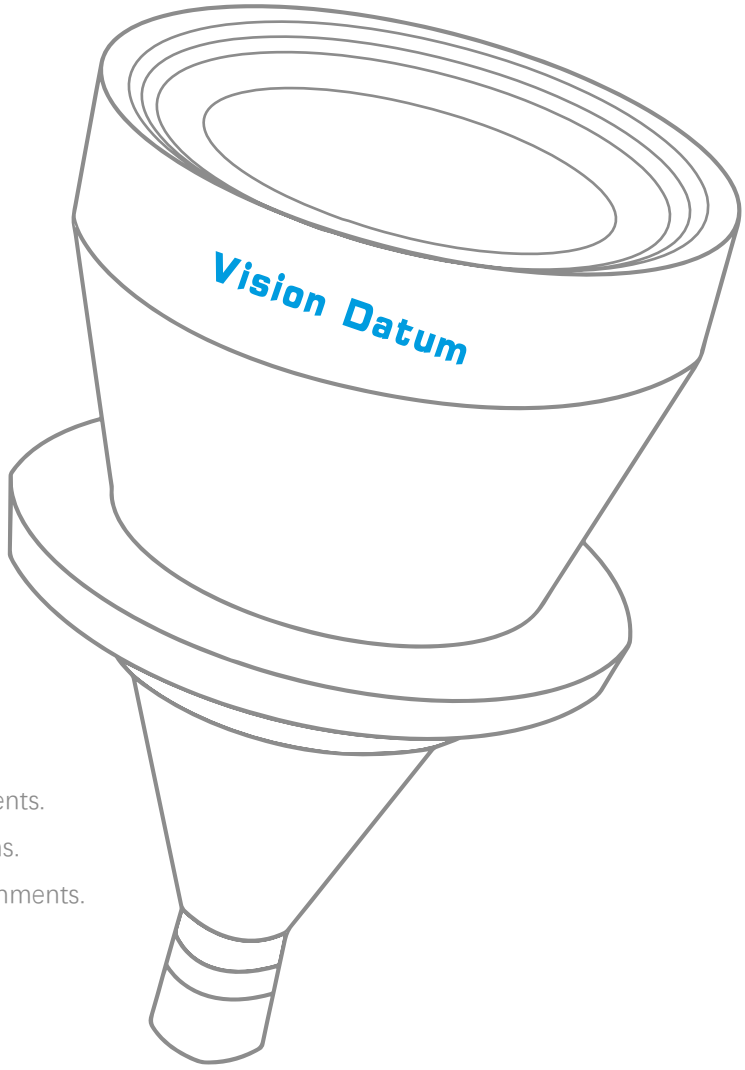
TELECENTRIC LENSES
BTL-24K SERIES



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-24K SERIES

Support 16K 5μ / 24K 3.5μ Camera

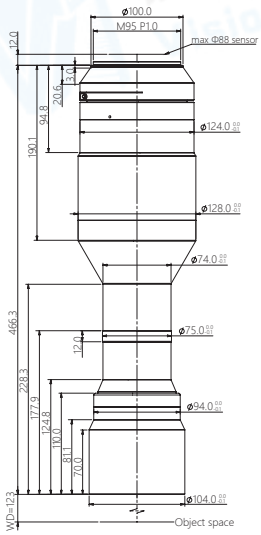
Model No.	Optical specs												Mechanical specs		
	FOV (Φmm)	Mag. (x)	WD (mm)	Max. Sesnor Size (Φmm)	F/#	MTF30 (lp/mm)	DOF (mm)	Distortion (% max)	Telecentricity (° max)	I/O (mm)	Variable Iris	Coaxial	Length (mm)	Mount	Weight (kg)
BTL-1.419X-123-24K	62	1.419	123±3	88	7.0	>115	±0.1@F7.0	<0.1	<0.1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

