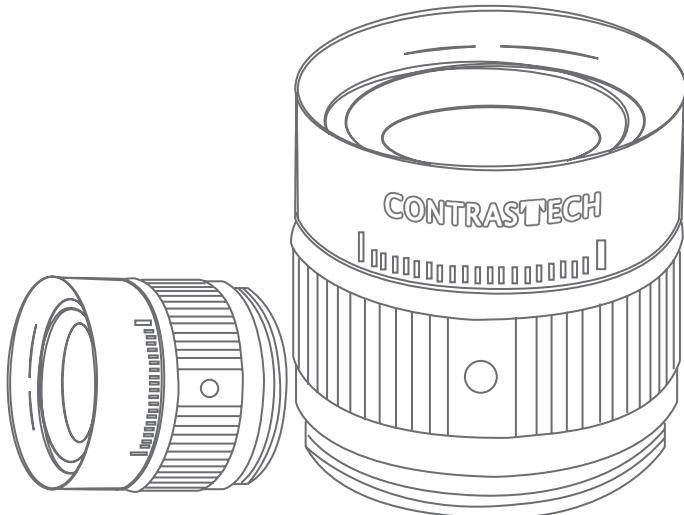


# MACHINE VISION LENSES

Lenses have the basic function of switching or adjusting the light beam. In machine vision system, lenses are used to shoot the target image on CCD surface. Therefore lens quality will directly affect the overall performance of the visual system. The correct selection and assembly of lenses is essential when designing machine vision system.

Contrastech lenses products include high-resolution Fixed-focus Lenses, Large-format Industrial Lenses, Line Scan Lenses, UV/SWIR Lenses, Macro Lenses and 360° View Lenses. All these products are greatly used in the fields of intelligent inspection, automotive industry, robotics and printing, logistics management and military.



Subject to change without prior notice.  
For more information, please contact our sales representatives.

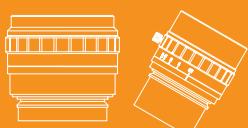
# ABOUT US

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Hangzhou Contrastech Technology Co.,Ltd. was established in 2008, dedicated to professional machine vision and image technology. As leading manufacturer and provider of machine vision products in China, the major products include industrial camera, scientific standard camera, high definition frame grabber card, 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 thousands of automation practice projects.

With advanced technology and creative power of image acquisition and processing, Contrastech products have been exported to almost 100 countries and regions, and in thousands of projects have won countless affirmations and reputations. Contrastech machine vision products are well-known as innovative, flexible, stable and easy to use, enabling reliable inspection in many applications.

This is Contrastech machine vision lenses catalogue. Contrastech industrial lens range from megapixels to 150 million pixels, covering various sensor size, camera interfaces, and waveband ranges. The products include fixed focus, zoom, macro, telecentric lenses and 360-degree lenses, and etc. For more requirements, please contact your sales engineer representative or our technical support team.



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# 1/1.8"~4/3" C-MOUNT

C-  
MOUNT



## C-MOUNT FIXED FA LENSES

These days, C-Mount lenses are still the most common type in industrial image processing, esp. in factory automation. Mostly they are used with digital cameras like USB, GigE and Smart Cameras.

LEM series is an advanced industrial lens product researched and developed by CONTRASTECH, which catering to the demands of recent market environment.

The quality of our lenses is guaranteed by refined optical glasses, mature coating process and advanced optical structure.

Developed with high cost-performance ratio, the quality and performance are quite competitive with foreign counterparts.

## PRODUCT FEATURES

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1. Suitable for 5 mega up to 10 mega pixels sensors.
2. High resolution at whole range of WD and excellent brightness.
3. Robust design, suitable for most machine vision applications.
4. Professional MTF optimization
5. Lockable focus and iris screws prevent movement during vibrations or shocks.
6. High cost-performance ratio

**NOTE****HOT!** : Hot Product**NEW!** : New Product**ADV.** : Advantage Product**OOP** : Out of Production**1/1.8" C-MOUNT FIXED LENSES****Click to view details/drawings**

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	TV Distortion (%)	Filter Size	Mega Pixels (MP)	Type
VT-LEM0420 <b>HOT!</b>	4.0	F2.0	0.1	D:94.0° H:82.9° V:66.5°	<0.5%	-	5	Standard
VT-LEM0620	6.0	F2.0	0.1	D:64.5° H:54.1° V:41.9°	<0.1%	M25.5× 0.5	5	Standard
VT-LEM0820	8.0	F2.0	0.1	D:56.0° H:46.8° V:36.0°	<0.1%	M25.5× 0.5	5	Standard
VT-LEM1220	12.0	F2.0	0.1	D:40.7° H:33.0° V:24.3°	<0.3%	M25.5× 0.5	5	Standard
VT-LEM1620	16.0	F2.0	0.1	D:30.3° H:24.7° V:18.2°	<0.1%	M25.5× 0.5	5	Standard
VT-LEM2520	25.0	F2.0	0.1	D:19.0° H:13.6° V:11.3°	<0.1%	M25.5× 0.5	5	Standard
VT-LEM3520	35.0	F2.0	0.2	D:12.24° H:8.8° V:7.0°	<0.1%	M25.5× 0.5	5	Standard
VT-LEM5028	50.0	F2.8	0.3	D:10.2° H:8.2° V:6.1°	<0.05%	M28.5× 0.5	5	Standard
VT-LEM7528 <b>HOT!</b>	75.0	F2.8	0.5	D:5.84° H:5.4° V:4.04°	<0.05%	M30.5× 0.5	5	Standard
VT-LEM0616MP5	6.0	F1.6	0.1	D:71.7° H:60.1° V:46.6°	<0.54%	M34× 0.5	5	Standard
VT-LEM014141-FE	1.4	F1.41	0.1	D:182° H:182° V:182°	<-1%	-	5	Standard

**2/3" C-MOUNT FIXED LENSES****Click to view details/drawings**

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View -D x H x V (deg.)	TV Distortion (%)	Filter Size	Mega Pixels (MP)	Type
VT-LEM0518MP10 <b>ADV.</b>	5.0	F1.8	0.1	95.45°× 66.85° × 82.7°	<5%	M62× 0.75	10	Standard
VT-LEN2028MP10 <b>ADV.</b>	20.0	F2.8	0.2	28.6°× 23.33° × 82.7°	<-0.60%	-	10	Standard
VT-LEM0814CBMP8	8.0	F1.4	0.1	61.7°× 56.3° × 43.7°	<0.1%	M37× 0.5	8	Standard
VT-LEM1216CBMP8	12.0	F1.6	0.15	46.6°× 39°× 30.3°	<0.8%	M30.5× 0.5	8	Standard
VT-LEM1614CBMP8	16.0	F1.4	0.1	37.3°× 30.3°× 23°	<0.1%	M30.5× 0.5	8	Standard
VT-LEM2514CBMP8	25.0	F1.4	0.1	24.6°× 20°× 15°	<0.2%	M30.5× 0.5	8	Standard
VT-LEM3514CBMP8	35.0	F1.4	0.15	17.3°× 13.9°× 10.4°	<0.8%	M37× 0.5	8	Standard
VT-LEM5014CBMP8	50.0	F1.4	0.3	13.04°× 10.46°× 7.86°	<0.8%	M37× 0.5	8	Standard
VT-LEM10028 <b>ADV.</b>	100.0	F2.8	-	5.6°× 7.5°	<0.1%	M37.5×0.5	2	Standard

**HOT! 1" C-MOUNT FIXED LENSES(5MP)****Click to view details/drawings**

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	TV Distortion (%)	Filter Size	Mega Pixels (MP)	Type
VT-LEM7528MP5	75	F2.8	0.6	11.4°× 9.2°× 4.8°	<0.07%	M34× 0.5	5	Standard
VT-LEM1214CB-H1	12.5	F1.4	0.1	66.3°× 54.5°× 42.0°	<1.8%	M46×0.75	5	Standard
VT-LEM1614CB-H1	16	F1.4	0.1	42.4°×32.4°×51.6°	<0.1%	M46×0.75	5	Standard
VT-LEM2514CB-H1	25	F1.4	0.1	28.7°×22.06°×34.94°	<0.1%	M40.5×0.5	5	Standard
VT-LEM3514CB-H1	35	F1.4	0.15	19.28°×9.8°×7.4°	<0.1%	M46×0.75	5	Standard
VT-LEM5014CB-H1	50	F1.4	0.3	17.14°×14.32°×23.92°	<0.1%	M46×0.75	5	Standard
VT-LEM7518CB-H1	75	F1.8	0.8	12.2°×9.8°×7.4°	<0.1%	M55×0.75	5	Standard
VT-LEM0814CE-H1 <b>NEW!</b>	8	F1.4	0.2	88°×70.5°×53°	<1.5%	-	5	Standard
VT-LEM1216CE-H1	12	F1.6	0.2	68.8°×57.1°×44.1°	<1.5%	M52×0.75	5	Standard
VT-LEM1616CE-H1	16	F1.6	1.0	54.3°× 44.2°× 33.5°	<1.0%	M37× 0.5	5	Standard
VT-LEM2220CE-H1	22	F2.0	0.4	40.0°× 32.0°× 24.0°	<1.0%	-	5	Standard
VT-LEM2516CE-H1	25	F1.6	1.0	36.2°× 29.0°× 21.8°	<1.0%	M39× 0.5	5	Standard
VT-LEM3514CE-H1	35	F1.4	1.0	25.7°× 20.7°× 15.6°	<1.0%	M39× 0.5	5	Standard

**HOT! 1" C-MOUNT FIXED LENSES(8-12MP)**
[Click to view details/drawings](#)

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	TV Distortion (%)	Filter Size	Mega Pixels (MP)	Type
VT-LEN0814MP8-H1 OOP	8	F1.4	0.5	96.0°×84.0°×68.0°	<-4.65%	-	8	Standard
VT-LEN1214MP8-H1	12	F1.4	0.3	68.0°×56.0°×43.0°	<4.50%	-	8	Standard
VT-LEN1614MP8-H1 OOP	16	F1.4	0.5	54.0°×43.0°×33.0°	<5.90%	M39*0.5	8	Standard
VT-LEN2014MP8-H1 OOP	20	F1.4	0.5	44.3°×35.7°×26.8°	<-4.90%	M41*0.5	8	Standard
VT-LEN2514MP8-H1 OOP	25	F1.4	1	36.5°×29.2°×21.9°	<-2.90%	M40.5*0.5	8	Standard
VT-LEN3514MP8-H1 OOP	35	F1.4	2	26.2°×20.9°×15.6°	<-2.60%	-	8	Standard
VT-LEN5014MP8-H1 OOP	50	F1.4	1.5	18.2°×14.6°×10.9°	<-2%	-	8	Standard
VT-LEN7018MP8-H1 OOP	70	F1.8	3	12.8°×10.2°×7.7°	<0.13%	-	8	Standard
VT-LEM7528MP10-H1	75	F2.8	0.6	10.4°×7.9°×13.0°	<0.1%	M37.5*0.5	10	Standard
VT-LEN17044MP10-H1	170	F4.4	5	5.4°×4.32°×3.25°	0.27% in Max Circle 16.6 mm	-	10	Standard

**1.1" C-MOUNT FIXED LENSES(12MP)**
[Click to view details/drawings](#)

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	Filter Size	TV Distortion (%)	Mega Pixels (MP)	Design Wavelength (nm)	Type
VT-LEN1214MP12-H1.1 OOP	12	F1.4	0.3	74.0°×62.8°×45.1°	M48*0.5	<4.50%	12	420-650	Standard
VT-LEN1228MP12-H1.1	12	F2.8	0.1	66.7°×57°×45°	-	1.50%	12	400-1000	Standard
VT-LEN1614MP12-H1.1 OOP	16	F1.4	0.5	59.2°×49.16°×33.6°	M39*0.5	<5.90%	12	420-650	Standard
VT-LEN1628MP12-H1.1	16	F2.8	0.1	55.6°×45.8°×35.3°	M43*0.75	0.15%	12	400-1000	Standard
VT-LEN2014MP12-H1.1 OOP	20	F1.4	0.5	49.06°×42.4°×27.96°	M41*0.5	<-4.90%	12	420-650	Standard
VT-LEN2514MP12-H1.1 OOP	25	F1.4	1	40.03°×33°×22.87°	M40.5*0.5	<-2.90%	12	420-650	Standard
VT-LEN2528MP12-H1.1	25	F2.8	0.1	37.6°×30.4°×23°	M35.5*0.5	0.10%	12	400-1000	Standard
VT-LEN3514MP12-H1.1 OOP	35	F1.4	2	28.9°×23.65°×16.3°	-	<-2.60%	12	420-650	Standard
VT-LEN3528MP12-H1.1	35	F2.8	0.2	28.3°×22.6°×17°	M35.5*0.5	0.02%	12	400-1000	Standard
VT-LEN5014MP12-H1.1 OOP	50	F1.4	1.5	20.5°×16.5°×11.8°	-	<-2.35%	12	420-650	Standard
VT-LEN5028MP12-H1.1	50	F2.8	0.3	19.9°×15.9°×11.9°	M35.5*0.5	0.04%	12	400-1000	Standard
VT-LEM7526MP12-H1.1	75	F2.6	0.3	7.53°×6.05°×4.65°	M34*0.5	<-0.35%	12	400-700	Standard

**1.1" C-MOUNT FIXED LENSES(20-25MP)**
[Click to view details/drawings](#)

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	Filter Size	TV Distortion (%)	Mega Pixels (MP)	Design Wavelength (nm)	Type
VT-LEM0618MP20-H1.1 HOT!	6	F1.8	0.1	118.2°×104.91°×86.2°	-	2.3%	20	400-1000	Standard
VT-LEM0814MP20-H1.1 HOT!	8	F1.4	0.1	98.4°×84.8°×68°	M58*0.75	5.3%	20	400-1000	Standard
VT-LEN1228MP20-H1.1	12	F2.8	0.1	66.9°×56°×43.3°	M44.5*0.75	<-1.05%	20	420-850	Standard
VT-LEM1228CBMP20-H1.1	12	F2.8	0.1	57°×45°×66.7°	-	<1.50%	20	420-1150	Standard
VT-LEN1628MP20-H1.1	16	F2.8	0.15	56.3°×47.7°×33.7°	-	>-1%	20	420-850	Standard
VT-LEM1628CBMP20-H1.1	16	F2.8	0.1	46.3°×36°×55.4°	M35.5*0.5	<0.50%	20	420-1150	Standard
VT-LEN2528MP20-H1.1	25	F2.8	0.1	32.7°×26.4°×19.9°	M37*0.5	<0.50%	20	420-850	Standard
VT-LEM2528CBMP20-H1.1	25	F2.8	0.1	30.4°×23°×37.6°	M35.5*0.5	<0.10%	20	420-1150	Standard
VT-LEN3528MP20-H1.1	35	F2.8	0.2	23.33°×19.33°×13.32°	-	<0.30%	20	420-850	Standard
VT-LEM3528CBMP20-H1.1	35	F2.8	0.2	22.6°×17°×28.3°	M35.5*0.5	<0.02%	20	420-1150	Standard
VT-LEN5028MP20-H1.1	50	F2.8	0.25	18.6°×15°×11.2°	M37*0.5	<0.05%	20	420-850	Standard
VT-LEM5028CBMP20-H1.1	50	F2.8	0.3	15.9°×11.9°×19.9°	M35.5*0.5	<0.04%	20	420-1150	Standard
VT-LEM0828MP25-H1.1	8	F2.8	0.1	82.8°×65.8°	-	<3.0%	25	-	Standard

