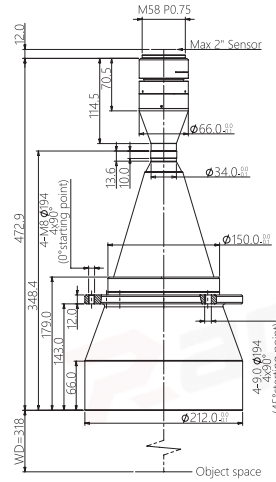
BTL-21 Series

BTL-0.22X-300-21(LM)



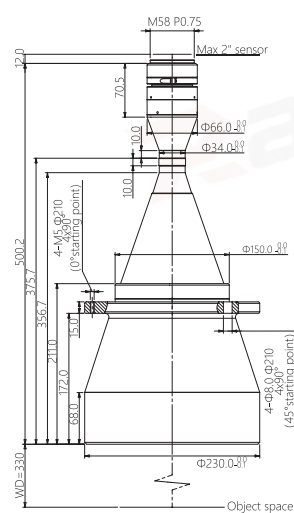
FOV(Φmm)	150
Mag.(x)	0.220
WD(mm)	300±5
Max Sensor Size(Φmm)	33(2")
F/#	11.1
MTF30(lp/mm)	>80
DoF(mm)	±16.5@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	723±5
Length(mm)	410.9
Mount	M42/M58
Weight(kg)	6.3
Field of View(mm×mm)	
2" DALSA 12M (24.58×18.43)	111.7×83.8
2" PYTHON 25K (23.04×23.04)	104.7×104.7

BTL-0.194X-318-21(LM)



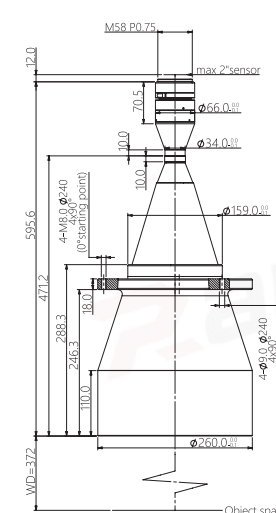
FOV(Φmm)	170
Mag.(x)	0.194
WD(mm)	318±5
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>110
DoF(mm)	±17.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	803±5
Length(mm)	472.9
Mount	M42/M58
Weight(kg)	7.1
Field of View(mm×mm)	
2" DALSA 12M (24.58×18.43)	126.7×95.0
2" PYTHON 25K (23.04×23.04)	118.8×118.8

BTL-0.174X-330-21(LM)



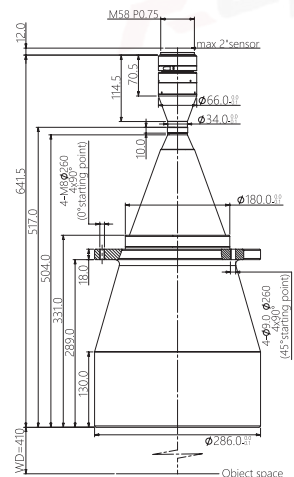
FOV(Φmm)	190
Mag.(x)	0.174
WD(mm)	330±5
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>115
DoF(mm)	±21.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	842±5
Length(mm)	500.2
Mount	M42/M58
Weight(kg)	10.2
Field of View(mm×mm)	
2" DALSA 12M (24.58×18.43)	141.3×105.9
2" PYTHON 25K (23.04×23.04)	132.4×132.4

BTL-0.153X-372-21(LM)



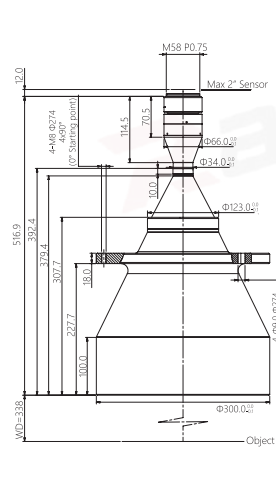
FOV(Φmm)	216
Mag.(x)	0.153
WD(mm)	372±5
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>115
DoF(mm)	±27.3@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	980±5
Length(mm)	595.6
Mount	M42/M58
Weight(kg)	14.3
Field of View(mm×mm)	
2" DALSA 12M (24.58×18.43)	160.7×120.5
2" PYTHON 25K (23.04×23.04)	150.6×150.6

BTL-0.138X-410-21(LM)



FOV(Φmm)	240
Mag.(x)	0.138
WD(mm)	410±6
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>110
DoF(mm)	±33.9@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1064±6
Length(mm)	641.5
Mount	M42/M58
Weight(kg)	19.6
Field of View(mm×mm)	
2" DALSA 12M (24.58×18.43)	178.1×133.6
2" PYTHON 25K (23.04×23.04)	167.0×167.0

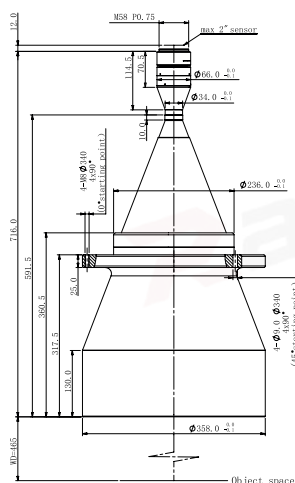
BTL-0.128X-338-21(LM)



FOV(Φmm)	258
Mag.(x)	0.128
WD(mm)	338±5
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>110
DoF(mm)	±39.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	867±5
Length(mm)	516.9
Mount	M42/M58
Weight(kg)	24.8
Field of View(mm×mm)	
2" DALSA 12M (24.58×18.43)	192.0×144.0
2" PYTHON 25K (23.04×23.04)	180.0×180.0

BTL-21 Series

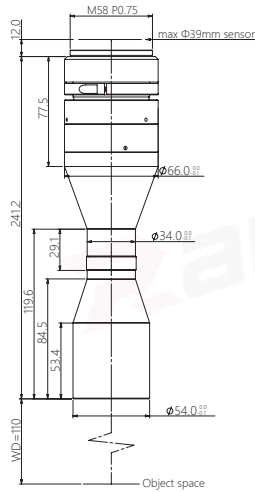
BTL-0.11X-465-21(LM)



FOV(Φmm)	300
Mag.(x)	0.110
WD(mm)	465±6
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>115
DoF(mm)	±52.8@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1197±6
Length(mm)	716.0
Mount	M42/M58
Weight(kg)	47.1
Field of View(mmxmm)	
2" DALSA 12M (24.58x18.43)	223.5x167.5
2" PYTHON 25K (23.04x23.04)	209.5x209.5

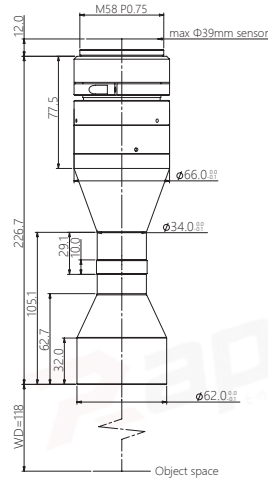
BTL-71M Series

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



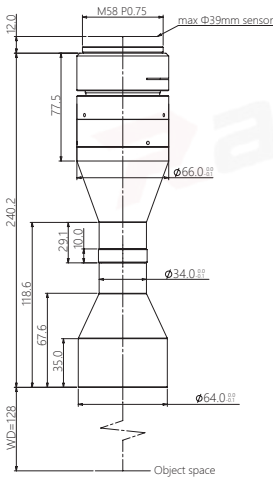
FOV(Φmm)	36
Mag.(x)	1.083
WD(mm)	110±2
Max Sensor Size(Φmm)	39
F/#	18.3
MTF30(lp/mm)	>43
DoF(mm)	±0.65@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	363±2
Length(mm)	241.2
Mount	M42/M58
Weight(kg)	1.1
Field of View(mm x mm)	
CHR70M(31.0x21.7)	28.6x20.0

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



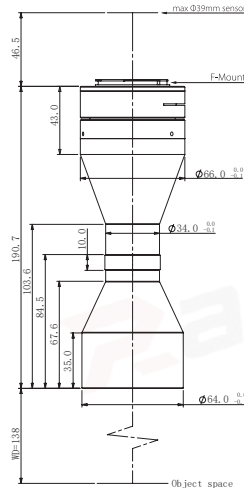
FOV(Φmm)	42
Mag.(x)	0.929
WD(mm)	118±3
Max Sensor Size(Φmm)	39
F/#	15.3
MTF30(lp/mm)	>55
DoF(mm)	±0.9@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	357±3
Length(mm)	226.7
Mount	M42/M58
Weight(kg)	1.0
Field of View(mm x mm)	
CHR70M(31.0x21.7)	33.4x23.4

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



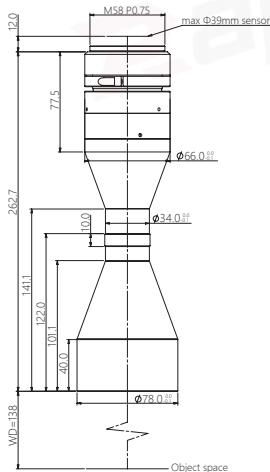
FOV(Φmm)	48
Mag.(x)	0.813
WD(mm)	128±3
Max Sensor Size(Φmm)	39
F/#	15.3
MTF30(lp/mm)	>50
DoF(mm)	±1.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	380±3
Length(mm)	240.2
Mount	M42/M58
Weight(kg)	1.1
Field of View(mm x mm)	
CHR70M(31.0x21.7)	38.1x26.7

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



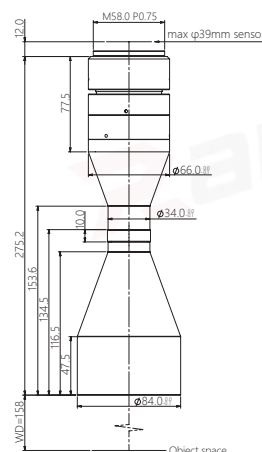
FOV(Φmm)	48
Mag.(x)	0.813
WD(mm)	138±3
Max Sensor Size(Φmm)	39
F/#	22.9
MTF30(lp/mm)	>35
DoF(mm)	±1.3@F22.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	375±3
Length(mm)	190.7
Mount	F-Mount/Other
Weight(kg)	0.8
Field of View(mm x mm)	
CHR70M(31.0x21.7)	38.1x26.7

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	M42/M58
Weight(kg)	1.3
Field of View(mm x mm)	
CHR70M(31.0x21.7)	44.5x31.2

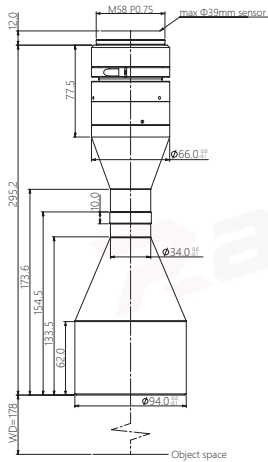
BTL-0.609X-158-71M(LM)



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	M42/M58
Weight(kg)	1.4
Field of View(mm x mm)	
CHR70M(31.0x21.7)	50.9x35.6

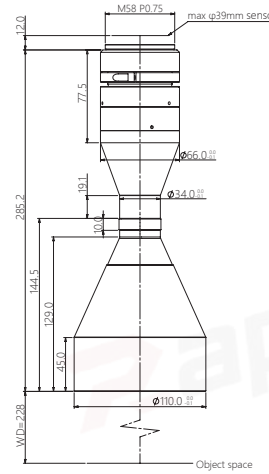
BTL-71M Series

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



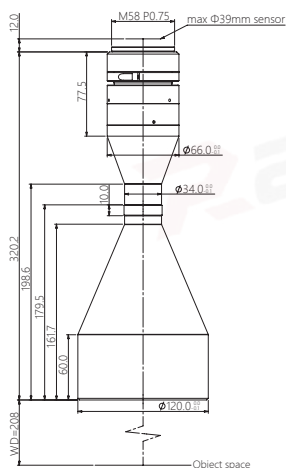
FOV(Φmm)	72
Mag.(x)	0.542
WD(mm)	178±3
Max Sensor Size(Φmm)	39
F/#	11.5
MTF30(lp/mm)	>75
DoF(mm)	±2.7@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	485±3
Length(mm)	295.2
Mount	M42/M58
Weight(kg)	1.7
Field of View(mm xmm)	
CHR70M(31.0x21.7)	57.2x40.0

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



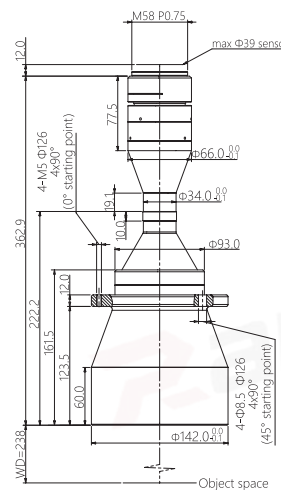
FOV(Φmm)	80
Mag.(x)	0.488
WD(mm)	228±4
Max Sensor Size(Φmm)	39
F/#	6.6
MTF30(lp/mm)	>130
DoF(mm)	±2.7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	525±4
Length(mm)	285.2
Mount	M42/M58
Weight(kg)	2.5
Field of View(mm xmm)	
CHR70M(31.0x21.7)	63.5x44.5

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



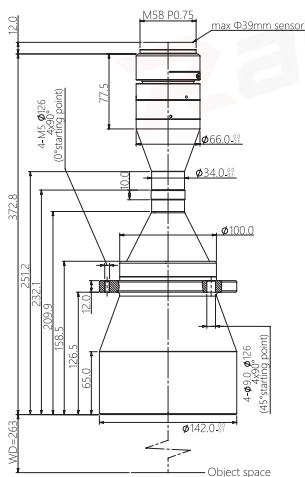
FOV(Φmm)	90
Mag.(x)	0.433
WD(mm)	208±3
Max Sensor Size(Φmm)	39
F/#	10.2
MTF30(lp/mm)	>85
DoF(mm)	±4.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	540±3
Length(mm)	320.2
Mount	M42/M58
Weight(kg)	2.3
Field of View(mm xmm)	
CHR70M(31.0x21.7)	71.6x50.1

BTL-0.39XH-238-71M(LM)



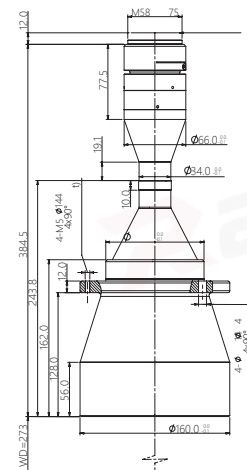
FOV(Φmm)	100
Mag.(x)	0.390
WD(mm)	238±4
Max Sensor Size(Φmm)	39
F/#	9.2
MTF30(lp/mm)	>102
DoF(mm)	±4.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	613±4
Length(mm)	362.9
Mount	M42/M58
Weight(kg)	3.7
Field of View(mm xmm)	
CHR70M(31.0x21.7)	79.5x55.6

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	M42/M58
Weight(kg)	3.3
Field of View(mm xmm)	
CHR70M(31.0x21.7)	87.3x61.1

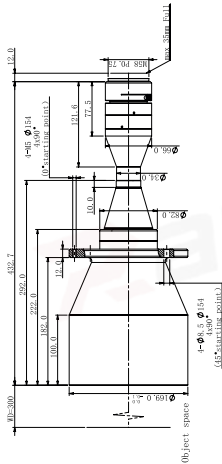
BTL-0.325X-273-71M(LM)



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	M42/M58
Weight(kg)	4.8
Field of View(mm xmm)	
CHR70M(31.0x21.7)	95.4x66.8

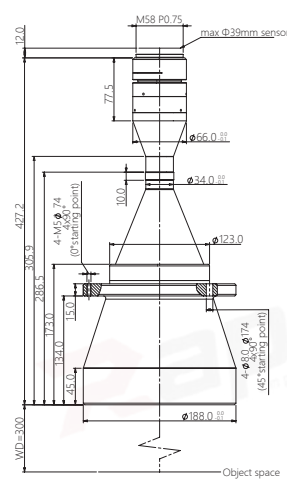
BTL-71M Series

BTL-0.288X-300-71M(LM)



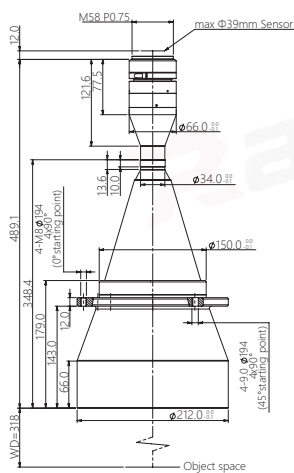
FOV(Φmm)	135
Mag.(x)	0.288
WD(mm)	300±5
Max Sensor Size(Φmm)	39
F/#	6.5
MTF30(lp/mm)	>128
DoF(mm)	±3.13@F6.5
Distortion(% max)	<0.045
Telecentricity(° max)	<0.045
I/O(mm)	745±5
Length(mm)	432.7
Mount	M42/M58
Weight(kg)	4.7
Field of View(mm xmm)	
CHR70M(31.0x21.7)	107.6x75.3

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



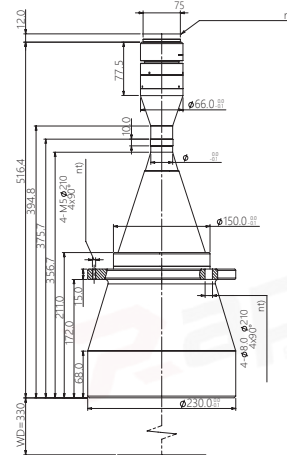
FOV(Φmm)	150
Mag.(x)	0.260
WD(mm)	300±5
Max Sensor Size(Φmm)	39
F/#	13.1
MTF30(lp/mm)	>70
DoF(mm)	±11.8@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	739±5
Length(mm)	427.2
Mount	M42/M58
Weight(kg)	6.3
Field of View(mm xmm)	
CHR70M(31.0x21.7)	119.2x83.5

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



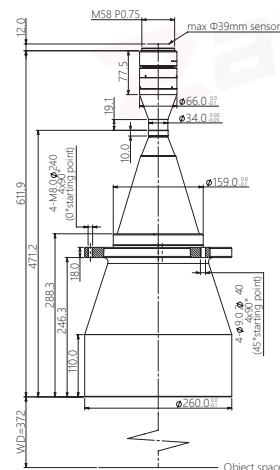
FOV(Φmm)	170
Mag.(x)	0.229
WD(mm)	318±5
Max Sensor Size(Φmm)	39
F/#	6.5
MTF30(lp/mm)	>125
DoF(mm)	±8.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	819±5
Length(mm)	489.1
Mount	M42/M58
Weight(kg)	7.1
Field of View(mm xmm)	
CHR70M(31.0x21.7)	135.4x94.8

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



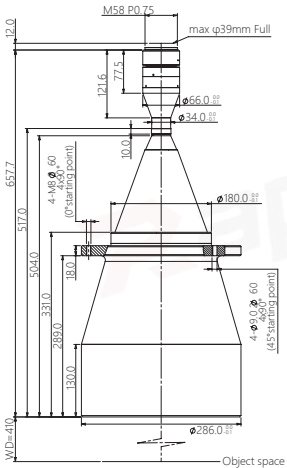
FOV(Φmm)	190
Mag.(x)	0.205
WD(mm)	330±5
Max Sensor Size(Φmm)	39
F/#	6.5
MTF30(lp/mm)	>135
DoF(mm)	±10.5@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	858±5
Length(mm)	516.4
Mount	M42/M58
Weight(kg)	10.2
Field of View(mm xmm)	
CHR70M(31.0x21.7)	151.2x105.9

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	M42/M58
Weight(kg)	14.4
Field of View(mm xmm)	
CHR70M(31.0x21.7)	171.3x119.9

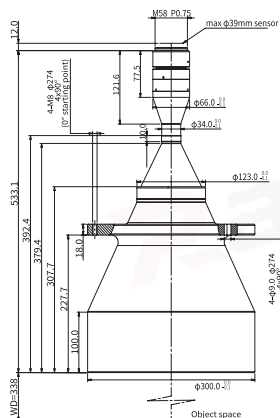
BTL-0.163XH-410-71M(LM)



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	M42/M58
Weight(kg)	19.7
Field of View(mm xmm)	
CHR70M(31.0x21.7)	190.2x133.1

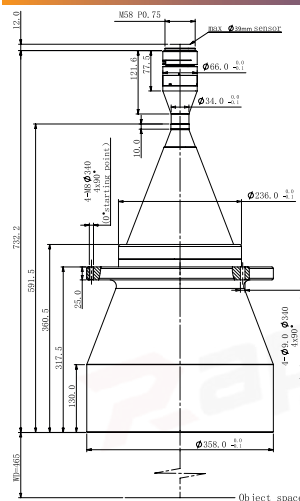
BTL-71M Series

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	M42/M58
Weight(kg)	24.8
Field of View(mmxmm)	
CHR70M(31.0x21.7)	205.3x143.7

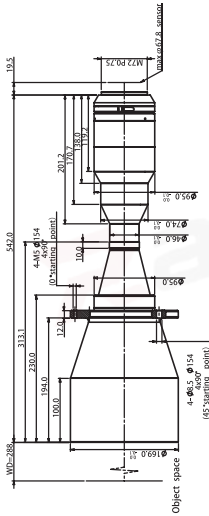
BTL-0.13XH-465-71M(LM)



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)	732.2
Mount	M42/M58
Weight(kg)	47.2
Field of View(mmxmm)	
CHR70M(31.0x21.7)	238.5x166.9

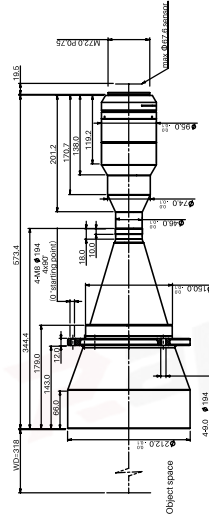
BTL-150M Series

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



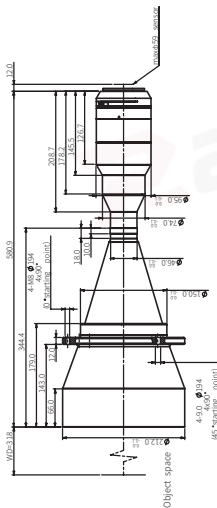
FOV(Φmm)	136
Mag.(x)	0.497
WD(mm)	288±5
Max Sensor Size(Φmm)	67.8
F/#	12.2
MTF30(lp/mm)	>70
DoF(mm)	±3.2@F12.2
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	850±5
Length(mm)	542
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	107.5x80.5

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



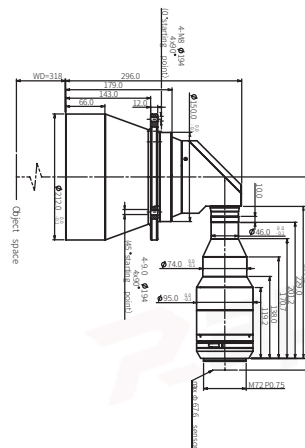
FOV(Φmm)	170
Mag.(x)	0.398
WD(mm)	318±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±2.4@F9.4
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	911±5
Length(mm)	573.4±5
Mount	M72
Weight(kg)	8.0
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	134.2x100.5

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



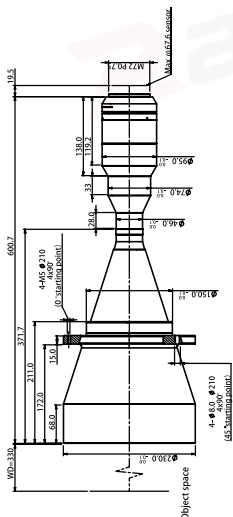
FOV(Φmm)	170
Mag.(x)	0.398
WD(mm)	318±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±2.4@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	911±5
Length(mm)	580.9
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	134.2x100.5

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



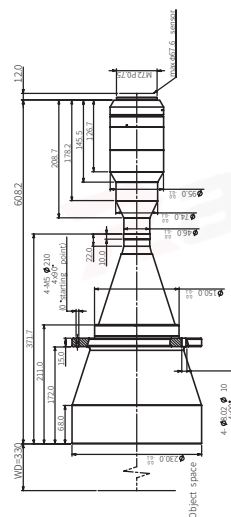
FOV(Φmm)	170
Mag.(x)	0.398
WD(mm)	318±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±2.4@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	-
Length(mm)	411.4
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	134.2x100.5

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)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	950.2±5
Length(mm)	600.7
Mount	M72
Weight(kg)	11.1
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	150.1x112.4

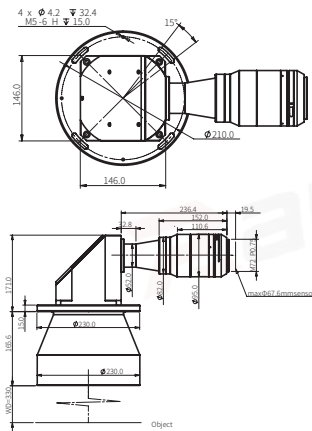
BTL-0.356X-330-150M(LM) (FBL=12mm)



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 IMX411(53.42x40mm)	150.1x112.4

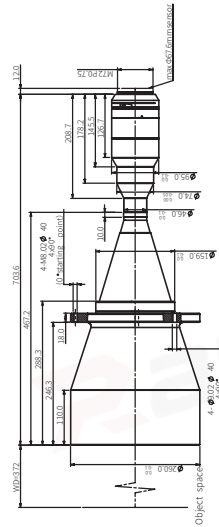
BTL-150M Series

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



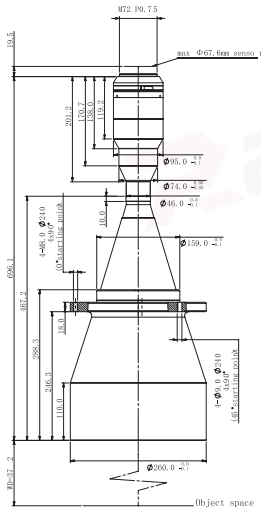
FOV(Φmm)	190
Mag.(x)	0.356
WD(mm)	330±5
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>95
DoF(mm)	±3.0@F9.4
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
I/O(mm)	-
Length(mm)	-
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	150.1x112.4

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



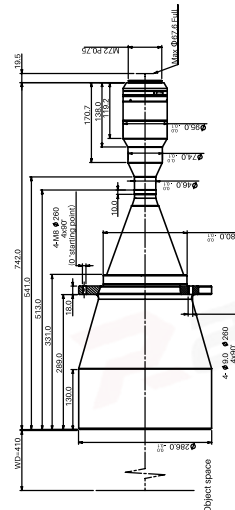
FOV(Φmm)	216
Mag.(x)	0.313
WD(mm)	372±5
Max Sensor Size(Φmm)	67.6
F/#	7.9
MTF30(lp/mm)	>100
DoF(mm)	±3.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1087.6
Length(mm)	703.6
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	170.6x127.8

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



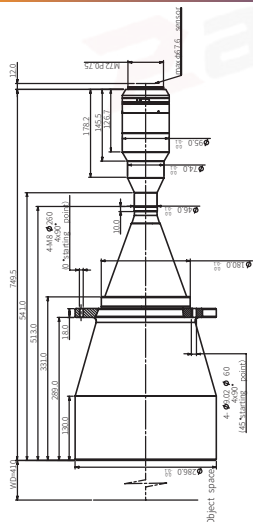
FOV(Φmm)	216
Mag.(x)	0.313
WD(mm)	372±5
Max Sensor Size(Φmm)	67.6
F/#	7.9
MTF30(lp/mm)	>100
DoF(mm)	±3.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1088±5
Length(mm)	696.1
Mount	M72
Weight(kg)	15.2
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	170.6x127.8

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



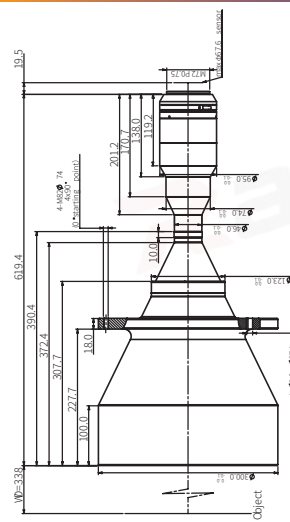
FOV(Φmm)	240
Mag.(x)	0.282
WD(mm)	410±6
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±8.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1172±6
Length(mm)	742.0
Mount	M72
Weight(kg)	20.5
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	189.4x141.8

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



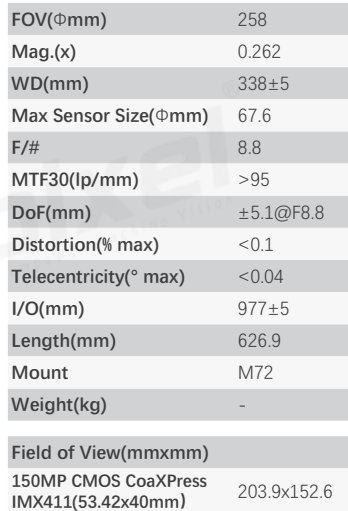
FOV(Φmm)	240
Mag.(x)	0.282
WD(mm)	410±6
Max Sensor Size(Φmm)	67.6
F/#	9.4
MTF30(lp/mm)	>88
DoF(mm)	±8.0@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1171.5
Length(mm)	749.5
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	189.4x141.8

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)	<0.1
I/O(mm)	977±5
Length(mm)	619.4
Mount	M72
Weight(kg)	25.8
Field of View(mm xmm)	
150MP CMOS CoaXPress IMX411(53.42x40mm)	203.9x152.6

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

[illegible]

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(mm×mm)	
150MP CMOS CoaXPress IMX411(53.42×40mm)	203.9×152.6

[illegible]

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)	48
Field of View(mm×mm)	
150MP CMOS CoaXPress IMX411(53.42×40mm)	237.4×177.8

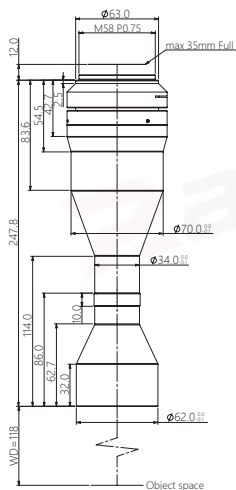
[illegible]

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

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(mm×mm)	
150MP CMOS CoaXPress IMX411(53.42×40mm)	237.4×177.8

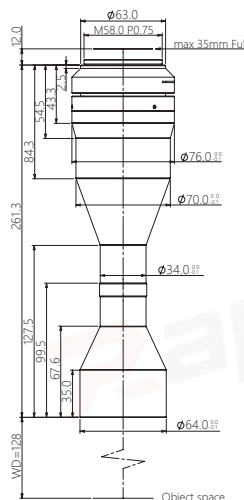
BTL-FF Series

BTL-1.038X-118-FF(LM)



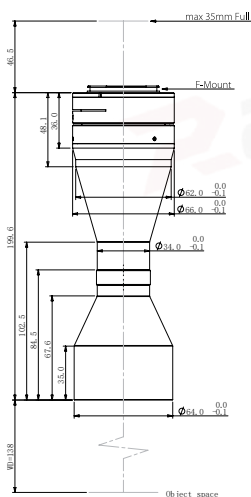
FOV(Φmm)	42
Mag.(x)	1.038
WD(mm)	118±3
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	17.1
MTF30(lp/mm)	>50
DoF(mm)	±0.7@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	378±3
Length(mm)	247.8
Mount	M58
Weight(kg)	1.2
Field of View(mm×mm)	
Line-2K(20.48mm)	19.5mm
Line-4K(28.67mm)	27.4mm
Line-8K(40.96mm)	39.1mm
35mm Format(36.0x24.0)	34.4x22.9

BTL-0.908X-128-FF(LM)



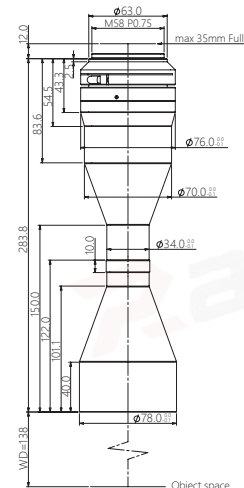
FOV(Φmm)	48
Mag.(x)	0.908
WD(mm)	128±3
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	17.1
MTF30(lp/mm)	>50
DoF(mm)	±1.0@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	401±3
Length(mm)	261.3
Mount	M58
Weight(kg)	1.2
Field of View(mm×mm)	
Line-2K(20.48mm)	22.3mm
Line-4K(28.67mm)	31.2mm
Line-8K(40.96mm)	44.5mm
35mm Format(36.0x24.0)	39.1x26.1

BTL-0.92X-138-FF(LM)



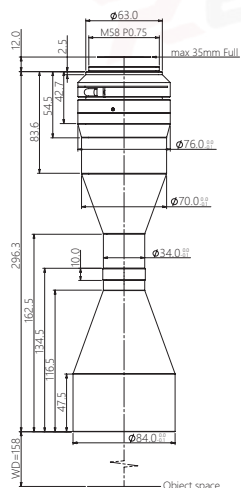
FOV(Φmm)	48
Mag.(x)	0.920
WD(mm)	138±3
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	25.9
MTF30(lp/mm)	>30
DoF(mm)	±1.2@F25.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	384±3
Length(mm)	199.6
Mount	F / other
Weight(kg)	0.9
Field of View(mm×mm)	
Line-2K(20.48mm)	22.3mm
Line-4K(28.67mm)	31.2mm
Line-8K(40.96mm)	44.5mm
35mm Format(36.0x24.0)	39.1x26.1

BTL-0.779X-138-FF(LM)



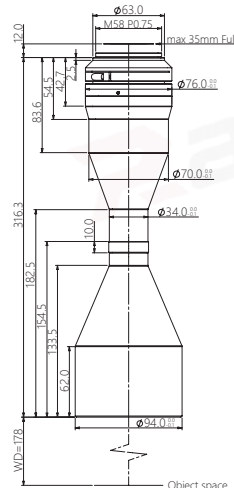
FOV(Φmm)	56
Mag.(x)	0.779
WD(mm)	138±3
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	14.6
MTF30(lp/mm)	>60
DoF(mm)	±1.3@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	434±3
Length(mm)	283.8
Mount	M58
Weight(kg)	1.5
Field of View(mm×mm)	
Line-2K(20.48mm)	26.1mm
Line-4K(28.67mm)	36.5mm
Line-8K(40.96mm)	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)	43.6(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×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

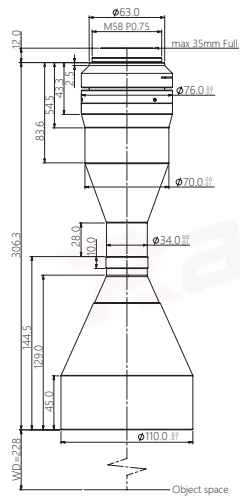
BTL-0.606X-178-FF(LM)



FOV(Φmm)	72
Mag.(x)	0.606
WD(mm)	178±3
Max Sensor Size(Φmm)	43.6(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×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