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

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

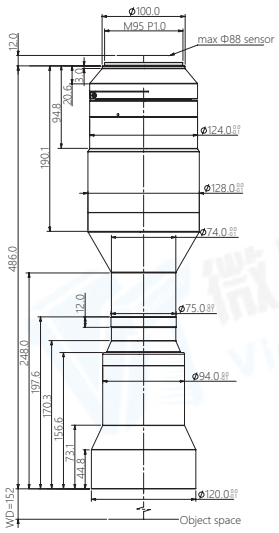
微图视觉 Vision Datum

BTL-1.419X-123-24K



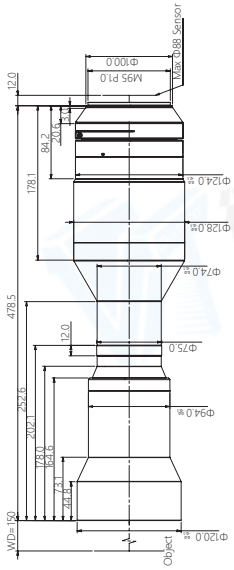
FOV(Φmm)	62
Mag.(x)	1.419
WD(mm)	123±3
Max Sensor Size(Φmm)	88
F/#	7.0
MTF30(lp/mm)	>115
DoF(mm)	±0.1@F7.0
Distortion(% max)	<0.1
Telecentricity(° max)	<0.1
I/O(mm)	601±3
Length(mm)	466.3
Mount	M95
Weight(kg)	5.5
Coaxial Light	No
Variable Iris	No
Field of View(mmxmm)	
KAI-47051 (48.7x29.0)	45.3x38.3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

BTL-1.173X-152-24K



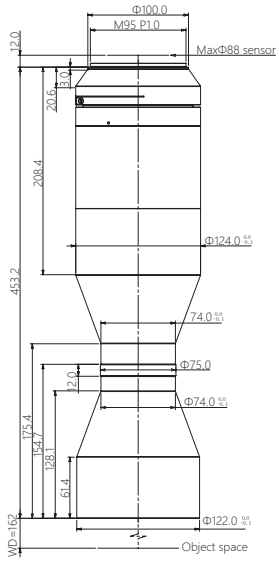
FOV(Φmm)	75
Mag.(x)	1.173
WD(mm)	152±3
Max Sensor Size(Φmm)	88
F/#	7.0
MTF30(lp/mm)	>118
DoF(mm)	±0.2@F7.0
Distortion(% max)	<0.01
Telecentricity(° max)	<0.05
I/O(mm)	650±3
Length(mm)	486.0
Mount	M95
Weight(kg)	5.6
Variable Iris	No
Coaxial Light	No
Field of View(mmxmm)	
DALSA 86M (64.32x48.38)	54.8x46.4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

BTL-1.11X-150-24K



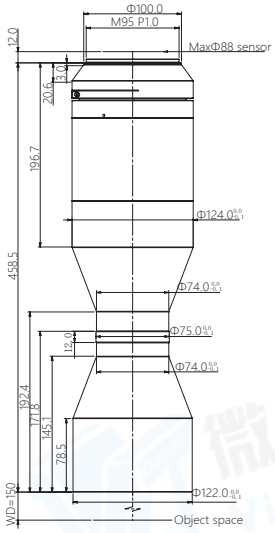
FOV(Φmm)	79.2
Mag.(x)	1.11
WD(mm)	150±3
Max Sensor Size(Φmm)	88
F/#	7.0
MTF30(lp/mm)	>100
DoF(mm)	±0.2@F7.0
Distortion(% max)	<0.01
Telecentricity(° max)	<0.2
I/O(mm)	641±3
Length(mm)	478.5
Mount	M95
Weight(kg)	5.6
Variable Iris	No
Coaxial Light	No
Field of View(mmxmm)	
DALSA 86M (64.32x48.38)	57.9x43.6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

BTL-1.0X-162-24K



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

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



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

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

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微图视觉
Vision Datum

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