**NEW! 1.2" C-MOUNT FIXED LENSES**
[Click to view details/drawings](#)

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	Filter Size	TV Distortion (%)	Mega Pixels (MP)	Design Wavelength (nm)	Type
VT-LEN1224MP25-H1.2	12	2.4	0.1	76.12°×62.33°×55.33°	-	0.39%	25	380-780	Standard
VT-LEN1624MP25-H1.2	16	2.4	0.1	61.36°×48.83°×42.86°	M40.5*0.5	0.07%	25	380-780	Standard
VT-LEN2524MP25-H1.2	25	2.4	0.15	41.19°×31.42°×27.32°	M37*0.5	-0.04%	25	380-780	Standard
VT-LEN3524MP25-H1.2	35	2.4	0.15	29.33°×22.51°×19.53°	M40.5*0.5	0.02%	25	380-780	Standard
VT-LEN5024MP25-H1.2	50	2.4	0.25	20.5°×15.66°×13.57°	M40.5*0.5	0.01%	25	380-780	Standard

**NEW! 1.4" C-MOUNT FIXED LENSES****[Click to view details/drawings](#)**

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View -H x D x V (deg.)	Filter Size	TV Distortion (%)	Mega Pixels (MP)	Iris	Type
VT-LEN1228MP45-H1.4	12	2.8~16	0.1	76.1° × 86.8° × 55.7°	-	<-0.5%	45	Manual	Standard
VT-LEN1628MP45-H1.4	16	2.8~16	0.15	61.4° × 71.27° × 43.83°	M46×0.75	<0.70%	45	Manual	Standard
VT-LEN2528MP45-H1.4	25	2.8~16	0.15	41.6° × 49.2° × 28.9°	M43×0.5	<0.05%	45	Manual	Standard
VT-LEN3528MP45-H1.4	35	2.8~16	0.15	30.4° × 36.3° × 20.8°	M34×0.5	<-0.01%	45	Manual	Standard
VT-LEN5028MP45-H1.4	50	2.8~16	0.25	21.5° × 25.8° × 14.7°	M35.5×0.5	<-0.03%	45	Manual	Standard

**HOT! 4/3" C-MOUNT FIXED LENSES****[Click to view details/drawings](#)**

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	Filter Size	Mega Pixels (MP)	Weight (g)	Design Wavelength (nm)	Type
VT-LEM0828CE-H2 <b>NEW!</b>	8	2.8	0.2	108° × 96° × 80.4°	M86×1	12	-	420-1100	
VT-LEM08528CD-H2 <b>ADV!</b>	8.5	2.8	0.5	107.38° × 94.89° × 77.93°	M77×0.5	12	-	420-1100	Standard
VT-LEM1220CD-H2	12	2.0	0.15	89.02° × 75.46° × 61.08°	M77×0.75	10	447	420-1100	Standard
VT-LEM1620CD-H2	16	2.0	0.1	72.92° × 60.92° × 47.28°	M58X0.75	10	338	420-1100	Standard
VT-LEM2520CD-H2	25	2.0	0.15	49.7° × 40.6° × 31°	M46×0.75	10	251	420-1100	Standard
VT-LEM3520CD-H2	35	2.0	0.2	36.6° × 29.6° × 22.4°	M40.5×0.5	10	173	420-1100	Standard
VT-LEM5020CD-H2	50	2.0	0.3	25.9° × 20.9° × 15.7°	M40.5×0.5	10	170	420-1100	Standard
VT-LEM8520CD-H2 <b>ADV!</b>	85	2.0	1.2	15.4° × 12.1° × 9.3°	M77×0.75	10	-	420-1100	Standard

F/T/M72/M58 Mount Lenses

# LARGE FORMAT LENSES

F/T/M72  
/M58  
MOUNT



## LARGE FORMAT LENSES

Developed for large format area cameras and line-scan cameras, from 29MP to 150MP, covering variety of interfaces including F mount, T mount, M58 mount and M72 mount.

CONTRASTECH's large format lenses highlight among its peers, winning customers' favor and praise in tens of thousands projects with good performance.

## APPLICATION

1. Phone screen and glass cover inspections
2. Inspections on LED, LCD and OLED
3. Inspections on AOI, SPI and printing Solar panel inspection

**NOTE**

**LSC!** : For Line Scan Camera

**5MP Large Format Lenses****Click to view details/drawings**

Part name	EFL (mm)	Resolution (lp/mm)	WD (mm)	Format (mm)	Aperture (F/#)	Distortion (%)	M.O.D. (m)	Angle of View(D) (deg)	Filter Size	Mount
VT-LHF2428MP5 <b>LSC!</b>	24	30lp/mm	500~∞	43	F2.8~F22	<-4%	0.15m	84°	M52 × 0.75	F
VT-LHT2428MP5 <b>LSC!</b>	24	30lp/mm	500~∞	43	F2.8~F22	<-4%	0.15m	84°	M52 × 0.75	M42×1(T)
VT-LHF2828MP5 <b>LSC!</b>	28	30lp/mm	300~∞	43	F2.8~F22	<-3%	0.3m	74°	M52 × 0.75	F
VT-LHT2828MP5 <b>LSC!</b>	28	30lp/mm	300~∞	43	F2.8~F22	<-3%	0.3m	74°	M52 × 0.75	M42×1(T)
VT-LHF3525MP5 <b>LSC!</b>	35	30lp/mm	300~∞	43	F2.5~F22	<-3%	0.3m	52.3°	M52 × 0.75	F
VT-LHT3525MP5 <b>LSC!</b>	35	30lp/mm	300~∞	43	F2.5~F22	<-3%	0.3m	52.3°	M52 × 0.75	M42×1(T)
VT-LHF5018MP5 <b>LSC!</b>	50	30lp/mm	400~∞	43	F1.8~F22	<-1%	0.4m	45°	M52 × 0.75	F
VT-LHT5018MP5 <b>LSC!</b>	50	30lp/mm	400~∞	43	F1.8~F22	<-1%	0.4m	45°	M52 × 0.75	M42×1(T)

**29MP Large Format Lenses****Click to view details/drawings**

Part name	EFL (mm)	Format (mm)	Aperture (F/#)	Mag. Range	Standard Mag.(x)	WD (mm)	TV Distortion (%)	FFL (mm)	Filter Size	Mount
VT-LEMF3528MP29-0.1X	35	Ø45	2.8-16	0.05x-0.25x	0.1x	350.9	< 0.4%	46.5	M58×P0.75	F
VT-LEMF3528MP29-0.03X	35	Ø45.3	2.8-16	0.01x-0.1x	0.03x	1158.7	< 0.5%	46.5	M67×P0.75	F
VT-LEMF3528MP29-0.057X	35	Ø45	2.8-16	0x-0.0435x	0.057x	1200	< 0.4%	46.5	M58×P0.75	F
VT-LEMF4028MP29-0.1X	40	Ø43.2	2.8-22	0.01x-0.25x	0.1x	409	< 0.2%	46.5	M62×P0.75	F
VT-LEMF5028MP29-0.1X	50	Ø43	2.8-22	0.02x-0.23x	0.1x	524.4	0.2%	46.5	M62×P0.75	F
VT-LEMF5028MP29-0.06X	50	Ø43	2.8-22	0.02x-0.1x	0.06x	862.1	0.2%	46.5	M62×P0.75	F
VT-LEMF5028MP29-0.062X	50	Ø44	2.8-22	0.014x-0.24x	0.062x	833.4	< 0.3%	46.5	M62×P0.75	F
VT-LEMF6040MP29-0.167X	60	Ø64	4.0-32	0.04x-0.33x	0.167x	384.9	0.19%	46.5	M65×P0.75	F
VT-LEMF8056MP29-0.3X	80	Ø58	5.6-32	0.2x-0.4x	0.3x	306.2	< 0.01%	46.5	M52×P0.75	F
VT-LEMF9040MP29-0.05X	90	Ø43.2	4.0-16	0.01x-0.1x	0.05x	1985	< 0.01%	46.5	M62×P0.75	F

**65MP Large Format Lenses****Click to view details/drawings**

Part name	EFL (mm)	Format (mm)	Mag. (x)	WD (mm)	FFL (mm)		Aperture (F/#)	TV Distortion (%)	FOV (D) (deg)	ENP Diameter (mm)	Mount
					V.A	V.B					
VT-LEN58-2540MP65 <b>LSC!</b>	25±5%	Ø46	0-0.2x	100-∞	12	11.48	F4-22	<0.2%	83.8°	Ø47.2	M58 × P0.75
VT-LEN72-2540MP65 <b>LSC!</b>	25±5%	Ø46	0-0.2x	100-∞	12		F4-22	<0.2%	83.8°	Ø47.2	M72 × P0.75
VT-LEN58-3540MP65 <b>LSC!</b>	35±5%	Ø42	0-0.2x	150-∞	12	11.48	F4-22	<0.7%	59°	Ø40	M58 × P0.75
VT-LEN72-3540MP65 <b>LSC!</b>	35±5%	Ø42	0-0.2x	150-∞	12		F4-22	<0.7%	59°	Ø40	M72 × P0.75
VT-LEN58-5036MP65	50±5%	Ø46	0.02-0.5x	80-2500	12	11.48	F3.6-22	<0.2%	43.4°	Ø47.2	M58 × P0.75
VT-LEN72-5036MP65	50±5%	Ø46	0.02-0.5x	80-2500	12		F3.6-22	<0.2%	43.4°	Ø47.2	M72 × P0.75
VT-LEN58-8036MP65	80±5%	Ø46	0.041-0.39x	235-2000	12	11.48	F3.6-22	<0.2%	26.8°	Ø47.2	M58 × P0.75
VT-LEN72-8036MP65	80±5%	Ø46	0.041-0.39x	235-2000	12		F3.6-22	<0.2%	26.8°	Ø47.2	M72 × P0.75

**100MP Large Format Lenses****Click to view details/drawings**

Part name	EFL (mm)	F/#	M.O.D. (m)	Format (mm)	WD (mm)	Angle of View (deg.)	Filter Size	TV Distortion (%)	Mega Pixels (MP)	Mount
VT-LEMF3528MP100	35	2.8	0.12	Ø46	-	41.96°×35.44°×24.05°	M58×0.75	0.40%	100	F
VT-LEN72-4056MP100	40			Ø67	144 ~ 1043	-	M40.5×0.75	0.55%	100	M72
VT-LEMF5040MP100 <b>LSC!</b>	50	4.0	-	Ø56	150-∞	-	M52×0.75	0.41%	100	F
VT-LEN72-6040MP100	60	4.0	-	Ø60	300 ~ 550	-	M39×0.75	0.14%	100	M72
VT-LEMF8040MP100 <b>LSC!</b>	80	4.0	-	Ø56	235-∞	-	M52×0.75	0.12%	100	F

**150MP Large Format Lenses****Click to view details/drawings**

Part name	EFL (mm)	F/#	Mag.	Format (mm)	WD (mm)	Filter Size	Distortion (%)	Mega Pixels (MP)	Mount
VT-LEN72-5545MP150 <b>LSC!</b>	55	4.5	0.01x-0.5x	Ø67	98 ~ ∞	-	0.05%	150	M72
VT-LEN72-8528MP150 <b>LSC!</b>	85	2.8	0.001x-0.2x	Ø62	460 ~ ∞	M77 × P0.75	0.04%	150	M72
VT-LEN72-9040MP150	90	4.0	0.08x-0.14x	Ø67	722 ~ 1229	M58 × P0.75	0.01%	150	M72
VT-LEN72-11635MP150	116	3.5	0.93x-1.07x	Ø66	176 ~ 192	-	0.0005%	150	M72

V-Mount Lenses

# LINE SCAN LENSES

V-  
MOUNT



## LINE SCAN LENSES

Targeted at the line scan camera in the market, CONTRASTECH has developed lenses for 8K, 12K and 16K sensors. More than 30 models in this series with magnification varying from 0.0358X-3X, which could be applied in a variety of high resolution applications.

CONTRASTECH's line scan lenses stand out in their class with low price and good performance.