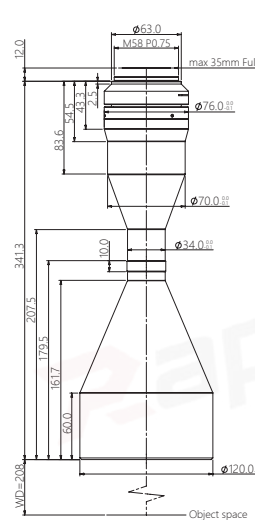
BTL-FF Series

BTL-0.545X-228-FF(LM)



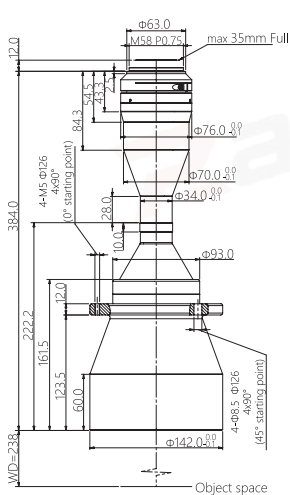
FOV(Φmm)	80
Mag.(x)	0.545
WD(mm)	228±4
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	7.3
MTF30(lp/mm)	>115
DoF(mm)	±2.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	546±4
Length(mm)	306.3
Mount	M58
Weight(kg)	2.7
Field of View(mm xmm)	
CMV50000 (36.43x27.62)	66.8x50.7
KAI29050/2 (36.17x24.11)	66.4x44.2
KAI43142 (36.18x24.12)	66.4x44.3

BTL-0.484X-208-FF(LM)



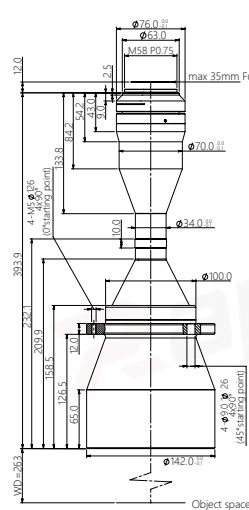
FOV(Φmm)	90
Mag.(x)	0.484
WD(mm)	208±3
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	11.4
MTF30(lp/mm)	>75
DoF(mm)	±3.4@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	561±3
Length(mm)	341.3
Mount	M58
Weight(kg)	2.4
Field of View(mm xmm)	
CMV50000 (36.43x27.62)	75.3x57.1
KAI29050/2 (36.17x24.11)	74.7x49.8
KAI43142 (36.18x24.12)	74.8x49.8

BTL-0.436X-238-FF(LM)



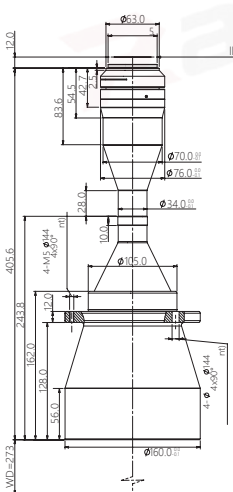
FOV(Φmm)	100
Mag.(x)	0.436
WD(mm)	238±4
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	10.3
MTF30(lp/mm)	>91
DoF(mm)	±4.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	634±4
Length(mm)	384
Mount	M58
Weight(kg)	3.8
Field of View(mm xmm)	
CMV50000 (36.43x27.62)	83.6x63.3
KAI29050/2 (36.17x24.11)	83.0x55.3
KAI43142 (36.18x24.12)	83.0x55.3

BTL-0.396X-263-FF(LM)



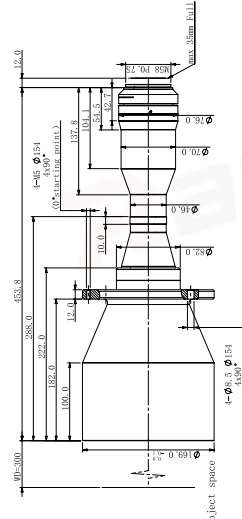
FOV(Φmm)	110
Mag.(x)	0.396
WD(mm)	263±4
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	9.3
MTF30(lp/mm)	>90
DoF(mm)	±4.1@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	669±4
Length(mm)	393.9
Mount	M58
Weight(kg)	3.4
Field of View(mm xmm)	
CMV50000 (36.43x27.62)	92.0x69.7
KAI29050/2 (36.17x24.11)	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(mm xmm)	
CMV50000 (36.43x27.62)	100.4x76.1
KAI29050/2 (36.17x24.11)	99.6x66.4
KAI43142 (36.18x24.12)	99.7x66.4

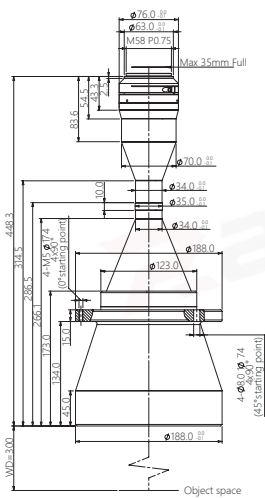
BTL-0.322X-300-FF(LM)



FOV(Φmm)	135
Mag.(x)	0.322
WD(mm)	300±5
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	6.0
MTF30(lp/mm)	>125
DoF(mm)	±6.2@F16
Distortion(% max)	<0.02
Telecentricity(° max)	<0.045
I/O(mm)	766±6
Length(mm)	453.8
Mount	M58
Weight(kg)	4.7
Field of View(mm xmm)	
CMV50000 (36.43x27.62)	113.5x86.0
KAI29050/2 (36.17x24.11)	112.7x75.1
KAI43142 (36.18x24.12)	112.7x75.1

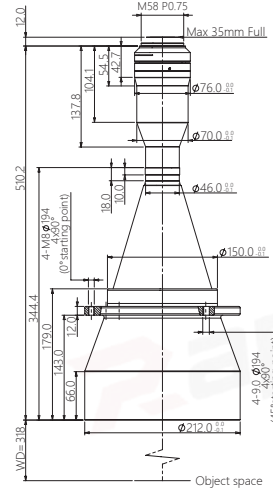
BTL-FF Series

BTL-0.291X-300-FF(LM)



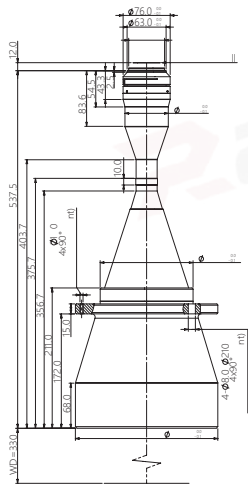
FOV(Φmm)	150
Mag.(x)	0.291
WD(mm)	300±5
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	14.6
MTF30(lp/mm)	>63
DoF(mm)	±9.3@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	760±5
Length(mm)	448.3
Mount	M58
Weight(kg)	6.4
Field of View(mm×mm)	
CMV50000 (36.43x27.62)	125.2x94.9
KAI29050/2 (36.17x24.11)	124.3x82.9
KAI43142 (36.18x24.12)	124.3x82.9

BTL-0.256X-318-FF(LM)



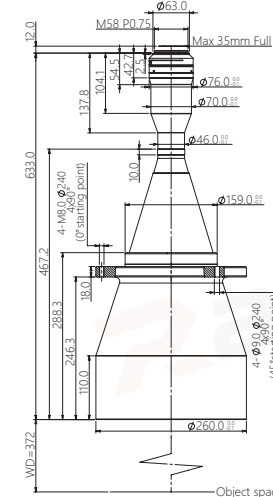
FOV(Φmm)	170
Mag.(x)	0.256
WD(mm)	318±5
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	6.0
MTF30(lp/mm)	>130
DoF(mm)	±6.7@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	840±5
Length(mm)	510.2
Mount	M58
Weight(kg)	7.5
Field of View(mm×mm)	
CMV50000 (36.43x27.62)	142.3x107.9
KAI29050/2 (36.17x24.11)	141.3x94.2
KAI43142 (36.18x24.12)	141.3x94.2

BTL-0.229X-330-FF(LM)



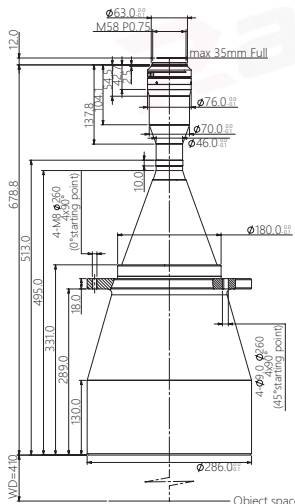
FOV(Φmm)	190
Mag.(x)	0.229
WD(mm)	330±5
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	6.0
MTF30(lp/mm)	>135
DoF(mm)	±8.4@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	880±5
Length(mm)	537.5
Mount	M58
Weight(kg)	10.6
Field of View(mm×mm)	
CMV50000 (36.43x27.62)	159.1x120.6
KAI29050/2 (36.17x24.11)	157.9x105.3
KAI43142 (36.18x24.12)	158.0x105.3

BTL-0.201X-372-FF(LM)



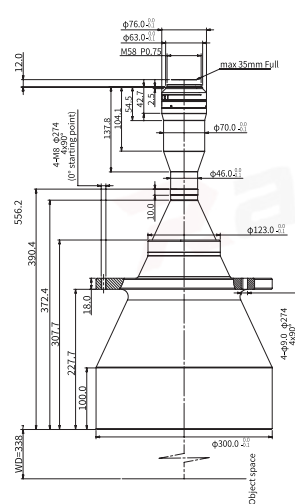
FOV(Φmm)	216
Mag.(x)	0.202
WD(mm)	372±5
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	10.4
MTF30(lp/mm)	>90
DoF(mm)	±19.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1017±5
Length(mm)	633.0
Mount	M58
Weight(kg)	14.7
Field of View(mm×mm)	
CMV50000 (36.43x27.62)	180.3x136.7
KAI29050/2 (36.17x24.11)	179.1x119.4
KAI43142 (36.18x24.12)	179.1x119.4

BTL-0.182X-410-FF(LM)



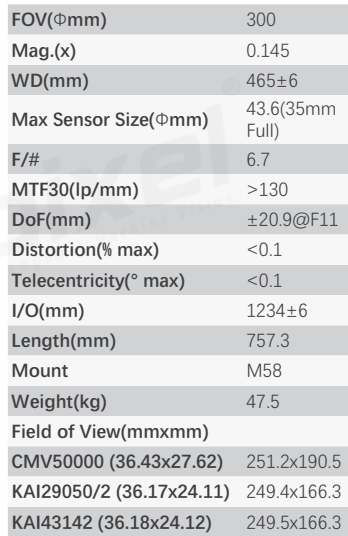
FOV(Φmm)	240
Mag.(x)	0.182
WD(mm)	410±6
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	6.0
MTF30(lp/mm)	>130
DoF(mm)	±13.3@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1101±6
Length(mm)	678.8
Mount	M58
Weight(kg)	20.0
Field of View(mm×mm)	
CMV50000 (36.43x27.62)	200.2x151.8
KAI29050/2 (36.17x24.11)	198.7x132.5
KAI43142 (36.18x24.12)	198.8x132.5

BTL-0.169X-338-FF(LM)



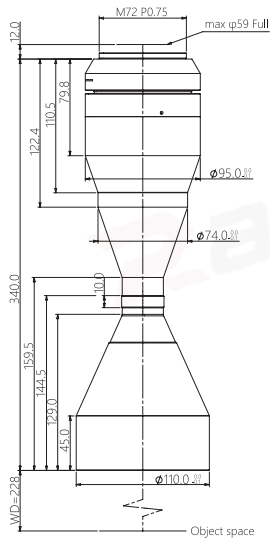
FOV(Φmm)	258
Mag.(x)	0.169
WD(mm)	338±5
Max Sensor Size(Φmm)	43.6(35mm Full)
F/#	6.0
MTF30(lp/mm)	>120
DoF(mm)	±15.1@F11
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	906±5
Length(mm)	556.2
Mount	M58
Weight(kg)	25.4
Field of View(mm×mm)	
CMV50000 (36.43x27.62)	215.6x163.4
KAI29050/2 (36.17x24.11)	214.0x142.7
KAI43142 (36.18x24.12)	214.1x142.7

BTL-0.145X-465-FF(LM)



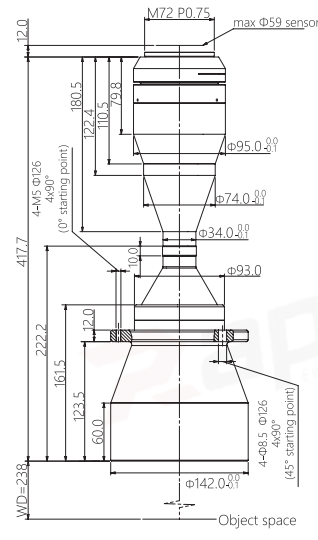
BTL-16K Series

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



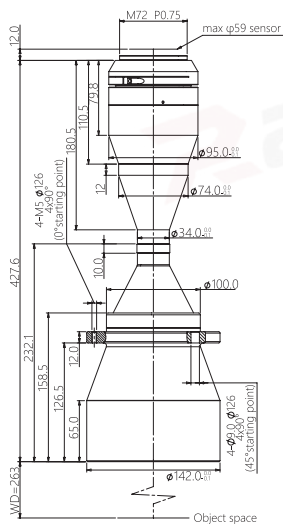
FOV(Φmm)	80
Mag.(x)	0.738
WD(mm)	228±4
Max Sensor Size(Φmm)	59
F/#	9.9
MTF30(lp/mm)	>85
DoF(mm)	±1.6@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	580±4
Length(mm)	340.0
Mount	M72
Weight(kg)	3.4
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	66.0x39.3
Linescan-16K (57.4mm)	77.8
Linescan-8K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

BTL-0.59X-238-16K(LM)



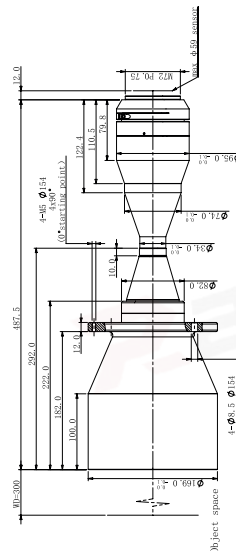
FOV(Φmm)	100
Mag.(x)	0.590
WD(mm)	238±4
Max Sensor Size(Φmm)	59
F/#	13.9
MTF30(lp/mm)	>67
DoF(mm)	±2.3@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	668±4
Length(mm)	417.7
Mount	M72
Weight(kg)	3.1
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	82.5x49.2
Linescan-16K (57.4mm)	97.3
Linescan-8K (57.4mm)	97.3

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



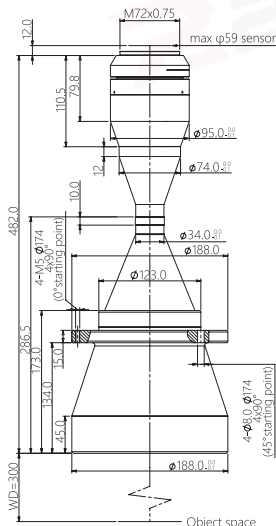
FOV(Φmm)	110
Mag.(x)	0.536
WD(mm)	263±4
Max Sensor Size(Φmm)	59
F/#	12.6
MTF30(lp/mm)	>60
DoF(mm)	±2.8@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	703±4
Length(mm)	427.6
Mount	M72
Weight(kg)	4.1
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	90.9x54.1
Linescan-16K (57.4mm)	107.1
Linescan-8K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

BTL-0.436X-300-16K(LM)



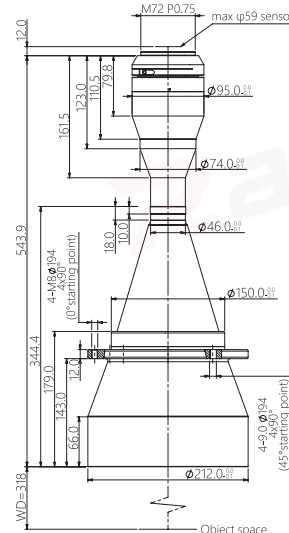
FOV(Φmm)	135
Mag.(x)	0.436
WD(mm)	300±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>100
DoF(mm)	±1.8@F8.7
Distortion(% max)	0.02
Telecentricity(° max)	0.045
I/O(mm)	799.5±5
Length(mm)	487.5
Mount	M72
Weight(kg)	5.5
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	111.7x66.5
Linescan-16K (57.4mm)	131.7
Linescan-8K (57.4mm)	131.7

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

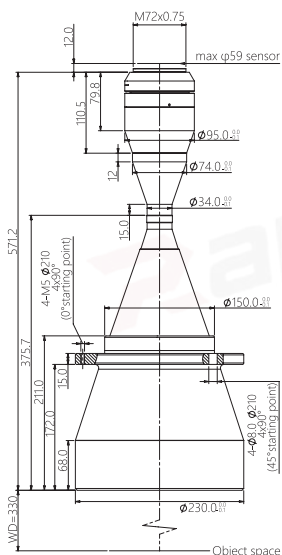
BTL-0.347X-318-16K(LM)



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

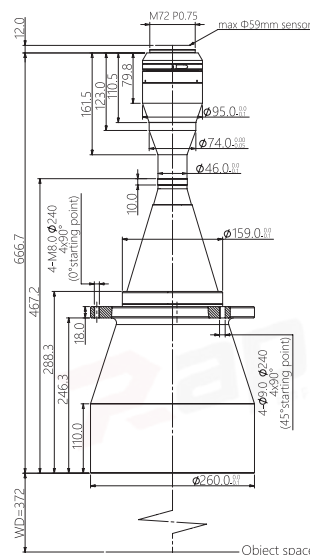
BTL-16K Series

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



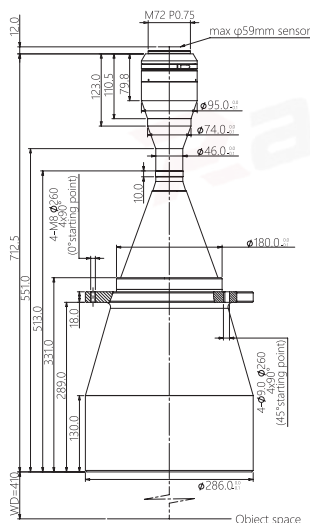
FOV(Φmm)	190
Mag.(x)	0.311
WD(mm)	330±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>100
DoF(mm)	±6.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	913±5
Length(mm)	571.2
Mount	M72
Weight(kg)	11.1
Field of View(mm x mm)	
KAI-47051(48.7x29.0)	156.6x93.2
Linescan-16K (57.4mm)	184.6
Linescan-8K (57.4mm)	184.6

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



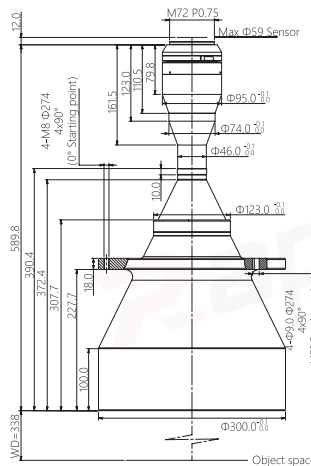
FOV(Φmm)	216
Mag.(x)	0.273
WD(mm)	372±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>95
DoF(mm)	±8.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1051±5
Length(mm)	666.7
Mount	M72
Weight(kg)	15.2
Field of View(mm x mm)	
KAI-47051(48.7x29.0)	178.4x106.2
Linescan-16K (57.4mm)	210.3
Linescan-8K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

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



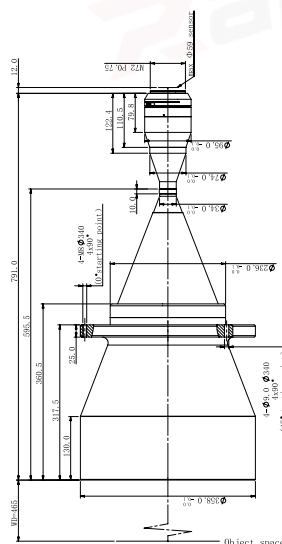
FOV(Φmm)	240
Mag.(x)	0.246
WD(mm)	410±6
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>100
DoF(mm)	±14.6@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1135±6
Length(mm)	712.5
Mount	M72
Weight(kg)	20.5
Field of View(mm x mm)	
KAI-47051(48.7x29.0)	198.0x117.9
Linescan-16K (57.4mm)	233.3
Linescan-8K (57.4mm)	233.3

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



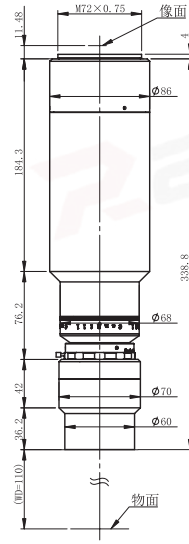
FOV(Φmm)	258
Mag.(x)	0.229
WD(mm)	338±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>100
DoF(mm)	±12.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	940±5
Length(mm)	589.8
Mount	M72
Weight(kg)	25.8
Field of View(mm x mm)	
KAI-47051(48.7x29.0)	212.7x126.6
Linescan-16K (57.4mm)	250.7
Linescan-8K (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/#	9.0
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 x mm)	
KAI-47051(48.7x29.0)	247.2x147.2
Linescan-16K (57.4mm)	291.4
Linescan-8K (57.4mm)	291.4

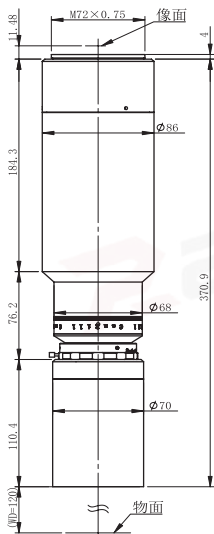
BTL-1.618X-110-16K(LM)



Mag.(x)	1.618
Object FOV(Φmm)	35.5
Image FOV(Φmm)	57.4
WD(mm)	110±3%
Telecentricity (° max)	<0.09°
DOF(mm)	0.6@F15
F/#	6-76.6
Resolution(μm)	6.13
MTF(lp/mm)	>0.3@68
Distortion(% max)	<0.1%
Mount	M72
Field of View(mm)	
35film 36×24	22.2×14.8
2" 23x23	14.2×14.2
Linescan 8K 5μm	25.3
Linescan 16K 3.5μm	35.4

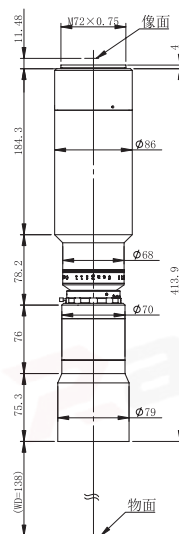
BTL-16K Series

BTL-1.319X-120-16K(LM)



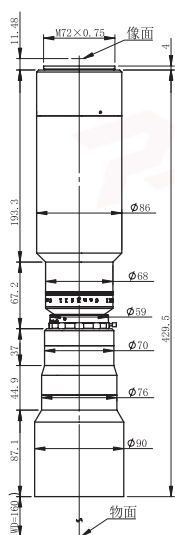
Mag.(x)	1.319
Object FOV(Φmm)	43.5
Image FOV(Φmm)	57.4
WD(mm)	120±3%
Telecentricity (° max)	<0.1°
DOF(mm)	0.7@F11
F/#	6-76.5
Resolution(μm)	5.5
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.1%
Mount	M72
Field of View(mm)	
35film 36×24	27.3×18.2
2" 23x23	17.4×17.4
Linescan 8K 5μm	31.1
Linescan 16K 3.5μm	43.5

BTL-1.079X-138-16K(LM)



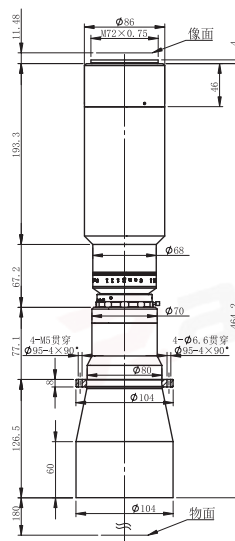
Mag.(x)	1.079
Object FOV(Φmm)	53.2
Image FOV(Φmm)	57.4
WD(mm)	138±3%
Telecentricity (° max)	<0.08°
DOF(mm)	1@F11
F/#	6-76.5
Resolution(μm)	6.7
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.1%
Mount	M72
Field of View(mm)	
35film 36×24	33.4×22.2
2" 23x23	21.3×21.3
Linescan 8K 5μm	38
Linescan 16K 3.5μm	53.1

BTL-0.912X-160-16K(LM)



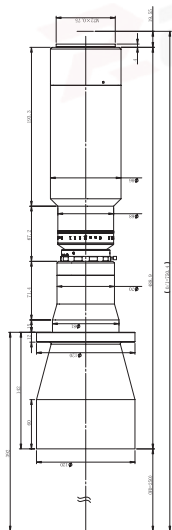
Mag.(x)	0.912
Object FOV(Φmm)	62.9
Image FOV(Φmm)	57.4
WD(mm)	160±3%
Telecentricity (° max)	<0.09°
DOF(mm)	1.5@F11
F/#	6-76.5
Resolution(μm)	8.0
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.1%
Mount	M72
Field of View(mm)	
35film 36×24	39.5×26.3
2" 23x23	25.2×25.2
Linescan 8K 5μm	44.9
Linescan 16K 3.5μm	62.9

BTL-0.742X-180-16K(LM)



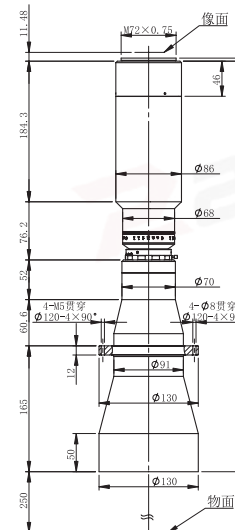
Mag.(x)	0.742
Object FOV(Φmm)	77.4
Image FOV(Φmm)	57.4
WD(mm)	180±3%
Telecentricity (° max)	<0.06°
DOF(mm)	2.2@F11
F/#	6-76.5
Resolution(μm)	9.8
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.1%
Mount	M72
Field of View(mm)	
35film 36×24	48.5×32.3
2" 23x23	31×31
Linescan 8K 5μm	55.2
Linescan 16K 3.5μm	77.3

BTL-0.648X-250-16K(LM)



Mag.(x)	0.648
Object FOV(Φmm)	88.6
Image FOV(Φmm)	57.4
WD(mm)	250±3%
Telecentricity (° max)	<0.06°
DOF(mm)	2.9@F11
F/#	6-76
Resolution(μm)	11.2
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.1%
Mount	M72/M58
Field of View(mm)	
35film 36×24	55.6×37
2" 23x23	35.5×35.5
Linescan 8K 5μm	63.2
Linescan 16K 3.5μm	88.5

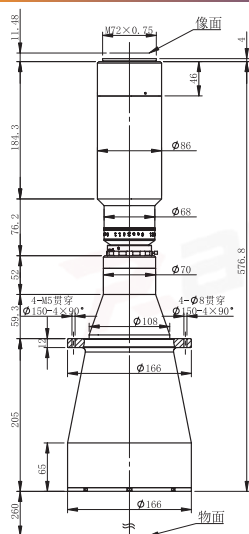
BTL-0.539X-250-16K(LM)



Mag.(x)	0.539
Object FOV(Φmm)	106.5
Image FOV(Φmm)	57.4
WD(mm)	250±3%
Telecentricity (° max)	<0.06°
DOF(mm)	4.2@F11
F/#	6-76
Resolution(μm)	13.5
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.063%
Mount	M72
Field of View(mm)	
35film 36×24	66.8×44.5
2" 23x23	42.7×42.7
Linescan 8K 5μm	76
Linescan 16K 3.5μm	106.4

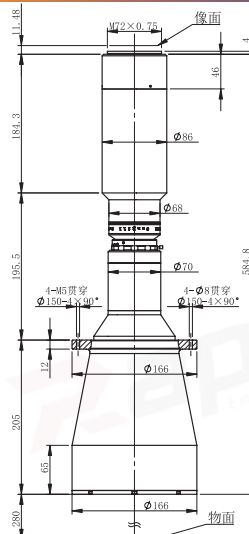
BTL-16K Series

BTL-0.486X-260-16K(LM)



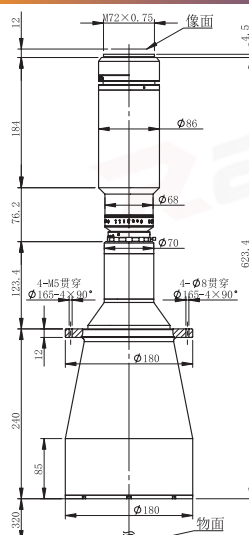
Mag.(x)	0.486
Object FOV(Φmm)	118.1
Image FOV(Φmm)	57.4
WD(mm)	260±3%
Telecentricity (° max)	<0.06°
DOF(mm)	5.1@F11
F/#	6-76
Resolution(μm)	15
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.081%
Mount	M72
Field of View(mm)	
35film 36×24	74.1×49.4
2" 23x23	47.3×47.3
Linescan 8K 5μm	84.3
Linescan 16K 3.5μm	118

BTL-0.433X-280-16K(LM)



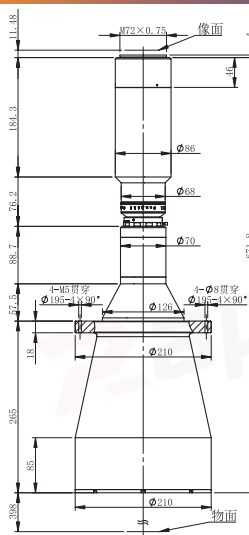
Mag.(x)	0.433
Object FOV(Φmm)	132.6
Image FOV(Φmm)	57.4
WD(mm)	280±3%
Telecentricity (° max)	<0.06°
DOF(mm)	6.4@F11
F/#	6-76
Resolution(μm)	16.8
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.067%
Mount	M72
Field of View(mm)	
35film 36×24	83.1×55.4
2" 23x23	53.1×53.1
Linescan 8K 5μm	94.6
Linescan 16K 3.5μm	132.4

BTL-0.391X-320-16K(LM)



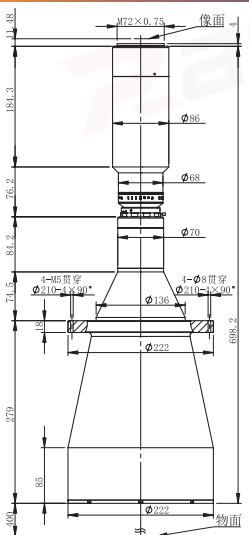
Mag.(x)	0.391
Object FOV(Φmm)	146.8
Image FOV(Φmm)	57.4
WD(mm)	320±3%
Telecentricity (° max)	<0.06°
DOF(mm)	7.9@F11
F/#	6-76
Resolution(μm)	18.6
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.09%
Mount	M72
Field of View(mm)	
35film 36×24	92.1×61.4
2" 23x23	58.8×58.8
Linescan 8K 5μm	104.8
Linescan 16K 3.5μm	146.7

BTL-0.326X-398-16K(LM)



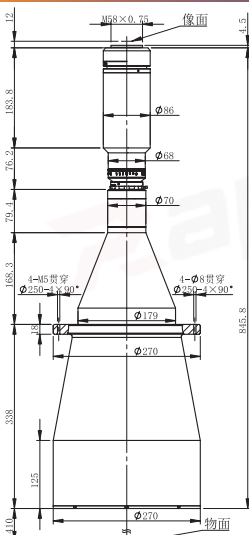
Mag.(x)	0.326
Object FOV(Φmm)	176.1
Image FOV(Φmm)	57.4
WD(mm)	398±3%
Telecentricity (° max)	<0.06°
DOF(mm)	11.4@F11
F/#	6-76
Resolution(μm)	22.3
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.075%
Mount	M72
Field of View(mm)	
35film 36×24	110.4×73.6
2" 23x23	70.6×70.6
Linescan 8K 5μm	125.6
Linescan 16K 3.5μm	175.9

BTL-0.305X-400-16K(LM)



Mag.(x)	0.305
Object FOV(Φmm)	188.2
Image FOV(Φmm)	57.4
WD(mm)	400±3%
Telecentricity (° max)	<0.06°
DOF(mm)	13.1@F11
F/#	6-76
Resolution(μm)	23.8
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.06%
Mount	M72
Field of View(mm)	
35film 36×24	118.0×78.7
2" 23x23	75.4×75.4
Linescan 8K 5μm	134.3
Linescan 16K 3.5μm	188

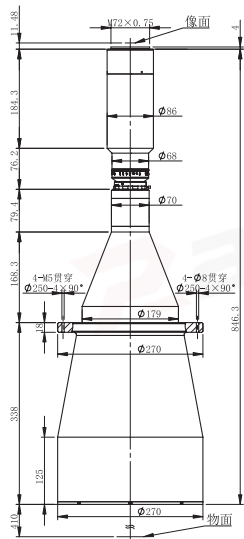
BTL-0.249X-410-16K(LM)-M58



Mag.(x)	0.249
Object FOV(Φmm)	230.5
Image FOV(Φmm)	57.4
WD(mm)	410±3%
Telecentricity (° max)	<0.06°
DOF(mm)	19.3@F11
F/#	6-76
Resolution(μm)	29.1
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.064%
Mount	M58
Field of View(mm)	
35film 36×24	144.6×96.4
2" 23x23	92.4×92.4
Linescan 8K 5μm	164.5
Linescan 16K 3.5μm	230.3

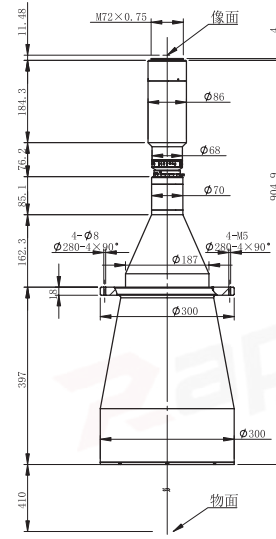
BTL-16K Series

BTL-0.249X-410-16K(LM)-M72



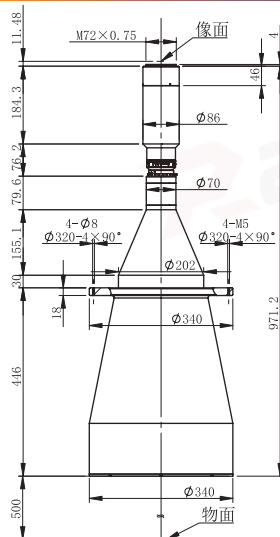
Mag.(x)	0.249
Object FOV(Φmm)	230.5
Image FOV(Φmm)	57.4
WD(mm)	410±3%
Telecentricity (° max)	<0.06°
DOF(mm)	19.3@F11
F/#	6-76
Resolution(μm)	29.1
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.064%
Mount	M72
Field of View(mm)	
35film 36×24	144.6×96.4
2" 23x23	92.4×92.4
Linescan 8K 5μm	164.5
Linescan 16K 3.5μm	230.3

BTL-0.222X-410-16K(LM)



