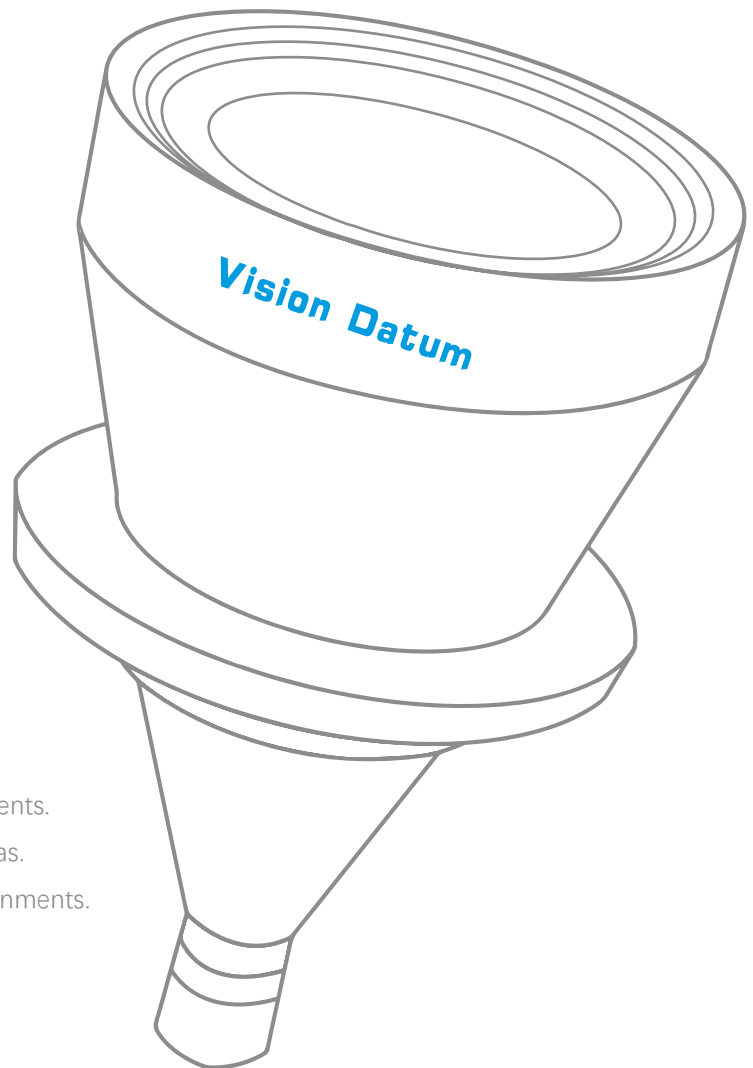




TELECENTRIC LENSES

BTL-16K SERIES



MAIN FEATURES

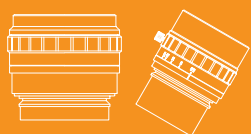
- ◆ **High telecentricity** for thick object imaging.
- ◆ **Nearly zero distortion** for accurate measurements.
- ◆ **Excellent resolution** for high resolution cameras.
- ◆ **Simple and robust design** for industrial environments.