## APPLICATION

- 
- 1.FPD/ PCB inspection
  - 2.Textile Industry Inspection
  - 3.Railway Track Inspection, and more automatic optical Inspection and Microdefect Detection

**Compact Line Scan Lenses**[Click to view details/drawings](#)

Part name	EFL (mm)	Mag. (x)	WD (mm)	Format (mm)	Aperture (F/#)	Distortion (%)	Mount	Conjuguate distance (mm)	FBL (mm)	Resolution
VTL-2045-0.03X	20	0.0358x	557.4	Ø30	F4.5	0.20%	M42	619.1	12	4K7μ
VTL-2840-0.1X	29	0.1x	299.7	Ø30	F4.0	0.10%	V (Ø42.5)	368	26	4K7μ
VTL-3545-0.08X	35	0.08x	508.49	Ø30	F4.5	<0.05%	V (Ø38)	574.5	37.42	4K7μ
VTL-4028-0.1X	40	0.1x	429.9	Ø43	F2.8	<0.62%	V (Ø38)	468.67	39.62	4K7μ
VTL-4040-0.05X	40	0.05x	818.8	Ø60	F4.0	<0.2%	M72	943.08	12	4K7μ
VTL-8028-0.177X	80	0.177x	500	Ø30	F2.8	<0.2%	M42	620	12	4K7μ

**5.5K5μ Line Scan Lenses**[Click to view details/drawings](#)

Part name	EFL (mm)	Mag. (x)	Format (mm)	Aperture (F/#)	Distortion (%)	Min Working Distance (mm)	Best Working Distance (mm)	Mount	FBL (mm)	Resolution
VTL-5.5K-0.1X-A	50	0.0946x	Ø30	F2.8	-0.61%	574	600-700	M42	12	5.5K5μ
VTL-5.5K-0.1X-B	50	0.0946x	Ø30	F2.8	-0.61%	574	600-700	M42	5.9	5.5K5μ
VTL-5.5K-0.09X-A	50	0.094x	Ø30	F4.0	-0.61%	574	600-700	M42	12	5.5K5μ
VTL-5.5K-0.09X-B	50	0.094x	Ø30	F4.0	-0.61%	574	600-700	M42	5.9	5.5K5μ

**8K7μ Line Scan Lenses**[Click to view details/drawings](#)

Part name	EFL (mm)	Mag. (x)	WD (mm)	Format (mm)	Aperture (F/#)	Distortion (%)	Mount	Conjuguate distance (mm)	FBL (mm)	Resolution
VTL-4040-0.05X	40	0.05x	818.8	Ø60	F4.0	<0.2%	M72	943.08	12	8K7μ
VTL-4540-0.2X	45	0.2x	223.5	Ø62	F4.0-16	<0.5%	M72	355.39	12	8K7μ
VTL-6040-0.167X	60	0.167x	404.4	Ø64	F4.0	0.19%	V (Ø38)	496.32	63.31	8K7μ
VTL-8056-0.146X	80	0.146x	591.1	Ø62	F5.6	0.05%	V (Ø38)	702.5	81.54	8K7μ
VTL-8056-0.21X	80	0.21x	418.85	Ø62	F5.6	0.05%	V (Ø38)	533.67	85.54	8K7μ
VTL-8056-0.3X	80	0.3x	320.26	Ø64	F5.6	<0.01%	V (Ø38)	451.78	102.92	8K7μ
VTL-10045-0.2X	100	0.2x	654.8	Ø66	F4.5	0.005%	V (Ø64)	827.8	123.5	8K7μ

**12K5μ Line Scan Lenses**[Click to view details/drawings](#)

Part name	EFL (mm)	Mag. (x)	WD (mm)	Format (mm)	Aperture (F/#)	Distortion (%)	Mount	Conjuguate distance (mm)	FBL (mm)	Resolution
VTL-12K-0.2X	116	0.2x	652.4	Ø62	F4.5	<0.01%	V (Ø56)	824.9	122.8	12K5μ
VTL-12K-0.33X	116	0.33x	415.1	Ø62	F4.5	<0.005%	V (Ø56)	599.7	134.9	12K5μ
VTL-12K-0.5X	116	0.5x	291.7	Ø62	F4.5	<0.01%	V (Ø56)	491	149.6	12K5μ
VTL-12K-0.75X	116	0.75x	209.8	Ø62	F4.5	<0.005%	V (Ø56)	429.85	170.3	12K5μ
VTL-12K-0.8X	116	0.806x	203.8	Ø62	F4.5	<0.005%	V (Ø56)	434.66	181.2	12K5μ
VTL-12K-1.0X	116	1.0x	164.2	Ø62	F4.5	<0.05%	V (Ø56)	400.56	186.7	12K5μ
VTL-12K-1.24X	116	1.24x	149.9	Ø62	F4.5	<0.005%	V (Ø56)	434.66	232.2	12K5μ

**16K3.5 $\mu$  Line Scan Lenses**
[Click to view details/drawings](#)

Part name	EFL (mm)	Mag. (x)	Image Size (Dia. mm)	Aperture (F/#)	Distortion (%)	Working distance (mm)	Mount	Conjuguate distance (mm)	FBL (mm)	Resolution
VTL-9040-0.1X	90	0.1x	Ø64	F4.0	0.01%	992.4	V (Ø64)	1123.5	82.7	16K3.5 $\mu$
VTL-9540-0.05X	95	0.05x	Ø62	F4.0	0.005%	1980.85	V (Ø56)	2112.94	81.2	16K3.5 $\mu$
VTL-16K-0.26X	114	0.26x	Ø66	F4.2	0.01%	497.5	V (Ø49)	627.16	128.3	16K3.5 $\mu$
VTL-16K-0.33X	116	0.33x	Ø66	F4.2	<0.001%	412	V (Ø49)	595	137	16K3.5 $\mu$
VTL-16K-0.42X	116	0.42x	Ø66	F3.8	0.007%	339.74	V (Ø49)	530.1	144.5	16K3.5 $\mu$
VTL-16K-0.5X	116	0.5x	Ø66	F3.8	0.0008%	296.2	V (Ø49)	496	153.3	16K3.5 $\mu$
VTL-16K-0.67X	116	0.67x	Ø66	F3.8	0.10%	237.4	V (Ø49)	453.5	170.2	16K3.5 $\mu$
VTL-16K-0.7X	116	0.7x	Ø66	F3.8	0.0001%	229.4	V (Ø49)	447.2	174.4	16K3.5 $\mu$
VTL-16K-0.75X	100	0.75x	Ø66	F3.8	0.0008%	220.8	V (Ø49)	444.8	180.5	16K3.5 $\mu$
VTL-16K-1.0X	116	1.0x	Ø66	F3.5	0.0005%	184.16	V (Ø49)	439.45	209.47	16K3.5 $\mu$

**16K5 $\mu$  Line Scan Lenses**
[Click to view details/drawings](#)

Part name	EFL (mm)	Mag (x)	Image Size (Dia. mm)	Aperture (F/#)	Distortion (%)	Working distance (mm)	Mount	Conjuguate distance (mm)	FBL (mm)	Resolution
VTL-16KP-0.26X	120	0.26x	Ø82	F4.0	0.001%	663.4	V (Ø49)	874.3	160.95	16K5 $\mu$
VTL-16KP-0.3X	120	0.3x	Ø82	F4.0	0.005%	534.64	V (Ø56)	757.63	169.37	16K5 $\mu$
VTL-16KP-0.5X	120	0.5x	Ø82	F4.0	0.002%	390.66	V (Ø56)	636.99	192.71	16K5 $\mu$
VTL-16KP-0.625X	116	0.625x	Ø82	F3.8	0.17%	245.9	V (Ø49)	458.9	166.9	16K5 $\mu$
VTL-16KP-1.3X	116	1.33x	Ø84	F3.8	0.0003%	156.3	V (Ø49)	444.5	243.7	16K5 $\mu$
VTL-16KP-1.5X	116	1.5x	Ø84	F3.8	0.08%	143.9	V (Ø49)	453.7	263.8	16K5 $\mu$
VTL-16KP-1.7X	116	1.7x	Ø84	F3.8	0.05%	137.8	V (Ø49)	470	286.1	16K5 $\mu$
VTL-16KP-2.0X	120	2.0x	Ø82	F4.0	0.002%	127.2	V (Ø49)	496	332.8	16K5 $\mu$
VTL-16KP-3.0X	116	3.0x	Ø84	F4.0	0.001%	111.4	V (Ø49)	591.3	433.9	16K5 $\mu$
VTL-16KP-3.0X-L	120	3.0x	Ø82	F4.0	0.001%	143.02	V (Ø56)	757.63	568.28	16K5 $\mu$

**Coaxial Illumination Line Scan Lenses**
[Click to view details/drawings](#)

Part name	EFL (mm)	Mag (x)	Format (mm)	Aperture (F/#)	Distortion (%)	Relative illumination (%)	Working distance (mm)	Mount	Conjuguate distance (mm)	FBL (mm)	Resolution
VTCL-16KP-1.0X	116	1.0x	Ø82	F3.8	0.0005%	90%	157.39	V (Ø49)	449.53	212.09	16K5 $\mu$
VTCL-16KP-1.3X	116	1.3x	Ø82	F4.3	0.0003%	90%	71.54	V (Ø56)	579.35	327.28	16K5 $\mu$
VTCL-16KP-1.5X	145	1.5x	Ø82	F4.3	0.08%	90%	27.3	V (Ø56)	592.1	351.95	16K5 $\mu$
VTCL-16KP-1.7X	116	1.7x	Ø82	F4.0	0.05%	90%	48.83	V (Ø56)	611.85	381.66	16K5 $\mu$
VTCL-16KP-2.0X	120	2.0x	Ø82	F4.0	0.0005%	90%	135.95	V (Ø56)	641.94	424.66	16K5 $\mu$
VTCL-16KP-3.0X	120	3.0x	Ø82	F4.0	0.005%	90%	112.6	V (Ø56)	759.5	565.5	16K5 $\mu$

# 360°SERIES LENSES

C-  
MOUNT



## 360 SERIES LENSES

Using fewer cameras to photograph each side of an object has become a common demand in the machine vision market, and this demand has become very common in industries such as beverages, medicines, and automobiles.

In traditional machine vision solutions, to capture information on the outer wall of an object, multiple cameras are required to capture one side of the object separately, and then synthesize the images. Using a 360° lens, only one camera can perfectly present the object in one image. Out-of-the-loop testing, multiple cameras and multiple lenses are not required, which effectively simplifies the layout of the vision system and reduces costs.

## APPLICATION

Inspection of medicine bottles, plastic caps, bottle necks, preforms, screws and mechanical parts cylinders, holes, bottles, threaded objects and mechanical parts

360°Inner Surface Lenses								Click to view details/drawings	
Part name	Sensor Size	Image Size	WD (mm)	F/NO	Diameter (mm)	Height (mm)	Illumination	Mount	
VT-360LEN-IN01	1/3"	Φ3.6	12.5-50	14	25	12.4	Embedded Illumination	C-Mount	
					65	36.8			
					100	58.2			
VT-360LEN-IN02	2/3"	Φ6.6	2.7	8	5	5	External Illumination	C-Mount	
					60	61.4			
					120	123			

360°Outer Surface Lenses								Click to view details/drawings	
Part name	Sensor Size	Image Size	WD (mm)	F/NO	Diameter (mm)	Height (mm)	Mount		
VT-360LEN-OUT01	1/3"	Φ3.6	46.2	7.5	4.6	16	C-Mount		
					10.9	10			
					19.54	6			
VT-360LEN-OUT02	1/3"	Φ3.6	48	4.5	3.1	16	C-Mount		
					12.8	10			
					25.6	6			
VT-360LEN-OUT03	1/1.8"	Φ5.32	45.4	7.5	5.3	16	C-Mount		
					11.86	12			
					25	8			
VT-360LEN-OUT04	1/1.8"	Φ5.32	50	4.5	2.7	16	C-Mount		
					11.86	12			
					25	8			
VT-360LEN-OUT05	2/3"	Φ6.6	48.2	7.5	4	16	C-Mount		
					10.6	12			
					23.4	8			

## 360° MULTI-ANGLE LENSES

## PRODUCT FEATURES

1. Only one camera is needed to detect the side signs of the object
2. Simultaneous imaging of the outer wall and top of the object
3. Ultra-high resolution, can detect small defects



360° MULTI-ANGLE LENSES					<a href="#">Click to view details/drawings</a>						
Model	VT-360LEN-0825-118	VT-360LEN-0825-230	VT-360LEN-0825-H1.1	VT-360LEN-0816-H1.1							
Max Support CCD Size (Φmm)	2/3" (Optimal)	2/3"	1.1" (Optimal)	1.1" (Optimal)							
Optical Specifications	Wavelength Range	400~680 nm	450~650 nm	400~680 nm	400~680 nm						
	Working Distance	3~40 mm	20~40 mm	3~40 mm	5~100 mm						
	MTF30	150 lp/mm	150 lp/mm	126 lp/mm	120 lp/mm						
Mechanical Specifications	Best Aperture (F#)	2.8~16	8~16	2.8~25	2.8~25						
	Max Diameter	140 mm	140 mm	140 mm	140 mm						
	Length	230.9 mm	229.3 mm	229.3 mm	299.5 mm						
Max Object Diam. Detected From Side	Mount	C	C	C	C						
	Object Height 20mm	30mm	30mm	30mm	5 10 25 45 60 75						
	Object Height 5mm	60mm	50mm	72mm	85 72 40 10 15 5						
Max Object Diam. Detected From Side + Top	Object Height 10mm	30mm	30mm	30mm							

# C-MOUNT



## MACRO LENSES

Macro lens is a special lens used for macro photography. It is mainly used to shoot very subtle objects, such as flowers/insects and observe workpieces at close range. In order to accurately focus on subjects at very close distances, macro lenses are usually designed to be stretched longer, so that the optical center is as far away from the photosensitive element as possible. At the same time, the design of the lens group must also pay attention to Control of deformation and chromatic aberration at close range.

## APPLICATION

Animal and plant photography, medical photography, remake, and police detection photography

## FEATURES

1. High performance, high resolution
2. Minimal distortion
3. High contrast, good color reproduction

MACRO LENSES								<a href="#">Click to view details/drawings</a>
Part name	EFL (mm)	Sensor Size	Optical Magnification	Working Distance (mm)	F/NO	Distortion(TV)	Mount	
VT-MC1628	16	1.1"	-0.25X ~ -0.03X	52-546	2.8	<0.33%	C-Mount	
VT-MC2528	25	1.1"	-0.4 X ~ -0.1X	65-260.4	2.8	<0.07%	C-Mount	
VT-MC3528	35	1.1"	-0.7 X ~ -0.25X	59-150	2.8	<0.05%	C-Mount	
VT-MC5028	50	1.1"	-0.8 X ~ -0.5X	95.4-132.4	2.8	<0.05%	C-Mount	
VT-MC7538	75	1.1"	-0.38 X ~ -0.18X	257-471	3.8	<0.05%	C-Mount	
VT-MC7526	75	1.1"	-2.52X ~ -0.059X	300 -∞	2.6	<-0.35%	C-Mount	

# FISHEYE LENS



## APPLICATION

Used in production line inspection, product quality control, and machine vision in industrial automation fields.