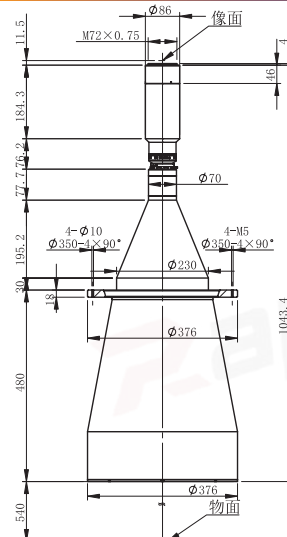
Mag.(x)	0.222
Object FOV(Φmm)	258.6
Image FOV(Φmm)	57.4
WD(mm)	410±3%
Telecentricity (° max)	<0.06°
DOF(mm)	24.4@F11
F/#	6-76
Resolution(μm)	32.8
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.071%
Mount	M72
Field of View(mm)	
35film 36×24	162.2×108.1
2" 23x23	103.6×103.6
Linescan 8K 5μm	184.5
Linescan 16K 3.5μm	258.3

BTL-0.192X-500-16K(LM)



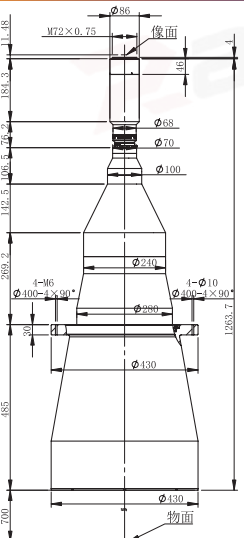
Mag.(x)	0.192
Object FOV(Φmm)	299
Image FOV(Φmm)	57.4
WD(mm)	500±3%
Telecentricity (° max)	<0.06°
DOF(mm)	32.9@F11
F/#	6-76
Resolution(μm)	37.9
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.052%
Mount	M72
Field of View(mm)	
35film 36×24	187.5×125
2" 23x23	119.8×119.8
Linescan 8K 5μm	213.3
Linescan 16K 3.5μm	298.7

BTL-0.17X-540-16K(LM)



Mag.(x)	0.17
Object FOV(Φmm)	337.6
Image FOV(Φmm)	57.4
WD(mm)	540±3%
Telecentricity (° max)	<0.06°
DOF(mm)	41.7@F11
F/#	6-76
Resolution(μm)	42.8
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.052%
Mount	M72
Field of View(mm)	
35film 36×24	211.8×141.2
2" 23x23	135.3×135.3
Linescan 8K 5μm	240.9
Linescan 16K 3.5μm	337.3

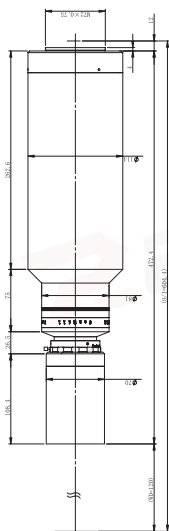
BTL-0.152X-700-16K(LM)



Mag.(x)	0.152
Object FOV(Φmm)	377.6
Image FOV(Φmm)	57.4
WD(mm)	700±3%
Telecentricity (° max)	<0.06°
DOF(mm)	52.1@F11
F/#	6-76
Resolution(μm)	47.7
MTF(lp/mm)	>0.3@95
Distortion(% max)	<0.052%
Mount	M72
Field of View(mm)	
35film 36×24	236.8×157.9
2" 23x23	151.3×151.3
Linescan 8K 5μm	269.5
Linescan 16K 3.5μm	377.3

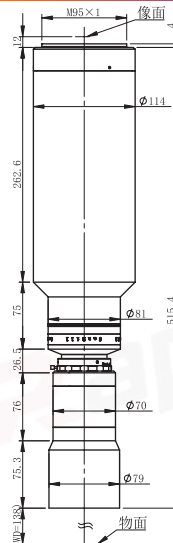
BTL-16K Series

BTL-1.92X-120-16K(LM)



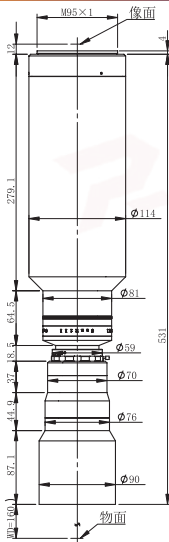
Mag.(x)	1.92
Object FOV(Φmm)	34.4
Image FOV(Φmm)	66
WD(mm)	120±3%
Telecentricity (° max)	<0.1°
DOF(mm)	0.5@F18
F/#	8-111.5
Resolution(μm)	6.2
MTF(lp/mm)	>0.3@58
Distortion(% max)	<0.1%
Mount	M72
Field of View(mm)	
35film 36×24	18.8×12.5
2" 23×23	12×12
Linescan 8K 5μm	21.3
Linescan 16K 5μm	29.9

BTL-1.571X-138-16K(LM)



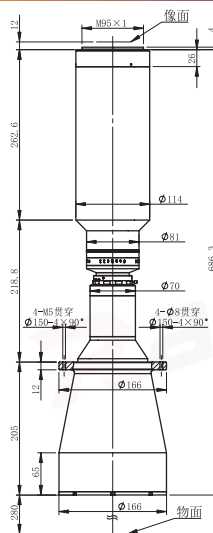
Mag.(x)	1.571
Object FOV(Φmm)	52.2
Image FOV(Φmm)	82
WD(mm)	138±3%
Telecentricity (° max)	<0.08°
DOF(mm)	0.8@F18
F/#	8-111.5
Resolution(μm)	7.57
MTF(lp/mm)	>0.3@58
Distortion(% max)	<0.1%
Mount	M95
Field of View(mm)	
35film 36×24	22.9×15.3
2" 23×23	14.6×14.6
Linescan 8K 7μm	36.5
Linescan 16K 5μm	52.1

BTL-1.328X-160-16K(LM)



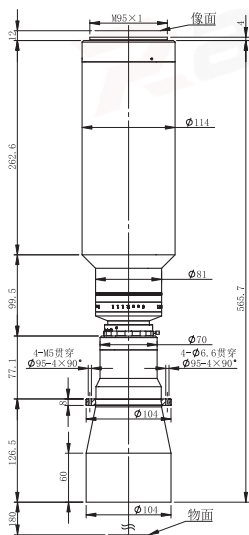
Mag.(x)	1.328
Object FOV(Φmm)	61.7
Image FOV(Φmm)	82
WD(mm)	160±3%
Telecentricity (° max)	<0.1°
DOF(mm)	0.8@F13.5
F/#	8-111.5
Resolution(μm)	6.7
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.1%
Mount	M95
Field of View(mm)	
35film 36×24	27.1×18.1
2" 23×23	17.3×17.3
Linescan 8K 7μm	43.2
Linescan 16K 5μm	61.7

BTL-0.631X-280-16K(LM)



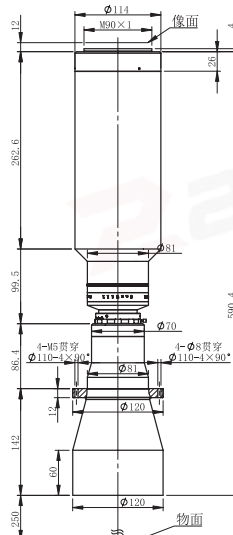
Mag.(x)	0.631
Object FOV(Φmm)	130
Image FOV(Φmm)	82
WD(mm)	280±3%
Telecentricity (° max)	<0.06°
DOF(mm)	3.4@F13.5
F/#	8-111
Resolution(μm)	14.1
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.091%
Mount	M95
Field of View(mm)	
35film 36×24	57.1×38
2" 23×23	36.5×36.5
Linescan 8K 7μm	90.9
Linescan 16K 5μm	129.8

BTL-1.08X-180-16K(LM)



Mag.(x)	1.08
Object FOV(Φmm)	75.9
Image FOV(Φmm)	82
WD(mm)	180±3%
Telecentricity (° max)	<0.06°
DOF(mm)	1.2@F13.5
F/#	8-111
Resolution(μm)	8.3
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.1%
Mount	M95
Field of View(mm)	
35film 36×24	33.3×22.2
2" 23×23	21.3×21.3
Linescan 8K 7μm	53.1
Linescan 16K 5μm	75.9

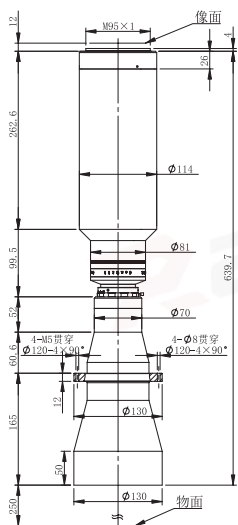
BTL-0.943X-250-16K(LM)



Mag.(x)	0.943
Object FOV(Φmm)	87
Image FOV(Φmm)	82
WD(mm)	250±3%
Telecentricity (° max)	<0.06°
DOF(mm)	1.5@F13.5
F/#	8-111
Resolution(μm)	9.5
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.1%
Mount	M90
Field of View(mm)	
35film 36×24	38.2×25.5
2" 23×23	24.4×24.4
Linescan 8K 7μm	60.8
Linescan 16K 5μm	86.9

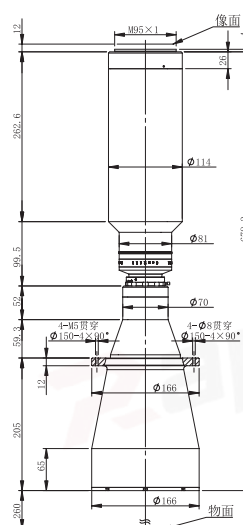
BTL-16K Series

BTL-0.785X-250-16K(LM)



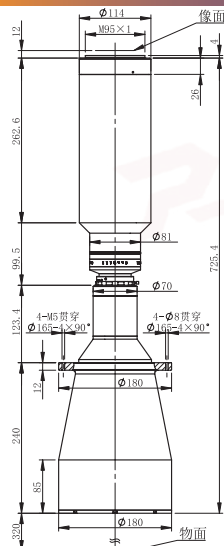
Mag.(x)	0.785
Object FOV(Φmm)	104.5
Image FOV(Φmm)	82
WD(mm)	250±3%
Telecentricity (° max)	<0.06°
DOF(mm)	2.2@F13.5
F/#	8-111
Resolution(μm)	11.3
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.05%
Mount	M95
Field of View(mm)	
35film 36×24	45.9×30.6
2" 23x23	29.3×29.3
Linescan 8K 7μm	73
Linescan 16K 5μm	104.4

BTL-0.708X-260-16K(LM)



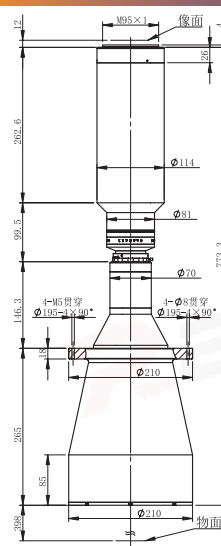
Mag.(x)	0.708
Object FOV(Φmm)	115.8
Image FOV(Φmm)	82
WD(mm)	260±3%
Telecentricity (° max)	<0.06°
DOF(mm)	2.7@F13.5
F/#	8-111
Resolution(μm)	12.6
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.063%
Mount	M95
Field of View(mm)	
35film 36×24	50.8×33.9
2" 23x23	32.5×32.5
Linescan 8K 7μm	81
Linescan 16K 5μm	115.7

BTL-0.57X-320-16K(LM)



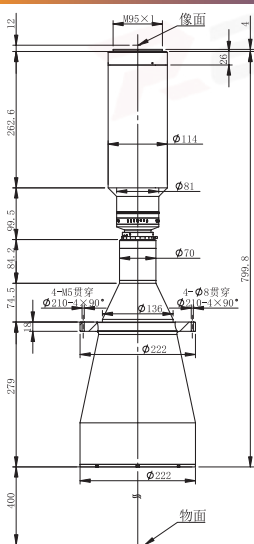
Mag.(x)	0.57
Object FOV(Φmm)	143.9
Image FOV(Φmm)	82
WD(mm)	320±3%
Telecentricity (° max)	<0.06°
DOF(mm)	4.3@F13.5
F/#	8-111
Resolution(μm)	15.6
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.1%
Mount	M95
Field of View(mm)	
35film 36×24	63.2×42.1
2" 23x23	40.4×40.4
Linescan 8K 7μm	100.6
Linescan 16K 5μm	143.7

BTL-0.475X-398-16K(LM)



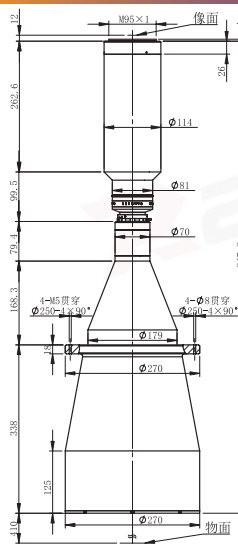
Mag.(x)	0.475
Object FOV(Φmm)	172.6
Image FOV(Φmm)	82
WD(mm)	398±3%
Telecentricity (° max)	<0.06°
DOF(mm)	6.2@F13.5
F/#	8-111
Resolution(μm)	18.8
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.069%
Mount	M95
Field of View(mm)	
35film 36×24	75.8×50.5
2" 23x23	48.4×48.4
Linescan 8K 7μm	120.7
Linescan 16K 5μm	172.5

BTL-0.444X-400-16K(LM)



Mag.(x)	0.444
Object FOV(Φmm)	184.7
Image FOV(Φmm)	82
WD(mm)	400±3%
Telecentricity (° max)	<0.06°
DOF(mm)	7.3@F13.5
F/#	8-111
Resolution(μm)	20.1
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.061%
Mount	M95
Field of View(mm)	
35film 36×24	81.1×54.1
2" 23x23	51.8×51.8
Linescan 8K 7μm	129.2
Linescan 16K 5μm	184.5

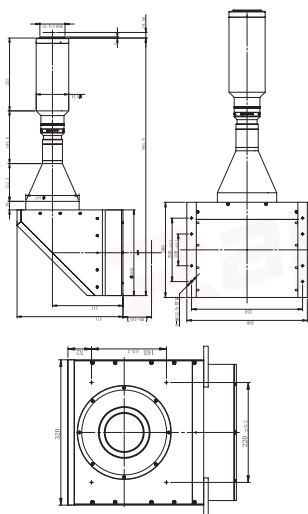
BTL-0.363X-410-16K(LM)



Mag.(x)	0.363
Object FOV(Φmm)	225.9
Image FOV(Φmm)	82
WD(mm)	410±3%
Telecentricity (° max)	<0.06°
DOF(mm)	11.3@F13.5
F/#	8-111
Resolution(μm)	24.5
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.088%
Mount	M95
Field of View(mm)	
35film 36×24	99.2×66.1
2" 23x23	63.4×63.4
Linescan 8K 7μm	158
Linescan 16K 5μm	225.7

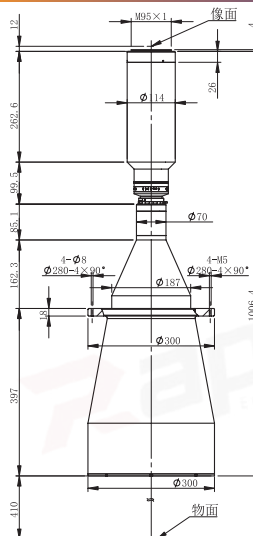
BTL-16K Series

BTL-0.323X-410-16K(LM)-M88



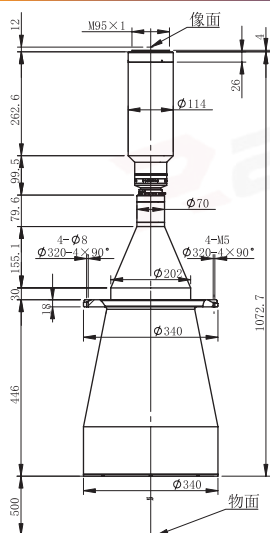
Mag.(x)	0.323
Object FOV(Φmm)	253.9
Image FOV(Φmm)	82
WD(mm)	410±3%
Telecentricity (° max)	<0.06°
DOF(mm)	14
F/#	13.5
Resolution(μm)	27.6
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.098%
Mount	M88
Field of View(mm)	
35film 36×24	111.5×74.3
2" 23x23	71.2×71.2
Linescan 8K 7μm	177.5
Linescan 16K 5μm	253.6

BTL-0.323X-410-16K(LM)-M95



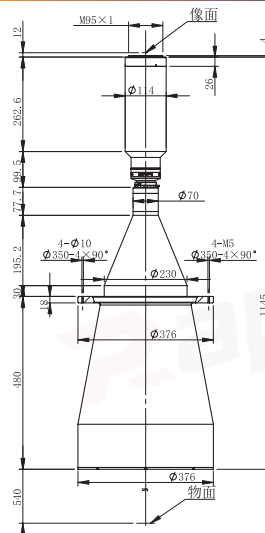
Mag.(x)	0.323
Object FOV(Φmm)	253.9
Image FOV(Φmm)	82
WD(mm)	410±3%
Telecentricity (° max)	<0.06°
DOF(mm)	14@F13.5
F/#	8-111
Resolution(μm)	27.6
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.098%
Mount	M95
Field of View(mm)	
35film 36×24	111.5×74.3
2" 23x23	71.2×71.2
Linescan 8K 7μm	177.5
Linescan 16K 5μm	253.6

BTL-0.279X-500-16K(LM)



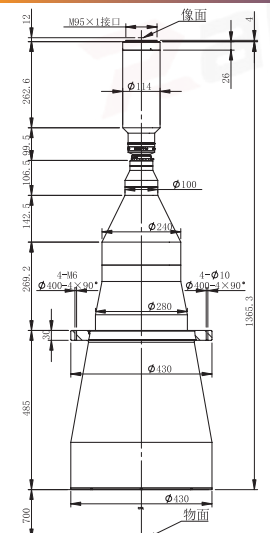
Mag.(x)	0.279
Object FOV(Φmm)	293.9
Image FOV(Φmm)	82
WD(mm)	500±3%
Telecentricity (° max)	<0.08°
DOF(mm)	19.2@F13.5
F/#	8-111
Resolution(μm)	31.9
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.061%
Mount	M95
Field of View(mm)	
35film 36×24	129×86
2" 23x23	82.4×82.4
Linescan 8K 7μm	205.5
Linescan 16K 5μm	293.6

BTL-0.247X-540-16K(LM)



Mag.(x)	0.247
Object FOV(Φmm)	332
Image FOV(Φmm)	82
WD(mm)	540±3%
Telecentricity (° max)	<0.08°
DOF(mm)	24.3@F13.5
F/#	8-111
Resolution(μm)	36.1
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.061%
Mount	M95
Field of View(mm)	
35film 36×24	145.7×97.2
2" 23x23	93.1×93.1
Linescan 8K 7μm	232.2
Linescan 16K 5μm	331.7

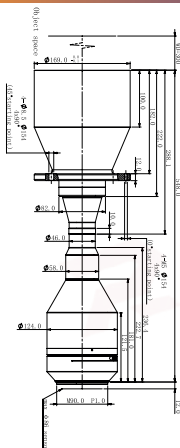
BTL-0.222X-700-16K(LM)



Mag.(x)	0.222
Object FOV(Φmm)	369.4
Image FOV(Φmm)	82
WD(mm)	700±3%
Telecentricity (° max)	<0.08°
DOF(mm)	29.3@F13.5
F/#	8-111
Resolution(μm)	40.2
MTF(lp/mm)	>0.3@75
Distortion(% max)	<0.061%
Mount	M95
Field of View(mm)	
35film 36×24	162.2×108.1
2" 23x23	103.6×103.6
Linescan 8K 7μm	258.3
Linescan 16K 5μm	369

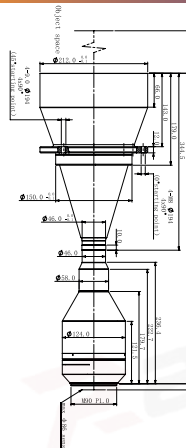
BTL-24K Series

BTL-0.636X-300-24K



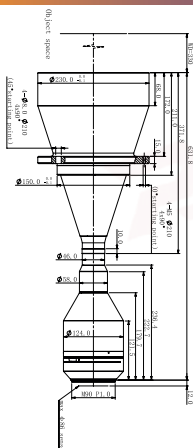
FOV(Φmm)	135
Mag.(x)	0.636
WD(mm)	300±5
Max Sensor Size(Φmm)	86
F/#	10.2
DoF(mm)	±1.0@F10.2
Distortion(% max)	<0.03
Telecentricity(° max)	<0.045
I/O(mm)	860
Length(mm)	548
Mount	M90
Field of View(mm xmm)	
4.2" IMX411(53.42x40.01,3.76μm)	83.9x62.9
24K(84, 3.5μm)	132

BTL-0.505X-318-24K



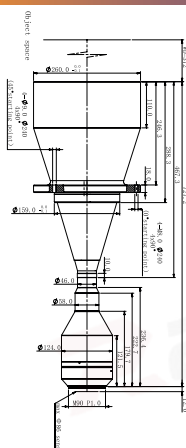
FOV(Φmm)	170
Mag.(x)	0.505
WD(mm)	318±5
Max Sensor Size(Φmm)	86
F/#	11.9
DoF(mm)	±1.9@F11.9
Distortion(% max)	<0.045
Telecentricity(° max)	<0.05
I/O(mm)	934.4
Length(mm)	604.4
Mount	M90
Field of View(mm xmm)	
4.2" IMX411(53.42x40.01,3.76μm)	105.8x79.2
24K(84, 3.5μm)	166

BTL-0.453X-330-24K



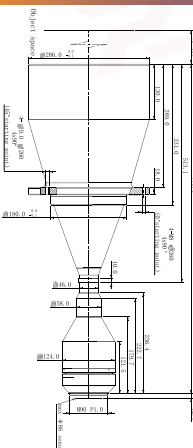
FOV(Φmm)	190
Mag.(x)	0.453
WD(mm)	330±5
Max Sensor Size(Φmm)	86
F/#	11.9
DoF(mm)	±2.3@F11.9
Distortion(% max)	<0.075
Telecentricity(° max)	<0.05
I/O(mm)	973.8
Length(mm)	631.8
Mount	M90
Field of View(mm xmm)	
4.2" IMX411(53.42x40.01,3.76μm)	117.9x88.3
24K(84, 3.5μm)	185

BTL-0.398X-372-24K



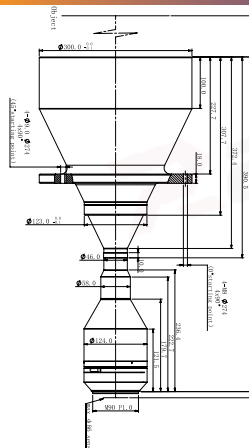
FOV(Φmm)	216
Mag.(x)	0.398
WD(mm)	372±5
Max Sensor Size(Φmm)	86
F/#	10.1
DoF(mm)	±2.6@F10.1
Distortion(% max)	<0.045
Telecentricity(° max)	<0.08
I/O(mm)	1111.2
Length(mm)	727.2
Mount	M90
Field of View(mm xmm)	
4.2" IMX411(53.42x40.01,3.76μm)	134.2x100
24K(84, 3.5μm)	211

BTL-0.358X-410-24K



FOV(Φmm)	240
Mag.(x)	0.358
WD(mm)	410±6
Max Sensor Size(Φmm)	86
F/#	11.9
DoF(mm)	±3.7@F11.9
Distortion(% max)	<0.075
Telecentricity(° max)	<0.05
I/O(mm)	1195.1
Length(mm)	773.1
Mount	M90
Field of View(mm xmm)	
4.2" IMX411(53.42x40.01,3.76μm)	149.2x111.7
24K(84, 3.5μm)	234.6

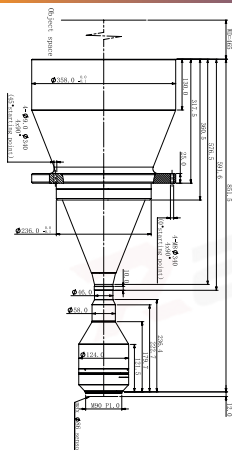
BTL-0.333X-338-24K



FOV(Φmm)	258
Mag.(x)	0.333
WD(mm)	338±5
Max Sensor Size(Φmm)	86
F/#	11.2
DoF(mm)	±4.0@F11.2
Distortion(% max)	<0.12
Telecentricity(° max)	<0.08
I/O(mm)	1000.5
Length(mm)	650.5
Mount	M90
Field of View(mm xmm)	
4.2" IMX411(53.42x40.01,3.76μm)	160.4x120
24K(84, 3.5μm)	252.2

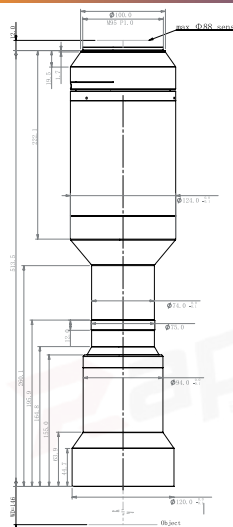
BTL-24K Series

BTL-0.287X-465-24K



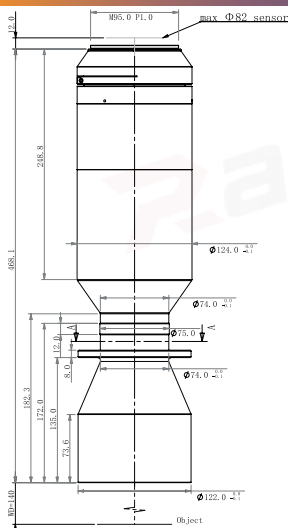
FOV(Φmm)	300
Mag.(x)	0.287
WD(mm)	465±6
Max Sensor Size(Φmm)	86
F/#	13.1
DoF(mm)	±6.4@F13.1
Distortion(% max)	<0.045
Telecentricity(° max)	<0.08
I/O(mm)	1328.5
Length(mm)	851.5
Mount	M90
Field of View(mm xmm)	
4.2" IMX411(53.42x40.01,3.76μm)	186.1x139
24K(84, 3.5μm)	292.7

BTL-1.3X-146-24K



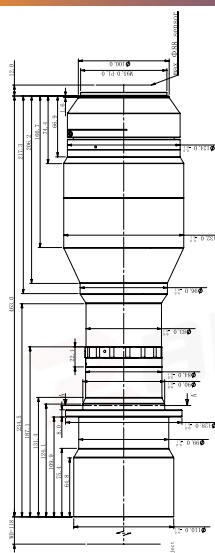
FOV(Φmm)	63
Mag.(x)	1.3
WD(mm)	146±3
Max Sensor Size(Φmm)	82
F/#	7.5
MTF30(lp/mm)	>124
DoF(mm)	±0.18@F7.5
Distortion(% max)	0.03
Telecentricity(° max)	0.04
NA	0.08685
Length(mm)	513.5
Mount	M95
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
DALSA 86M (64.32x48.38)	49.5x37.2
Linescan-16K 5um (81.9mm)	63

BTL-0.875X-140-24K



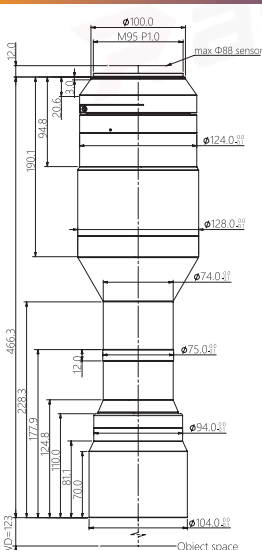
FOV(Φmm)	93.7
Mag.(x)	0.875
WD(mm)	140±3
Max Sensor Size(Φmm)	82
F/#	9.5
MTF30(lp/mm)	>97
DoF(mm)	±0.5@F9.5
Distortion(% max)	0.03
Telecentricity(° max)	0.08
NA	0.04601
Length(mm)	468.1
Mount	M95
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
DALSA 86M (64.32x48.38)	73.5x55.3
Linescan-16K 5um (81.9mm)	93.6

BTL-2.0X-118-24K(IA)



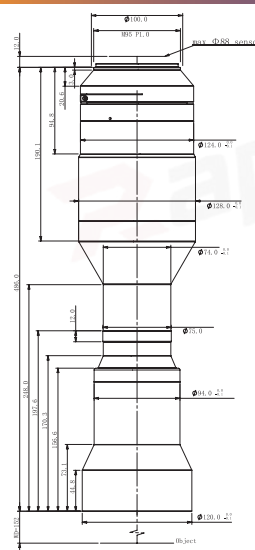
FOV(Φmm)	44
Mag.(x)	2.0
WD(mm)	118±2
Max Sensor Size(Φmm)	88
F/#	4.8-32
MTF30(lp/mm)	62-31
DoF(mm)	0.1-0.6
Distortion(% max)	0.045
Telecentricity(° max)	0.1
NA	0.20814-0.03124
Length(mm)	463.0
Mount	M95
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
DALSA 86M (64.32x48.38)	32.2x24.2
Linescan-16K 5um (81.9mm)	40.1
Linescan-24K 3.5um (86mm)	43

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
NA	0.10066
Length(mm)	466.3
Mount	M95
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
DALSA 86M (64.32x48.38)	45.3x38.3
Linescan-16K 5um (81.9mm)	57.7
Linescan-24K 3.5um (86mm)	60.6

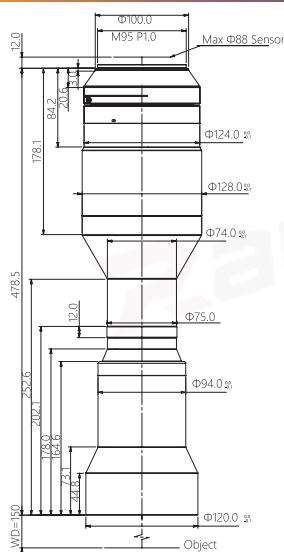
BTL-1.173X-152-24K



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
NA	0.08334
Length(mm)	486.0
Mount	M95
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
DALSA 86M (64.32x48.38)	54.8x46.4
Linescan-16K 5um (81.9mm)	69.8
Linescan-24K 3.5um (86mm)	73.3

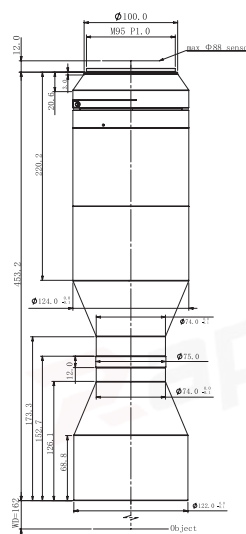
BTL-24K Series

BTL-1.11X-150-24K



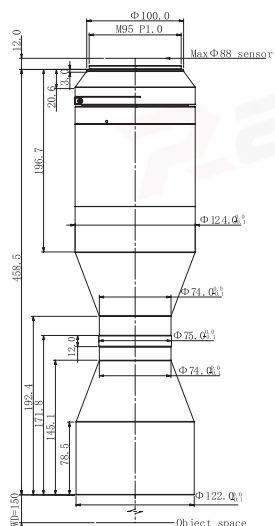
FOV(Φ mm)	79.2
Mag.(x)	1.11
WD(mm)	150 $\pm$ 3
Max Sensor Size(Φ mm)	88
F/#	7.0
MTF30(lp/mm)	>100
DoF(mm)	$\pm 0.2@F7.0$
Distortion(% max)	<0.01
Telecentricity($^\circ$ max)	<0.2
NA	0.07904
Length(mm)	478.5
Mount	M95
Variable Iris	No
Coaxial Light	No
Field of View(mm $\times$ mm)	
DALSA 86M (64.32x48.38)	57.9x43.6
Linescan-16K 5um (81.9mm)	73.8
Linescan-24K 3.5um (86mm)	77.5

BTL-1.0X-162-24K



FOV(Φ mm)	88
Mag.(x)	1.000
WD(mm)	162 $\pm$ 3
Max Sensor Size(Φ mm)	88
F/#	8.0
MTF30(lp/mm)	>90
DoF(mm)	$\pm 0.3@F8.0$
Distortion(% max)	<0.1
Telecentricity($^\circ$ max)	<0.1
NA	0.06238
Length(mm)	453.2
Mount	M95
Variable Iris	No
Coaxial Light	No
Field of View(mm $\times$ mm)	
DALSA 86M (64.32x48.38)	64.3x48.4
Linescan-16K 5um (81.9mm)	81.9
Linescan-24K 3.5um (86mm)	86

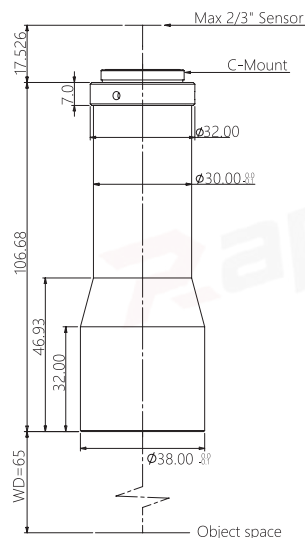
BTL-0.96X-150-24K



FOV(Φ mm)	91.6
Mag.(x)	0.960
WD(mm)	150 $\pm$ 3
Max Sensor Size(Φ mm)	88
F/#	8.0
MTF30(lp/mm)	>90
DoF(mm)	$\pm 0.3@F8.0$
Distortion(% max)	<0.1
Telecentricity($^\circ$ max)	<0.1
NA	0.06238
Length(mm)	458.5
Mount	M95
Variable Iris	No
Coaxial Light	No
Field of View(mm $\times$ mm)	
DALSA 86M (64.32x48.38)	67.0x50.4
Linescan-16K 5um (81.9mm)	85.3
Linescan-24K 3.5um (86mm)	89.6

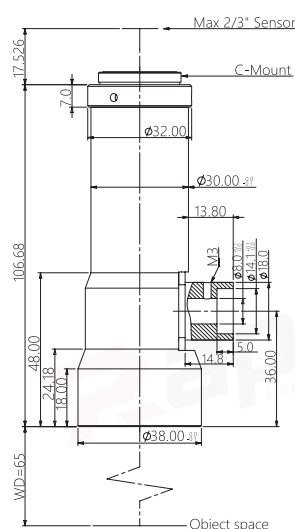
BTLM Series Variable Iris Bi-telecentric Lenses

BTLM-0.5X-65-23



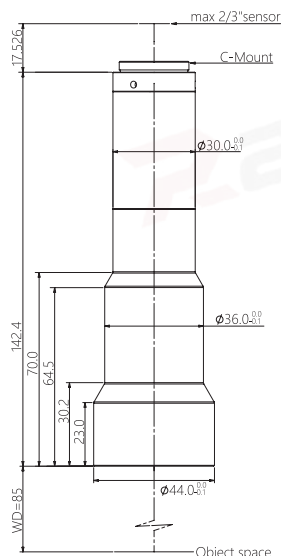
FOV(Φmm)	22
Mag.(x)	0.500
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	5.0
MTF30(lp/mm)	>160
DoF(mm)	±0.8@F5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
NA	0.05
Length(mm)	106.7
Mount	C Mount
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
1/1.8" EV76C570(7.2x5.4)	14.4x10.8
1/1.7" IMX226(7.5x5.6)	15.0x11.2
2/3" IMX250/264(8.45x7.1)	16.9x14.2