ABOUT US

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

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

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



BTL-16K SERIES

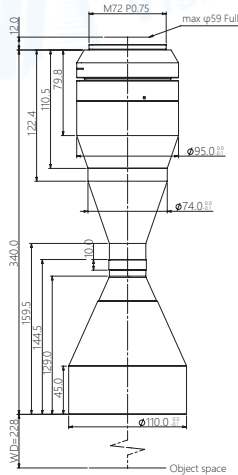
Support 16K 3.5μ Camera



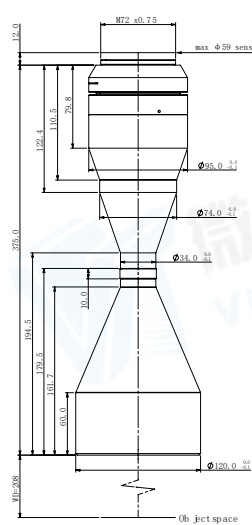
Model No.	Optical specs										Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Length (mm)	Mount	Weight (kg)
BTL-0.738X-228-16K(LM)	80	0.738	228±4	59	9.9	>85	±1.6@F22	<0.1	<0.1	580±4	340.0	M72	3.4
BTL-0.656X-208-16K(LM)	90	0.656	208±3	59	15.4	>50	±1.3@F20	<0.1	<0.1	595±3	375.0	M72	3.1
BTL-0.59X-238-16K(LM)	100	0.59	238±3	59	13.9	>60	±2.3@F20	<0.1	<0.1	668±4	417.7	M72	3.1
BTL-0.536X-263-16K(LM)	110	0.536	263±4	59	12.6	>60	±2.8@F20	<0.1	<0.1	703±4	427.6	M72	4.1
BTL-0.434X-288-16K(LM)	136	0.434	288±5	59	10.7	>80	±4.2@F20	<0.1	<0.1	813±5	512.6	M72	5.7
BTL-0.393X-300-16K(LM)	150	0.393	300±5	59	19.8	>45	±5.1@F20	<0.1	<0.1	794±5	482.0	M72	7.1
BTL-0.347X-318-16K(LM)	170	0.347	318±5	59	8.7	>90	±5.3@F16	<0.1	<0.1	874±5	543.9	M72	8.0
BTL-0.311X-330-16K(LM)	190	0.311	330±5	59	13.9	>65	±8.2@F20	<0.1	<0.1	913±5	571.2	M72	11.1
BTL-0.273X-372-16K(LM)	216	0.273	372±5	59	8.7	>95	±8.6@F16	<0.1	<0.1	1051±5	666.7	M72	15.2
BTL-0.246XH-410-16K(LM)	240	0.246	410±6	59	8.7	>100	±14.6@F22	<0.1	<0.1	1135±6	712.5	M72	20.5
BTL-0.229X-340-16K(LM)	258	0.229	340±5	59	8.7	>100	±12.2@F16	<0.1	<0.1	942±5	589.9	M72	-
BTL-0.197X-465-16K(LM)	300	0.197	465±6	59	9	>95	±20.6@F20	<0.1	<0.1	1268±6	791.0	M72	48.0
BTL-1.0X-102-16K(LM)	62	1.000	102±2	62	7.0	>110	±0.3@F7.0	<0.1	<0.62	400±2	285.9	M72	3.1
BTL-0.853X-125-16K(LM)	72.7	0.853	125±3	62	6.0	>135	±0.3@F6.0	<0.1	<0.3	650±3	513.0	M72	5.7
BTL-0.705X-125-16K(LM)	88	0.705	125±3	62	7.0	>165	±0.6@F7.0	<0.1	<0.3	601±3	464.4	M72	5.2

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

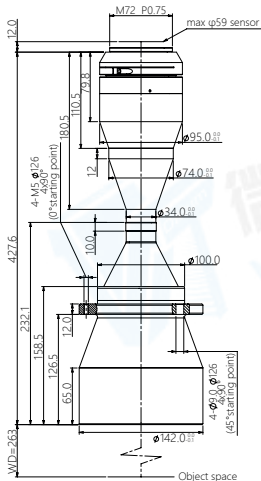
2. Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

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

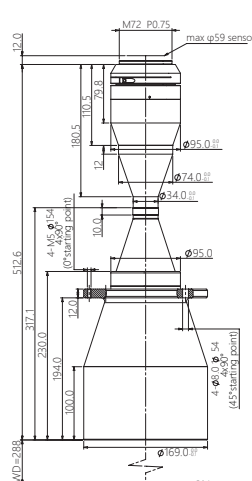
FOV(Φmm)	80
Mag.(x)	0.738
WD(mm)	228±4
Max Sensor Size(Φmm)	59
F/#	9.9
MTF30(lp/mm)	>85
DoF(mm)	±1.6@F22
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	580±4
Length(mm)	340.0
Mount	M72
Weight(kg)	3.4
Field of View(mm x mm)	
KAI-47051(48.7x29.0)	66.0x39.3
Linescan-16K (57.4mm)	77.8
Linescan-8K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

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

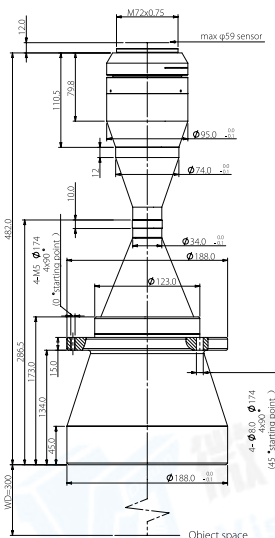
FOV(Φmm)	90
Mag.(x)	0.656
WD(mm)	208±3
Max Sensor Size(Φmm)	59
F/#	15.4
MTF30(lp/mm)	>50
DoF(mm)	±1.3@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	595±3
Length(mm)	375.0
Mount	M72
Weight(kg)	3.1
Field of View(mm x mm)	
KAI-47051(48.7x29.0)	74.2x44.2
Linescan-16K (57.4mm)	87.5
Linescan-8K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