## FEATURES

1. Wide-Angle View
2. High Resolution
3. Durable and Robust

FISHEYE LENSES						<a href="#">Click to view details/drawings</a>
Part name	EFL (mm)	Sensor Size	Aperture(F#)	Working Distance	D.H.V	Mount
VT-LEN02321FE	2.3	2/3"	F2.1-21	0.3m~∞	190°x 190°x 190°	CS-Mount
VT-LEN03324FE-H1	3.3	1"	F2.4	0.1m~∞	190°x 190°x ∞	C-Mount
VT-LEN03514FE	3.5	2/3"	F1.4	0.1m~∞	F.O.V (D) Φ11/152°	C/CS-Mount
VT-LEN04618FE	4.6	Φ14.2mm	F1.8	0.2m	2K7μm(14.2mm):183°	M42XP1
VT-LEN04922FE-C	4.9	Φ14.2mm	F2.2	0.1m~∞	180°x150.2°x118°	C-Mount

# IR CORRECTED LENSES

C-MOUNT



## IR Corrected Lenses

### FEATURES

1. Up to 12 million pixels
2. C-Mount design with strong compatibility
3. Wide field of view covering various focal lengths

IR CORRECTED LENSES							Click to view details/drawings		
Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	TV Distortion (%)	Filter Size	Mega Pixels (MP)	Wavelength (nm)	
VT-VIRLEN0815MP3	8	F1.5	0.5	90.2°x71°x54.6°	<-20%	M37.5X0.5	3	400-1000	
VT-VIRLEN2518MP5-H1	25	F1.8	0.8	34.8°x28°x21.2°	<-0.8%	M30.5X0.5	5	400-1000	
VT-VIRLEN3520MP5-H1	35	F2.0	1.5	26.03°x20.7°x15.45°	<-3.4%	M30.5X0.5	5	400-1000	
VT-VIRLEN5028MP5-H1	50	F2.8	1.0	18.4°x14.62°x11°	<0.26%	M30.5X0.5	5	400-1000	
VT-VIRLEN0821MP8-H1	8	F2.1	-	93.9°x86.9°x50.9°	<8.1%	-	8	-	
VT-VIRLEN1214MP12-H1	12	F1.4	0.5	68.2°x61.7°x34.4°	-3.65% (MAX)	-	12	-	
VT-VIRLEN1614MP12-H1	16	F1.4	0.3	55.6°x45.3°x34.3°	-3.95%	-	12	-	
VT-VIRLEN1616MP10-H1	16	F1.6	0.35	52.38°x42.49°x32.21°	<-3.56%	M40.5X0.5	10	400-850	
VT-VIRLEN2012MP10-H1	20	F1.2	1.0	45.4°x33.18°x26.2°	<-4.0%	M43X0.75	10	400-1000	
VT-VIRLEN2512MP10-H1	25	F1.2	1.5	36.4°x27.68°x18.36°	<-2.5%	M43X0.75	10	400-1000	
VT-VIRLEN3512MP10-H1	35	F1.2	2.0	26°x20.96°x15.72°	<-2.2%	M43X0.75	10	400-1000	
VT-VIRLEN2514MP12-H1.1	25	F1.4	1.5	40.8°x33.4°x22.7°	<-6.2%	-	12	420-850	
VT-VIRLEN3514MP12-H1.1	35	F1.4	3	29.5°x23.7°x17.3°	-3.05%	-	12	-	
VT-VIRLEN5015MP12-H1.1	50	F1.5	1	19.1°x13.6°x13.3°	<-2.13%	-	12	420-850	
VT-VIRLEN5014MP12-H1.1	50	F1.4	1	19.1°x13.6°x13.3°	<-2.13%	-	12	420-850	
VT-VIRLEN1616MP10-H2	16	F1.6	0.35	66.26°x56.04°x43.7°	<-5.63%	M49X0.75	10	400-850	
VT-VIRLEN2514MP8-H2	25	F1.4-32	0.5	48.15°x39.74°x30.02°	<-3.54%	M58X0.75	8	400-850	
VT-VIRLEN2516MP10-H2	25	F1.6	0.3	48.15°x38.91°x29.39°	<-3.5%	M43X0.75	10	400-850	

# SWIR LENSES

C-MOUNT



## SWIR LENSES

### FEATURES

1. High performance, high resolution
2. Safe and non-heat design, C-Mount
3. High reliability and high tightness
4. Special infrared materials and coating design to ensure high transmittance in the infrared band

SWIR LENSES						<a href="#">Click to view details/drawings</a>
Part name	EFL(mm)	Aperture(F#)	Sensor Size	Field of View	Mount	
VT-LEM0814SWIR	8.5	F1.4	2/3"	61° /54.8° /42.8°	C-Mount	
VT-LEM1214SWIR	12.5	F1.4	2/3"	46.8° /38.2° /29.2°	C-Mount	
VT-LEM1614SWIR	16.3	F1.4	2/3"	36.6° /29.6° /22.4°	C-Mount	
VT-LEM2514SWIR	25.9	F1.4	2/3"	23.6° /19° /14.4°	C-Mount	
VT-LEM3514SWIR	35	F1.4	2/3"	17.44° /13.99° /10.51°	C-Mount	
VT-LEM5020SWIR	50	F2.0	2/3"	12.36° /9.92° /7.45°	C-Mount	
VT-LEM0618SWIR-H1	6	F1.8-F22	1"	104.6°/95.1°/78.7°	C-Mount	
VT-LEM1214SWIR-H1	12.25	F1.4-22	1"	66.83°/54.58°/44.10°	C-Mount	
VT-LEM2514SWIR-H1	25	F1.49	1"	36°/27.8°/21°	C-Mount	
VT-LEM2518SWIR-H1	25	F1.8	1"	35.49° /28.5° /21.74°	C-Mount	
VT-LEM3514SWIR-H1	35	F1.4	1"	31.2° /25.4° /18.7°	C-Mount	
VT-LEM5014SWIR-H1	50	F1.4	1"	18.18° /14.48° /10.97°	C-Mount	
VT-LEM7525SWIR-H1	75	F2.5	1"	9.08° /7.26° /5.45°	C-Mount	
VT-LEM20040SWIR-H1	200	F4-22	1"	4.57°x3.66°x2.75°	C-Mount	
VT-LEM30040SWIR-H1	300	F4-22	1"	3.06°x2.44°x1.83°	C-Mount	
VT-LEM40056SWIR-H1	400	F5.6	1"	2.29°X1.83°X1.37°	C-Mount	
VT-LEM2520SWIR-H2	25	F2.0	28 mm	48.04°/39.19°/29.8°	C-Mount	
VT-LEM3514SWIR-H2	35	F1.4	4/3"	31.2°/25.4°/18.7°	M42	
VT-LEM5014SWIR-H2	50	F1.4	28.6 mm	23.18°/18.66°/14.05°	M42 x 1	
VT-LEM10021SWIR-H2	100	F2.1	25.6mm	14.33°/11.52°/8.72°	M42/C/F-Mount	
VT-LEM1616022SWIR-H1	16 - 160	F2.2-Close	1"	4.6 X 3.4°. at 160mm	C-Mount	
VT-LEM2036060SWIR	20 - 360	F6-10	12.3 mm	1.1X 0.84°. at 360mm	C-Mount	
VT-LEM2050036SWIR	20- 500	F3.6-Close	1/1.8"	0.84 X 0.63°. at 500mm	C-Mount	
VT-LEM2075036SWIR	20- 750	F3.6-Close	1/1.8"	0.6 X 0.4°. at 750mm	C-Mount	
VT-LEM25120048SWIR	25 - 1200	F4.8 - 10	12.3 mm	0.34 X 0.2°. at 1200mm	C-Mount	

# UV LENSES

C-MOUNT



## UV LENSES

### FEATURES

1. High performance, optional focal length
2. Effectively filter out ultraviolet rays
3. Improve the effect of clarity and color reproduction

### UV LENSES

[Click to view details/drawings](#)

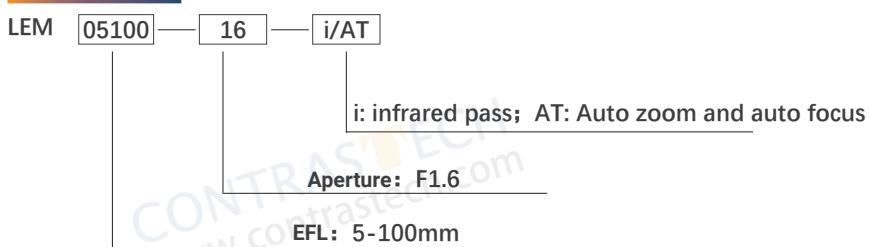
Part name	EFL(mm)	Aperture(F#)	Sensor Size	BFL(mm)	Mount	Resolution
VT-LEN2528UV	25	2.8	2/3"	12.45	C-Mount	100lp/mm (2MP)
VT-LEN5030UV	50	3.0	2/3"	26.55	C-Mount	100lp/mm (2MP)
VT-LEN7538UV	75	3.8	2/3"	47.32	C-Mount	100lp/mm (2MP)
VT-LENF7838UV	78	3.8	35mm Image Circle	74.6	F-Mount	-
VT-LENF8528UV	85	2.8	2/3"	43.34	F-Mount	100lp/mm (2MP)

# ZOOM LENSES

# ZOOM LENSES



## NAMING RULES



## 1/3"~2/3" ZOOM LENSES

[Click to view details/drawings](#)

Part name	Sensor Size (inch)	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	Mount	Resolution
VT-LEM0510016i-AI	1/3"	5-100	1.6	0.7	H: 52° ~ 2.8°	CS-Mount	1.3
VT-LEM055016	1/3"	5-50	1.6	0.3	4.2° ~ 53.6°	CS-Mount	-
VT-LEM066016i	1/3"	6-60	1.6	0.5	H: 44° ~ 4.58°	CS-Mount	-
VT-LEM10120016i-AT	1/3"	10-120	1.6	2	H: 27° ~ 2.3°	CS-Mount	1
VT-LEM0281016-AT	1/2.8"	2.8-10	1.6	0.5	D:128° ~ 41° , H:97° ~ 33° , V:70° ~ 24.5°	Ø14	1
VT-LEM0281016i	1/2.8"	2.8-10	1.6	0.1	D:120.6° ~ 40.2° , H:94.2° ~ 32.1° , V:69° ~ 24.4°	CS-Mount	0.3@ 200lp/mm
VT-LEM03310514i	1/2.5"	3.3-10.5	1.4	0.3	H: 90.5° ~ 30.4°	CS-Mount	3
VT-LEM055014i-MP3	1/2.5"	5-50	1.4	0.2	5.36° ~ 51.5°	CS-Mount	3
VT-LEM102221-AT	1/2.5"	10-22	2.1	0.3	D:40 ~ 20° , H:31.2 ~ 16° , V: 23 ~ 12°	Ø14	1
VT-LEM041816-AI	1/1.8"	4-18	1.6	0.3	D:137° , H:110° , V: 82°	C-Mount	3
VT-LEM03818MP12-AT	1/1.7"	3.8-18	1.5	-	W: D:156° , H: 111° , V: 80° T: D:38° , H: 30° , V: 23°	CS-Mount	12
VT-LEM03618MP12	1/1.7"	3.6-18	1.5	-	W: D:156° , H: 111° , V: 80° T: D:38° , H: 30° , V: 23°	CS-Mount	12
VT-LEM0441012-AT	1/1.7"	4.4-10	W:1.2,T:2.9	0.5	D:150 ~ 57.7° , H:104 ~ 45.8° , V: 73.6 ~ 34.2°	Ø19	1
VT-LEM0281216i	1/2"	2.8-12	1.6	0.3	H: 98° ~ 30.5°	C-Mount	3
VT-LEM061216	1/2"	6-12	1.6	0.1	53.9° x 29.6°	C-Mount	-
VT-LEM1060MP2	2/3"	10-60	1.4	-	51° ~ 11°	C-Mount	2
VT-LEM1236MP3-23	2/3"	12-36	2.8	-	W: D: 50.8° , H:41.3° , V:31.2° T: D:17.0° , H: 13.8° , V: 10.4°	C-Mount	3
VT-LEM1236MP10	2/3"	12-36	2.8	-	W: D: 50.8° , H:41.3° , V:31.2° T: D:17.0° , H: 13.8° , V: 10.4°	C-Mount	10
VT-LEM1648MP3	2/3"	16-48	2.0	0.2	W: 30.0° x 22.7° , T:11.2° x 8.4°	C-Mount	3
VT-LEM104020MP3	2/3"	10-40	2.0	0.3	W: D:47.5° , H: 40.3° , V: 30.8° T: D:16.7° , H: 13.4° , V: 10.1°	C-Mount	3
VT-LEM1632MP5-H1	1"	16-32	1.8	1.5	W: D: 53.26° , H:43.85° , V:33.44° T: D:27.57° , H: 22.43° , V: 17.01°	C-Mount	100@ 1p/mm

# MOTOR FOCUS LENSES

VT-  
LEMAF



## MOTOR FOCUS LENSES

- 1.Excellent autofocus performance
- 2.Support multiple communication modes:RS232/TTL/pulse
- 3.Autofocus accuracy $\pm 0.001$  degree
- 4.The response time is less than 1ms
- 5.EFL covers 8-50mm

## FEATURES

- 1.Car exterior blemishes
- 2.Industrial identification recognition

**2/3 " MOTOR FOCUS LENSES**[Click to view details/drawings](#)

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	TV Distortion (%)	Filter screw size	Mega Pixels (MP)	Type
VT-LEMAF0814-CBMP10	8	F1.4	0.1	56.3° × 43.7° × 67.1°	<1%	M37×0.5	10	Standard
VT-LEMAF1614-CBMP10	16	F1.4	0.1	30.3° × 23° × 37.3 °	<0.1%	M30.5×0.5	10	Standard
VT-LEMAF2514-CBMP10	25	F1.4	0.1	20° × 15° × 24.6 °	<0.2%	M30.5×0.5	10	Standard
VT-LEMAF3514-CBMP10	35	F1.4	0.15	13.9° × 10.4° × 17.3°	-0.8%	M35×0.5	10	Standard
VT-LEMAF5014-CBMP10	50	F1.4	0.3	10.46° × 7.86° × 13.04°	-0.8%	M37×0.5	10	Standard

**1.1" MOTOR FOCUS LENSES**[Click to view details/drawings](#)

Part name	EFL (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	TV Distortion (%)	Filter screw size	Mega Pixels (MP)	Type
VT-LEMAF1228-MP20-H1.1	12	F2.8	0.1	57° × 45 ° × 66.7°	<1.5%	-	20	Standard
VT-LEMAF1628-MP20-H1.1	16	F2.8	0.1	46.3° × 36 ° × 55.4°	<0.5%	M35.5×0.5	20	Standard
VT-LEMAF2528-MP20-H1.1	25	F2.8	0.1	30.4° × 23 ° × 37.6°	<0.1%	M35.5×0.5	20	Standard
VT-LEMAF3528-MP20-H1.1	35	F2.8	0.2	22.6° × 17° × 28.3°	<0.02%	M35.5×0.5	20	Standard
VT-LEMAF5028-MP20-H1.1	50	F2.8	0.3	15.9° × 11.9 ° × 19.9°	<0.04%	M35.5×0.5	20	Standard

# BOARD-LEVEL LENSES

S-  
MOUNT



## S-MOUNT BOARD LENSES

With M12X0.5mm thread formally known as S-Mount lenses, it is also called M12 lenses, M12X0.5 lenses, or board camera lenses. It is compact imaging lenses designed for many small cameras. In applications where space is limited, M12 lenses is ideal choice and the best alternative comparing to standard imaging lenses.