BTLM-0.5X-65D-23



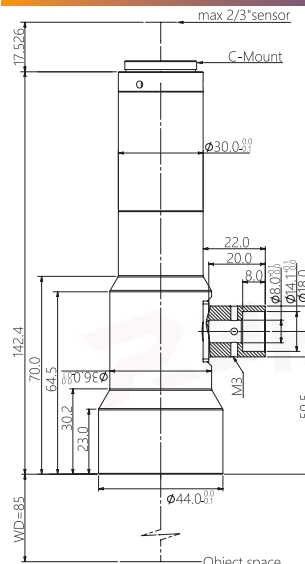
FOV(Φmm)	22
Mag.(x)	0.500
WD(mm)	65±1
Max Sensor Size(Φmm)	11.0(2/3")
F/#	5.0
MTF30(lp/mm)	>160
DoF(mm)	±0.8@F5
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
NA	0.05
Length(mm)	106.7
Mount	C Mount
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	
1/1.8" EV76C570(7.2x5.4)	14.4x10.8
1/1.7" IMX226(7.5x5.6)	15.0x11.2
2/3" IMX250/264(8.45x7.1)	16.9x14.2

BTLM-0.4X-85-23



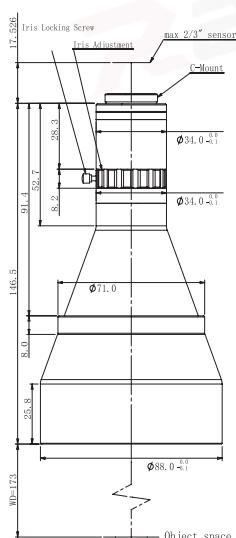
FOV(Φmm)	27.5
Mag.(x)	0.400
WD(mm)	85±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	4.5
MTF30(lp/mm)	>205
DoF(mm)	±1.1@F4.5
Distortion(% max)	<0.03
Telecentricity(° max)	<0.1
NA	0.04439
Length(mm)	142.4
Mount	C Mount
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
1/1.8" EV76C570(7.2x5.4)	18.0x13.5
1/1.7" IMX226(7.5x5.6)	18.8x14.0
2/3" IMX250/264(8.45x7.1)	21.1x17.8

BTLM-0.4X-85D-23



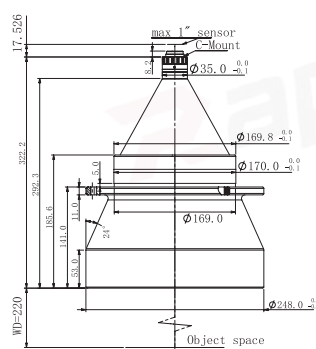
FOV(Φmm)	27.5
Mag.(x)	0.400
WD(mm)	85±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	4.5
MTF30(lp/mm)	>205
DoF(mm)	±1.1@F4.5
Distortion(% max)	<0.03
Telecentricity(° max)	<0.1
NA	0.04439
Length(mm)	142.4
Mount	C Mount
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	
1/1.8" EV76C570(7.2x5.4)	18.0x13.5
1/1.7" IMX226(7.5x5.6)	18.8x14.0
2/3" IMX250/264(8.45x7.1)	21.1x17.8

BTLM-0.166X-173-23(IA)



FOV(Φmm)	66
Mag.(x)	0.166
WD(mm)	173±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
NA	0.025
Length(mm)	146.5
Mount	C Mount
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
1/1.8" EV76C570(7.2x5.4)	43.4x32.5
1/1.7" IMX226(7.5x5.6)	45.2x33.7
2/3" IMX250/264(8.45x7.1)	50.9x42.8

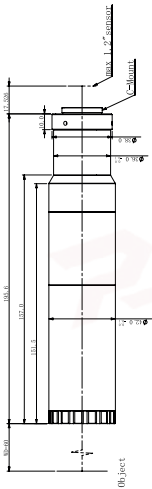
BTLM-0.075X-220-H1



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
NA	0.00857
Length(mm)	322.2
Mount	C
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
1" PYTHON 5000(12.43x9.83)	165.7x131.1
1" IMX255(14.19x7.51)	189.2x100.1
1" IMX183(13.13x8.76)	175.1x116.8

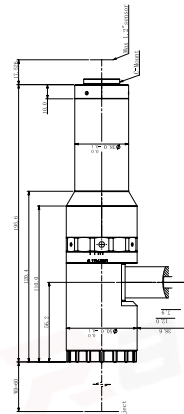
BTLM Series Variable Iris Bi-telecentric Lenses

BTLM-4.0X-60-H1.2



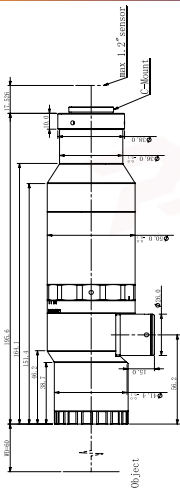
FOV(Φmm)	5
Mag.(x)	4.000
WD(mm)	60±1
Max Sensor Size(Φmm)	20(1.2")
F/#	9.9
MTF30(lp/mm)	95
DoF(mm)	±0.02@F9.9
Distortion(% max)	<0.05
Telecentricity(° max)	<0.12
NA	0.2
Length(mm)	195.6
Mount	C
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	1.2" IMX530/540 (14.6X12.6) 3.65x3.15

BTLM-4.0X-60D-H1.2(IA)



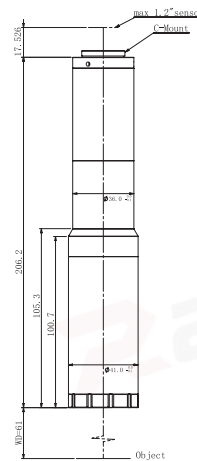
FOV(Φmm)	5
Mag.(x)	4.000
WD(mm)	60±1
Max Sensor Size(Φmm)	20(1.2")
F/#	9.9-31
MTF30(lp/mm)	95-31
DoF(mm)	0.05-0.16
Distortion(% max)	<0.05
Telecentricity(° max)	<0.2
NA	0.2-0.06232
Length(mm)	195.6
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	1.2" IMX530/540(14.6X12.6) 3.65x3.15

BTLM-4.0X-60D-H1.2



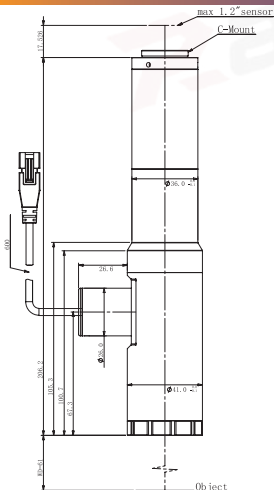
FOV(Φmm)	5
Mag.(x)	4.000
WD(mm)	60±1
Max Sensor Size(Φmm)	20(1.2")
F/#	9.9-32
MTF30(lp/mm)	95-31
DoF(mm)	0.05-0.16
Distortion(% max)	0.05
Telecentricity(° max)	<0.2
NA	0.2-0.06232
Length(mm)	195.6
Mount	C
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	1.2" IMX530/540(14.6X12.6) 3.65x3.15

BTLM-3.025X-61-H1.2



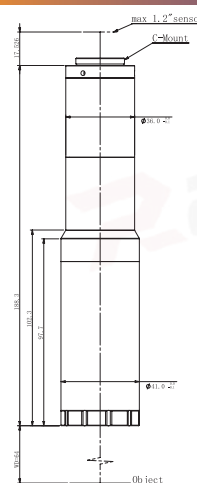
FOV(Φmm)	6.6
Mag.(x)	3.025
WD(mm)	61±1
Max Sensor Size(Φmm)	20(1.2")
F/#	9.4
MTF30(lp/mm)	>96
DoF(mm)	±0.05@F6.6
Distortion(% max)	0.06
Telecentricity(° max)	0.005
NA	0.16
Length(mm)	206.2
Mount	C
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	1.2" IMX530/540(14.6X12.6) 4.8x4.2

BTLM-3.025X-61D-H1.2



FOV(Φmm)	6.6
Mag.(x)	3.025
WD(mm)	61±1
Max Sensor Size(Φmm)	20(1.2")
F/#	9.4
MTF30(lp/mm)	>96
DoF(mm)	±0.05@F6.6
Distortion(% max)	0.06
Telecentricity(° max)	0.005
NA	0.16
Length(mm)	206.2
Mount	C
Variable Iris	No
Coaxial Light	Built-in
Field of View(mm xmm)	1.2" IMX530/540(14.6X12.6) 4.8x4.2

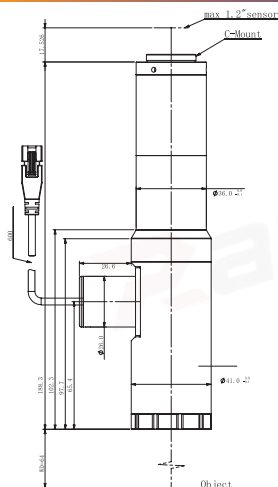
BTLM-2.74X-64-H1.2



FOV(Φmm)	7.3
Mag.(x)	2.74
WD(mm)	64±1
Max Sensor Size(Φmm)	20(1.2")
F/#	8.5
MTF30(lp/mm)	>105
DoF(mm)	±0.05@F7.3
Distortion(% max)	0.02
Telecentricity(° max)	0.03
NA	0.16
Length(mm)	188.3
Mount	C
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	1.2" IMX530/540(14.6X12.6) 5.3x4.6

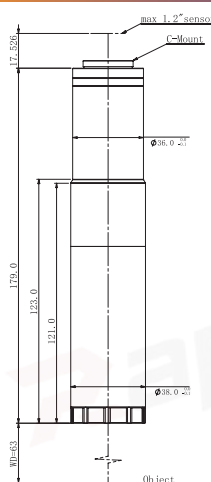
BTLM Series Variable Iris Bi-telecentric Lenses

BTLM-2.74X-64D-H1.2



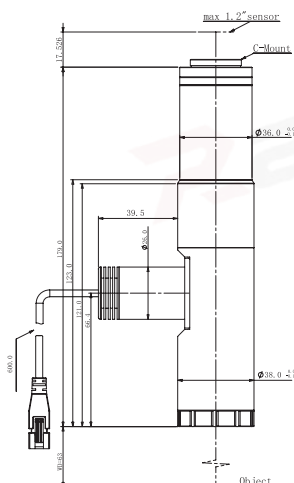
FOV(Φmm)	7.3
Mag.(x)	2.74
WD(mm)	64±1
Max Sensor Size(Φmm)	20(1.2")
F/#	8.5
MTF30(lp/mm)	>105
DoF(mm)	±0.05@F7.3
Distortion(% max)	0.02
Telecentricity(° max)	0.03
NA	0.16
Length(mm)	188.3
Mount	C
Variable Iris	No
Coaxial Light	Built-in
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	5.3x4.6

BTLM-2.0X-63-H1.2



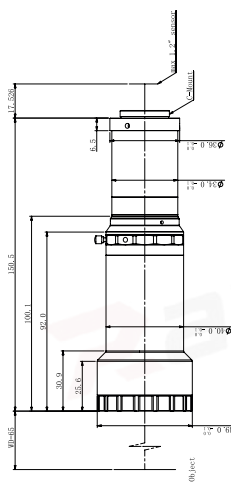
FOV(Φmm)	10
Mag.(x)	2.000
WD(mm)	63±1
Max Sensor Size(Φmm)	20(1.2")
F/#	6.6
MTF30(lp/mm)	>142
DoF(mm)	±0.07@F6.6
Distortion(% max)	<0.2
Telecentricity(° max)	<0.1
NA	0.15
Length(mm)	179.0
Mount	C
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	7.3x6.3

BTLM-2.0X-63D-H1.2



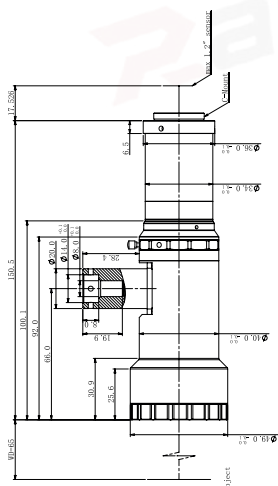
FOV(Φmm)	10
Mag.(x)	2.000
WD(mm)	63±1
Max Sensor Size(Φmm)	20(1.2")
F/#	6.6
MTF30(lp/mm)	>142
DoF(mm)	±0.07@F6.6
Distortion(% max)	<0.2
Telecentricity(° max)	<0.1
NA	0.15
Length(mm)	179.0
Mount	C
Variable Iris	No
Coaxial Light	Built-in
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	7.3x6.3

BTLM-1.5X-65-H1.2(IA)



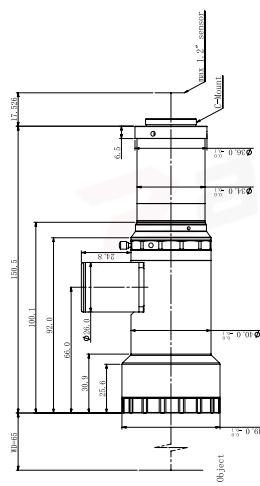
FOV(Φmm)	13.3
Mag.(x)	1.5
WD(mm)	65
Max Sensor Size(Φmm)	20(1.2")
F/#	5.6-32
MTF30(lp/mm)	167-32.5
DoF(mm)	0.2-1.14
Distortion(% max)	0.05
Telecentricity(° max)	0.1
NA	0.133-0.0234
Length(mm)	150.5
Mount	C
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	9.7x8.4

BTLM-1.5X-65D-H1.2(IA)-A



FOV(Φmm)	13.3
Mag.(x)	1.5
WD(mm)	65
Max Sensor Size(Φmm)	20(1.2")
F/#	5.6-32
MTF30(lp/mm)	167-32.5
DoF(mm)	0.2-1.14
Distortion(% max)	0.05
Telecentricity(° max)	0.1
NA	0.133-0.0234
Length(mm)	150.5
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	9.7x8.4

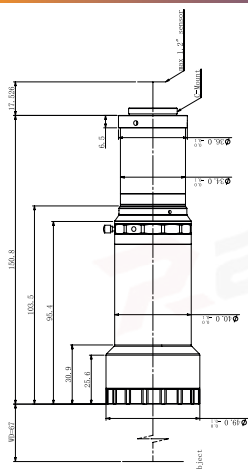
BTLM-1.5X-65D-H1.2(IA)-B



FOV(Φmm)	13.3
Mag.(x)	1.5
WD(mm)	65
Max Sensor Size(Φmm)	20(1.2")
F/#	5.6-32
MTF30(lp/mm)	167-32.5
DoF(mm)	0.2-1.14
Distortion(% max)	0.05
Telecentricity(° max)	0.1
NA	0.133-0.0234
Length(mm)	150.5
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	9.7x8.4

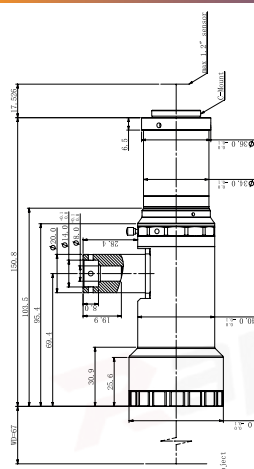
BTLM Series Variable Iris Bi-telecentric Lenses

BTLM-1.35X-67-H1.2(IA)



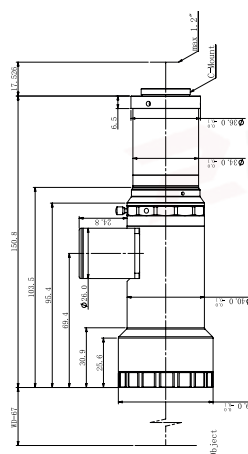
FOV(Φmm)	14.8
Mag.(x)	1.35
WD(mm)	67
Max Sensor Size(Φmm)	20(1.2")
F/#	5.4-32
MTF30(lp/mm)	171-32.5
DoF(mm)	0.2-1.41
Distortion(% max)	0.04
Telecentricity(° max)	0.09
NA	0.125-0.021
Length(mm)	150.8
Mount	C
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	10.4x9

BTLM-1.35X-67D-H1.2(IA)-A



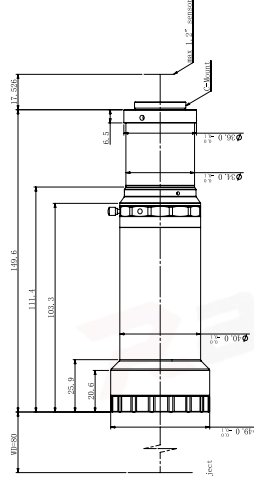
FOV(Φmm)	14.8
Mag.(x)	1.35
WD(mm)	67
Max Sensor Size(Φmm)	20(1.2")
F/#	5.4-32
MTF30(lp/mm)	171-32.5
DoF(mm)	0.2-1.41
Distortion(% max)	0.04
Telecentricity(° max)	0.09
NA	0.125-0.021
Length(mm)	150.8
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	10.4x9

BTLM-1.35X-67D-H1.2(IA)-B



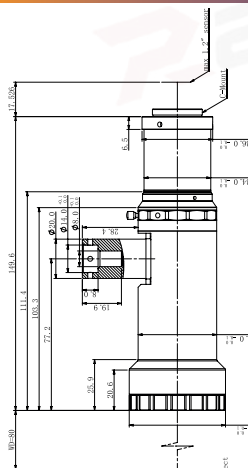
FOV(Φmm)	14.8
Mag.(x)	1.35
WD(mm)	67
Max Sensor Size(Φmm)	20(1.2")
F/#	5.4-32
MTF30(lp/mm)	171-32.5
DoF(mm)	0.2-1.41
Distortion(% max)	0.04
Telecentricity(° max)	0.09
NA	0.125-0.021
Length(mm)	150.8
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	10.4x9

BTLM-1.0X-80-H1.2(IA)



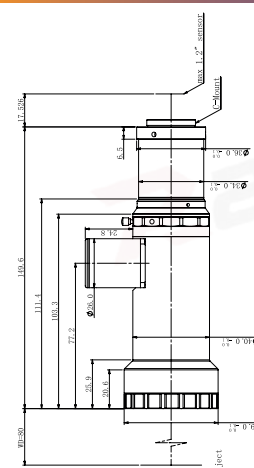
FOV(Φmm)	20
Mag.(x)	1.0
WD(mm)	80
Max Sensor Size(Φmm)	20(1.2")
F/#	5.3-32
MTF30(lp/mm)	171-32.5
DoF(mm)	0.4-2.56
Distortion(% max)	0.045
Telecentricity(° max)	0.1
NA	0.095-0.0156
Length(mm)	149.6
Mount	C
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	14.6x12.6

BTLM-1.0X-80D-H1.2(IA)-A



FOV(Φmm)	20
Mag.(x)	1.0
WD(mm)	80
Max Sensor Size(Φmm)	20(1.2")
F/#	5.3-32
MTF30(lp/mm)	171-32.5
DoF(mm)	0.4-2.56
Distortion(% max)	0.045
Telecentricity(° max)	0.1
NA	0.095-0.0156
Length(mm)	149.6
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	14.6x12.6

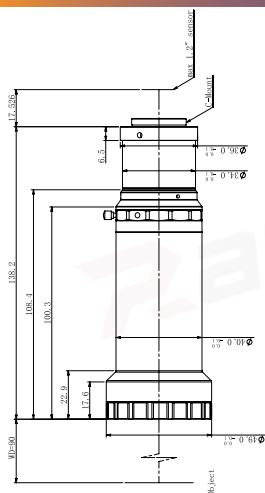
BTLM-1.0X-80D-H1.2(IA)-B



FOV(Φmm)	20
Mag.(x)	1.0
WD(mm)	80
Max Sensor Size(Φmm)	20(1.2")
F/#	5.3-32
MTF30(lp/mm)	171-32.5
DoF(mm)	0.4-2.56
Distortion(% max)	0.045
Telecentricity(° max)	0.1
NA	0.095-0.0156
Length(mm)	149.6
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	14.6x12.6

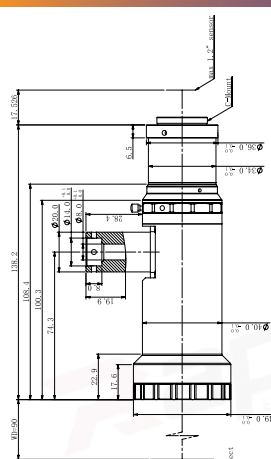
BTLM Series Variable Iris Bi-telecentric Lenses

BTLM-0.9X-90-H1.2(IA)



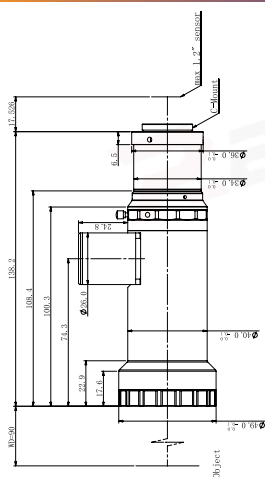
FOV(Φmm)	22.2
Mag.(x)	0.9
WD(mm)	90
Max Sensor Size(Φmm)	20(1.2")
F/#	5-32
MTF30(lp/mm)	176-32.5
DoF(mm)	0.5-3.16
Distortion(% max)	0.043
Telecentricity(° max)	0.1
NA	0.0905-0.0141
Length(mm)	138.2
Mount	C
Variable Iris	Yes
Coaxial Light	No
Field of View(mmxmm)	1.2" IMX530/540(14.6X12.6) 16.2x14

BTLM-0.9X-90D-H1.2(IA)-A



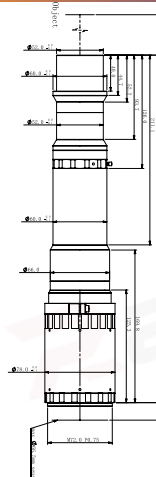
FOV(Φmm)	22.2
Mag.(x)	0.9
WD(mm)	90
Max Sensor Size(Φmm)	20(1.2")
F/#	5-32
MTF30(lp/mm)	176-32.5
DoF(mm)	0.5-3.16
Distortion(% max)	0.043
Telecentricity(° max)	0.1
NA	0.0905-0.0141
Length(mm)	138.2
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mmxmm)	1.2" IMX530/540(14.6X12.6) 16.2x14

BTLM-0.9X-90D-H1.2(IA)-B



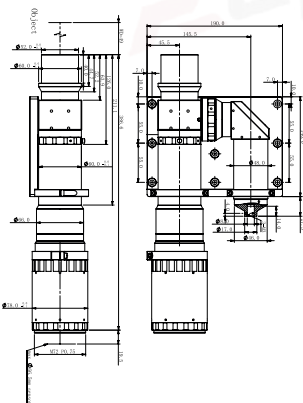
FOV(Φmm)	22.2
Mag.(x)	0.9
WD(mm)	90
Max Sensor Size(Φmm)	20(1.2")
F/#	5-32
MTF30(lp/mm)	176-32.5
DoF(mm)	0.5-3.16
Distortion(% max)	0.043
Telecentricity(° max)	0.1
NA	0.0905-0.0141
Length(mm)	138.2
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mmxmm)	1.2" IMX530/540(14.6X12.6) 16.2x14

BTLM-7.5X-49-Q667(IA)



FOV(Φmm)	8.9
Mag.(x)	7.5
WD(mm)	49
Max Sensor Size(Φmm)	66.7(150M)
F/#	7.5
MTF30(lp/mm)	49
DoF(mm)	0.026-0.05
Distortion(% max)	0.04
Telecentricity(° max)	0.09
NA	0.2-0.1172
Length(mm)	386.6
Mount	M72
Variable Iris	Yes
Coaxial Light	No
Field of View(mmxmm)	IMX411(5.42x40mm) 7.12x5.3

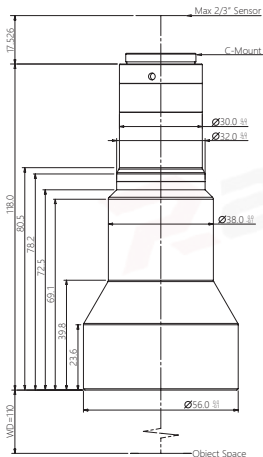
BTLM-7.5X-49D-Q667(IA)



FOV(Φmm)	8.9
Mag.(x)	7.5
WD(mm)	49
Max Sensor Size(Φmm)	66.7(150M)
F/#	7.5
MTF30(lp/mm)	49
DoF(mm)	0.026-0.05
Distortion(% max)	0.04
Telecentricity(° max)	0.09
NA	0.2-0.1172
Length(mm)	386.6
Mount	M72
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mmxmm)	IMX411(5.42x40mm) 7.12x5.3

CLW2-10MP Series

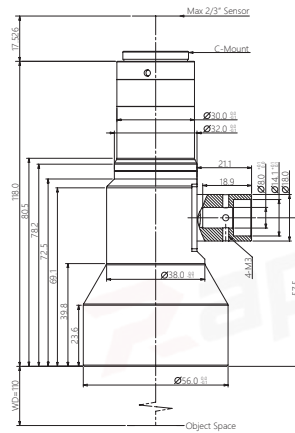
CLW2-0.3X-110-23



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

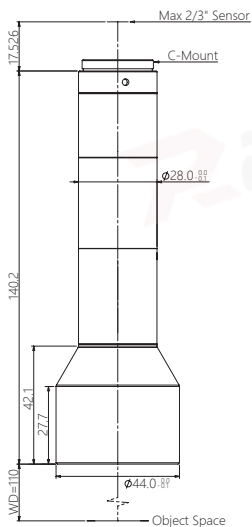
CLW2-0.3X-110D-23



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

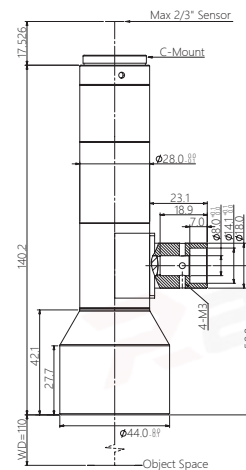
CLW2-0.4X-110-23



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 x mm)	
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

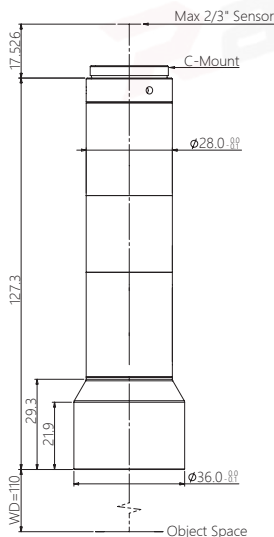
CLW2-0.4X-110D-23



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 x mm)	
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

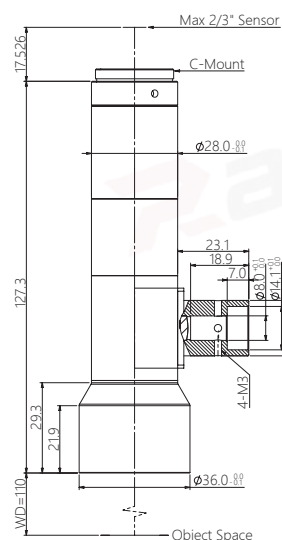
CLW2-0.5X-110-23



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 x mm)	
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

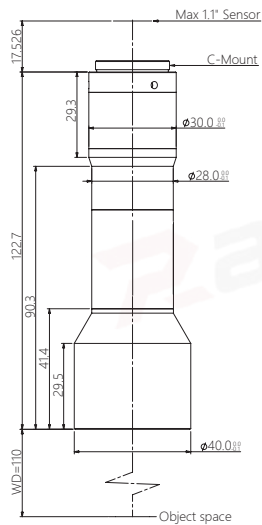


Mag.(x)	0.5
WD(mm)	110±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	7
MTF30(lp/mm)	>140
DoF(mm)	±1.1@F7
Distortion(% max)	<0.03
Telecentricity(° max)	<0.03
Length(mm)	127.3
Mount	C Mount
Coaxial Light	Yes

Field of View(mm x mm)	
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

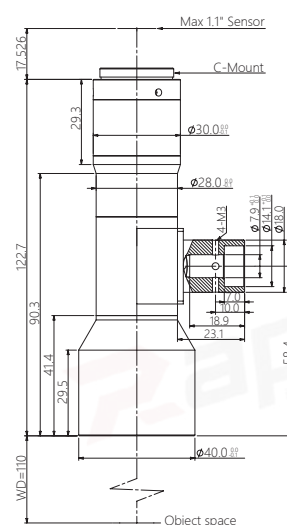
CLW2-10MP Series

CLW2-0.8X-110-H1.1



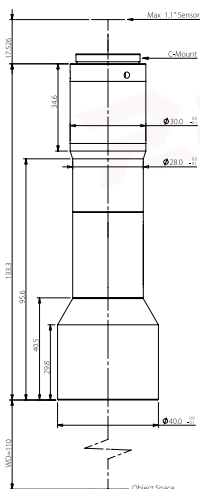
Mag.(x)	0.8
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	7.9
MTF30(lp/mm)	>85
DoF(mm)	±0.5@F7.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	122.7
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	16.4x11.0
1.1" IMX253 (14.19x10.38)	17.7x13.0

CLW2-0.8X-110D-H1.1



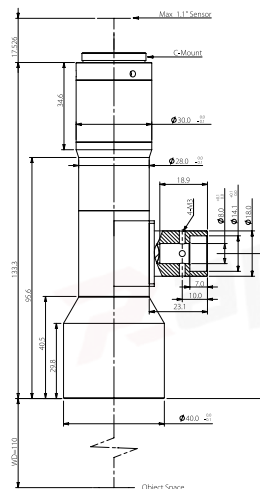
Mag.(x)	0.8
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	7.9
MTF30(lp/mm)	>85
DoF(mm)	±0.5@F7.9
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	122.7
Mount	C Mount
Coaxial Light	Yes
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	16.4x11.0
1.1" IMX253 (14.19x10.38)	17.7x13.0

CLW2-1.0X-110-H1.1



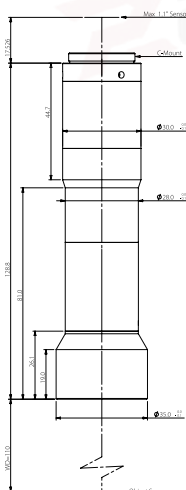
Mag.(x)	1.0
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	7
MTF30(lp/mm)	>105
DoF(mm)	±0.3@F7
Distortion(% max)	<0.13
Telecentricity(° max)	<0.18
Length(mm)	133.3
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	14.2x10.4

CLW2-1.0X-110D-H1.1



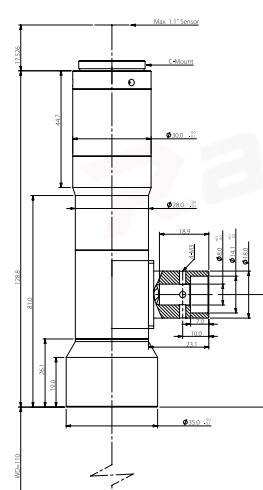
Mag.(x)	1.0
WD(mm)	110±2
Max Sensor Size(Φmm)	18.0(1.1")
F/#	7
MTF30(lp/mm)	>105
DoF(mm)	±0.3@F7
Distortion(% max)	<0.13
Telecentricity(° max)	<0.18
Length(mm)	133.3
Mount	C Mount
Coaxial Light	Yes
Field of View(mm xmm)	
1.1" IMX253(14.19x10.38)	14.2x10.4

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

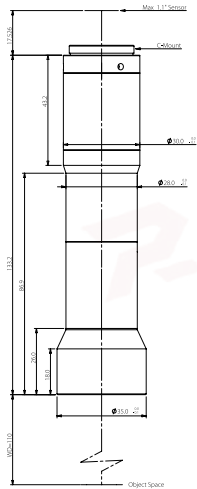
CLW2-1.5X-110D-H1.1



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

CLW2-10MP Series

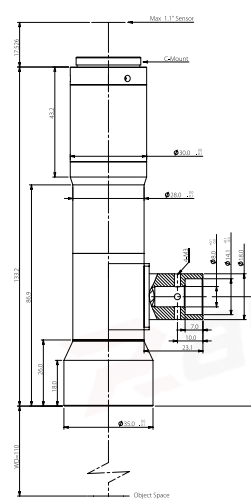
CLW2-2.0X-110-H1.1



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

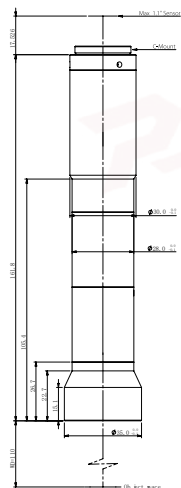
CLW2-2.0X-110D-H1.1



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

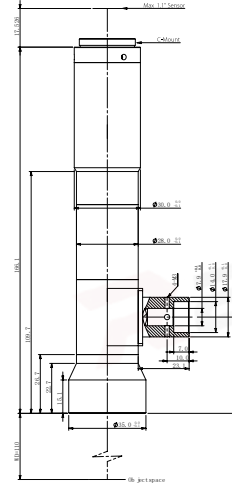
CLW2-3.0X-110-H1.1



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 xmm)	
1.1" IMX253(14.19x10.38)	4.7x3.5

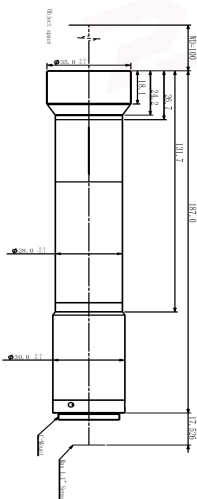
CLW2-3.0X-110D-H1.1



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 xmm)	
1.1" IMX253(14.19x10.38)	4.7x3.5

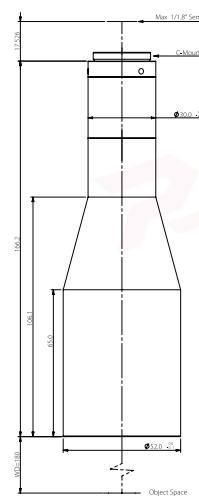
CLW2-4.0X-110-H1.1



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 xmm)	
1" IMX183 (13.13x8.76)	3.3x2.2
1.1" IMX253 (14.19x10.38)	3.5x2.6

CLW2-0.3X-180-118

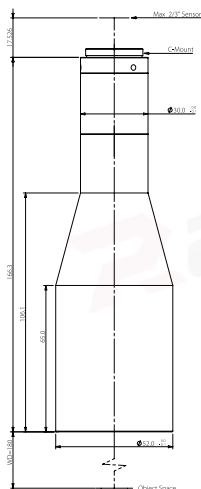


Mag.(x)	0.3
WD(mm)	180±2
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	8
MTF30(lp/mm)	>100
DoF(mm)	±7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	166.2
Mount	C Mount
Coaxial Light	No