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

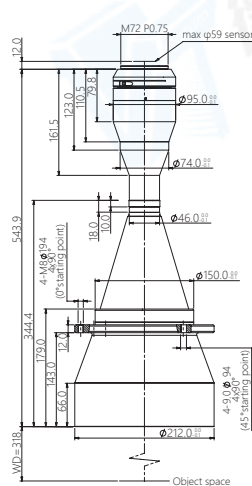
FOV(Φmm)	110
Mag.(x)	0.536
WD(mm)	263±4
Max Sensor Size(Φmm)	59
F/#	12.6
MTF30(lp/mm)	>60
DoF(mm)	±2.8@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	703±4
Length(mm)	427.6
Mount	M72
Weight(kg)	4.1
Field of View(mm x mm)	
KAI-47051(48.7x29.0)	90.9x54.1
Linescan-16K (57.4mm)	107.1
Linescan-8K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

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

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

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

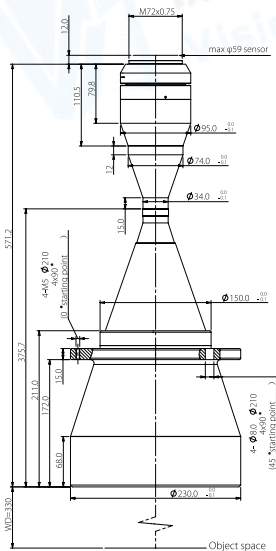
FOV(Φmm)	150
Mag.(x)	0.393
WD(mm)	300±5
Max Sensor Size(Φmm)	59
F/#	19.8
MTF30(lp/mm)	>45
DoF(mm)	±5.1@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	794±5
Length(mm)	482.0
Mount	M72
Weight(kg)	7.1
Field of View(mm x mm)	
KAI-47051(48.7x29.0)	123.9x73.8
Linescan-16K (57.4mm)	146.1
Linescan-8K (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 x mm)	
KAI-47051(48.7x29.0)	140.3x83.6
Linescan-16K (57.4mm)	165.4
Linescan-8K (57.4mm)	165.4

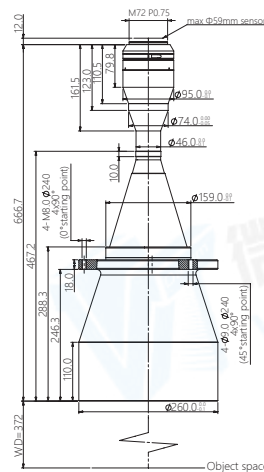
Warm tips: The above DOF is just theoretical value at the ideal aperture (eg. ±763@F11). Actual DOF or the DOF what you need, please check with our sales engineer before order cfm.

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



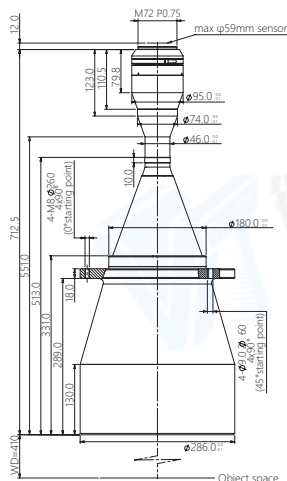
FOV(Φmm)	190
Mag.(x)	0.311
WD(mm)	330±5
Max Sensor Size(Φmm)	59
F/#	13.9
MTF30(lp/mm)	>65
DoF(mm)	±8.2@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	913±5
Length(mm)	571.2
Mount	M72
Weight(kg)	11.1
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	156.6x93.3
Linescan-16K (57.4mm)	184.6
Linescan-8K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

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



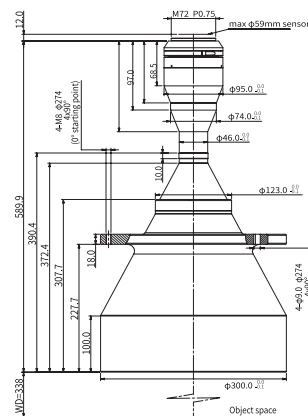
FOV(Φmm)	216
Mag.(x)	0.273
WD(mm)	372±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>95
DoF(mm)	±8.6@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1051±5
Length(mm)	666.7
Mount	M72
Weight(kg)	15.2
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	178.4x106.2
Linescan-16K (57.4mm)	210.3
Linescan-8K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