CONTRASTECH M12 S-mount lenses, designed for use in the visible to near-infrared spectra or within harsh environments, are widely used for security, surveillance and industrial inspection. Though compact in size, the multi-element all glass design offers optimum performance and high image quality.

## APPLICATION

Industrial recognition, security monitoring, driving recorder, intelligent AI

# S-Mount Lenses

## FEATURES

- 1. Megapixel High Resolution Design**
- 2. Optimized for 1/3" and 1/2" Sensors with Small Pixels**
- 3. Multiple f/# Options for Performance**
- 4. High Cost Performance**



## S-MOUNT LENSES

Part name	EFL(mm)	Aperture(F#)	Angle	Sensor Size	Distortion	Resolution
VT-LEM01920-M12	1.9	2.0	140°	1/3"	10.00%	2
VT-LEM02618-M12-MP5	2.6	1.8	130°	1/2.5"	8.80%	5
VT-LEM02718-M12-MP8	2.7	1.8	120°	1/2.5"	4.00%	8
VT-LEM02825CB-M12-MP16	2.8	2.5	150°	1/2.3"	62.90%	16
VT-LEM02828-M12-MP8	2.8	2.8	110°	1/2.5"	3.00%	8
VT-LEM02924-M12-A	2.9	2.4	106°	1/2.9"	0.50%	2
VT-LEM02924-M12-B	2.9	2.4	105°	1/2.9"	1.00%	2
VT-LEM02924-M12-MP5	2.9	2.4	102°	1/2.5"	1.00%	5
VT-LEM03028-M12	3.0	2.8	95°	1/2.7"	0.50%	3
VT-LEM03026-M12-MP5	3.0	2.6	110°	1/2"	10.00%	5
VT-LEM03124-M12-MP8	3.1	2.4	90°	1/2.5"	1.50%	8
VT-LEM033728i-M12-MP5	3.3	2.8	99°	1/2"	1.00%	5
VT-LEM033728i-M12-MP16	3.3	2.8	99°	1/2.3"	1.00%	16
VT-LEM03630-M12-B	3.6	3	85°	1/2.5"	0.50%	3
VT-LEM03630-M12-A	3.6	3	96°	-	0.35%	-
VT-LEM03620-M12-MP12	3.6	2	90.5°	1/2.7"	1.50%	12
VT-LEM03928-M12	3.9	2.8	75°	1/2.5"	0.50%	3
VT-LEM04218CE-M12-MP3	4.2	1.8	85°	1/2.5"	-	3
VT-LEM04224CE-M12-MP3	4.2	2.4	70°	1/2.7"	0.50%	3
VT-LEM0424-M12	4.2	2.4	77°	1/2.7"	0.10%	-
VT-LEM04218CE-M12	4.2	-	92°	1/3"	10.00%	-
VT-LEM04328-MP8	4.3	2.8	78°	1/2.3"	1.50%	8
VT-LEM0520iM12-MP12	5.0	2	-	1/1.7"	-43.7%(MAX)	12
VT-LEM0535-MP5	5.0	3.5	60°	1/2.5"	0.50%	5
VT-LEM05425i-M12-MP10	5.4	2.5	-	1/2.3"	-2%	10
VT-LEM0628-M12-MP5	6.0	2.8	73.6°	1/1.8"	0.50%	5
VT-LEM0628-M12-MP8	6.0	6	70°	1/1.8"	0.50%	8
VT-LEM07125-M12-MP5	7.1	2.5	50°	1/2.5"	0.50%	5
VT-LEM-07224i-M12-MP10	7.2	2.4	-	1/2.3"	-0.1%	10
VT-LEM0818iM12-MP12	8.0	1.8	-	1/1.7"	-15.68%(MAX)	12
VT-LEM0828-M12	8.0	2.8	45°	1/2.5"	0.50%	3
VT-LEM0828-M12-MP5	8.0	2.8	58.2°	1/1.8"	0.30%	5
VT-LEM0840M12-MP5	8	4	-	2/3"	<-0.57%	5
VT-LEM0823IR850BP-M12	8.16	2.3	-	1/2.5"	<-3.16%	-
VT-LEM1228-M12-MP5	12	2.8	40.5°	1/1.8"	0.20%	5
VT-LEM1220-M12-A	12	2	44°	1/1.8"	5.00%	-
VT-LEM1220-M12-B	12	2	32°	1/3"	5.00%	-
VT-LEM1218-M12-MP5	12	1.8	30°	1/2.5"	1.00%	5
VT-LEM1225M12-MP10	12	2.5	-	2/3"	<-1.20%	10
VT-LEM1256-M12-MP12	12	5.6	-	1/1.7"	-0.514625%	12
VT-LEM1618i-M12	16.3	1.83	17.6°	1/1.8"	<1%	3
VT-LEM1618-M12-MP5	16	1.8	20°	1/2.5"	1.00%	5
VT-LEM1620M12-MP10	16	2	-	2/3"	<-2.0%	10
VT-LEM1628-M12-MP5	16	2.8	31.6°	1/1.8"	0.1%	5
VT-LEM1656-M12-MP12	16	5.6	-	1/1.7"	-0.29%	12
VT-LEM2524-M12-MP5	25	2.4	15°	1/2"	1.00%	5
VT-LEM2528-M12-MP5	25	2.8	19.5°	1/1.8"	0.05%	5
VT-LEM2556-M12-MP12	25	5.6	-	1/1.7"	0.13%	12
VT-LEM3528i-M12-MP3	35	2.8	10°	1/1.7"	<0.1%	1
VT-LEM5028i-M12-MP3	50	2.8	7.6°	1/2"	<-0.02%	1

# M12-Fisheye Lenses

## FEATURES

1. Megapixel High Resolution Design
2. Optimized for 1/3" and 1/2" Sensors with Small Pixels
3. Multiple f/# Options for Performance
4. High Cost Performance
5. Large light flux, high light transmittance



## M12-FISHEYE LENSES

Part name	EFL(mm)	Aperture(F#)	Sensor Size	Image Format	Resolution	With IR or IR Cut
VT-LEM010824FEMP12-M12	1.08	2.4	1/3.2"	3.5 µm	12MP	IR Cut
VT-LEM014520FEMP10-i-M12	1.45	2	1/2.3"	4.6 µm	10MP	With IR
VT-LEM014520FEMP10-M12	1.45	2	1/2.3"	4.6 µm	10MP	IR Cut
VT-LEM01528FEMP10-i-M12	1.5	2.8	1/2.3"	4.3 µm	10MP	With IR
VT-LEM015828FEMP10-i-M12	1.58	2.8	1/2.5"	4.1 µm	10MP	With IR
VT-LEM019828FEMP10-i-M12	1.98	2.8	1/1.8"	5.6 µm	10MP	With IR
VT-LEM011920FE-i-M12	1.19	2	1/3.2"	3.2 µm	5MP	With IR
VT-LEM012520FE-i-M12(1/2.8)	1.25	2	1/2.8"	3.93 µm	5MP	With IR
VT-LEM012520FE-M12(1/2.8)	1.25	2	1/2.8"	3.93 µm	5MP	IR Cut
VT-LEM01423FE-i-M12	1.4	2.3	1/4"	4.05 µm	2MP	With IR
VT-LEM01420FE-M12	1.4	2	1/2.5"	-	8MP	With IR
VT-LEM015620FE-i-M12	1.56	2	1/2.5"	-	-	With IR
VT-LEM01720FE-i-M12	1.7	2	1/2.5"	-	5MP	With IR
VT-LEM019622FE-i-M12	1.96	2.2	1/2.9"	5.6µm	4MP	With IR
VT-LEM02122FE-i-M12	2.1	2.2	1/3"	4.8µm	3MP	With IR
VT-LEM0220FE-i-M12	2	2	2/3"	6.6µm	1MP	With IR
VT-LEM0223FE-i-M12	2	2.3	2/3"	6.6µm	5MP	With IR
VT-LEM02223FE-i-M12	2.2	2.3	1/2.9"	6.2µm	4MP	With IR
VT-LEM02223FE-M12	2.2	2.3	1/2.9"	6.2µm	4MP	IR Cut

## Adapter

The lenses above can be used with the M12 x 0.5 Adapter for C/CS Mount Cameras

Product Type	Adapter
Material	Aluminum
Height (mm)	5.5
Diameter (mm)	31
Color	Black
Weight	6.4 g



# Drone Lenses

## FEATURES

1. Navigation Lens: FOV200°, short TTL 12-15mm
2. Thermal Imaging Lens: Waveleangth 8-12μm
3. Night Vision Lens: Wavelength 400-1100nm



### ► Navigation

Model	Sensor Size	EFL(mm)	DFOV(°)	Aperture(F#)	TTL(mm)	Mount	Wavelength 435-850nm
VT-LEMDR00920FE	φ2.9	0.9	200°	F2.0	10	M12	
VT-LEMDR009622FE	φ3.28	0.96	220°	F2.2	12.8	M12	
VT-LEMDR012522FE	φ3.93	1.25	190°	F2.2	11.8	M12	
VT-LEMDR009520FE	φ4	0.95	200°	F2	12.89	M12	
VT-LEMDR019322FE	φ5.6	1.9	187°	F2.2	12.19	M12	
VT-LEMDR02321FE	φ7	2.3	180°	F2.1	15	M12	

### ► Thermal Imaging

Model	Adaptation Detector*	EFL(mm)	Aperture (F#)	FOV		Wavelength
				Horizontal	Vertical	
VT-LEMDR0610-TI	256*190-12um	6	F1.0	29.2°	21.7°	8-12um
VT-LEMDR0710-TI	384*288-17um	7	F1.0	53.3°	40°	8-12um
VT-LEMDR1010S-TI	384*288-17um	10	F1.0	37.7°	28.2°	8-12um
VT-LEMDR1310S-TI	384*288-17um	13	F1.0	28.4°	21.2°	8-12um
VT-LEMDR07110M-TI	640*480-17um	7.1	F1.0	90.4°	66.7°	8-12um
VT-LEMDR1010M-TI	640*480-17um	10	F1.0	64.2°	47.5°	8-12um
VT-LEMDR1310M-TI	640*480-17um	13	F1.0	48.5°	35.7°	8-12um
VT-LEMDR07110L-TI	640*512-12um	7.1	F1.0	62.5°	49.6°	8-12um
VT-LEMDR09110-TI	640*512-12um	9.1	F1.0	49°	38.8°	8-12um
VT-LEMDR1310L-TI	640*512-12um	13	F1.0	34.2°	27.1°	8-12um

\*Contact a sales engineer for more information

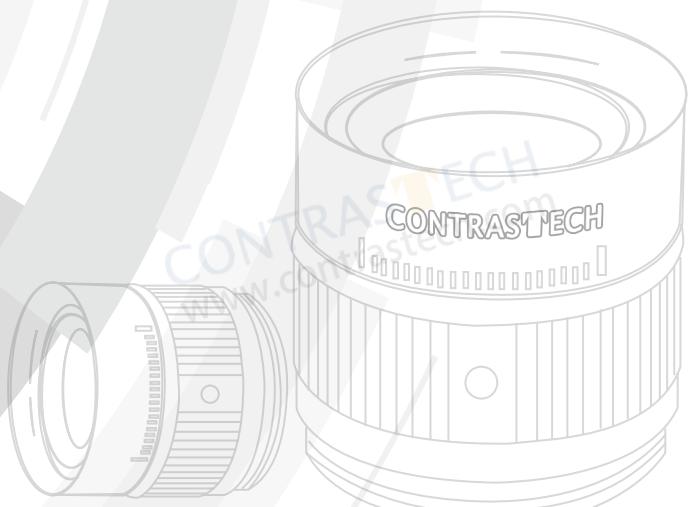
### ► Night Vision

Model	Sensor Size	EFL(mm)	DFOV(°)	Aperture(F#)	TTL(mm)	Equivalent focal length(mm)	Wavelength 400-1100nm
VT-LEMDR1213-i-H1	1"	12	70.5°	F1.3	26	f32.5mm	
VT-LEMDR16313-i-H1	1"	16.3	51.3°	F1.3	26	f44mm	
VT-LEMDR1615-i-H1.1	1.1"	16	41°	F1.5	19	f41mm	
VT-LEMDR4617-i-H1.1	1.1"	46	23.4°	F1.7	39	f120mm	

### ► For Main Cameras

Model	Sensor Size	EFL(mm)	HFOV (°)	DFOV(°)	TTL(mm)	Equivalent focal length(mm)	Mount	Wavelength 435-850nm
VT-LEMDR1250-12	1/2"	12-50	23.2°~7.2°	28.3°~8.9°	40.8	f65-270	-	
VT-LEMDR13-43	4/3"	13	67°	80°	59.61	f26	M12	
VT-LEMDR04-118	1/1.8"	4	126°	160°	25.95	f19.2	M12	
VT-LEMDR08-118	1/1.8"	8	53°	60°	34.4	f37.8	M12	
VT-LEMDR25-118	1/1.8"	25	14°	18°	25	f120.2	M12	
VT-LEMDR028-123	1/2.3"	2.8	97°	112°	27.69	f15	M12	
VT-LEMDR054-123	1/2.3"	5.4	61°	72°	24.63	f30	M12	

# LENS PARAMETER DIAGRAM



# 1/1.8" C-Mount FIXED LENSES

1. Suitable for 2-3 megapixels sensors
2. Lockable focus and iris screws prevent movement during vibrations or shocks
3. Compact design
4. TV distortion less than 1%



**VT-LEM0420**

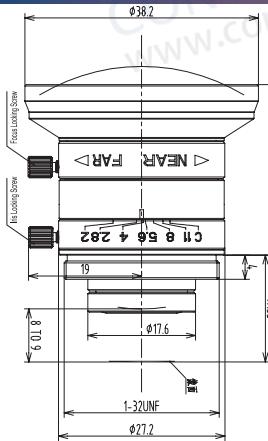


Image Size (inch)	1/1.8"
EFL (mm)	4.0
Aperture, F/#	F2~Close
M.O.D.	0.1m
FOV(°)	94°×82.9°×66.5°
Distortion(TV)	<0.5%
FBL (mm)	17.526
BFL (mm)	8.7
Filter screw size	-
Front/Rear Effective Dia.	Front Ø35mm Rear Ø7mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM0620**