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

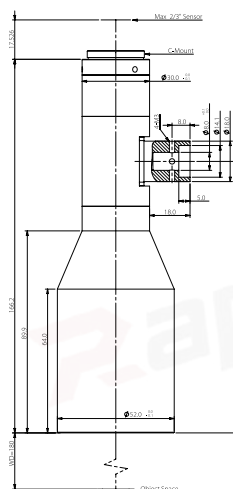
CLW2-10MP Series

CLW2-0.3X-180-23



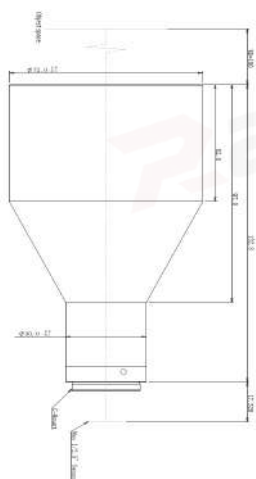
Mag.(x)	0.3
WD(mm)	180±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
MTF30(lp/mm)	>83
DoF(mm)	±7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	166.3
Mount	C Mount
Coaxial Light	No
Field of View(mm x mm)	
2/3" ICX625/655(8.47x7.1) 28.2x23.7	

CLW2-0.3X-180D-23



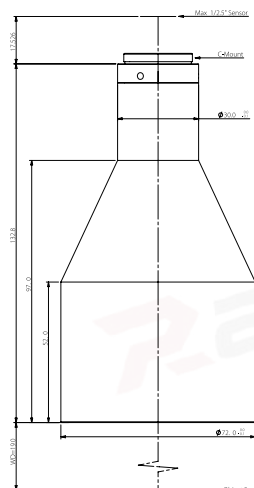
Mag.(x)	0.3
WD(mm)	180±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	10
MTF30(lp/mm)	>83
DoF(mm)	±7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	166.3
Mount	C Mount
Coaxial Light	Yes
Field of View(mm x mm)	
2/3" ICX625/655(8.47x7.1) 28.2x23.7	

CLW2-0.14X-190-125



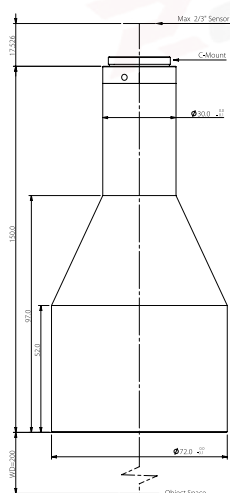
Mag.(x)	0.14
WD(mm)	190±2
Max Sensor Size(Φmm)	7.2(1/2.5")
F/#	8
MTF30(lp/mm)	>100
DoF(mm)	±32.5@F16
Distortion(% max)	<0.2
Telecentricity(° max)	<0.1
Length(mm)	132.8
Mount	C Mount
Coaxial Light	No
Field of View(mm x mm)	
2/3" ICX625/655(8.47x7.1) 40.7x30.6	

CLW2-0.22X-200-118



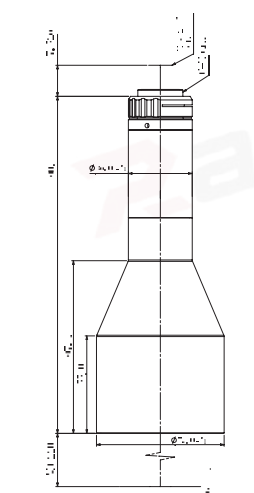
Mag.(x)	0.22
WD(mm)	200±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	8
MTF30(lp/mm)	>95
DoF(mm)	±13@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	150.0
Mount	C Mount
Coaxial Light	No
Field of View(mm x mm)	
1/1.8" ICX274/687(7.16x5.44) 32.6x24.7	
1/1.8" EV76C570(7.2x5.4) 32.7x24.6	

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	

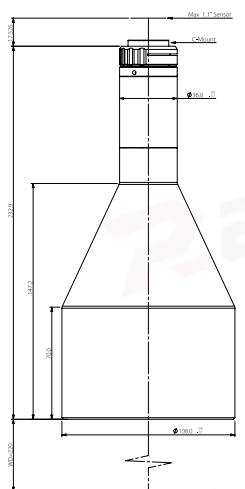
CLW2-0.22X-200-23(LM)



Mag.(x)	0.22
WD(mm)	200±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	6.9
MTF30(lp/mm)	>130
DoF(mm)	±5.7@F6.9
Distortion(% max)	<0.05
Telecentricity(° max)	<0.05
Length(mm)	190.1
Mount	C Mount
Coaxial Light	No
Field of View(mm x mm)	
1/1.8" EV76C570 (7.2x5.4) 32.7x24.5	
1/1.7" IMX226 (7.5x5.6) 34.1x25.5	
2/3" IMX250/264 (8.45x7.1) 38.4x32.3	

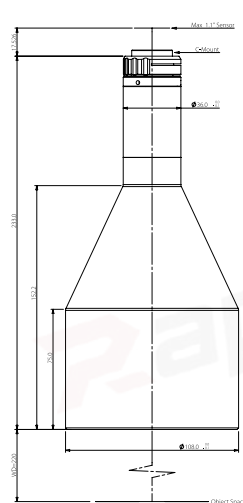
CLW2-10MP Series

CLW2-0.22XH-220-H1.1



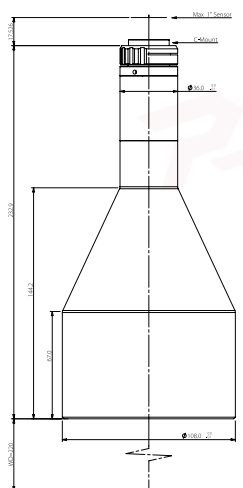
Mag.(x)	0.22
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>110
DoF(mm)	±6.6@F8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.15
Length(mm)	232.9
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	59.7x39.8
1.1" IMX253(14.19x10.38)	64.5x47.2

CLW2-0.23XH-220-H1.1



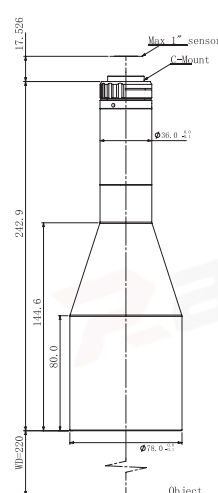
Mag.(x)	0.23
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>110
DoF(mm)	±6.0@F8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.18
Length(mm)	233.0
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	57.1x38.1
1.1" IMX253(14.19x10.38)	61.7x45.1

CLW2-0.246X-220-H1.1



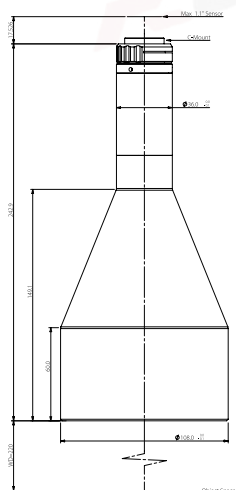
Mag.(x)	0.246
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>100
DoF(mm)	±5.3@F8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.13
Length(mm)	232.9
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	53.4x35.6
1.1" IMX253(14.19x10.38)	57.7x42.2

CLW2-0.275X-220-H1



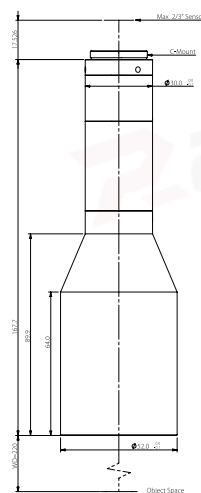
Mag.(x)	0.275
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	8
MTF30(lp/mm)	>113
DoF(mm)	±8.5@F8
Distortion(% max)	<0.03
Telecentricity(° max)	<0.1
Length(mm)	242.9
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" PYTHON 5000(12.43x9.83)	45.2x35.7
1" IMX255 (14.19x7.51)	51.6x27.3
1" IMX183 (13.13x8.76)	47.7x31.9

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)	±4.2@F8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.15
Length(mm)	242.9
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	47.7x31.9
1.1" IMX253 (14.19x10.38)	51.6x37.7

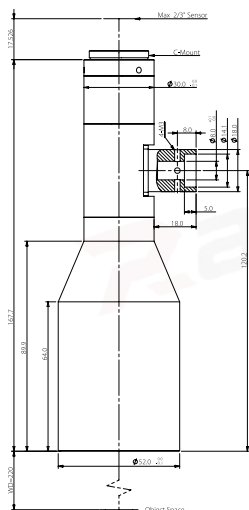
CLW2-0.3X-220-23



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

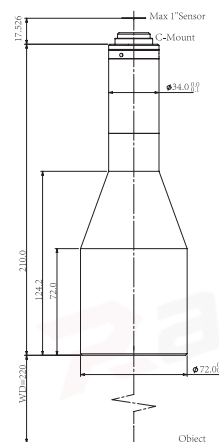
CLW2-10MP Series

CLW2-0.3X-220D-23



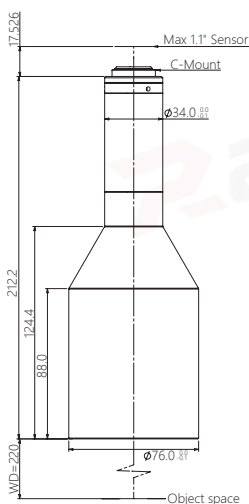
Mag.(x)	0.3
WD(mm)	220±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	13.6
MTF30(lp/mm)	>63
DoF(mm)	±9.7@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	167.7
Mount	C Mount
Coaxial Light	Yes
Field of View(mm xmm)	
2/3" ICX625/655(8.47x7.1)	28.2x23.7

CLW2-0.32X-220-H1



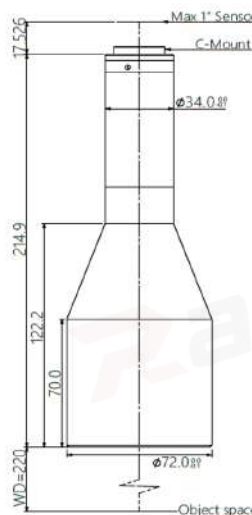
Mag.(x)	0.32
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	12.1
MTF30(lp/mm)	>75
DoF(mm)	±4.7@F12.1
Distortion(% max)	<0.15
Telecentricity(° max)	<0.07
Length(mm)	210.0
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" PYTHON 5000(12.43x9.83)	38.8x30.7
1" IMX255 (14.19x7.51)	44.3x23.5
1" IMX183 (13.13x8.76)	41.0x27.4

CLW2-0.345XH-220-H1.1



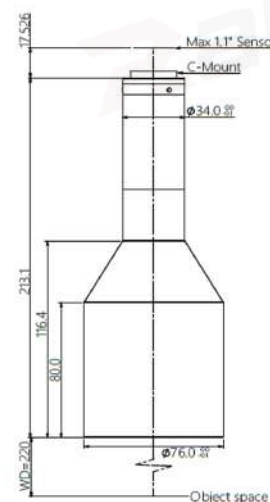
Mag.(x)	0.345
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>115
DoF(mm)	±2.7@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	212.2
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	38.1x25.4
1.1" IMX253 (14.19x10.38)	41.1x30.1

CLW2-0.367XH-220-H1



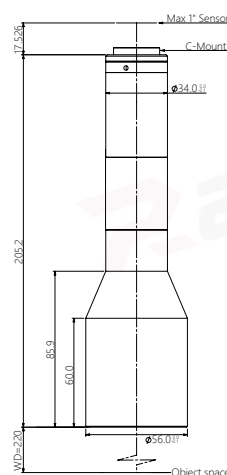
Mag.(x)	0.367
WD(mm)	220±3
Max Sensor Size(Φmm)	16.0(1")
F/#	8
MTF30(lp/mm)	>115
DoF(mm)	±4.7@F8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	214.9
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" PYTHON 5000(2.43x9.83)	33.9x26.8
1" IMX255(14.19x7.51)	38.7x20.5
1" IMX183(13.13x8.76)	35.8x23.9

CLW2-0.367XH-220-H1.1



Mag.(x)	0.367
WD(mm)	220±3
Max Sensor Size(Φmm)	18.0(1.1")
F/#	8
MTF30(lp/mm)	>115
DoF(mm)	±2.4@F8
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
Length(mm)	213.1
Mount	C Mount
Coaxial Light	No
Field of View(mm xmm)	
1" IMX183 (13.13x8.76)	35.8x23.9
1.1" IMX253 (14.19x10.38)	38.7x28.3

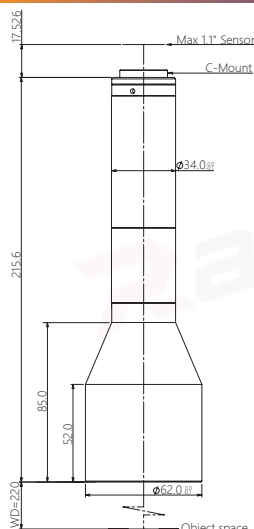
CLW2-0.46X-220-H1



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 xmm)	
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

CLW2-10MP Series

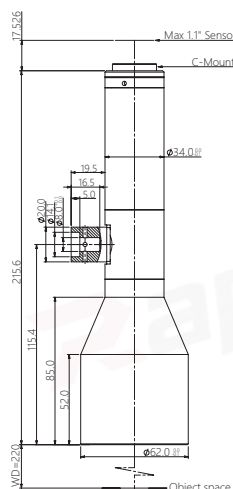
CLW2-0.55XH-220-H1.1



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(mmxmm)	
1" IMX183 (13.13x8.76)	23.9x15.9
1.1" IMX253 (14.19x10.38)	25.8x18.9

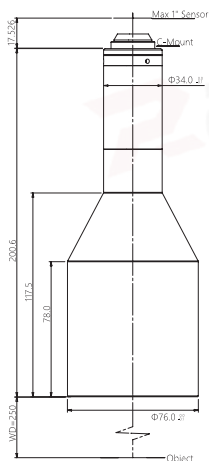
CLW2-0.55X-220D-H1.1



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(mmxmm)	
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

CLW2-0.3X-250-H1

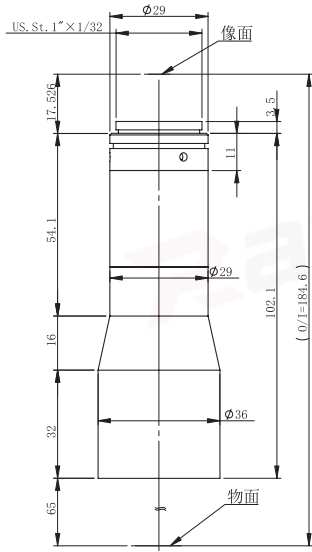


Mag.(x)	0.3
WD(mm)	250±3
Max Sensor Size(Φmm)	16.0(1")
F/#	8
MTF30(lp/mm)	>102
DoF(mm)	±3.6@F8
Distortion(% max)	<0.2
Telecentricity(° max)	<0.2
Length(mm)	200.6
Mount	C Mount
Coaxial Light	No

Field of View(mmxmm)	
1" PYTHON 5000(12.43x9.83)	41.4x32.8
1" IMX255 (14.19x7.51)	47.3x25.0
1" IMX183 (13.13x8.76)	43.8x29.2

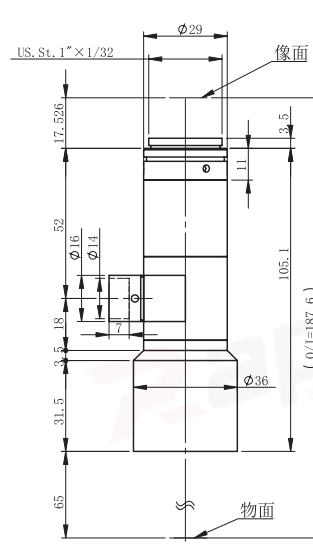
CLW-MP Series (WD 65mm)

CLW-MP-0.5X-65



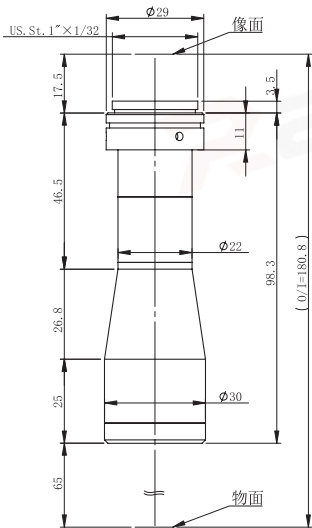
Mag.(x)	0.5
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	9.6
Telecentricity(° max)	<0.26
Distortion(% max)	<0.001
MTF(lp/mm)	>0.3@110
Object FOV	22mm
Image FOV	11mm
Resolution(μm)	12.7
DoF(mm)	4.2
Length(mm)	102.1
Mount	C-Mount
Coaxial Light	No
Field of View(mm xmm)	
1/3" (4.8x3.6)	9.6x7.2
1/2" (6.4x4.8)	12.8x9.6
2/3" (8.45x7.07)	16.9x14.1

CLW-MP-0.5X-65D



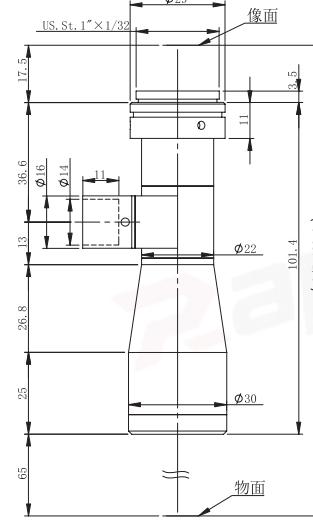
Mag.(x)	0.5
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	9.6
Telecentricity(° max)	<0.25
Distortion(% max)	<0.008
MTF(lp/mm)	>0.3@110
Object FOV	22mm
Image FOV	11mm
Resolution(μm)	12.8
DoF(mm)	4.3
Length(mm)	105.1
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm xmm)	
1/3" (4.8x3.6)	9.6x7.2
1/2" (6.4x4.8)	12.8x9.6
2/3" (8.45x7.07)	16.9x14.1

CLW-MP-0.8X-65



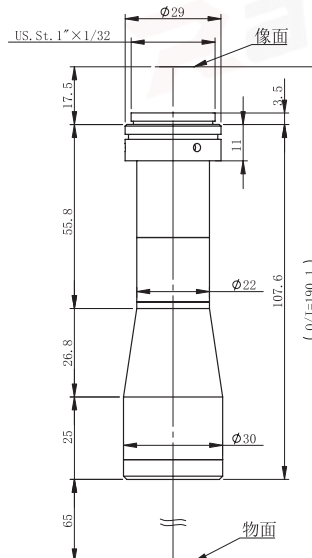
Mag.(x)	0.8
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	10
Telecentricity(° max)	<0.08
Distortion(% max)	<0.086
MTF(lp/mm)	>0.3@100
Object FOV	13.8mm
Image FOV	11mm
Resolution(μm)	8.3
DoF(mm)	1.7
Length(mm)	98.3
Mount	C-Mount
Coaxial Light	No
Field of View(mm xmm)	
1/3" (4.8x3.6)	6.0x4.5
1/2" (6.4x4.8)	8.0x6.0
2/3" (8.45x7.07)	10.6x8.8

CLW-MP-0.8X-65D



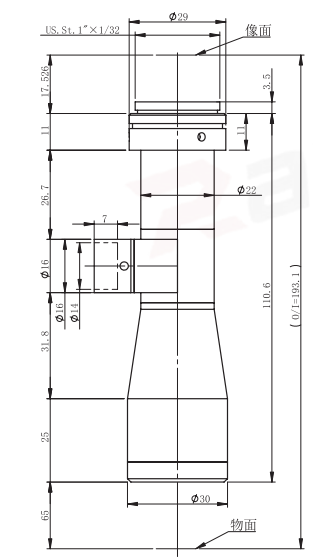
Mag.(x)	0.8
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	10
Telecentricity(° max)	<0.07
Distortion(% max)	<0.083
MTF(lp/mm)	>0.3@100
Object FOV	13.8mm
Image FOV	11mm
Resolution(μm)	8.3
DoF(mm)	1.7
Length(mm)	101.4
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm xmm)	
1/3" (4.8x3.6)	6.0x4.5
1/2" (6.4x4.8)	8.0x6.0
2/3" (8.45x7.07)	10.6x8.8

CLW-MP-1.0X-65



Mag.(x)	1.0
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	11.1
Telecentricity(° max)	<0.06
Distortion(% max)	<0.038
MTF(lp/mm)	>0.3@90
Object FOV	11.0mm
Image FOV	11mm
Resolution(μm)	7.3
DoF(mm)	1.2
Length(mm)	107.6
Mount	C-Mount
Coaxial Light	No
Field of View(mm xmm)	
1/3" (4.8x3.6)	4.8x3.6
1/2" (6.4x4.8)	6.4x4.8
2/3" (8.45x7.07)	8.5x7.1

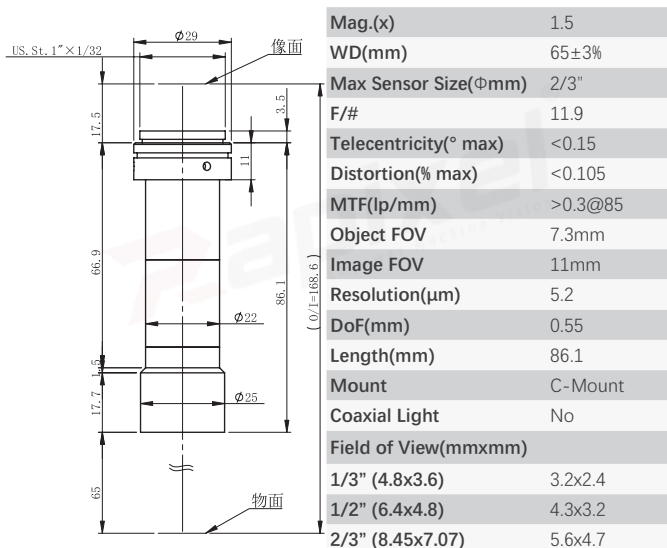
CLW-MP-1.0X-65D



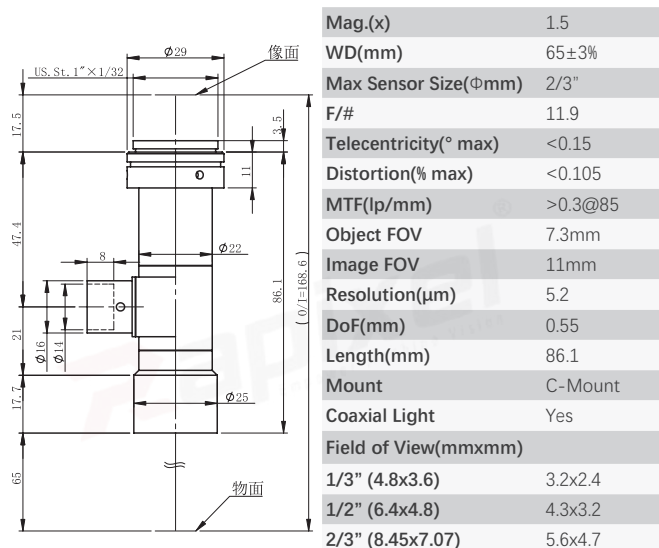
Mag.(x)	1.0
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	11.1
Telecentricity(° max)	<0.06
Distortion(% max)	<0.039
MTF(lp/mm)	>0.3@90
Object FOV	11.0mm
Image FOV	11mm
Resolution(μm)	7.3
DoF(mm)	1.2
Length(mm)	110.6
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm xmm)	
1/3" (4.8x3.6)	4.8x3.6
1/2" (6.4x4.8)	6.4x4.8
2/3" (8.45x7.07)	8.5x7.1

CLW-MP Series (WD 65mm)

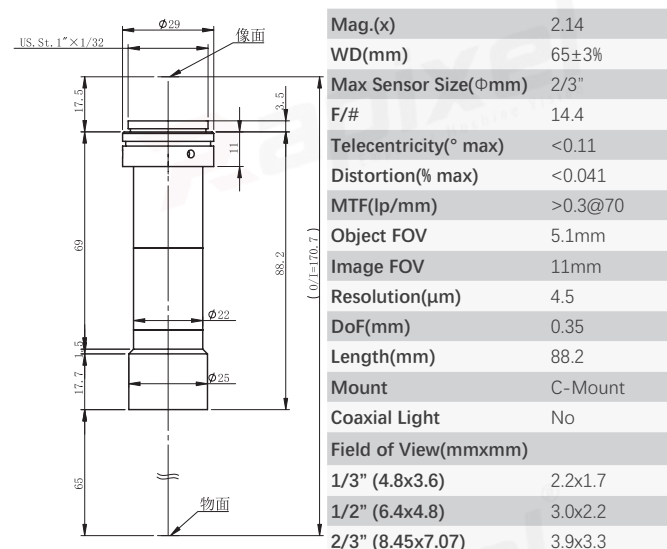
CLW-MP-1.5X-65



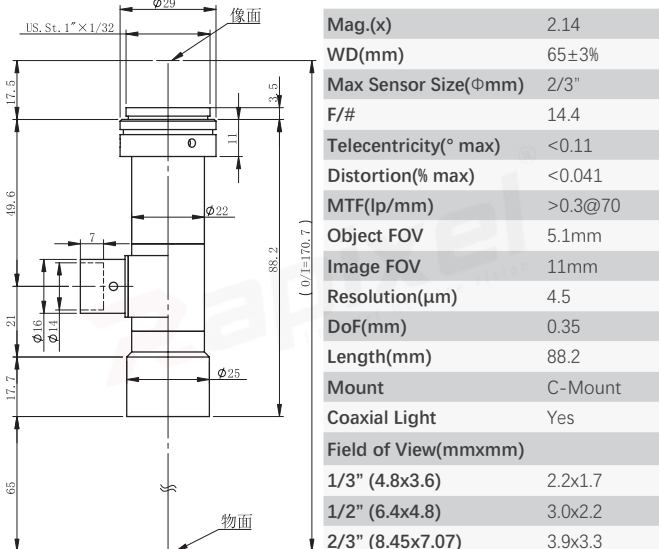
CLW-MP-1.5X-65D



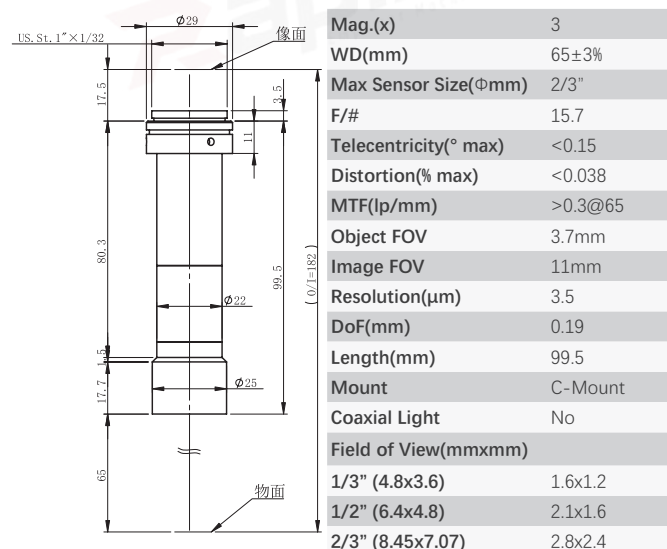
CLW-MP-2.0X-65



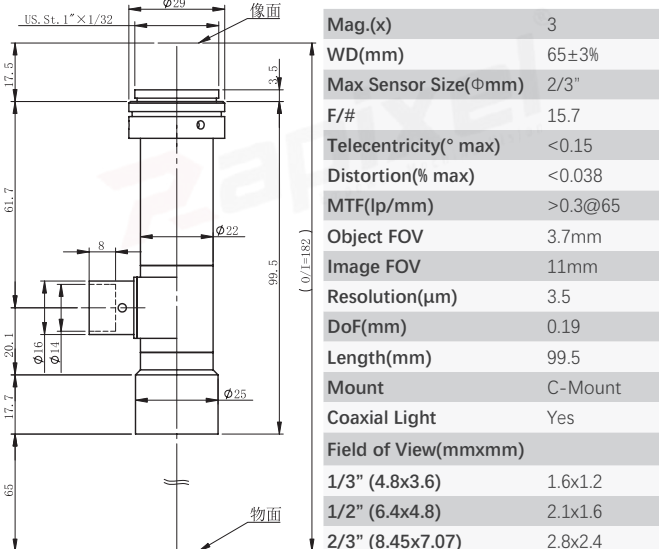
CLW-MP-2.0X-65D



CLW-MP-3.0X-65

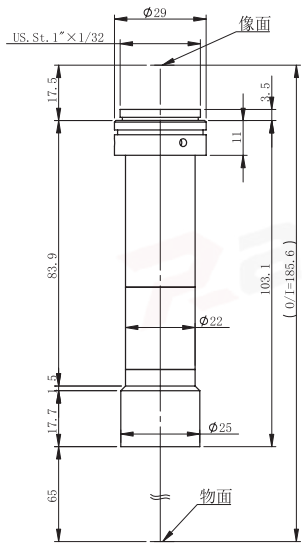


CLW-MP-3.0X-65D



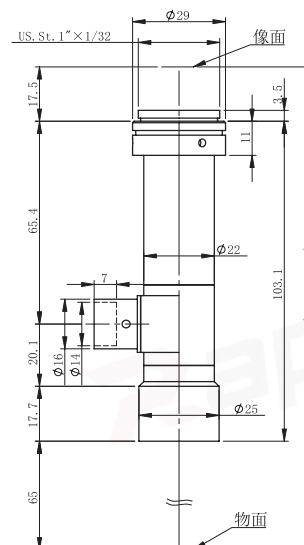
CLW-MP Series (WD 65mm)

CLW-MP-4.0X-65



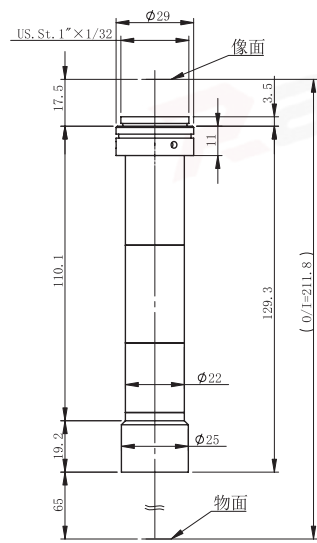
Mag.(x)	4
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	17.8
Telecentricity(° max)	<0.11
Distortion(% max)	<0.064
MTF(lp/mm)	>0.3@55
Object FOV	2.8mm
Image FOV	11mm
Resolution(μm)	2.9
DoF(mm)	0.11
Length(mm)	103.1
Mount	C-Mount
Coaxial Light	No
Field of View(mm x mm)	
1/3" (4.8x3.6)	1.2x0.9
1/2" (6.4x4.8)	1.6x1.2
2/3" (8.45x7.07)	2.1x1.8

CLW-MP-4.0X-65D



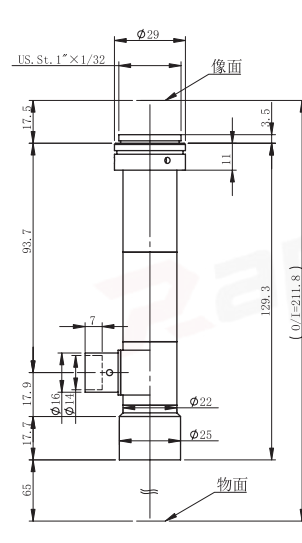
Mag.(x)	4
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	17.8
Telecentricity(° max)	<0.11
Distortion(% max)	<0.064
MTF(lp/mm)	>0.3@55
Object FOV	2.8mm
Image FOV	11mm
Resolution(μm)	2.9
DoF(mm)	0.11
Length(mm)	103.1
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/3" (4.8x3.6)	1.2x0.9
1/2" (6.4x4.8)	1.6x1.2
2/3" (8.45x7.07)	2.1x1.8

CLW-MP-6.0X-65



Mag.(x)	6
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	26.6
Telecentricity(° max)	<0.15
Distortion(% max)	<0.028
MTF(lp/mm)	>0.3@35
Object FOV	1.8mm
Image FOV	11mm
Resolution(μm)	2.9
DoF(mm)	0.08
Length(mm)	129.3
Mount	C-Mount
Coaxial Light	No
Field of View(mm x mm)	
1/3" (4.8x3.6)	0.8x0.6
1/2" (6.4x4.8)	1.1x0.8
2/3" (8.45x7.07)	1.4x1.2

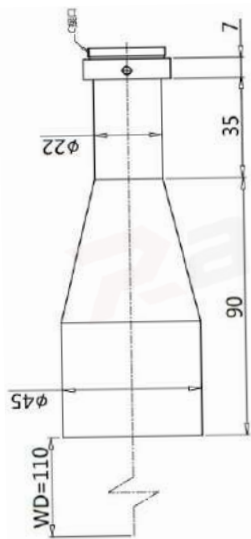
CLW-MP-6.0X-65D



Mag.(x)	6
WD(mm)	65±3%
Max Sensor Size(Φmm)	2/3"
F/#	26.6
Telecentricity(° max)	<0.15
Distortion(% max)	<0.028
MTF(lp/mm)	>0.3@35
Object FOV	1.8mm
Image FOV	11mm
Resolution(μm)	2.9
DoF(mm)	0.08
Length(mm)	129.3
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/3" (4.8x3.6)	0.8x0.6
1/2" (6.4x4.8)	1.1x0.8
2/3" (8.45x7.07)	1.4x1.2

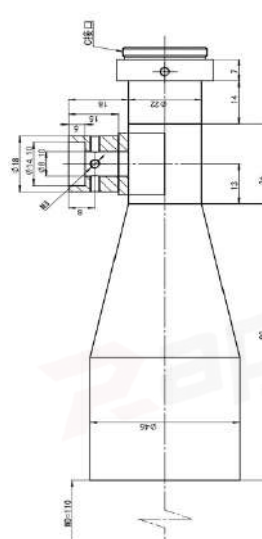
CLW-MP Series (WD 110mm)

CLW-MP-0.3X-110



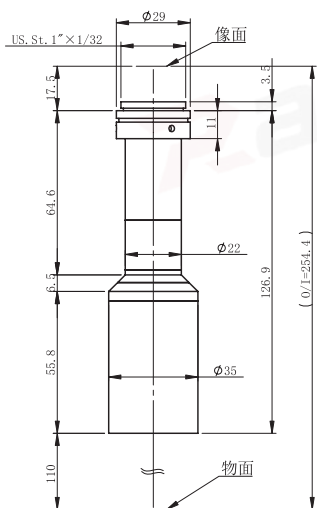
Mag.(x)	0.3
WD(mm)	110
Max Sensor Size(Φmm)	2/3"
F/#	15
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF(lp/mm)	70
Object FOV	/
NA	0.0100
Resolution(μm)	33.55
DoF(mm)	13.75
Length(mm)	132.0
Mount	C-Mount
Coaxial Light	No
Field of View(mm x mm)	
1/3" (4.8x3.6)	16x12
1/2" (6.4x4.8)	21.3x16
2/3" (8.4x7.1)	28x23.7