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



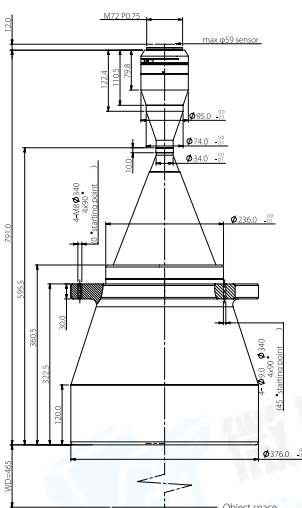
FOV(Φmm)	240
Mag.(x)	0.246
WD(mm)	410±6
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>100
DoF(mm)	±14.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1135±6
Length(mm)	712.5
Mount	M72
Weight(kg)	20.5
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	198.0x117.9
Linescan-16K (57.4mm)	233.3
Linescan-8K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

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



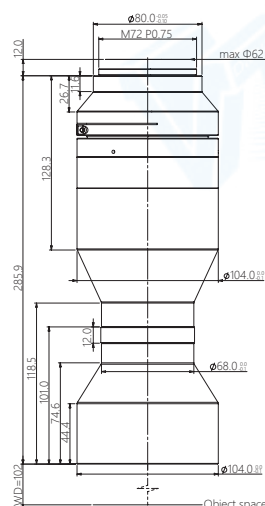
FOV(Φmm)	258
Mag.(x)	0.229
WD(mm)	338±5
Max Sensor Size(Φmm)	59
F/#	8.7
MTF30(lp/mm)	>100
DoF(mm)	±12.2@F16
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	942±5
Length(mm)	589.9
Mount	M72
Weight(kg)	-
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	212.7x126.6
Linescan-16K (57.4mm)	250.7
Linescan-8K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

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



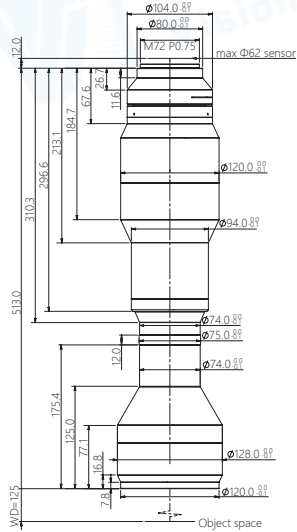
FOV(Φmm)	300
Mag.(x)	0.197
WD(mm)	465±6
Max Sensor Size(Φmm)	59
F/#	9
MTF30(lp/mm)	>95
DoF(mm)	±20.6@F20
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	1268±6
Length(mm)	791.0
Mount	M72
Weight(kg)	48.0
Field of View(mm xmm)	
KAI-47051(48.7x29.0)	247.2x147.2
Linescan-16K (57.4mm)	291.4
Linescan-8K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

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

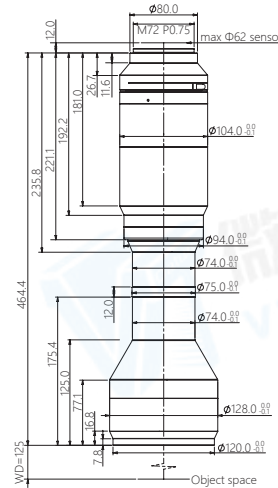


FOV(Φmm)	62
Mag.(x)	1.000
WD(mm)	102±2
Max Sensor Size(Φmm)	62
F/#	7.0
MTF30(lp/mm)	>110
DoF(mm)	±0.3@F7.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.62
I/O(mm)	400±2
Length(mm)	285.9
Mount	M72
Weight(kg)	3.1
Field of View(mm xmm)	
KAI-47051 (48.7x29.0)	78.9x59.8
Linescan-12K 5um (61.44mm)	61.4mm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

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

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

FOV(Φmm)	72.7
Mag.(x)	0.853
WD(mm)	125±3
Max Sensor Size(Φmm)	62
F/#	6.0
MTF30(lp/mm)	>135
DoF(mm)	±0.3@F6.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.3
I/O(mm)	650±3
Length(mm)	513.0
Mount	M72
Weight(kg)	5.7
Field of View(mm x mm)	
KAI-47051 (48.7x29.0)	57.1x34.0
Linescan-12K 5um (61.44mm)	72.0
Linescan-16K 3.5/3.53um (57.4mm)	67.3

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

FOV(Φmm)	88
Mag.(x)	0.705
WD(mm)	125±3
Max Sensor Size(Φmm)	62
F/#	7.0
MTF30(lp/mm)	>165
DoF(mm)	±0.6@F7.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.3
I/O(mm)	601±3
Length(mm)	464.4
Mount	M72
Weight(kg)	5.2
Field of View(mm x mm)	
KAI-47051 (48.7x29.0)	69.1x41.1
Linescan-12K 5um (61.44mm)	87.1
Linescan-16K 3.5/3.53um (57.4mm)	81.4

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