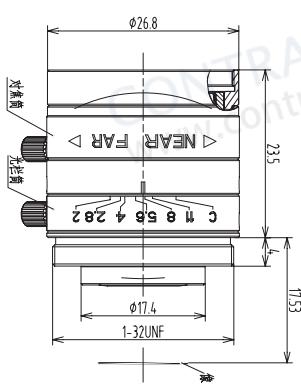


Image Size (inch)	1/1.8"
EFL (mm)	6.0
Aperture, F/#	F2~Close
M.O.D.	0.1m
FOV(°)	69.8°×59.6°×46°
Distortion(TV)	<0.1%
FBL (mm)	17.526
BFL (mm)	11.6
Filter Size	M25.5×P0.5
Front/Rear Effective Dia.	Front Ø18.12mm Rear Ø5.81mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM0820**

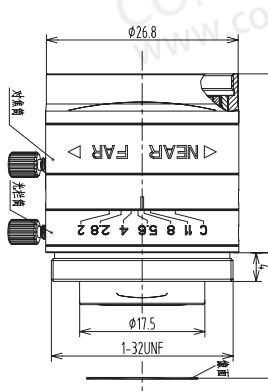


Image Size (inch)	1/1.8"
EFL (mm)	8.0
Aperture, F/#	F2~Close
M.O.D.	0.1m
FOV(°)	56.0°×46.8°×36.0°
Distortion(TV)	<0.1%
FBL (mm)	17.526
BFL (mm)	11.4
Filter Size	M25.5×P0.5
Front/Rear Effective Dia.	Front Ø20.1mm Rear Ø6mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM1220**

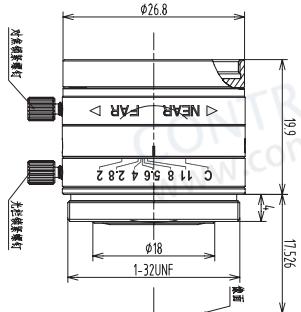


Image Size (inch)	1/1.8"
EFL (mm)	12.0
Aperture, F/#	F2~Close
M.O.D.	0.1m
FOV(°)	40.7°×33.0°×24.3°
Distortion(TV)	<0.3%
FBL (mm)	17.526
BFL (mm)	12.5
Filter Size	M25.5×P0.5
Front/Rear Effective Dia.	Front Ø15.2mm Rear Ø6mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM1620**

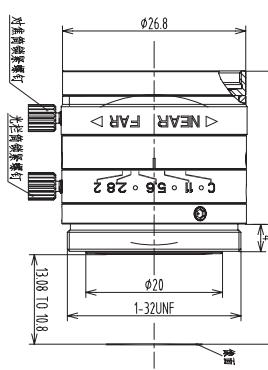


Image Size (inch)	1/1.8"
EFL (mm)	16.0
Aperture, F/#	F2~Close
M.O.D.	0.1m
FOV(°)	30.3°×24.7°×18.2°
Distortion(TV)	<0.1%
FBL (mm)	17.526
BFL (mm)	12.7
Filter Size	M25.5×P0.5
Front/Rear Effective Dia.	Front Ø15.2mm Rear Ø6mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM2520**

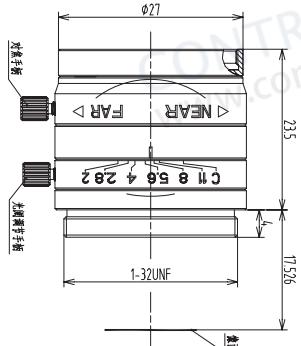


Image Size (inch)	1/1.8"
EFL (mm)	25.0
Aperture, F/#	F2~Close
M.O.D.	0.1m
FOV(°)	19.0°×13.6°×11.3°
Distortion(TV)	<0.1%
FBL (mm)	17.526
BFL (mm)	13.7
Filter Size	M25.5×P0.5
Front/Rear Effective Dia.	Front Ø15.2mm Rear Ø6.6mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

### VT-LEM3520

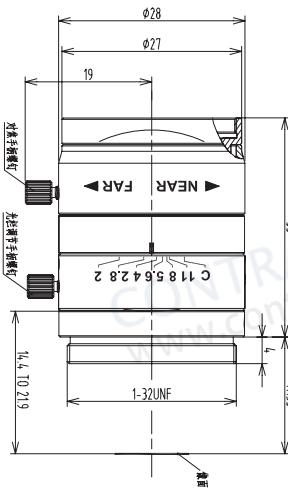


Image Size (inch)	1/1.8"
EFL (mm)	35.0
Aperture, F/#	F2~Close
M.O.D.	0.2m
FOV(°)	12.24°×8.8°×7.0°
Distortion(TV)	<0.1%
FBL (mm)	17.526
BFL (mm)	19
Filter Size	M25.5×P0.5
Front/Rear Effective Dia.	Front Ø15.7mm Rear Ø8.5mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

### VT-LEM5028

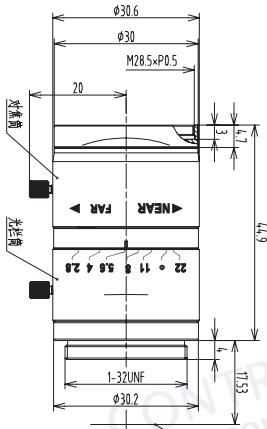


Image Size (inch)	1/1.8"
EFL (mm)	50.0
Aperture, F/#	F2.8~Close
M.O.D.	0.3m
FOV(°)	10.2°×8.2°×6.1°
Distortion(TV)	<0.05%
FBL (mm)	17.526
BFL (mm)	17.4~27.1
Filter Size	M28.5×P0.5
Front/Rear Effective Dia.	Front Ø17.4mm Rear Ø8mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

### VT-LEM7528

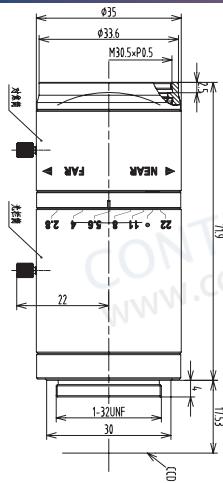


Image Size (inch)	1/1.8"
EFL (mm)	75.0
Aperture, F/#	F2.8~Close
M.O.D.	0.5m
FOV(°)	5.84°×5.4°×4.04°
Distortion(TV)	<0.05%
FBL (mm)	17.526
BFL (mm)	42.2~55.5
Filter Size	M30.5×P0.5
Front/Rear Effective Dia.	Front Ø24mm Rear Ø14.5mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

### VT-LEM0616MP5

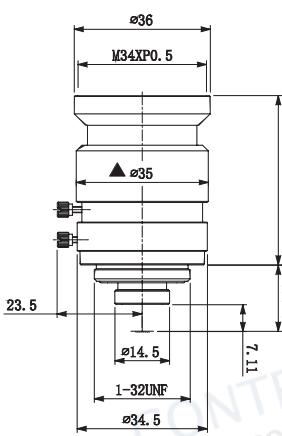


Image Size (inch)	1/1.8"
EFL (mm)	6.0
Aperture, F/#	F1.6~Close
M.O.D.	0.1m
FOV(°)	71.7°×60.1°×46.6°
Distortion(TV)	<0.54%
FBL (mm)	17.526
BFL (mm)	7.94
Filter Size	M34×P0.5
Front/Rear Effective Dia.	Front Ø21.56mm Rear Ø10.1mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

### VT-LEM014141-FE OOP

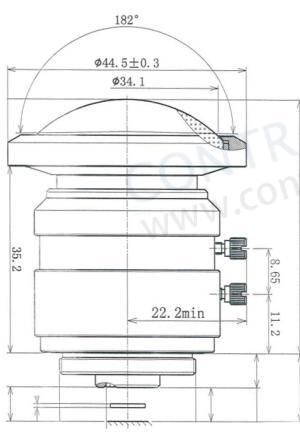


Image Size (inch)	1/2.3"
EFL (mm)	1.4
Aperture, F/#	F1.41~Close
M.O.D.	0.1m
FOV(°)	182°×182°×182°
Distortion(TV)	<-1%
FBL (mm)	12.73
BFL (mm)	6.43
Filter Size	-
Front/Rear Effective Dia.	Front Ø33.8mm Rear Ø6.8mm
Mount	CS-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

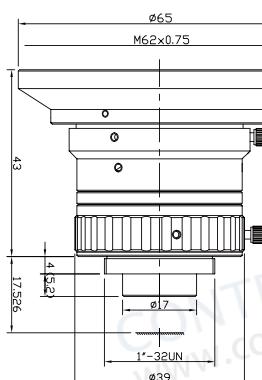
## 2/3" C-Mount FIXED LENSES

HOT

1. Mono-focal for best image quality
2. High performance for 8 mega pixels camera
3. Large aperture ratio for low illumination
4. TV Free distortion less than 1%
5. Focus range from 0.1M to Infinity
6. Higher relative illuminate rate at corner

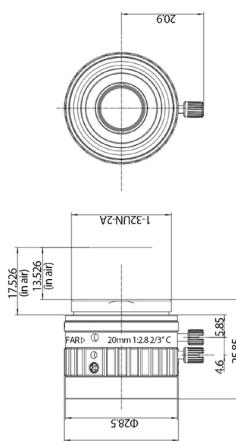


**VT-LEM0518MP10**



Resolution	200lp/mm(10MP)
Image Size (inch)	2/3"
EFL (mm)	5.0
Aperture, F/#	F1.8~Close
M.O.D.	0.1m
FOV(°)	95.5°×82.7°×66.8°
Distortion(TV)	<5%
FBL (mm)	17.526
BFL (mm)	8.54
Filter Size	M62 × 0.75
Relative illumination	43%
Mount	C-Mount
Wavelength	400nm~950nm
Weight	150g

**VT-LEN2028MP10**



Resolution	10MP
Image Size (inch)	2/3"
EFL (mm)	20±5%
Aperture, F/#	F2.8±10%
M.O.D.	0.2m
FOV(°)	28.6°×23.33°×17.35°
Distortion(TV)	<-0.60%
FBL (mm)	17.526
Optical back focus	13.45~15.48
MBF(mm)	<13.526
Relative illumination	43%
Mount	C-Mount
Wavelength	400nm~950nm
Weight	150g

**VT-LEM0814CBMP8**

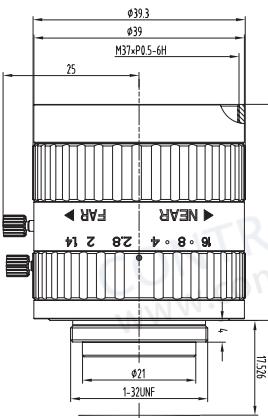


Image Size (inch)	2/3"
EFL (mm)	8.0
Aperture, F/#	F1.4~Close
M.O.D.	0.1m
FOV(°)	61.7°×56.3°×43.7°
Distortion(TV)	<0.1%
FBL (mm)	17.526
BFL (mm)	10.74
Filter Size	M37xP0.5
Front/Rear Effective Dia.	Front Ø26.2mm Rear Ø12.7mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM1216CBMP8**

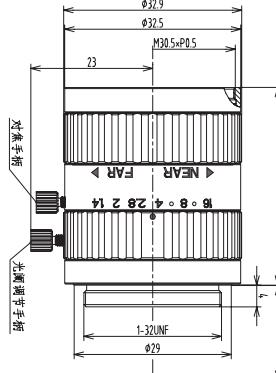
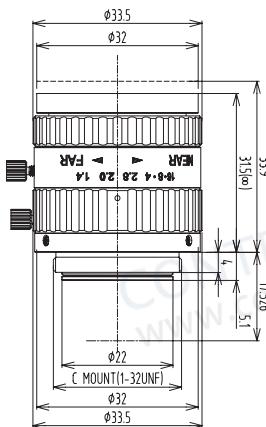


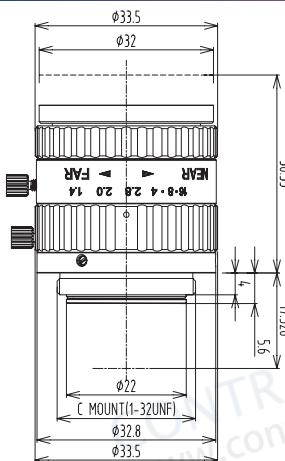
Image Size (inch)	2/3"
EFL (mm)	12.0
Aperture, F/#	F1.6~Close
M.O.D.	0.15m
FOV(°)	46.6°×39°×30.3°
Distortion(TV)	<0.8%
FBL (mm)	17.526
BFL (mm)	13
Filter Size	M30.5xP0.5
Front/Rear Effective Dia.	Front Ø24mm Rear Ø10mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

### VT-LEM1614CBMP8



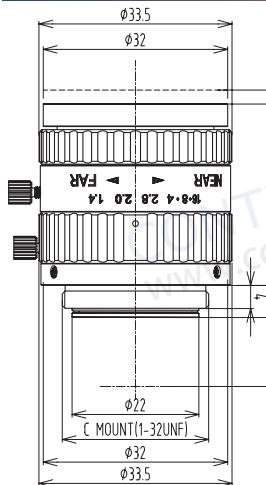
<b>Image Size (inch)</b>	<b>2/3"</b>
<b>EFL (mm)</b>	<b>16.0</b>
<b>Aperture, F/#</b>	<b>F1.4~Close</b>
<b>M.O.D.</b>	<b>0.1m</b>
<b>FOV(°)</b>	<b>37.3°×30.3°×23°</b>
<b>Distortion(TV)</b>	<b>&lt;0.1%</b>
<b>FBL (mm)</b>	<b>17.526</b>
<b>BFL (mm)</b>	<b>12.7</b>
<b>Filter Size</b>	<b>M30.5×P0.5</b>
<b>Front/Rear Effective Dia.</b>	<b>Front <math>\phi 19mm</math> Rear <math>\phi 14.2mm</math></b>
<b>Mount</b>	<b>C-Mount</b>
<b>Temperature Range</b>	<b>-10~+50°C</b>
<b>Storage Temperature Range</b>	<b>-20~+60°C</b>