CLW-MP-0.3X-110D



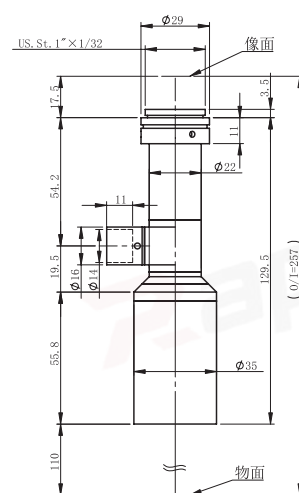
Mag.(x)	0.3
WD(mm)	110
Max Sensor Size(Φmm)	2/3"
F/#	15
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF(lp/mm)	70
Object FOV	/
NA	0.0100
Resolution(μm)	33.55
DoF(mm)	13.75
Length(mm)	130.5
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/3" (4.8x3.6)	16x12
1/2" (6.4x4.8)	21.3x16
2/3" (8.4x7.1)	28x23.7

CLW-MP-0.5X-110



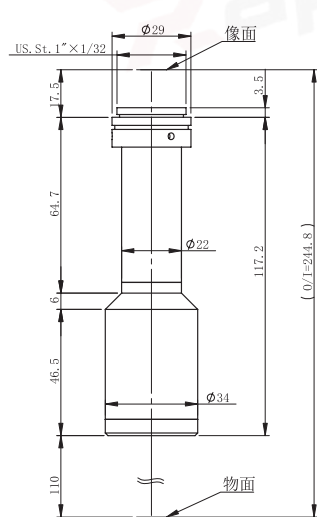
Mag.(x)	0.5
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	9.6
Telecentricity(° max)	<0.06
Distortion(% max)	<0.110
MTF(lp/mm)	>0.3@110
Object FOV	22mm
Image FOV	11mm
Resolution(μm)	12.7
DoF(mm)	4.3
Length(mm)	126.9
Mount	C-Mount
Coaxial Light	No
Field of View(mm x mm)	
1/3" (4.8x3.6)	9.6x7.2
1/2" (6.4x4.8)	12.8x9.6
2/3" (8.45x7.07)	16.9x14.1

CLW-MP-0.5X-110D



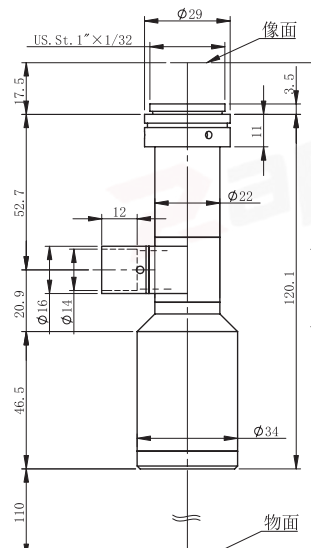
Mag.(x)	0.5
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	9.6
Telecentricity(° max)	<0.06
Distortion(% max)	<0.092
MTF(lp/mm)	>0.3@110
Object FOV	22mm
Image FOV	11mm
Resolution(μm)	12.7
DoF(mm)	4.3
Length(mm)	129.5
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/3" (4.8x3.6)	9.6x7.2
1/2" (6.4x4.8)	12.8x9.6
2/3" (8.45x7.07)	16.9x14.1

CLW-MP-0.8X-110



Mag.(x)	0.8
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	10
Telecentricity(° max)	<0.08
Distortion(% max)	<0.012
MTF(lp/mm)	>0.3@100
Object FOV	13.8mm
Image FOV	11mm
Resolution(μm)	8.3
DoF(mm)	1.7
Length(mm)	117.2
Mount	C-Mount
Coaxial Light	No
Field of View(mm x mm)	
1/3" (4.8x3.6)	6.0x4.5
1/2" (6.4x4.8)	8.0x6.0
2/3" (8.45x7.07)	10.6x8.8

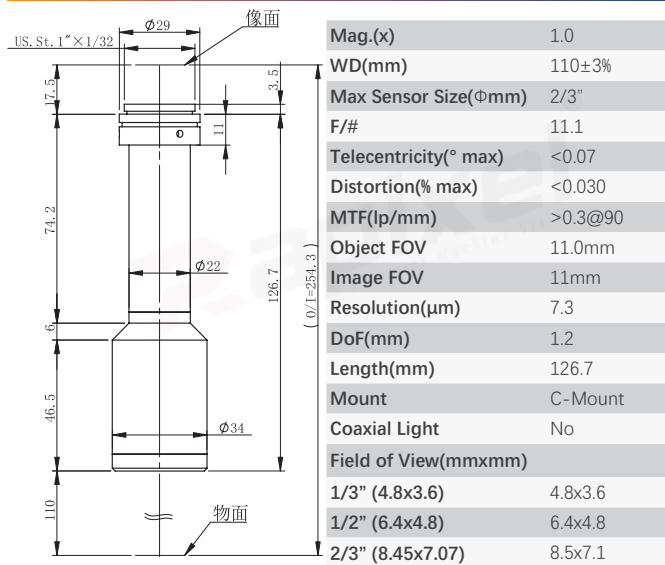
CLW-MP-0.8X-110D



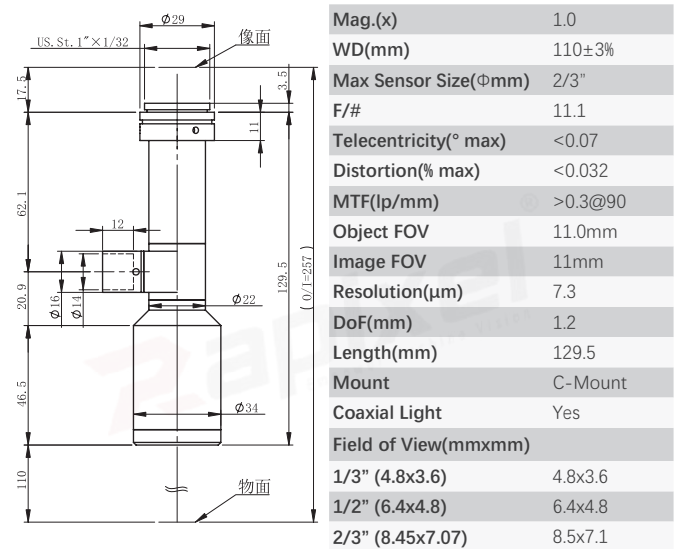
Mag.(x)	0.8
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	10
Telecentricity(° max)	<0.08
Distortion(% max)	<0.012
MTF(lp/mm)	>0.3@100
Object FOV	13.8mm
Image FOV	11mm
Resolution(μm)	8.3
DoF(mm)	1.7
Length(mm)	120.1
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/3" (4.8x3.6)	6.0x4.5
1/2" (6.4x4.8)	8.0x6.0
2/3" (8.45x7.07)	10.6x8.8

CLW-MP Series (WD 110mm)

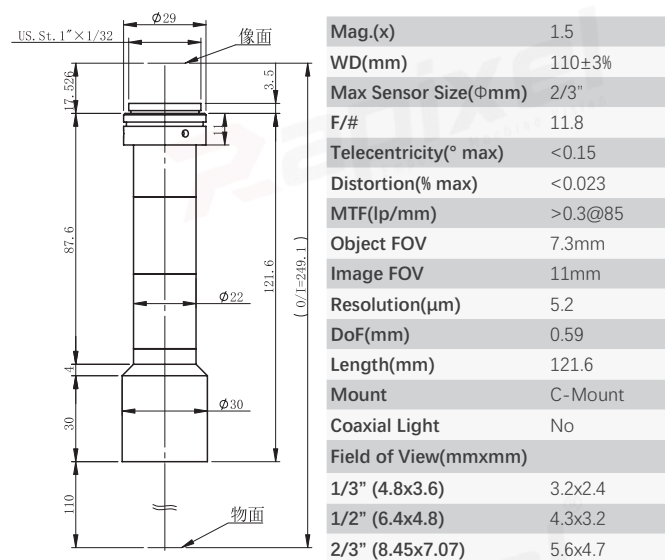
CLW-MP-1.0X-110



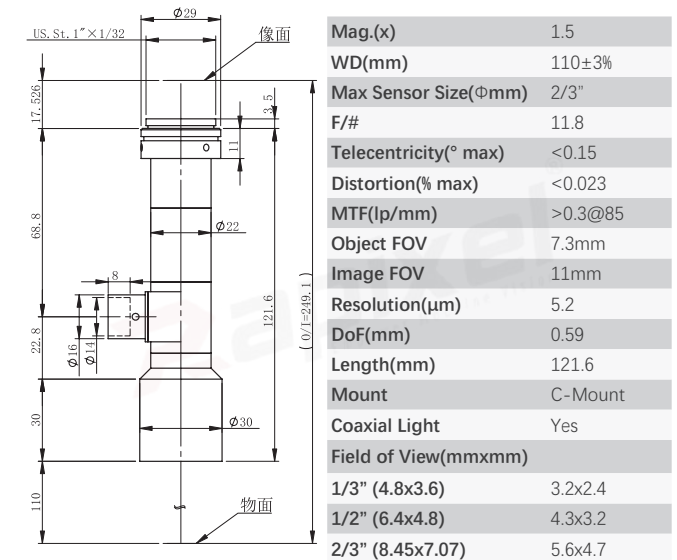
CLW-MP-1.0X-110D



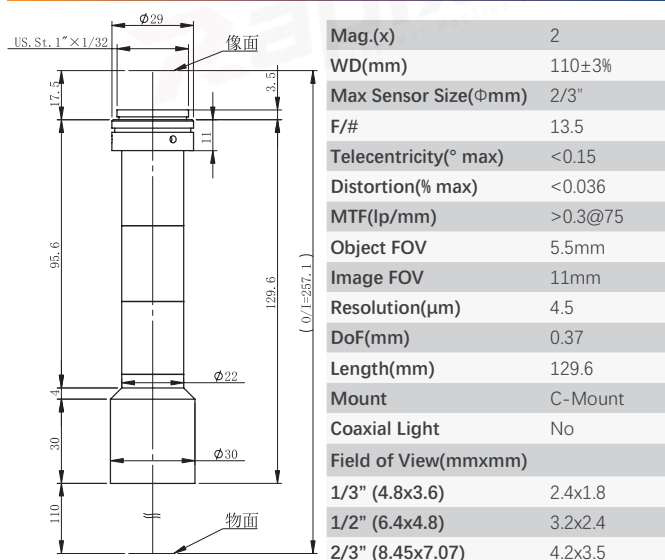
CLW-MP-1.5X-110



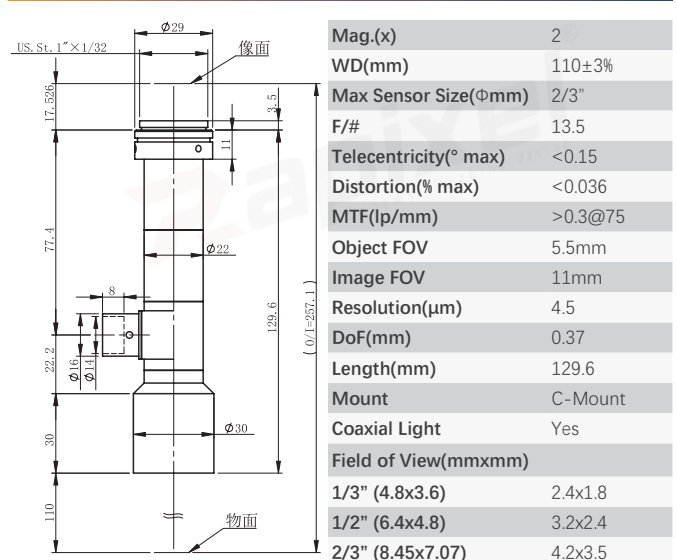
CLW-MP-1.5X-110D



CLW-MP-2.0X-110

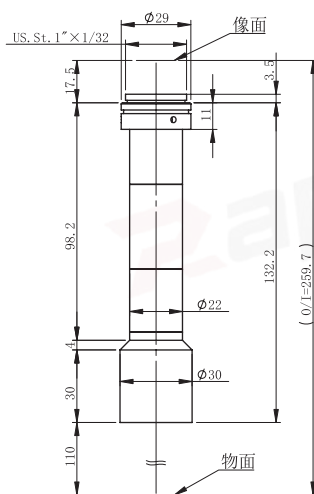


CLW-MP-2.0X-110D



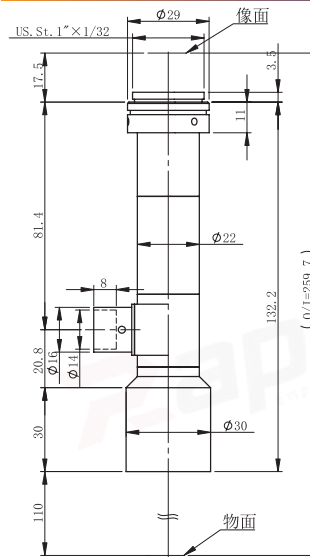
CLW-MP Series (WD 110mm)

CLW-MP-3.0X-110



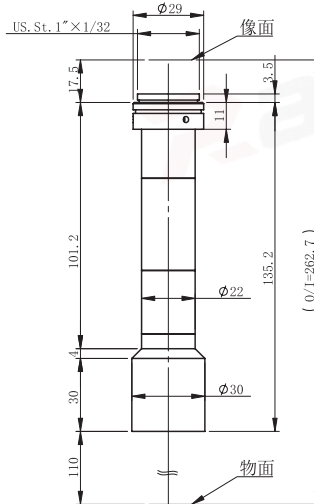
Mag.(x)	3
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	18.2
Telecentricity(° max)	<0.15
Distortion(% max)	<0.037
MTF(lp/mm)	>0.3@55
Object FOV	3.7mm
Image FOV	11mm
Resolution(μm)	4.0
DoF(mm)	0.22
Length(mm)	132.2
Mount	C-Mount
Coaxial Light	No
Field of View(mm×mm)	
1/3" (4.8×3.6)	1.6×1.2
1/2" (6.4×4.8)	2.1×1.6
2/3" (8.45×7.07)	2.8×2.4

CLW-MP-3.0X-110D



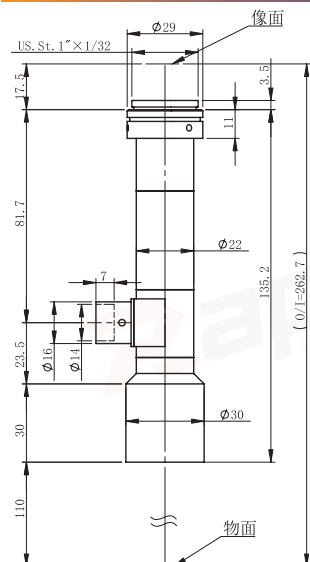
Mag.(x)	3
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	18.2
Telecentricity(° max)	<0.15
Distortion(% max)	<0.037
MTF(lp/mm)	>0.3@55
Object FOV	3.7mm
Image FOV	11mm
Resolution(μm)	4.0
DoF(mm)	0.22
Length(mm)	132.2
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm×mm)	
1/3" (4.8×3.6)	1.6×1.2
1/2" (6.4×4.8)	2.1×1.6
2/3" (8.45×7.07)	2.8×2.4

CLW-MP-4.0X-110



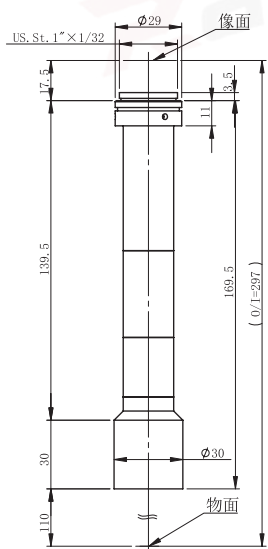
Mag.(x)	4
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	22.1
Telecentricity(° max)	<0.04
Distortion(% max)	<0.055
MTF(lp/mm)	>0.3@45
Object FOV	2.8mm
Image FOV	11mm
Resolution(μm)	3.7
DoF(mm)	0.13
Length(mm)	135.2
Mount	C-Mount
Coaxial Light	No
Field of View(mm×mm)	
1/3" (4.8×3.6)	1.2×0.9
1/2" (6.4×4.8)	1.6×1.2
2/3" (8.45×7.07)	2.1×1.8

CLW-MP-4.0X-110D



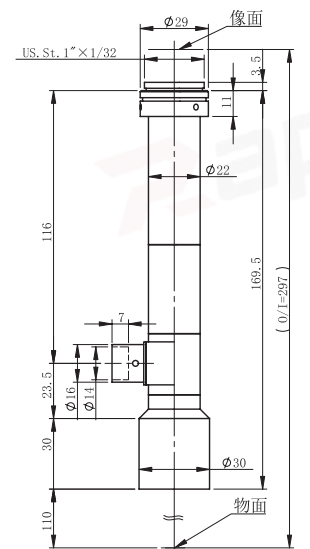
Mag.(x)	4
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	22.1
Telecentricity(° max)	<0.04
Distortion(% max)	<0.055
MTF(lp/mm)	>0.3@45
Object FOV	2.8mm
Image FOV	11mm
Resolution(μm)	3.7
DoF(mm)	0.13
Length(mm)	135.2
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm×mm)	
1/3" (4.8×3.6)	1.2×0.9
1/2" (6.4×4.8)	1.6×1.2
2/3" (8.45×7.07)	2.1×1.8

CLW-MP-6.0X-110



Mag.(x)	6
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	33.2
Telecentricity(° max)	<0.03
Distortion(% max)	<0.030
MTF(lp/mm)	>0.3@30
Object FOV	1.8mm
Image FOV	11mm
Resolution(μm)	3.7
DoF(mm)	0.09
Length(mm)	169.5
Mount	C-Mount
Coaxial Light	No
Field of View(mm×mm)	
1/3" (4.8×3.6)	0.8×0.6
1/2" (6.4×4.8)	1.1×0.8
2/3" (8.45×7.07)	1.4×1.2

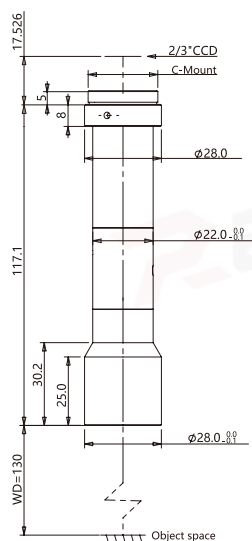
CLW-MP-6.0X-110D



Mag.(x)	6
WD(mm)	110±3%
Max Sensor Size(Φmm)	2/3"
F/#	33.2
Telecentricity(° max)	<0.03
Distortion(% max)	<0.030
MTF(lp/mm)	>0.3@30
Object FOV	1.8mm
Image FOV	11mm
Resolution(μm)	3.7
DoF(mm)	0.09
Length(mm)	169.5
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm×mm)	
1/3" (4.8×3.6)	0.8×0.6
1/2" (6.4×4.8)	1.1×0.8
2/3" (8.45×7.07)	1.4×1.2

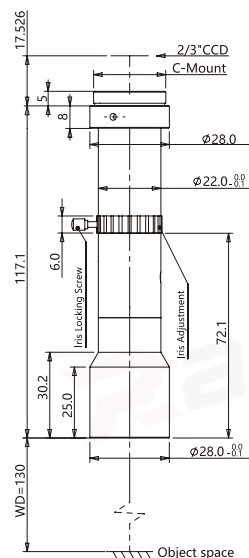
CLW2-MP Series (WD 130/145mm)

CLW2-MP-0.8X-130



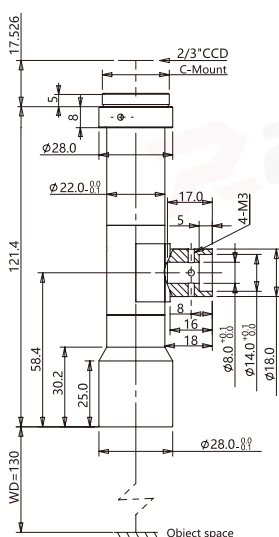
Mag.(x)	0.8
WD(mm)	130±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	65
NA	0.0316
Resolution(μm)	10.6
DoF(mm)	1.6
Length(mm)	117.1
Mount	C-Mount
Coaxial Light	No
Variable Iris	No
Field of View(mm x mm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)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

CLW2-MP-0.8X-130(IA)



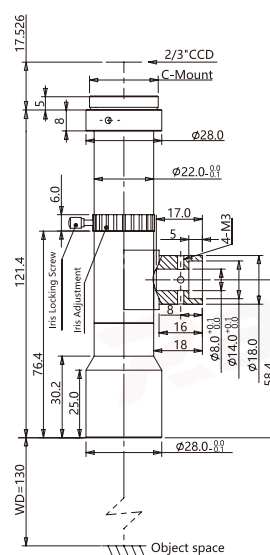
Mag.(x)	0.8
WD(mm)	130±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	65
NA	0.0316
Resolution(μm)	10.6
DoF(mm)	1.6
Length(mm)	117.1
Mount	C-Mount
Coaxial Light	No
Variable Iris	Yes
Field of View(mm x mm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)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

CLW2-MP-0.8X-130D



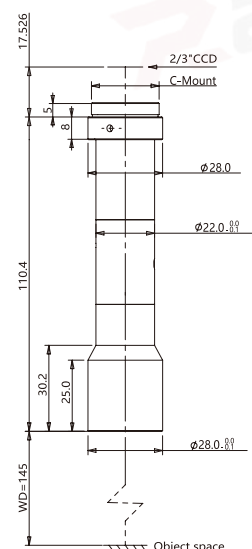
Mag.(x)	0.8
WD(mm)	130±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	65
NA	0.0316
Resolution(μm)	10.6
DoF(mm)	1.6
Length(mm)	121.4
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	No
Field of View(mm x mm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)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

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



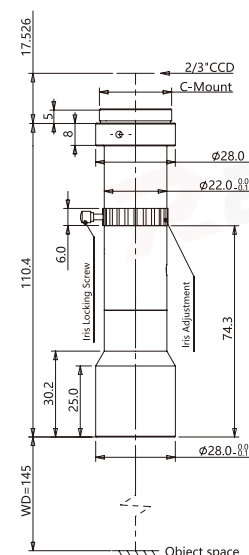
Mag.(x)	0.8
WD(mm)	130±2
Max Sensor Size(Φmm)	11.0(2/3")
F/#	12.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	65
NA	0.0316
Resolution(μm)	10.6
DoF(mm)	1.6
Length(mm)	121.4
Mount	C-Mount
Coaxial Light	Yes
Variable Iris	Yes
Field of View(mm x mm)	
1/2" (6.4x4.8)	8.0x6.0
1/1.8" (7.13x5.37)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

CLW2-MP-0.7X-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(mm x mm)	
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

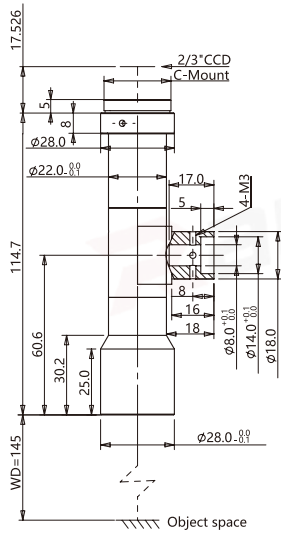
CLW2-MP-0.7X-145(IA)



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(mm x mm)	
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

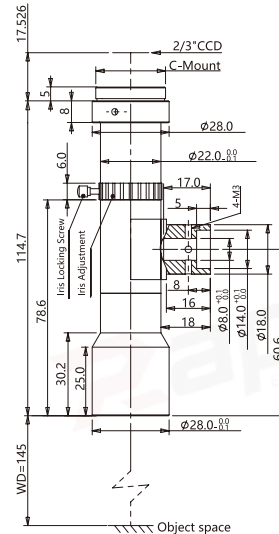
CLW2-MP Series (WD 130/145mm)

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(mm x mm)	
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

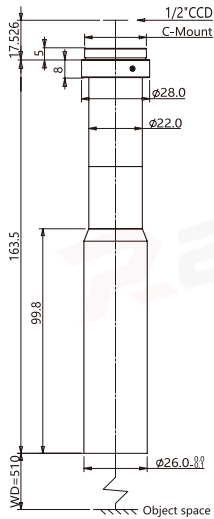
CLW2-MP-0.7X-145D(IA)



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(mm x mm)	
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

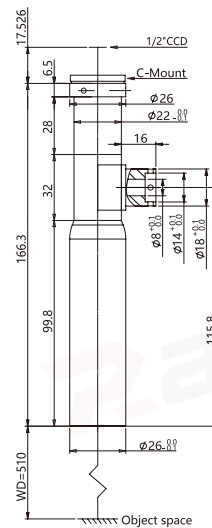
CLW2-MP Series (Long WD 330-510mm)

CLW2-MP-0.5X-510



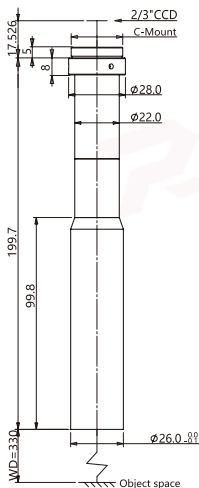
Mag.(x)	0.5
WD(mm)	510±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	14.2
Telecentricity(° max)	/
Distortion(% max)	<0.1
MTF30(lp/mm)	60
NA	0.0174
Resolution(μm)	19.3
DoF(mm)	4.5
Length(mm)	163.5
Mount	C-Mount
Coaxial Light	No
Field of View(mm x mm)	
1/3" (4.8x3.6)	9.6x7.2
1/2" (6.4x4.8)	12.8x9.6

CLW2-MP-0.5X-510D



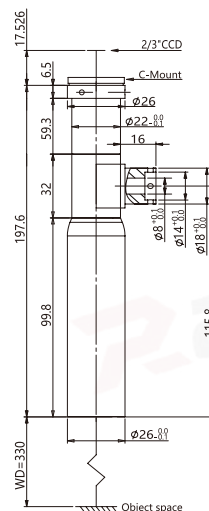
Mag.(x)	0.5
WD(mm)	510±3
Max Sensor Size(Φmm)	9.0(1/1.8")
F/#	14.2
Telecentricity(° max)	/
Distortion(% max)	<0.1
MTF30(lp/mm)	60
NA	0.0174
Resolution(μm)	19.3
DoF(mm)	4.5
Length(mm)	166.3
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/3" (4.8x3.6)	9.6x7.2
1/2" (6.4x4.8)	12.8x9.6

CLW2-MP-1.0X-330



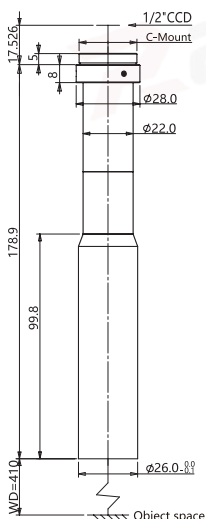
Mag.(x)	1.0
WD(mm)	330±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	28.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	30
NA	0.0174
Resolution(μm)	19.3
DoF(mm)	2.3
Length(mm)	199.7
Mount	C-Mount
Coaxial Light	No
Field of View(mm x mm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3"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

CLW2-MP-1.0X-330D



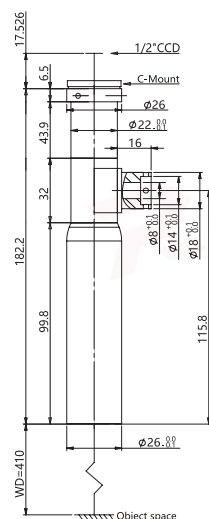
Mag.(x)	1.0
WD(mm)	330±3
Max Sensor Size(Φmm)	11.0(2/3")
F/#	28.6
Telecentricity(° max)	<0.1
Distortion(% max)	<0.1
MTF30(lp/mm)	30
NA	0.0174
Resolution(μm)	19.3
DoF(mm)	2.3
Length(mm)	197.6
Mount	C-Mount
Coaxial Light	Yes
Field of View(mm x mm)	
1/2" (6.4x4.8)	6.4x4.8
1/1.8" (7.13x5.37)	7.13x5.37
2/3" (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(mm x mm)	
1/3" (4.8x3.6)	4.8x3.6
1/2" (6.4x4.8)	6.4x4.8

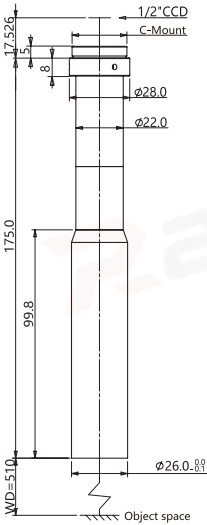
CLW2-MP-1.0X-410D



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(mm x mm)	
1/3" (4.8x3.6)	4.8x3.6
1/2" (6.4x4.8)	6.4x4.8

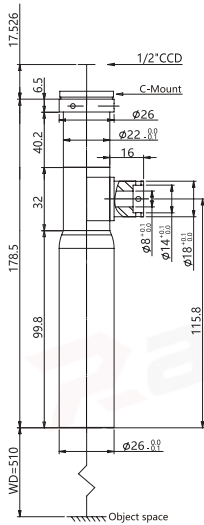
CLW2-MP Series (Long WD 330-510mm)

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

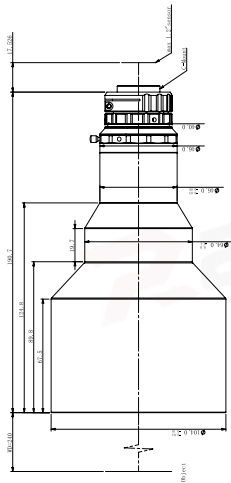
CLW2-MP-1.0X-510D



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

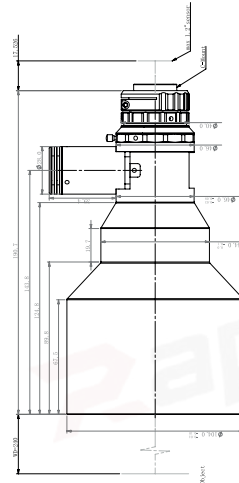
CLW2-3D Series

CLW2-3D-0.25X-240-H1.2(IA)



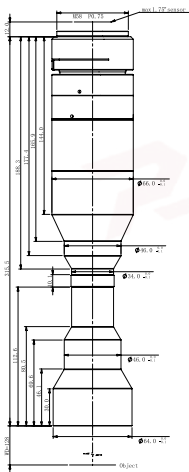
FOV(Φmm)	80
Mag.(x)	0.25
WD(mm)	240±3
Max Sensor Size(Φmm)	20(1.2")
F/#	6.0
MTF30(lp/mm)	>150
DoF(mm)	±3.84@F6
Distortion(% max)	0.05
Telecentricity(° max)	0.1
NA	0.02091
Length(mm)	190.7
Mount	C
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	58.4x50.4

CLW2-3D-0.25X-240D-H1.2(IA)



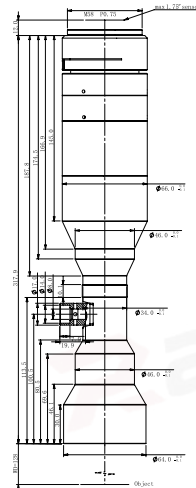
FOV(Φmm)	80
Mag.(x)	0.25
WD(mm)	240±3
Max Sensor Size(Φmm)	20(1.2")
F/#	6.0
MTF30(lp/mm)	>150
DoF(mm)	±3.84@F6
Distortion(% max)	0.05
Telecentricity(° max)	0.1
NA	0.02091
Length(mm)	190.7
Mount	C
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
1.2" IMX530/540(14.6X12.6)	58.4x50.4

CLW2-3D-1.0X-128-175



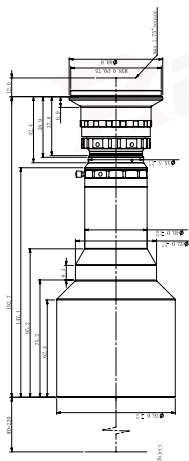
FOV(Φmm)	28.2
Mag.(x)	1.0
WD(mm)	128±2
Max Sensor Size(Φmm)	28.2(1.75")
F/#	11
MTF30(lp/mm)	>76
DoF(mm)	±0.45@F8
Distortion(% max)	0.01
Telecentricity(° max)	0.09
NA	0.04538
Length(mm)	315.5
Mount	M58
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
1.75" IMX342(22.3x16.7)	22.3x16.7

CLW2-3D-1.0X-128D-175



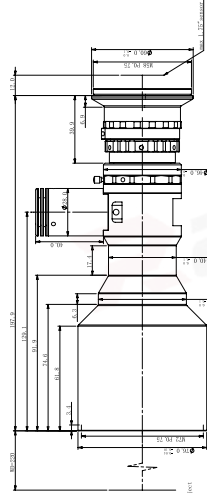
FOV(Φmm)	28.2
Mag.(x)	1.0
WD(mm)	128±2
Max Sensor Size(Φmm)	28.2(1.75")
F/#	11
MTF30(lp/mm)	>76
DoF(mm)	±0.45@F8
Distortion(% max)	0.01
Telecentricity(° max)	0.09
NA	0.04538
Length(mm)	317.9
Mount	M58
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	
1.75" IMX342(22.3x16.7)	22.3x16.7

CLW2-3D-0.55X-220-175(IA)



FOV(Φmm)	51.2
Mag.(x)	0.55
WD(mm)	220
Max Sensor Size(Φmm)	28.2(1.75")
F/#	8-32
MTF30(lp/mm)	106-30
DoF(mm)	2.1-8.4
Distortion(% max)	0.05
Telecentricity(° max)	0.09
NA	0.0344-0.0086
Length(mm)	192.7
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
1.75" IMX342(22.3x16.7)	40.5x30.4

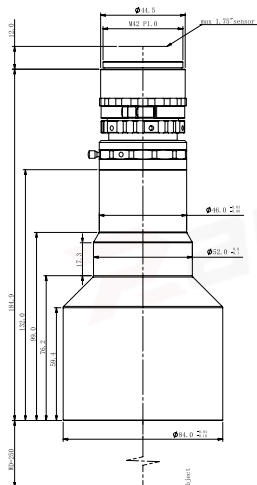
CLW2-3D-0.55X-220D-175(IA)



FOV(Φmm)	51.2
Mag.(x)	0.55
WD(mm)	220
Max Sensor Size(Φmm)	28.2(1.75")
F/#	8-32
MTF30(lp/mm)	106-30
DoF(mm)	2.1-8.4
Distortion(% max)	0.05
Telecentricity(° max)	0.09
NA	0.0344-0.0086
Length(mm)	197.9
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
1.75" IMX342(22.3x16.7)	40.5x30.4

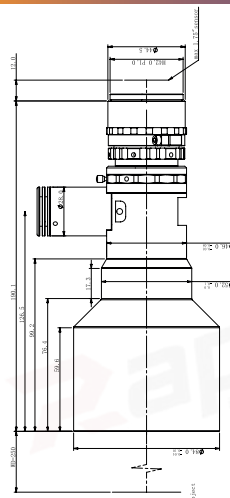
CLW2-3D Series

CLW2-3D-0.46X-250-175(IA)