### VT-LEM2514CBMP8



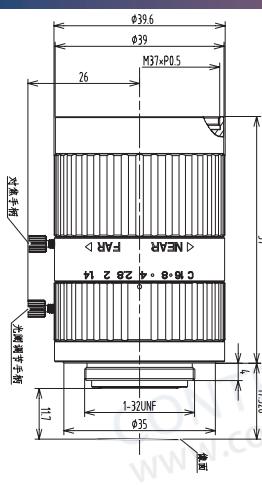
<b>Image Size (inch)</b>	<b>2/3"</b>
<b>EFL (mm)</b>	<b>25.0</b>
<b>Aperture, F/#</b>	<b>F1.4~Close</b>
<b>M.O.D.</b>	<b>0.1m</b>
<b>FOV(°)</b>	<b>24.6°×20°×15°</b>
<b>Distortion(TV)</b>	<b>&lt;0.2%</b>
<b>FBL (mm)</b>	<b>17.526</b>
<b>BFL (mm)</b>	<b>12.25</b>
<b>Filter Size</b>	<b>M30.5×P0.5</b>
<b>Front/Rear Effective Dia.</b>	<b>Front <math>\phi 22.7mm</math> Rear <math>\phi 12.6mm</math></b>
<b>Mount</b>	<b>C-Mount</b>
<b>Temperature Range</b>	<b>-10~+50°C</b>
<b>Storage Temperature Range</b>	<b>-20~+60°C</b>

### VT-LEM3514CBMP8



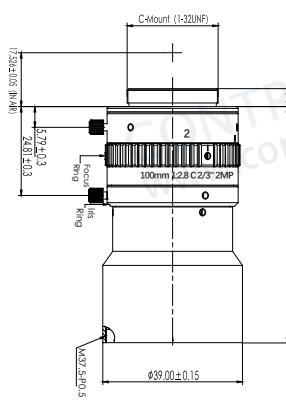
<b>Image Size (inch)</b>	<b>2/3"</b>
<b>EFL (mm)</b>	<b>35.0</b>
<b>Aperture, F/#</b>	<b>F1.4~Close</b>
<b>M.O.D.</b>	<b>0.15m</b>
<b>FOV(°)</b>	<b>17.3°×13.9°×10.4°</b>
<b>Distortion(TV)</b>	<b>&lt;0.8%</b>
<b>FBL (mm)</b>	<b>17.526</b>
<b>BFL (mm)</b>	<b>12.7</b>
<b>Filter Size</b>	<b>M30.5×P0.5</b>
<b>Front/Rear Effective Dia.</b>	<b>Front <math>\phi 19mm</math> Rear <math>\phi 14.2mm</math></b>
<b>Mount</b>	<b>C-Mount</b>
<b>Temperature Range</b>	<b>-10~+50°C</b>
<b>Storage Temperature Range</b>	<b>-20~+60°C</b>

### VT-LEM5014CBMP8



<b>Image Size (inch)</b>	<b>2/3"</b>
<b>EFL (mm)</b>	<b>50.0</b>
<b>Aperture, F/#</b>	<b>F1.4~Close</b>
<b>M.O.D.</b>	<b>0.3m</b>
<b>FOV(°)</b>	<b>10.2°×8.2°×6.1°</b>
<b>Distortion(TV)</b>	<b>&lt;0.8%</b>
<b>FBL (mm)</b>	<b>17.526</b>
<b>BFL (mm)</b>	<b>12.4</b>
<b>Filter Size</b>	<b>M37×P0.5</b>
<b>Front/Rear Effective Dia.</b>	<b>Front <math>\phi 24mm</math> Rear <math>\phi 11.78mm</math></b>
<b>Mount</b>	<b>C-Mount</b>
<b>Temperature Range</b>	<b>-10~+50°C</b>
<b>Storage Temperature Range</b>	<b>-20~+60°C</b>

### VT-LEM10028



<b>Image Size (inch)</b>	<b>2/3", Support 1"</b>
<b>EFL (mm)</b>	<b>100.0</b>
<b>Aperture, F/#</b>	<b>F2.8~16</b>
<b>M.O.D.</b>	<b>-</b>
<b>FOV(°)</b>	<b>5.6°×7.5°</b>
<b>Distortion(TV)</b>	<b>&lt;0.1%</b>
<b>Resolution</b>	<b>2MP</b>
<b>WD</b>	<b>2m ~ <math>\infty</math></b>
<b>Filter Size</b>	<b>M37.5×0.5</b>
<b>Dimension (mm)</b>	<b><math>\phi 39×65.85</math></b>
<b>Mount</b>	<b>C-Mount</b>
<b>Iris</b>	<b>M-Iris</b>
<b>Temperature Range</b>	<b>-10~+50°C</b>

# 1" C-Mount FIXED LENSES

1. Multi-layer coating technology to effectively prevent glare, ghosting
2. Suitable for 5MP camera
3. High resolution, high contrast
4. Locking set screws for focus and iris compact design-diameter
5. Low distortion



**VT-LEM7528MP5**

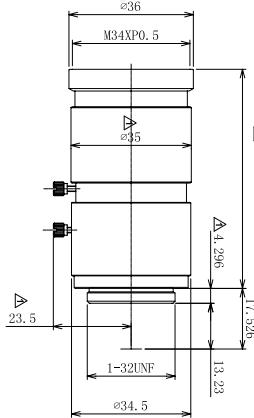


Image Size (inch)	1"
EFL (mm)	75.0
Aperture, F/#	F2.8~Close
M.O.D.	0.6m
FOV(°)	11.4°×9.2°×6.9°
Distortion(TV)	0.07%
FBL (mm)	17.526
BFL (mm)	17.69
Filter Size	M34×0.5
Front/Rear Effective Dia.	Front Ø29.4mm Rear Ø17.0mm
Mount	C-Mount
Relative illumination	>97.6%
TTL	79.38mm

**VT-LEM1214CB-H1**

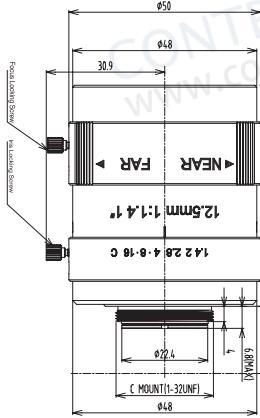


Image Size (inch)	1"
EFL (mm)	12.5
Aperture, F/#	F1.4~Close
M.O.D.	0.1m
FOV(°)	66.3°×38.5°×42°
Distortion(TV)	1.8%
FBL (mm)	17.526
BFL (mm)	15.7
Filter Size	M46×0.75
Front/Rear Effective Dia.	Front Ø35mm Rear Ø18.8mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM1614CB-H1**

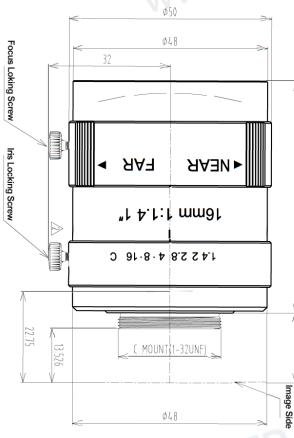


Image Size (inch)	1"
EFL (mm)	16
Aperture, F/#	F1.4~Close
M.O.D.	0.1m
FOV(°)	42.4°×32.4°×51.6°
Distortion(TV)	0.1%
FBL (mm)	17.526
BFL (mm)	22.75
Filter Size	M46×0.75
Front/Rear Effective Dia.	Front Ø35.3mm Rear Ø11.5mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM2514CB-H1**

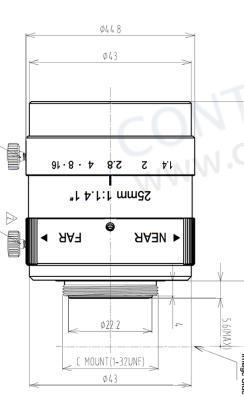


Image Size (inch)	1"
EFL (mm)	25
Aperture, F/#	F1.4~Close
M.O.D.	0.1m
FOV(°)	28.7°×22.06°×34.94°
Distortion(TV)	0.1%
FBL (mm)	17.526
BFL (mm)	19.97
Filter Size	M40.5×0.5
Front/Rear Effective Dia.	Front Ø19.8mm Rear Ø13.75mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM3514CB-H1**

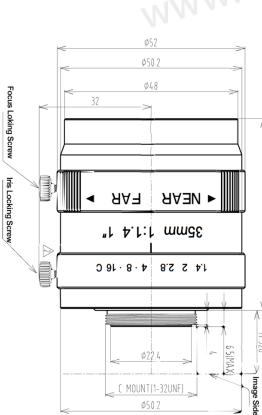


Image Size (inch)	1"
EFL (mm)	35
Aperture, F/#	F1.4~Close
M.O.D.	0.1m
FOV(°)	19.28°×14.32°×23.92°
Distortion(TV)	0.1%
FBL (mm)	17.526
BFL (mm)	11.2
Filter Size	M46×0.75
Front/Rear Effective Dia.	Front Ø27mm Rear Ø17mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

**VT-LEM5014CB-H1**

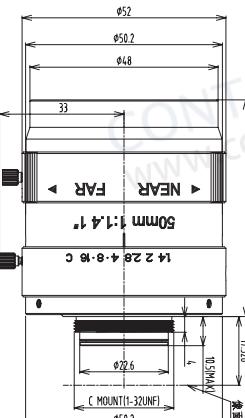
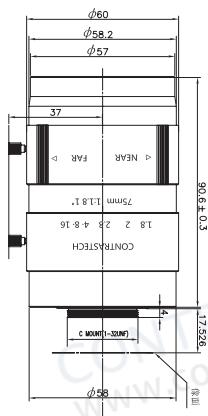


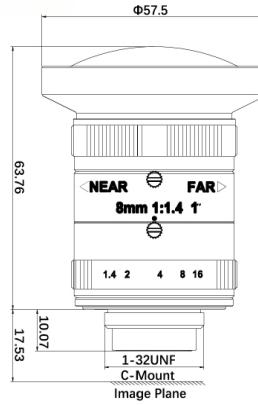
Image Size (inch)	1"
EFL (mm)	50.0
Aperture, F/#	F1.4~Close
M.O.D.	0.3m
FOV(°)	17.14°×13.86°×10.4°
Distortion(TV)	0.1%
FBL (mm)	17.526
BFL (mm)	10.5
Filter Size	M46×0.75
Front/Rear Effective Dia.	Front Ø30.5mm Rear Ø18mm
Mount	C-Mount
Temperature Range	-10~+50°C
Storage Temperature Range	-20~+60°C

### VT-LEM7518CB-H1



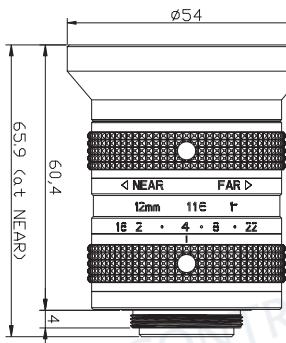
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	75.0
<b>Aperture, F/#</b>	F1.8~Close
<b>M.O.D.</b>	0.7m
<b>FOV(°)</b>	12.2°×9.8°×7.4°
<b>Distortion(TV)</b>	0.1%
<b>FBL (mm)</b>	17.526
<b>BFL (mm)</b>	16
<b>Filter Size</b>	M55×0.75
<b>Front/Rear Effective Dia.</b>	Front Ø34mm Rear Ø16.5mm
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-10~+50°C
<b>Storage Temperature Range</b>	-20~+60°C

### VT-LEM0814CE-H1



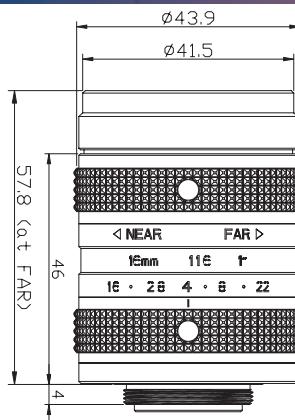
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	8.0
<b>Aperture, F/#</b>	F1.4~16
<b>M.O.D.</b>	0.2m
<b>FOV(°)</b>	88°×70.5°×53°
<b>Distortion(TV)</b>	<1.5%
<b>FBL (mm)</b>	-
<b>BFL (mm)</b>	7.79
<b>Filter Size</b>	-
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-20°C~+100°C
<b>Weight</b>	220g

### VT-LEM1216CE-H1



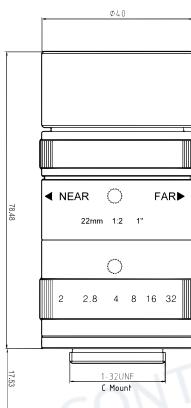
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	12.0
<b>Aperture, F/#</b>	F1.6~Close
<b>M.O.D.</b>	1m
<b>FOV(°)</b>	68.8°×57.1°×44.1°
<b>Distortion(TV)</b>	-2.88%@y=8mm
<b>FBL (mm)</b>	17.526
<b>BFL (mm)</b>	13.54
<b>Filter Size</b>	M52×0.75
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-10°C~+50°C
<b>Weight</b>	193g

### VT-LEM1616CE-H1



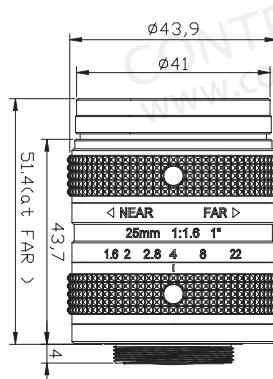
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	16.0
<b>Aperture, F/#</b>	F1.6~Close
<b>M.O.D.</b>	1m
<b>FOV(°)</b>	54.3°×44.2°×33.5°
<b>Distortion(TV)</b>	-3.73%@y=8mm
<b>FBL (mm)</b>	17.526
<b>BFL (mm)</b>	12.17
<b>Filter Size</b>	M37.5×0.5
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-10°C~+50°C
<b>Weight</b>	202g

### VT-LEM2220CE-H1



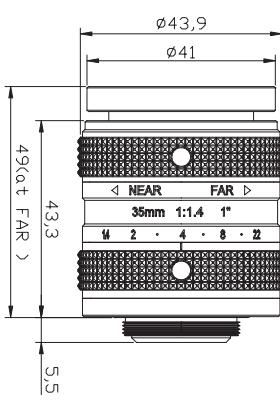
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	22.0
<b>Aperture, F/#</b>	F2.0~Close
<b>M.O.D.</b>	0.4m
<b>FOV(°)</b>	40°×32°×24°
<b>Distortion(TV)</b>	<1.0%
<b>FBL (mm)</b>	17.526
<b>BFL (mm)</b>	20.3
<b>TTL (mm)</b>	93.1
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-20~+100°C
<b>Weight</b>	220g

### VT-LEM2516CE-H1

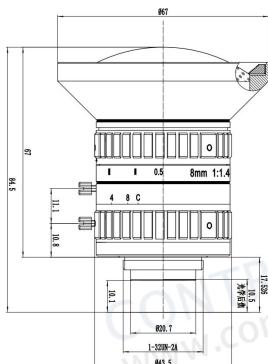


<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	25.0
<b>Aperture, F/#</b>	F1.6~Close
<b>M.O.D.</b>	1m
<b>FOV(°)</b>	36.2°×29.0°×21.8°
<b>Distortion(TV)</b>	-2.06%@y=8mm
<b>FBL (mm)</b>	17.526
<b>BFL (mm)</b>	12.69
<b>Filter Size</b>	M39×0.5mm
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-10°C~+50°C
<b>Weight</b>	157g