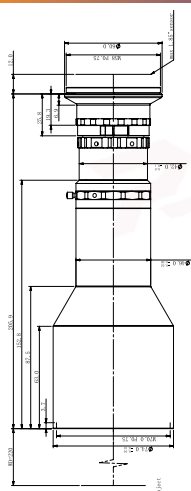
FOV(Φmm)	61.4
Mag.(x)	0.46
WD(mm)	250
Max Sensor Size(Φmm)	28.2(1.75")
F/#	8-32
MTF30(lp/mm)	110-30
DoF(mm)	3-12.1
Distortion(% max)	0.03
Telecentricity(° max)	0.21
NA	0.0288-0.0072
Length(mm)	184.9
Mount	M42
Variable Iris	Yes
Coaxial Light	No
Field of View(mmxxmm)	
1.75" IMX342(22.3x16.7)	48.5x36.3

CLW2-3D-0.46X-250D-175(IA)



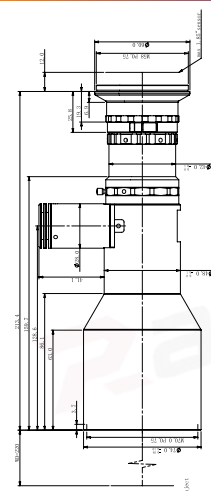
FOV(Φmm)	61.4
Mag.(x)	0.46
WD(mm)	250
Max Sensor Size(Φmm)	28.2(1.75")
F/#	8-32
MTF30(lp/mm)	110-30
DoF(mm)	3-12.1
Distortion(% max)	0.03
Telecentricity(° max)	0.21
NA	0.0288-0.0072
Length(mm)	190.1
Mount	M42
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mmxxmm)	
1.75" IMX342(22.3x16.7)	48.5x36.3

CLW2-3D-0.64X-220-185(IA)



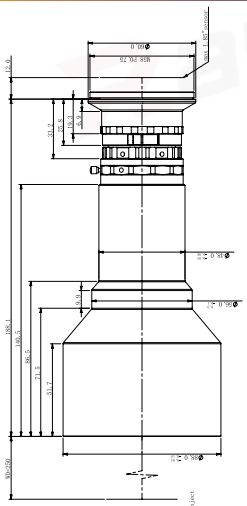
FOV(Φmm)	46.8
Mag.(x)	0.64
WD(mm)	220
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	121-31
DoF(mm)	1.6-6.3
Distortion(% max)	0.01
Telecentricity(° max)	0.02
NA	0.04-0.01
Length(mm)	205.9
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mmxxmm)	
1.85" GSPRINT4521(23.0x18.4)	35.9x28.8

CLW2-3D-0.64X-220D-185(IA)



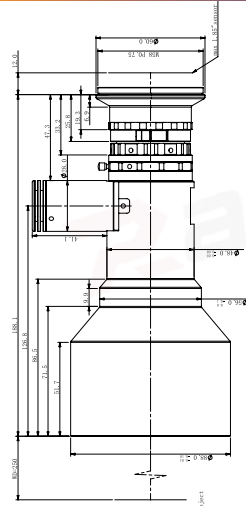
FOV(Φmm)	46.8
Mag.(x)	0.64
WD(mm)	220
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	121-31
DoF(mm)	1.6-6.3
Distortion(% max)	0.01
Telecentricity(° max)	0.02
NA	0.04-0.01
Length(mm)	213.4
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mmxxmm)	
1.85" GSPRINT4521(23.0x18.4)	35.9x28.8

CLW2-3D-0.454X-250-185(IA)



FOV(Φmm)	66
Mag.(x)	0.454
WD(mm)	250
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	110-30
DoF(mm)	3.1-12.4
Distortion(% max)	0.03
Telecentricity(° max)	0.08
NA	0.02838-0.00709
Length(mm)	188.1
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mmxxmm)	
1.85" GSPRINT4521(23.0x18.4)	50.7x40.5

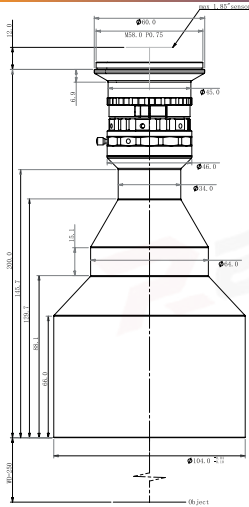
CLW2-3D-0.454X-250D-185(IA)



FOV(Φmm)	66
Mag.(x)	0.454
WD(mm)	250
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	110-30
DoF(mm)	3.1-12.4
Distortion(% max)	0.03
Telecentricity(° max)	0.08
NA	0.02838-0.00709
Length(mm)	188.1
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mmxxmm)	
1.85" GSPRINT4521(23.0x18.4)	50.7x40.5

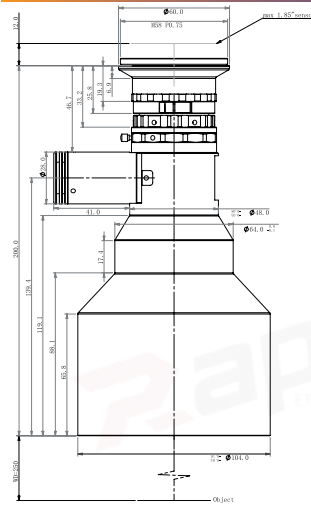
CLW2-3D Series

CLW2-3D-0.37X-250-185(IA)-A



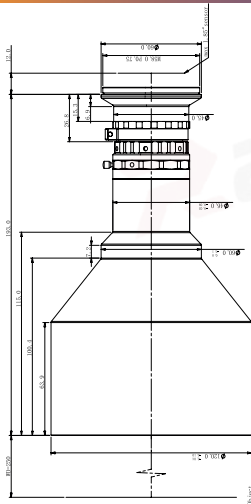
FOV(Φmm)	81
Mag.(x)	0.37
WD(mm)	250
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	114-30
DoF(mm)	7.7-18.7
Distortion(% max)	0.02
Telecentricity(° max)	0.1
NA	0.02312-0.00578
Length(mm)	200.0
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mmxmm)	1.85" GSPRINT4521(23.0x18.4) 62.2x49.7

CLW2-3D-0.37X-250D-185(IA)-A



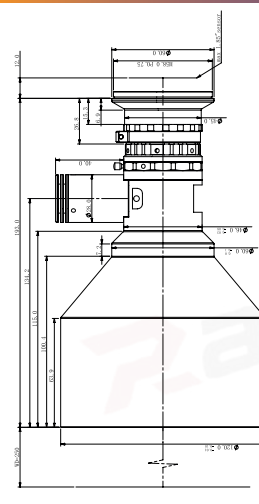
FOV(Φmm)	81
Mag.(x)	0.37
WD(mm)	250
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	114-30
DoF(mm)	7.7-18.7
Distortion(% max)	0.02
Telecentricity(° max)	0.1
NA	0.02312-0.00578
Length(mm)	200.0
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mmxmm)	1.85" GSPRINT4521(23.0x18.4) 62.2x49.7

CLW2-3D-0.31X-250-185(IA)



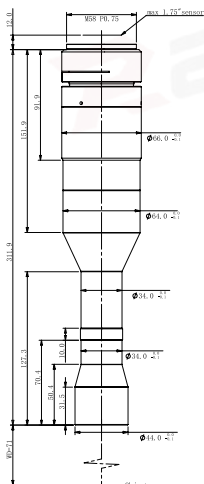
FOV(Φmm)	96
Mag.(x)	0.31
WD(mm)	250
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	111-30
DoF(mm)	6.7-26.6
Distortion(% max)	0.035
Telecentricity(° max)	0.1
NA	0.02312-0.00578
Length(mm)	193
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mmxmm)	1.85" GSPRINT4521(23.0x18.4) 74.2x59.4

CLW2-3D-0.31X-250D-185(IA)



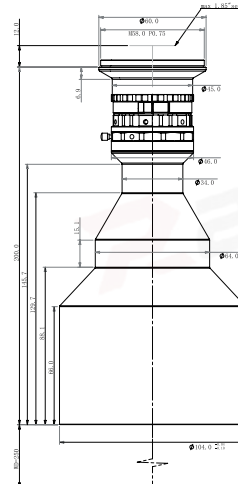
FOV(Φmm)	96
Mag.(x)	0.31
WD(mm)	250
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	111-30
DoF(mm)	6.7-26.6
Distortion(% max)	0.035
Telecentricity(° max)	0.1
NA	0.02312-0.00578
Length(mm)	193
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mmxmm)	1.85" GSPRINT4521(23.0x18.4) 74.2x59.4

CLW2-3D-1.846X-71-175



FOV(Φmm)	15.7
Mag.(x)	1.846
WD(mm)	71±1
Max Sensor Size(Φmm)	29(1.75")
F/#	20.0
MTF30(lp/mm)	>45
DoF(mm)	±2.5@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
NA	0.0461
Length(mm)	311.9
Mount	M42
Variable Iris	No
Coaxial Light	No
Field of View(mmxmm)	1.75" IMX342(22.3x16.7) 12.1x9

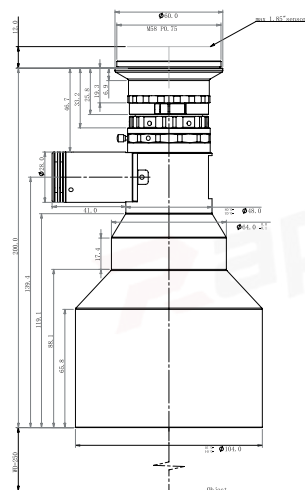
CLW2-3D-0.37X-250-185(IA)-B



FOV(Φmm)	81
Mag.(x)	0.37
WD(mm)	250
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	114-30
DoF(mm)	4.7-18.7
Distortion(% max)	0.02
Telecentricity(° max)	0.1
NA	0.02312-0.00578
Length(mm)	200
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mmxmm)	1.85" GSPRINT4521(23.0x18.4) 62.2x49.7

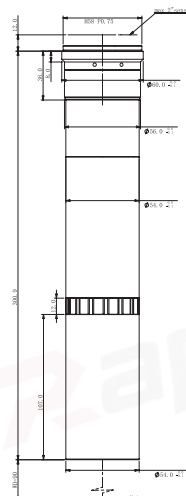
CLW2-3D Series

CLW2-3D-0.37X-250D-185(IA)-B



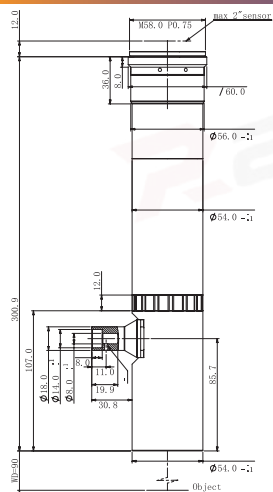
FOV(Φmm)	81
Mag.(x)	0.37
WD(mm)	250
Max Sensor Size(Φmm)	30(1.85")
F/#	8-32
MTF30(lp/mm)	114-30
DoF(mm)	4.7-18.7
Distortion(% max)	0.02
Telecentricity(° max)	0.1
NA	0.02312-0.00578
Length(mm)	200
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	1.85" GSPRINT4521(23.0x18.4) 62.2x49.7

CLW2-3D-2.8X-90-H2



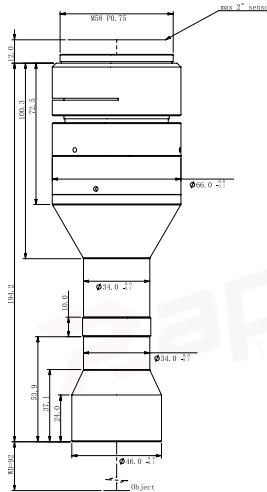
FOV(Φmm)	11.8
Mag.(x)	2.8
WD(mm)	90±1
Max Sensor Size(Φmm)	33(2")
F/#	11
MTF30(lp/mm)	>90
DoF(mm)	±0.05@F11
Distortion(% max)	<0.02
Telecentricity(° max)	<0.05
NA	0.1421921
Length(mm)	300.9
Mount	M58
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	2" PYTHON 25K (23.04x23.04) 8.2x8.2

CLW2-3D-2.8X-90D-H2



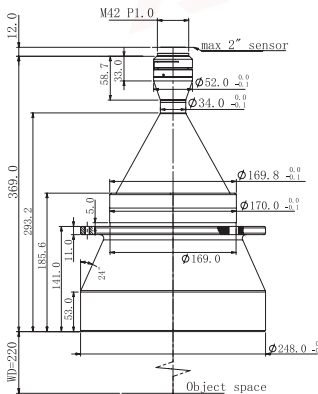
FOV(Φmm)	11.8
Mag.(x)	2.8
WD(mm)	90±1
Max Sensor Size(Φmm)	33(2")
F/#	11
MTF30(lp/mm)	>90
DoF(mm)	±0.05@F11
Distortion(% max)	<0.02
Telecentricity(° max)	<0.05
NA	0.1421921
Length(mm)	300.9
Mount	M58
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	2" PYTHON 25K (23.04x23.04) 8.2x8.2

CLW2-3D-0.7X-92-H2



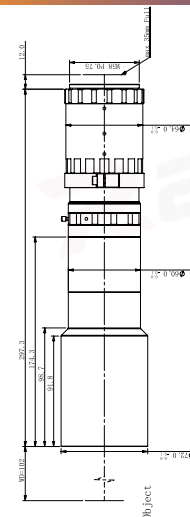
FOV(Φmm)	44.8
Mag.(x)	0.7
WD(mm)	92±1
Max Sensor Size(Φmm)	33(2")
F/#	7.8
MTF30(lp/mm)	>90
DoF(mm)	±0.05@F7.8
Distortion(% max)	0.1
Telecentricity(° max)	-
NA	0.04688
Length(mm)	194.2
Mount	M58
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	2" PYTHON 25K (23.04x23.04) 31.3x31.3

CLW2-3D-0.1536X-220-H2



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
NA	0.0096
Length(mm)	369
Mount	M42
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	2" DALSA 12M(24.58x18.43) 160x120
	2" PYTHON 25K (23.04x23.04) 150x150

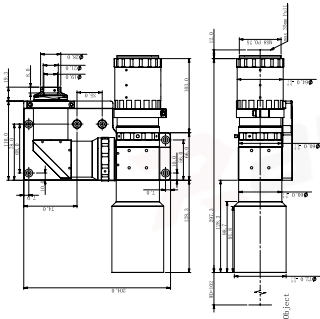
CLW2-3D-1.0X-102-FF(IA)



FOV(Φmm)	44
Mag.(x)	1.0
WD(mm)	102
Max Sensor Size(Φmm)	44(35mm Full)
F/#	6.1-32
MTF30(lp/mm)	150-33
DoF(mm)	0.49-2.56
Distortion(% max)	0.04
Telecentricity(° max)	0.04
NA	0.083-0.01568
Length(mm)	297.3
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	CMV50000 (36.43x27.62) 29.9x22.4

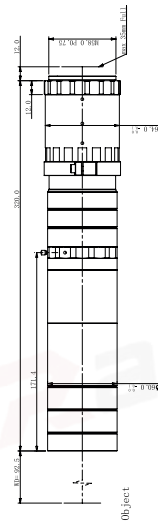
CLW2-3D Series

CLW2-3D-1.0X-102D-FF(IA)



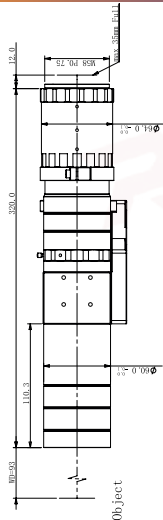
FOV(Φmm)	44
Mag.(x)	1.0
WD(mm)	102
Max Sensor Size(Φmm)	44(35mm Full)
F/#	6.1-32
MTF30(lp/mm)	150-33
DoF(mm)	0.49-2.56
Distortion(% max)	0.04
Telecentricity(° max)	0.04
NA	0.083-0.01568
Length(mm)	297.3
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	37.4mm GMAX3265(29.9x22.4) 29.9x22.4

CLW2-3D-1.5X-92-FF(IA)



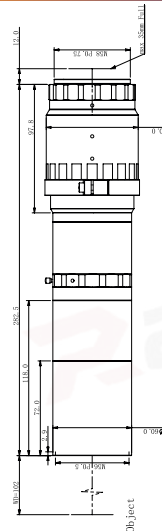
FOV(Φmm)	29.3
Mag.(x)	1.5
WD(mm)	92.5
Max Sensor Size(Φmm)	44(35mm Full)
F/#	7.6-32
MTF30(lp/mm)	120-32
DoF(mm)	0.29-1.1
Distortion(% max)	0.025
Telecentricity(° max)	0.03
NA	0.1-0.02346
Length(mm)	320
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	37.4mm GMAX3265(29.9x22.4) 19.9x14.9

CLW2-3D-1.5X-92D-FF(IA)



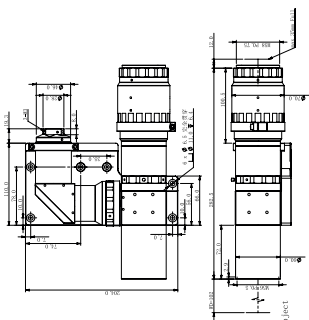
FOV(Φmm)	29.3
Mag.(x)	1.5
WD(mm)	92.5
Max Sensor Size(Φmm)	44(35mm Full)
F/#	7.6-32
MTF30(lp/mm)	120-32
DoF(mm)	0.29-1.1
Distortion(% max)	0.025
Telecentricity(° max)	0.03
NA	0.1-0.02346
Length(mm)	320
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	37.4mm GMAX3265(29.9x22.4) 19.9x14.9

CLW2-3D-2.0X-100-FF(IA)



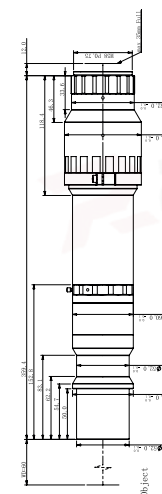
FOV(Φmm)	22
Mag.(x)	2.0
WD(mm)	100
Max Sensor Size(Φmm)	44(35mm Full)
F/#	8-32
MTF30(lp/mm)	118-32
DoF(mm)	0.16-0.64
Distortion(% max)	0.045
Telecentricity(° max)	0.0085
NA	0.125-0.03125
Length(mm)	282.5
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	37.4mm GMAX3265(29.9x22.4) 15.0x11.2

CLW2-3D-2.0X-100D-FF(IA)



FOV(Φmm)	22
Mag.(x)	2.0
WD(mm)	100
Max Sensor Size(Φmm)	44(35mm Full)
F/#	8-32
MTF30(lp/mm)	118-32
DoF(mm)	0.16-0.64
Distortion(% max)	0.045
Telecentricity(° max)	0.0085
NA	0.125-0.03125
Length(mm)	282.5
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	37.4mm GMAX3265(29.9x22.4) 15.0x11.2

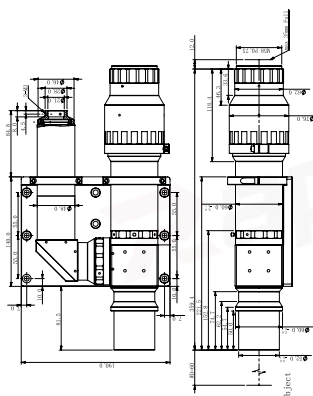
CLW2-3D-3.0X-60-FF(IA)



FOV(Φmm)	14.6
Mag.(x)	3.0
WD(mm)	60
Max Sensor Size(Φmm)	44(35mm Full)
F/#	8.8-32
MTF30(lp/mm)	106-33
DoF(mm)	0.08-0.28
Distortion(% max)	0.045
Telecentricity(° max)	0.0065
NA	0.17-0.04693
Length(mm)	359.4
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	CMV50000 (36.43x27.62) 12.1x9.2

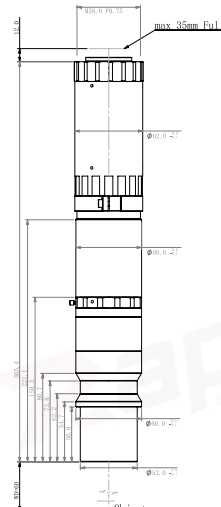
CLW2-3D Series

CLW2-3D-3.0X-60D-FF(IA)



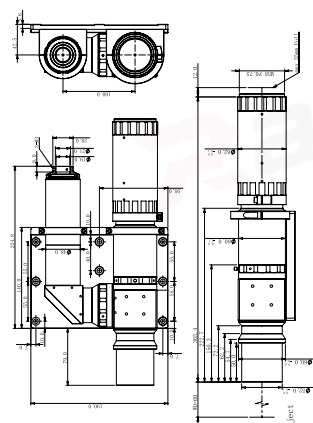
FOV(Φmm)	14.6
Mag.(x)	3.0
WD(mm)	60
Max Sensor Size(Φmm)	44(35mm Full)
F/#	8.8-32
MTF30(lp/mm)	106-33
DoF(mm)	0.08-0.28
Distortion(% max)	0.045
Telecentricity(° max)	0.0065
NA	0.17-0.04693
Length(mm)	359.4
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
CMV50000 (36.43x27.62)	12.1x9.2

CLW2-3D-4.0X-60-FF(IA)



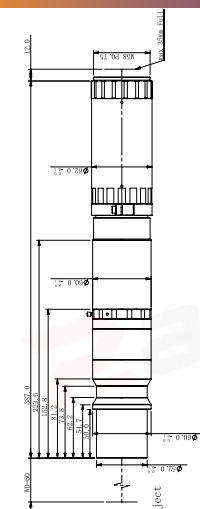
FOV(Φmm)	11
Mag.(x)	4.0
WD(mm)	60±1
Max Sensor Size(Φmm)	44(35mm Full)
F/#	11-32
MTF30(lp/mm)	90-32
DoF(mm)	0.06-0.16
Distortion(% max)	0.02
Telecentricity(° max)	0.02
NA	0.18-0.0624
Length(mm)	365.4
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
37.4mm GMAX3265(29.9x22.4)	7.5x5.6

CLW2-3D-4.0X-60D-FF(IA)



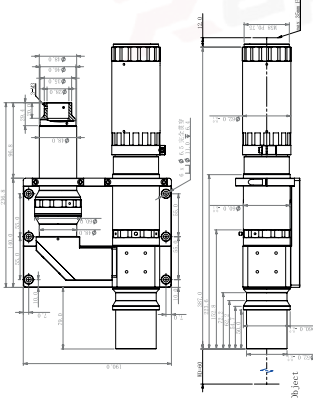
FOV(Φmm)	11
Mag.(x)	4.0
WD(mm)	60±1
Max Sensor Size(Φmm)	44(35mm Full)
F/#	11-32
MTF30(lp/mm)	90-32
DoF(mm)	0.06-0.16
Distortion(% max)	0.02
Telecentricity(° max)	0.02
NA	0.18-0.0624
Length(mm)	365.4
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
37.4mm GMAX3265(29.9x22.4)	7.5x5.6

CLW2-3D-5.0X-60-FF(IA)



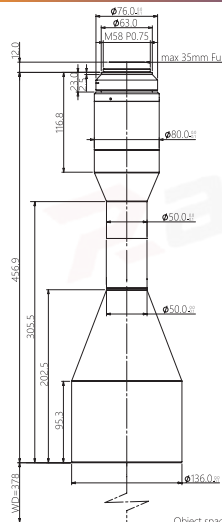
FOV(Φmm)	8.8
Mag.(x)	5.0
WD(mm)	60
Max Sensor Size(Φmm)	44(35mm Full)
F/#	13-32
MTF30(lp/mm)	74-31
DoF(mm)	0.04-0.1
Distortion(% max)	0.02
Telecentricity(° max)	0.01
NA	0.19-0.07792
Length(mm)	387
Mount	M58
Variable Iris	Yes
Coaxial Light	No
Field of View(mm xmm)	
37.4mm GMAX3265(29.9x22.4)	6.0x4.5

CLW2-3D-5.0X-60D-FF(IA)



FOV(Φmm)	8.8
Mag.(x)	5.0
WD(mm)	60
Max Sensor Size(Φmm)	44(35mm Full)
F/#	13-32
MTF30(lp/mm)	74-31
DoF(mm)	0.04-0.1
Distortion(% max)	0.02
Telecentricity(° max)	0.01
NA	0.19-0.07792
Length(mm)	387
Mount	M58
Variable Iris	Yes
Coaxial Light	Yes
Field of View(mm xmm)	
37.4mm GMAX3265(29.9x22.4)	6.0x4.5

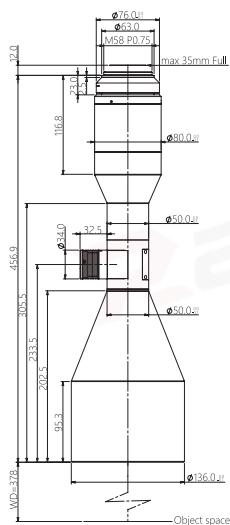
CLW2-3D-0.462X-378-Q434



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
NA	0.02889
Length(mm)	456.9
Mount	M58
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
CMV50000(36.43x27.62)	78.9x59.8
KA129050/2(36.17x24.11)	78.3x52.2
KA143142(36.18x24.12)	78.3x52.2

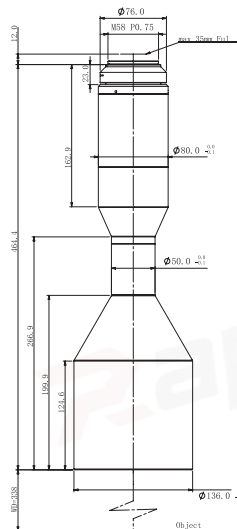
CLW2-3D Series

CLW2-3D-0.462X-378D-Q434



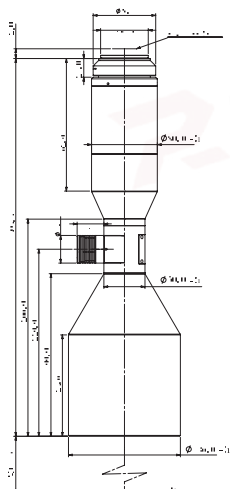
FOV(Φmm)	94
Mag.(x)	0.462
WD(mm)	378±4
Max Sensor Size(Φmm)	43.4
F/#	8.0
MTF30(lp/mm)	>115
DoF(mm)	±1.5@F8.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
NA	0.02889
Length(mm)	456.9
Mount	M58
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	
CMV50000(36.43x27.62)	78.9x59.8
KAI29050/2(36.17x24.11)	78.3x52.2
KAI43142(36.18x24.12)	78.3x52.2

CLW2-3D-0.53X-338-Q434



FOV(Φmm)	82
Mag.(x)	0.530
WD(mm)	338±5
Max Sensor Size(Φmm)	43.4
F/#	10.0
MTF30(lp/mm)	>92
DoF(mm)	±1.4@F10
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
NA	0.02649
Length(mm)	464.4
Mount	M58
Variable Iris	No
Coaxial Light	No
Field of View(mm xmm)	
CMV50000(36.43x27.62)	68.7x52.1
KAI29050/2(36.17x24.11)	68.2x45.5
KAI43142(36.18x24.12)	68.3x45.5

CLW2-3D-0.53X-338D-Q434

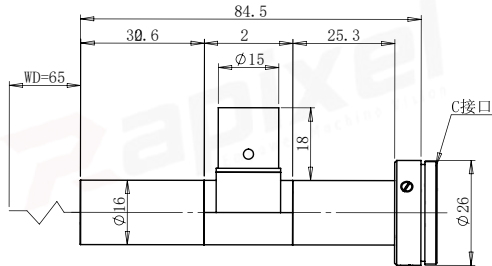


FOV(Φmm)	82
Mag.(x)	0.53
WD(mm)	338±5
Max Sensor Size(Φmm)	43.4
F/#	10.0
MTF30(lp/mm)	>92
DoF(mm)	±1.4@F10
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
NA	0.02649
Length(mm)	464.4
Mount	M58
Variable Iris	No
Coaxial Light	Yes
Field of View(mm xmm)	
CMV50000(36.43x27.62)	68.7x52.1
KAI29050/2(36.17x24.11)	68.2x45.5
KAI43142(36.18x24.12)	68.3x45.5

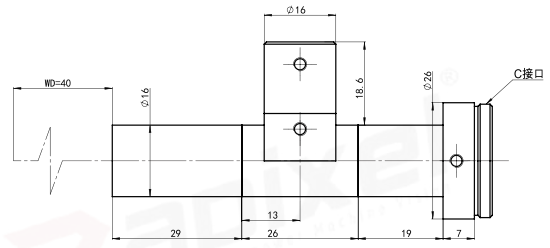
CLW3-ST SERIES

■ WD 40mm

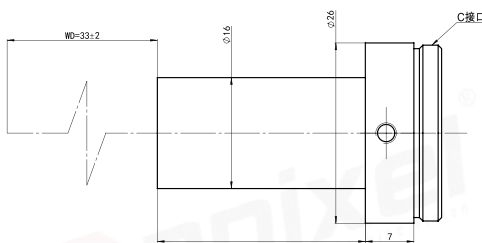
CLW3-ST-1.0X-40



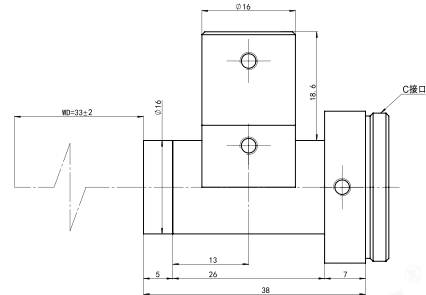
CLW3-ST-1.0X-40D



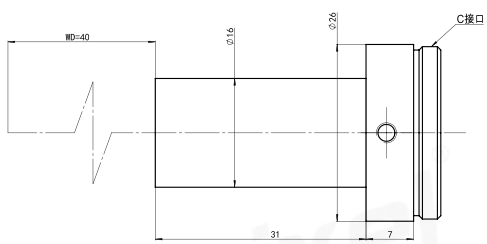
CLW3-ST-1.5X-40



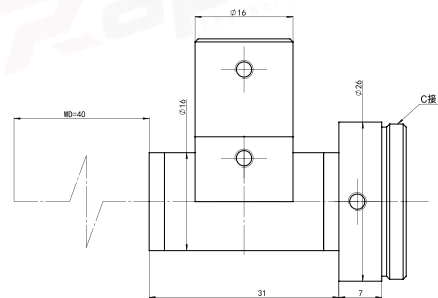
CLW3-ST-1.5X-40D



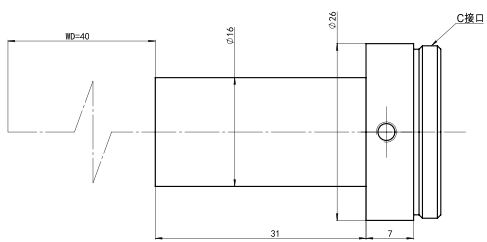
CLW3-ST-2.0X-40



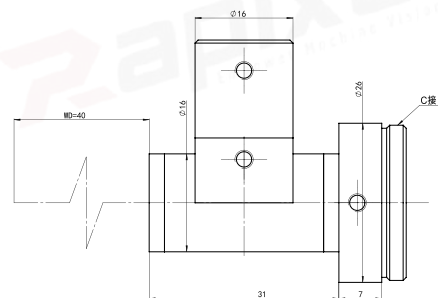
CLW3-ST-2.0X-40D



CLW3-ST-4.0X-40

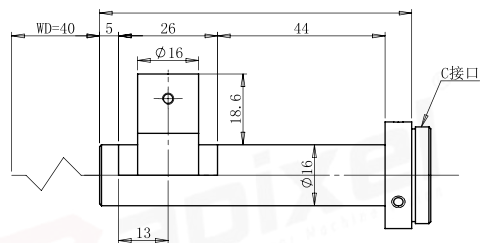
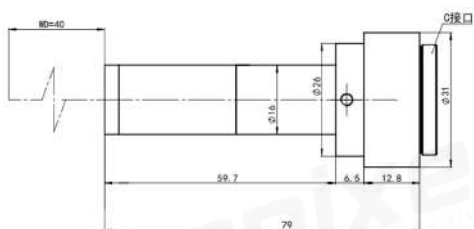
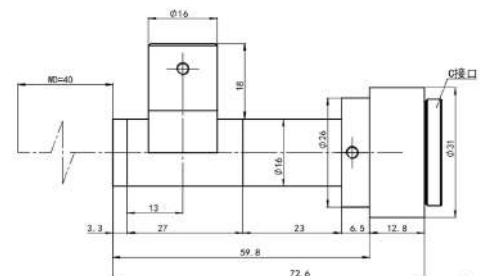


CLW3-ST-4.0X-40D



CLW3-ST SERIES

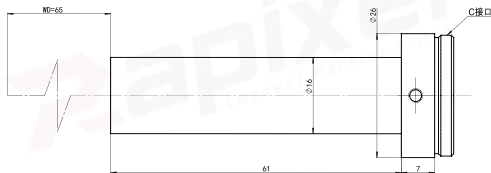
■ WD 40mm

CLW3-ST-6.0X-40**CLW3-ST-6.0X-40D****CLW3-ST-8.0X-40****CLW3-ST-8.0X-40D**

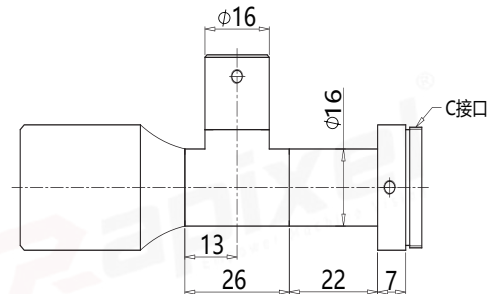
CLW3-ST SERIES

■ WD 65mm

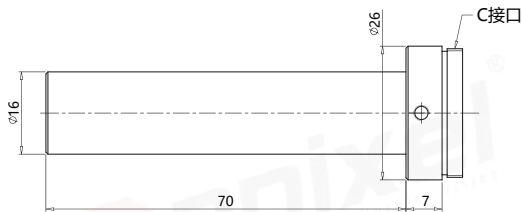
CLW3-ST-0.5X-65



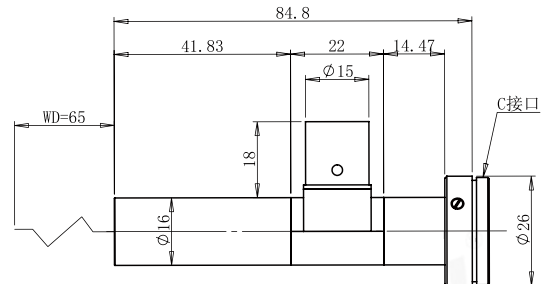
CLW3-ST-0.5X-65D



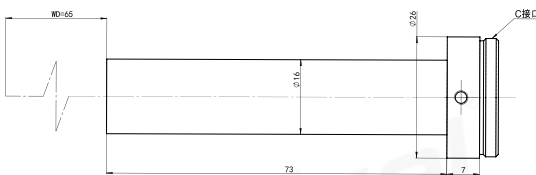
CLW3-ST-0.8X-65



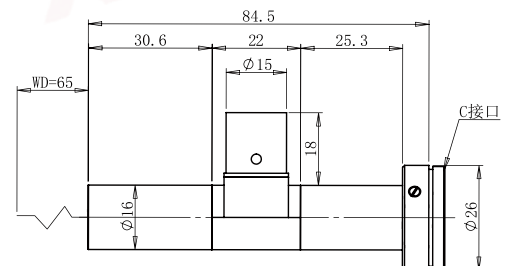
CLW3-ST-0.8X-65D



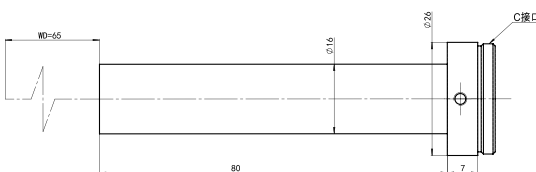
CLW3-ST-1.0X-65



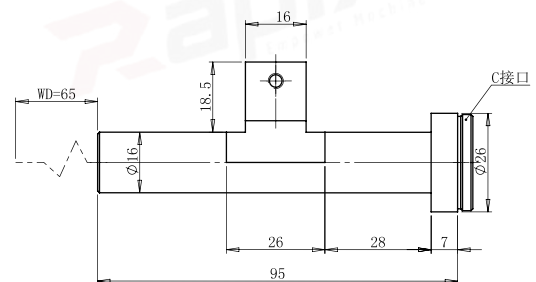
CLW3-ST-1.0X-65D



CLW3-ST-1.5X-65



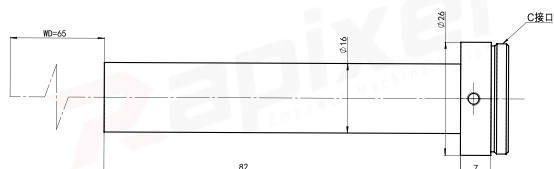
CLW3-ST-1.5X-65D



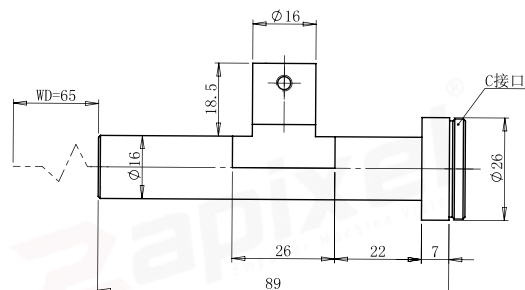
CLW3-ST SERIES

■ WD 65mm

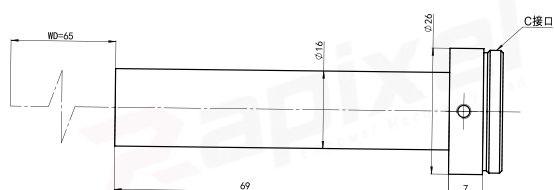
CLW3-ST-2.0X-65



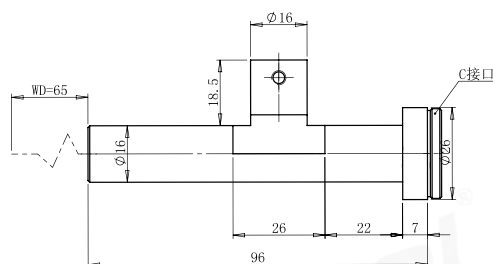
CLW3-ST-2.0X-65D



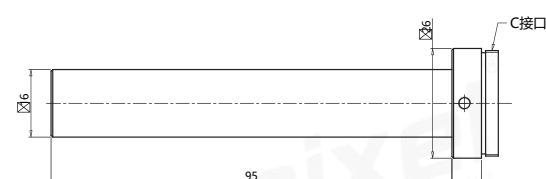
CLW3-ST-3.0X-65



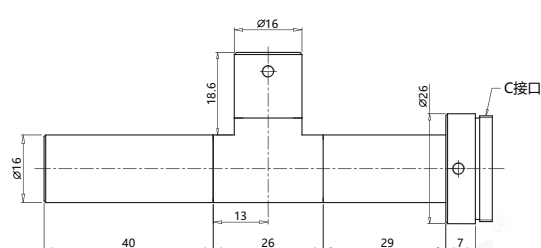
CLW3-ST-3.0X-65D



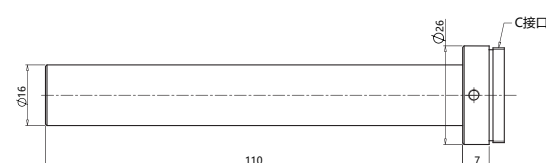
CLW3-ST-4.0X-65



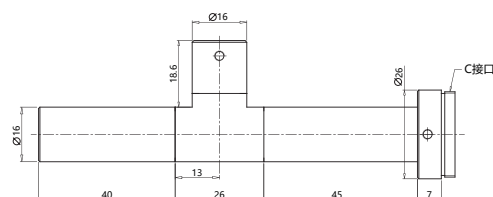
CLW3-ST-4.0X-65D



CLW3-ST-5.0X-65



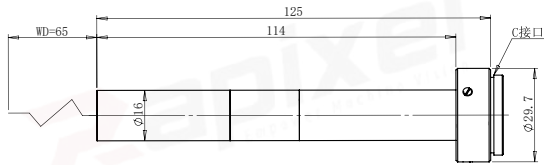
CLW3-ST-5.0X-65D



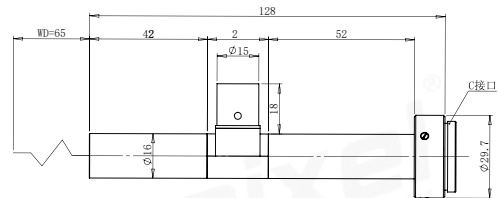
CLW3-ST SERIES

■ WD 65mm

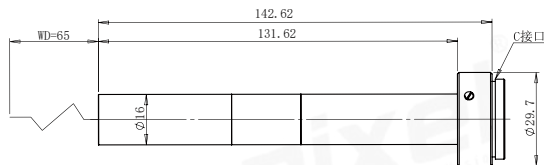
CLW3-ST-6.0X-65



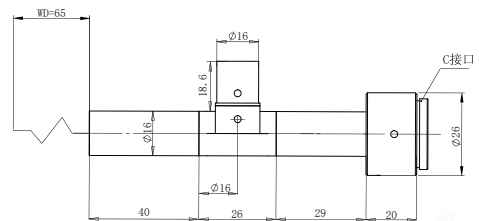
CLW3-ST-6.0X-65D



CLW3-ST-8.0X-65

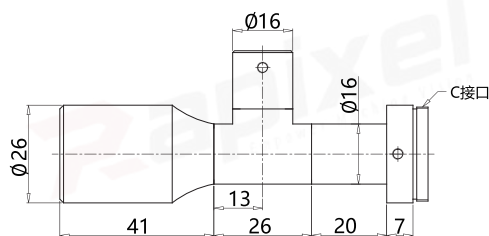
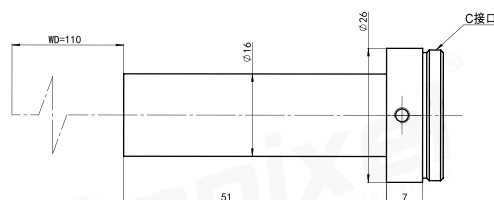
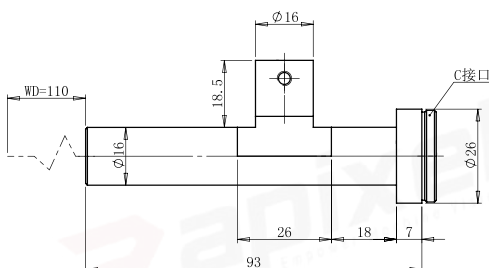
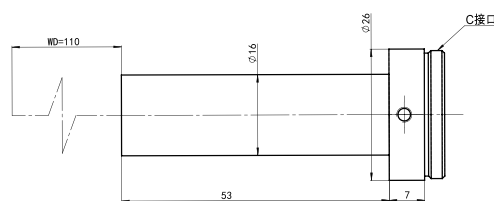
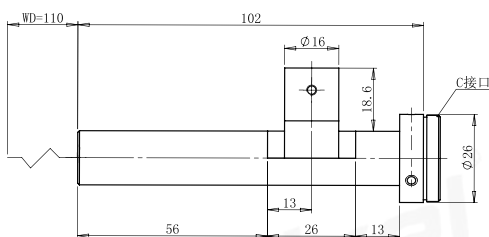
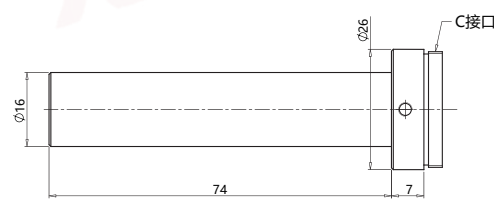
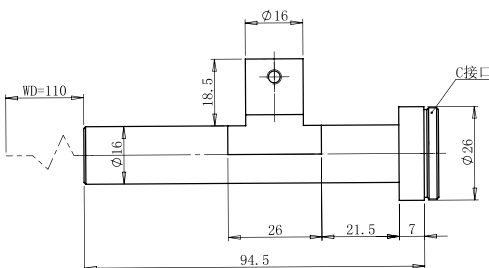
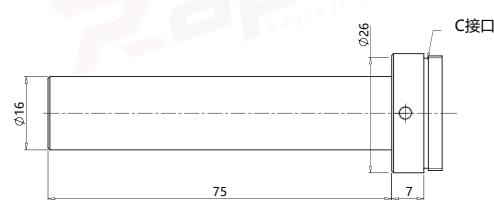


CLW3-ST-8.0X-65D



CLW3-ST SERIES

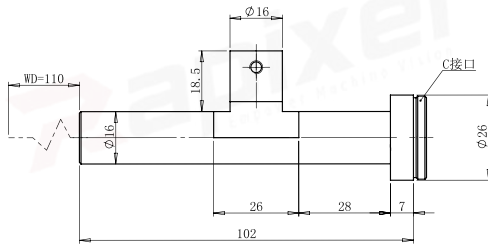
■ WD 110mm

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****CLW3-ST-1.5X-110****CLW3-ST-1.5X-110D****CLW3-ST-2.0X-110**

CLW3-ST SERIES

■ WD 110mm

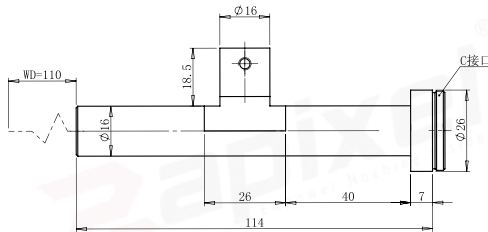
CLW3-ST-2.0X-110D



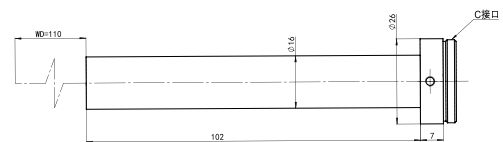
CLW3-ST-3.0X-110



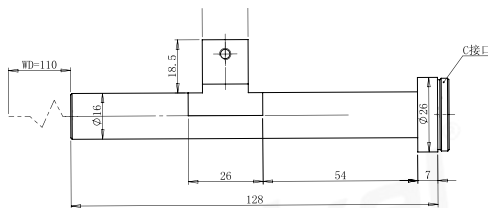
CLW3-ST-3.0X-110D



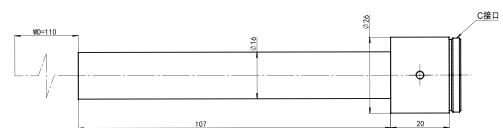
CLW3-ST-4.0X-110



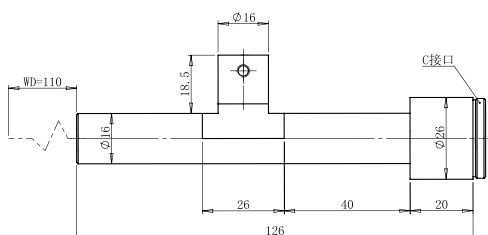
CLW3-ST-4.0X-110D



CLW3-ST-6.0X-110

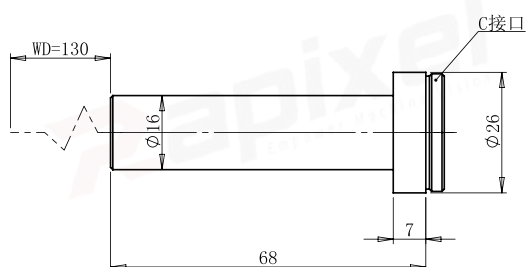
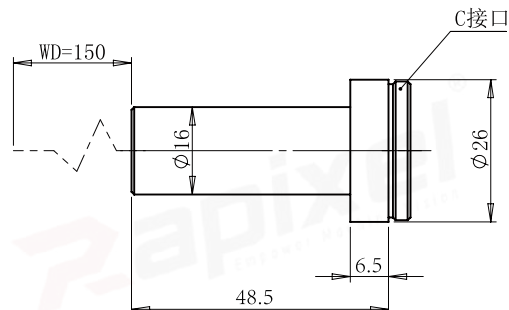
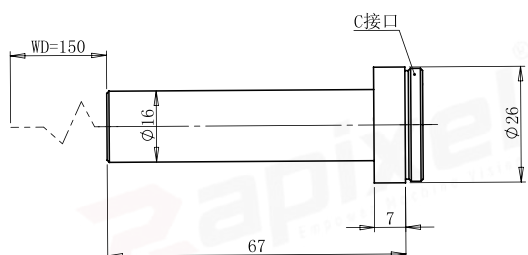
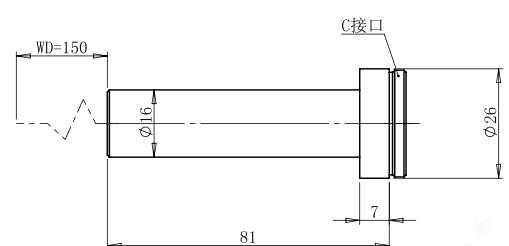
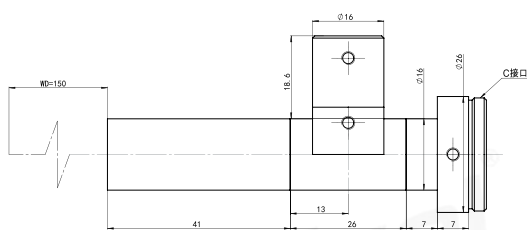
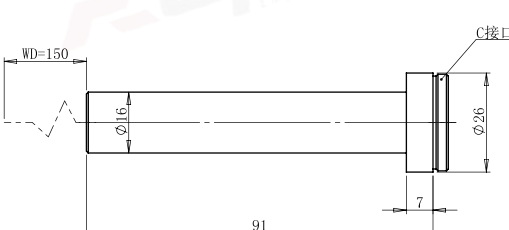
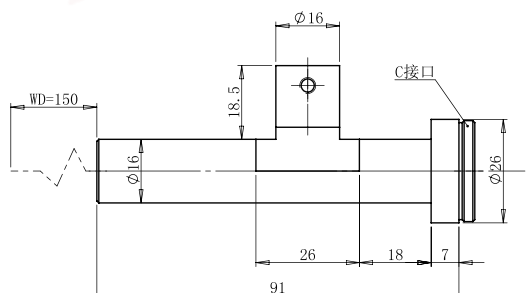
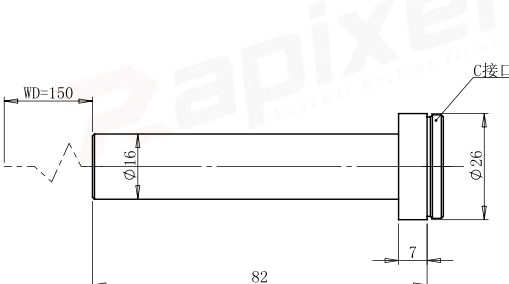


CLW3-ST-6.0X-110



CLW3-ST SERIES

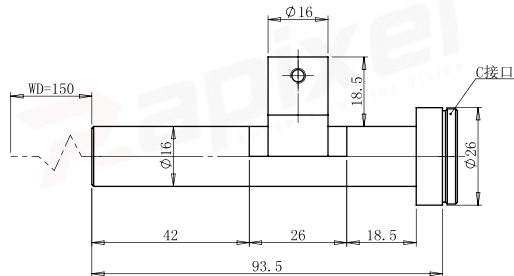
■ WD 130-180mm

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****CLW3-ST-1.0X-150****CLW3-ST-1.0X-150D****CLW3-ST-1.5X-150**

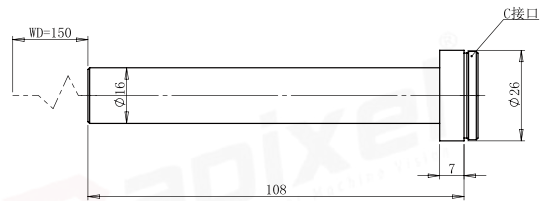
CLW3-ST SERIES

■ WD 130-180mm

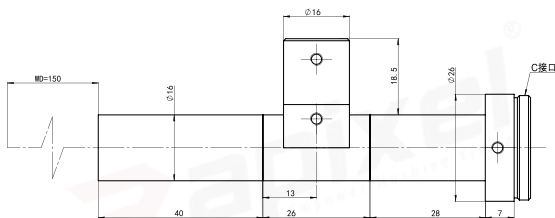
CLW3-ST-1.5X-150D



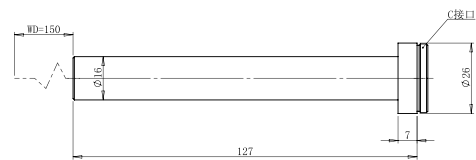
CLW3-ST-2.0X-150



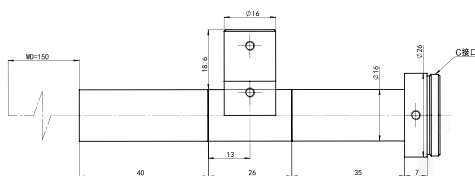
CLW3-ST-2.0X-150D



CLW3-ST-3.0X-150



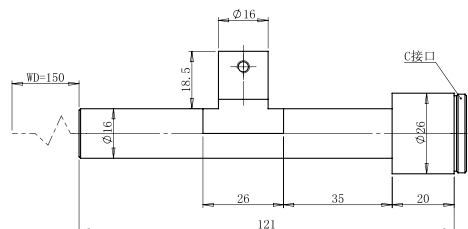
CLW3-ST-3.0X-150D



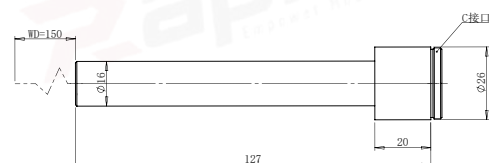
CLW3-ST-4.0X-150



CLW3-ST-4.0X-150D



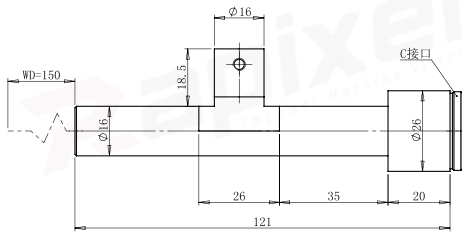
CLW3-ST-6.0X-150



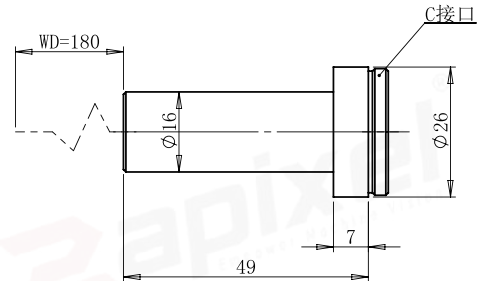
CLW3-ST SERIES

■ WD 130-180mm

CLW3-ST-6.0X-150D



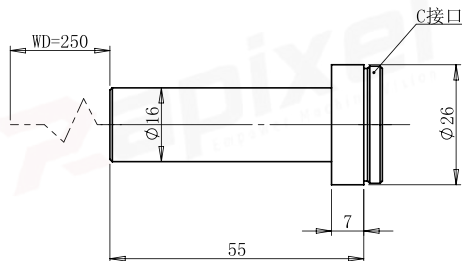
CLW3-ST-0.3X-180



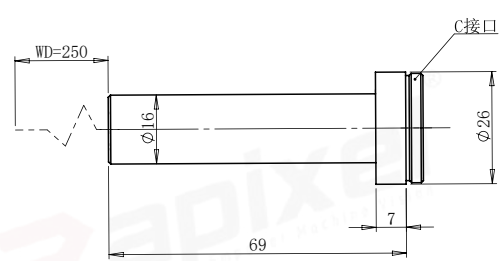
CLW3-ST SERIES

■ WD 250mm

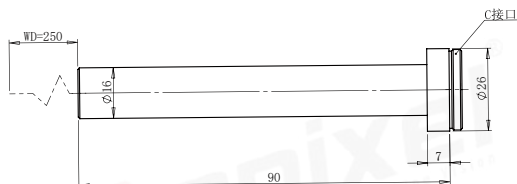
CLW3-ST-0.3X-250



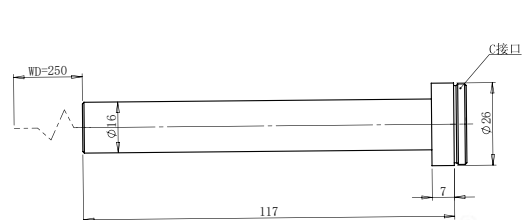
CLW3-ST-0.5X-250



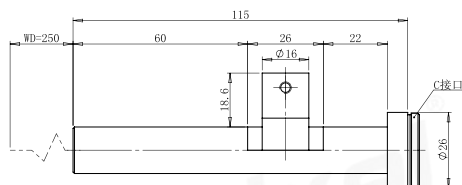
CLW3-ST-0.8X-250



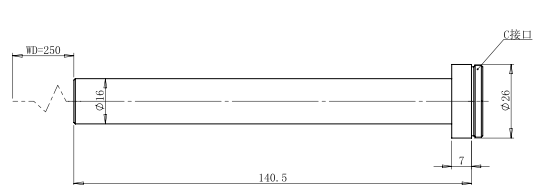
CLW3-ST-1.0X-250



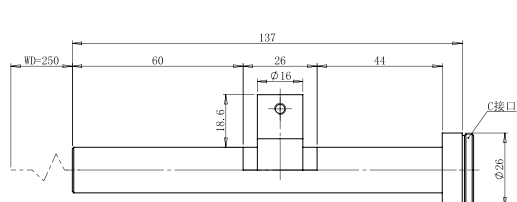
CLW3-ST-1.0X-250D



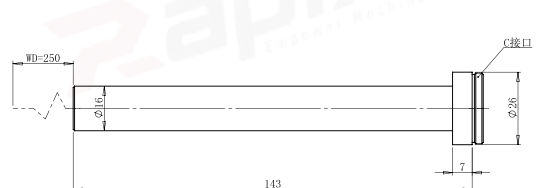
CLW3-ST-1.5X-250



CLW3-ST-1.5X-250D

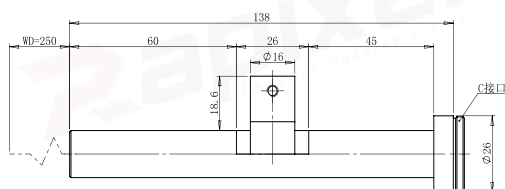
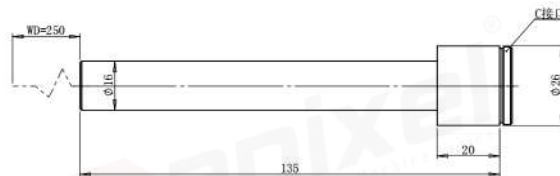
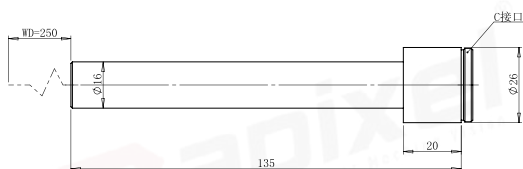
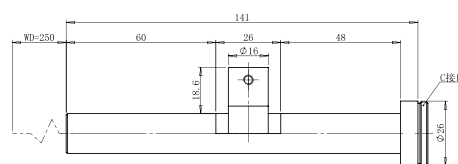


CLW3-ST-2.0X-250



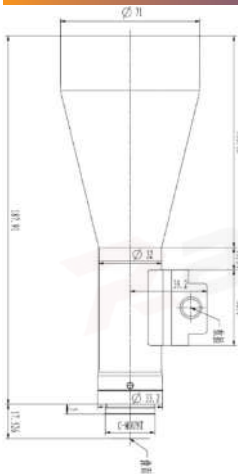
CLW3-ST SERIES

■ WD 250mm

CLW3-ST-2.0X-250D**CLW3-ST-3.0X-250****CLW3-ST-4.0X-250****CLW3-ST-4.0X-250D**

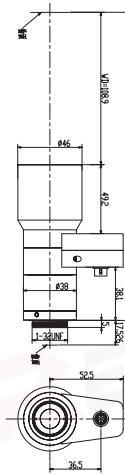
Liquid Series

VT-TLL03-11



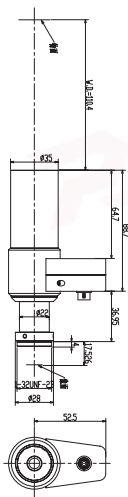
FOV(Φmm)	60
Mag.(x)	0.3
Object Distance (mm)	Effective 50-200
WD (mm)	Optimal 110-180
Sensor Size	1.1" (18.1mm)
F/#	6.8
MTF(lp/mm)	>0.3@140
DoF(mm)	Single 3
	Multi Frame 70
Distortion (Max %)	≤ 0.1
Telecentricity (Max °)	≤ 0.1
Illumination	Blue
Mount	C
Focusing Method	Voltage
Object-Side Resolution	10μm

VT-TLL04-23



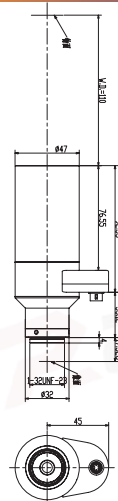
Mag.(x)	0.4
Object Distance (mm)	237.7
WD (mm)	108.9
WD+Liquid DoF(mm)	Effective 100-120
	Optimal 104-116
Sensor Size	2/3" (8.4*7.1mm)
F/#	6.5
Resolution (lp/mm)	>0.3@100
DoF(mm)	±1.8
NA	0.03
FOV(mm)	21x17.7
Distortion (Max%)	≤ 0.02
Telecentricity (Max°)	≤ 0.1
Input Voltage	4.5-5.5V
Input Current	50mA
Mount	C

VT-TLL05-23-A



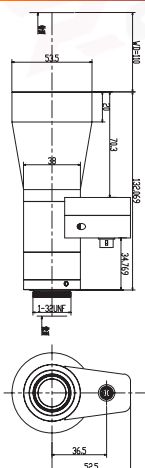
Mag.(x)	0.5
Object Distance (mm)	253
WD (mm)	110.4
WD+Liquid DoF(mm)	Effective 110-120
	Optimal 105-115
Sensor Size	2/3" (8.8*6.4mm)
F/#	10
Resolution (lp/mm)	>0.3@100
DoF(mm)	±1.8
NA	0.0248
FOV(mm)	17.6x12.8
Distortion (Max%)	<0.1
Telecentricity (Max°)	<0.2
Input Voltage	4.5-5.5V
Input Current	50mA
Mount	C

VT-TLL05-23-C



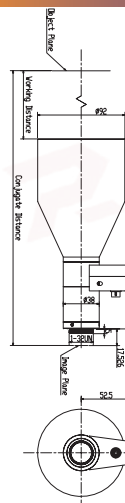
Mag.(x)	0.5
Object Distance (mm)	253.2
WD (mm)	110
WD+Liquid DoF(mm)	Effective 100-120
	Optimal 105-115
Sensor Size	2/3" (8.8*6.4mm)
F/#	10
Resolution (lp/mm)	>0.3@100
DoF(mm)	±1.8
NA	0.0248
FOV(mm)	17.6x12.8
Distortion (Max%)	<0.1
Telecentricity (Max°)	<0.2
Input Voltage	4.5-5.5V
Input Current	50mA
Mount	C

VT-TLL05-H1



Mag.(x)	0.5
Object Distance (mm)	242.304
WD (mm)	110
WD+Liquid DoF(mm)	Effective 70-140
	Optimal 100-120
Sensor Size	1" (14.1*10.4mm)
F/#	8
Resolution (lp/mm)	>0.3@125
NA	0.1347
FOV(mm)	28.2x20.8
Distortion (Max%)	<0.05
Telecentricity (Max°)	<0.01
Input Voltage	4.5-5.5V
Input Current	50mA
Mount	C

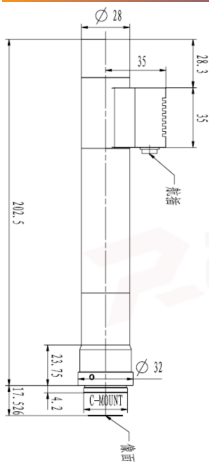
VT-TLL02-11



Mag.(x)	0.23
Object Distance (mm)	382
WD (mm)	165
WD+Liquid DoF(mm)	Effective /
	Optimal /
Sensor Size	1.1"(14.1*10.4mm)
F/#	6.6
Resolution (lp/mm)	>0.3@120
DoF+Liquid(mm)	±45
NA	0.017
FOV(mm)	61.3x45.2
Distortion (Max%)	<0.2
Telecentricity (Max°)	<0.1
Input Voltage	/
Input Current	/
Mount	C

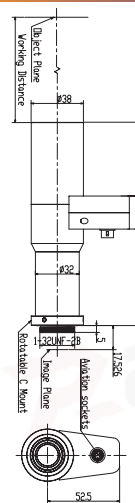
Liquid Series

VT-TLL17-23



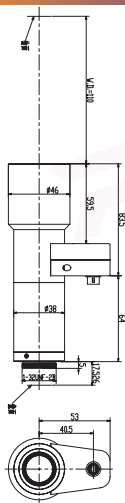
FOV(Φmm)	6.3
Mag.(x)	1.75x
WD(mm)	Effective 100-120 Optimal 105-115
Sensor Size	2/3" (11mm)
F/#	13
MTF(lp/mm)	>0.2@60
DoF(mm)	Single 0.2 Multi Frame 10
Distortion (Max%)	≤ 0.2
Telecentricity (Max°)	≤ 0.2
Illumination	White
Mount	C
Focusing Method	Voltage
Object-Side Resolution	5μm

VT-TLL10-11



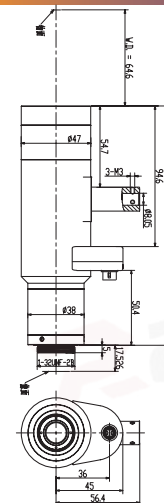
Mag.(x)	1x
Object Distance (mm)	275.3
WD (mm)	/
WD+Liquid	Effective 108-120
DoF(mm)	Optimal 110-117
Sensor Size	1.1"(14.1*10.4mm)
F/#	10
Resolution (lp/mm)	>0.3@100
DoF+Liquid(mm)	±6
NA	0.05
FOV(mm)	14.1x10.4
Distortion (Max%)	<0.2
Telecentricity (Max°)	<0.2
Input Voltage	/
Input Current	/
Mount	C

VT-TLL10-11-B



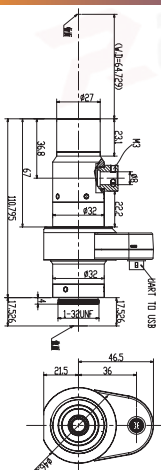
Mag.(x)	1x
Object Distance (mm)	275
WD (mm)	110
WD+Liquid	Effective 100-120
DoF(mm)	Optimal 105-115
Sensor Size	1.1"(14.1*10.4mm)
F/#	6
Resolution (lp/mm)	>0.3@165
DoF	/
NA	0.083
FOV(mm)	14.1x10.4
Distortion (Max%)	<0.1
Telecentricity (Max°)	<0.1
Input Voltage	4.5-5.5V
Input Current	50mA
Mount	C

VT-TLL30-11



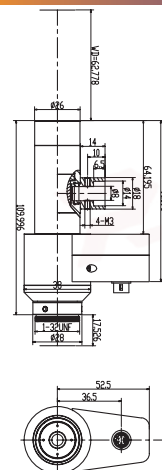
Mag.(x)	3x
Object Distance (mm)	243.1
WD (mm)	64.6
WD+Liquid	Effective 63-67
DoF(mm)	Optimal 64-66
Sensor Size	1.1"(14.1*10.4mm)
F/#	11
Resolution (lp/mm)	>0.3@85
DoF+Liquid(mm)	/
NA	0.1347
FOV(mm)	4.7x3.5
Distortion (Max%)	<0.05
Telecentricity (Max°)	<0.01
Input Voltage	4.5-5.5V
Input Current	50mA
Mount	C

VT-TLL40-C-23-A



Mag.(x)	4x
Object Distance (mm)	190.3
WD (mm)	64.7
WD+Liquid	Effective /
DoF(mm)	Optimal /
Sensor Size	2/3"(8.8*6.4mm)
F/#	17
Resolution (lp/mm)	>0.3@50
DoF+Liquid(mm)	2
NA	0.117
FOV(mm)	2.2x1.55
Distortion (Max%)	<0.05
Telecentricity (Max°)	<0.1
Coaxial	Yes
Mount	C

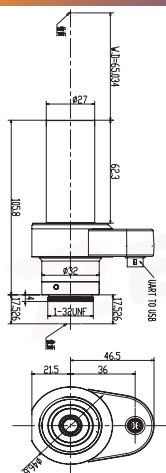
VT-TLL40-C-23-C



Mag.(x)	4x
Object Distance (mm)	190.3
WD (mm)	62.778
WD+Liquid	Effective /
DoF(mm)	Optimal /
Sensor Size	2/3"(8.8*6.4mm)
F/#	17
Resolution (lp/mm)	>0.3@50
DoF+Liquid(mm)	2
NA	0.117
FOV(mm)	2.2x1.55
Distortion (Max%)	<0.05
Telecentricity (Max°)	<0.1
Coaxial	Yes
Mount	C

Liquid Series

VT-TLL40-23



Mag.(x)	4x
Object Distance (mm)	188.3
WD (mm)	65
WD+Liquid	Effective /
DoF(mm)	Optimal /
Sensor Size	2/3"(8.8*6.4mm)
F/#	17
Resolution (lp/mm)	>0.3@50
DoF+Liquid(mm)	2
NA	0.117
FOV(mm)	2.2x1.55
Distortion (Max%)	<0.05
Telecentricity (Max°)	<0.1
Coaxial	No
Mount	C