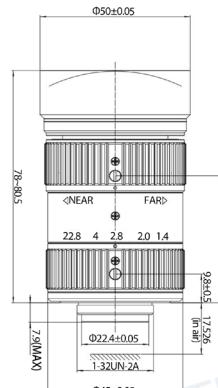
### VT-LEM3514CE-H1



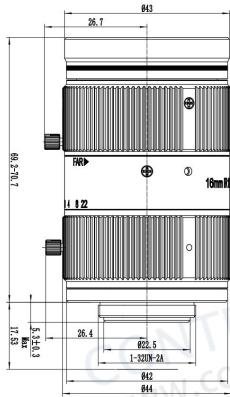
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	35.0
<b>Aperture, F/#</b>	F1.4~Close
<b>M.O.D.</b>	1m
<b>FOV(°)</b>	25.7°×20.7°×15.6°
<b>Distortion(TV)</b>	0.27%@y=8.0mm
<b>FBL (mm)</b>	17.526
<b>BFL (mm)</b>	12.83
<b>Filter Size</b>	M39×0.5mm
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-10°C~+50°C
<b>Weight</b>	155g

**VT-LEN0814MP8-H1 NEW!**

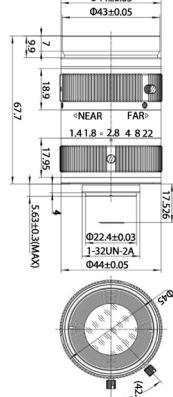
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	8±5%
<b>Aperture, F/#</b>	F1.4~Close
<b>M.O.D.</b>	0.5m
<b>FOV(°)</b>	96°×84°×88°
<b>Distortion(TV)</b>	-4.65%(1")
<b>FBL(mm)</b>	17.526
<b>BFL(mm)</b>	10.5
<b>MBF(mm)</b>	10.1
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C ~ +70°C
<b>Weight</b>	303g

**VT-LEN1214MP8-H1 NEW!**

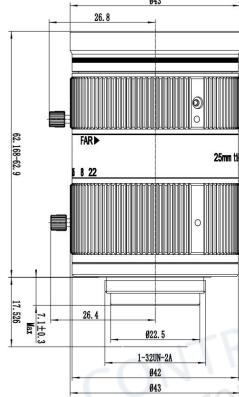
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	12±5%
<b>Aperture, F/#</b>	F1.4±10%
<b>M.O.D.</b>	0.3m
<b>FOV(°)</b>	68.0°×56.0°×43.0°
<b>Distortion(TV)</b>	4.50%
<b>FBL(mm)</b>	17.526 (in air)
<b>BFL(mm)</b>	11.56 (in air)
<b>MBF(mm)</b>	9.88 (in air)
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C ~ +70°C
<b>Weight</b>	318.5g±5g

**VT-LEN1614MP8-H1 NEW!**

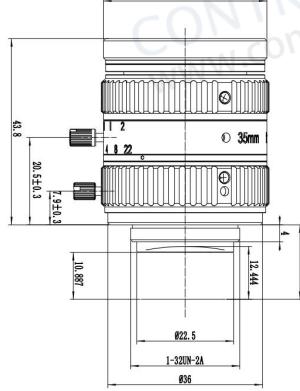
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	16±5%
<b>Aperture, F/#</b>	F1.4±10%
<b>M.O.D.</b>	0.5m
<b>FOV(°)</b>	54°×43°×33°
<b>Distortion(TV)</b>	5.9%@Φ16mm
<b>FBL(mm)</b>	17.526
<b>BFL(mm)</b>	13.863 (in air)
<b>MBF(mm)</b>	12.2 (in air)
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C ~ +70°C
<b>Weight</b>	248±5g

**VT-LEN2014MP8-H1 NEW!**

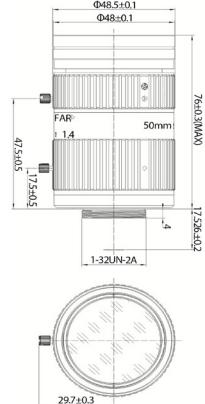
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	20±5%
<b>Aperture, F/#</b>	F1.4±5%
<b>M.O.D.</b>	0.5m
<b>FOV(°)</b>	44.3°×35.7°×26.8°
<b>Distortion(TV)</b>	-4.9%@Φ16mm
<b>FBL(mm)</b>	17.526
<b>BFL(mm)</b>	12.474 (in air)
<b>MBF(mm)</b>	13.5 (in air)
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	212±5g

**VT-LEN2514MP8-H1 NEW!**

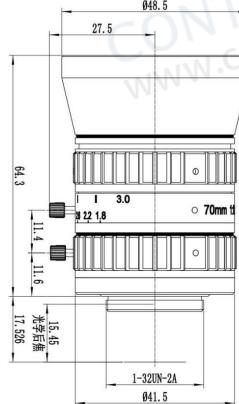
<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	25±5%
<b>Aperture, F/#</b>	F1.4±10%
<b>M.O.D.</b>	1m
<b>FOV(°)</b>	36.5°×29.2°×21.9°
<b>Distortion(TV)</b>	-2.9%@Φ16mm
<b>FBL(mm)</b>	17.526
<b>BFL(mm)</b>	11.70 (in air)
<b>MBF(mm)</b>	11.10 (in air)
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	195±5g

**VT-LEN3514MP8-H1 NEW!**

<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	35±5%
<b>Aperture, F/#</b>	F1.4±10%
<b>M.O.D.</b>	2m
<b>FOV(°)</b>	26.2°×20.9°×15.6°
<b>Distortion(TV)</b>	-2.6%@Φ16mm
<b>FBL(mm)</b>	17.526
<b>BFL(mm)</b>	12.4 (in air)
<b>MBF(mm)</b>	10.89 (in air)
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	126±5g

**VT-LEN5014MP8-H1 NEW!**

<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	50±5%
<b>Aperture, F/#</b>	F1.4±10%
<b>M.O.D.</b>	1.5m
<b>FOV(°)</b>	18.2°×14.6°×10.9°
<b>Distortion(TV)</b>	-2% @Φ16mm
<b>FBL(mm)</b>	17.526±0.5
<b>BFL(mm)</b>	19.6 (in air)
<b>MBF(mm)</b>	13.526 (in air)
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	318.3g±5g

**VT-LEN7018MP8-H1**

<b>Image Size (inch)</b>	1"
<b>EFL (mm)</b>	70±5%
<b>Aperture, F/#</b>	F1.8±10%
<b>M.O.D.</b>	3m
<b>FOV(°)</b>	12.8°×10.2°×7.7°
<b>Distortion(TV)</b>	0.13%
<b>FBL(mm)</b>	17.526
<b>BFL(mm)</b>	15.45
<b>MBF(mm)</b>	13.5
<b>Iris</b>	Manual
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	230±5g

## VT-LEM7528MP10-H1

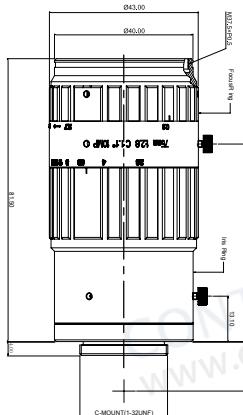


Image Size (inch)	1"
EFL (mm)	75
Aperture, F/#	F2.8-32
M.O.D.	0.6m
FOV(°)	10.4°×7.9°×13.0°
Distortion	<0.1%
BFL(mm)	36.90
Resolution	10 MP
Filter Size	M37.5×P0.5
Mount	C-Mount
Dimension	Ø43.00×81.50
Adjustment Type	Manual
Temperature Range	-20°C ~ +60°C
Weight	250g

## VT-LEN17044MP10-H1

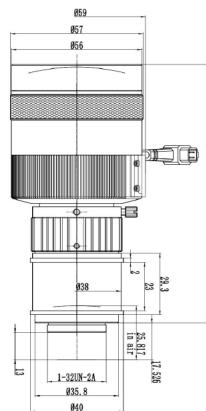


Image Size (inch)	1"
EFL (mm)	170
Aperture, F/#	F4.4
M.O.D.	5m
FOV(°)	5.4°×4.32°×3.25°
Distortion(TV)	0.27% in Max Circle 16.6 mm
FBL (mm)	17.53
BFL(mm)	25.817(in air)
MBF(mm)	13(in air)
IR Correction	Yes
Iris	P-Iris
Mount	C-Mount
Dimension	Ø59×123.3 mm
Temperature Range	-30°C~+60°C

## 1.1" C-Mount FIXED LENSES

1. Mono-focal for best image quality
2. High performance for 10 mega pixels camera
3. Large aperture ratio for low illumination
4. TV Free distortion less than 1%
5. Focus range from 0.1M to Infinity
6. Higher relative illuminate rate at corner

HOT



**VT-LEN1214MP12-H1.1 OOP**

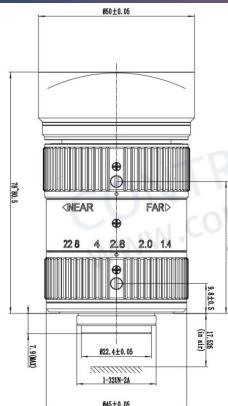


Image Size (inch)	1.1"
EFL (mm)	12±5%
Aperture, F/#	F1.4±10%
M.O.D.	0.3m
FOV(°)	74.0° × 62.8° × 45.1°
Distortion(TV)	<4.50%
FBL(mm)	17.526(in air)
BFL(mm)	11.56(in air)
MBF(mm)	9.88(in air)
Resolution	12 MP
Design Wavelength	420-650nm
Mount	C-Mount
Temperature Range	-30°C~+70°C
Weight	318.5g±5g

**VT-LEN1228MP12-H1.1**

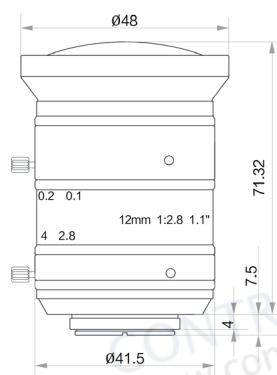


Image Size (inch)	1.1"
EFL (mm)	12.0
Aperture, F/#	F2.8-F22
M.O.D.	0.1m
FOV(°)	66.7°×57°×45°
Distortion(TV)	1.50%
FBL(mm)	17.526(in air)
Resolution	12MP
Design Wavelength	400-1000nm
Filter Size	-
Dimension	Ø48×71.32 mm
Mount	C-Mount
Weight	245 g
Temperature Range	-10~+50°C

**VT-LEN1614MP12-H1.1 OOP**

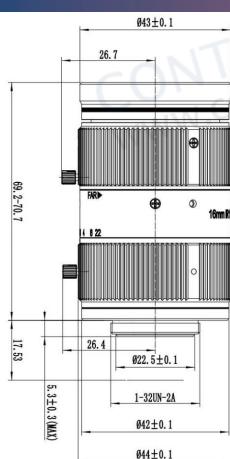


Image Size (inch)	1.1"
EFL (mm)	16±5%
Aperture, F/#	F1.4±5%
M.O.D.	0.5m
FOV(°)	59.2°×49.16°×33.6°
Distortion(TV)	<5.9%Φ16mm
FBL (mm)	17.526(in air)
BFL (mm)	13.863mm (in air)
MBF(mm)	12.2(in air)
Resolution	12 MP
Design Wavelength	420-650nm
Mount	C-Mount
Temperature Range	-30°C~+70°C
Weight	248±5g

**VT-LEN1628MP12-H1.1**

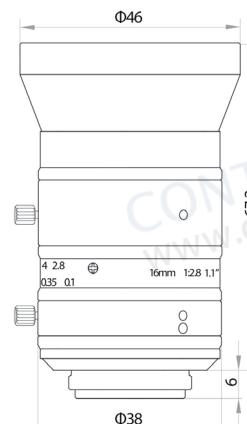
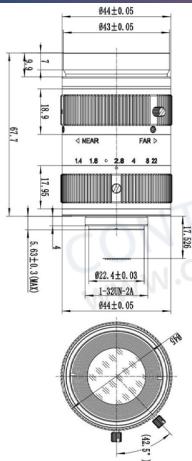
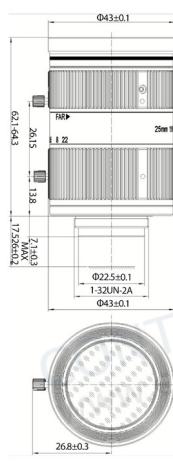


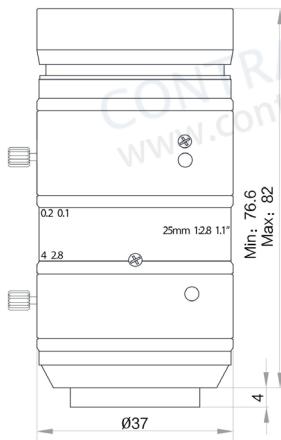
Image Size (inch)	1.1"
EFL (mm)	16.0
Aperture, F/#	F2.8-F16
M.O.D.	0.1m
FOV(°)	55.6°×45.8°×35.3°
Distortion(TV)	0.15%
FBL (mm)	17.526
Resolution	12MP
Design Wavelength	400-1000nm
Filter Size	M43×0.75
Dimension	Ø45.6×67.2 mm
Mount	C-Mount
Weight	189 g
Temperature Range	-10~+50°C

**VT-LEN2014MP12-H1.1 OOP**

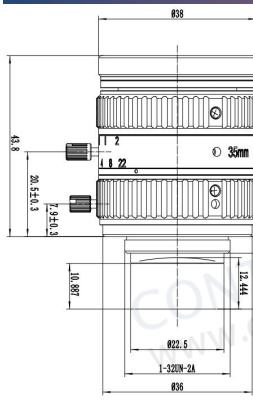
<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	20±5%
<b>Aperture, F/#</b>	F1.4±5%
<b>M.O.D.</b>	0.5m
<b>FOV(°)</b>	49.06°×42.4°×27.96°
<b>Distortion(TV)</b>	<4.50%
<b>FBL(mm)</b>	17.526 (in air)
<b>BFL(mm)</b>	12.474 (in air)
<b>MBF(mm)</b>	13.5 (in air)
<b>Resolution</b>	12 MP
<b>Design Wavelength</b>	420-650nm
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	212±5g

**VT-LEN2514MP12-H1.1 OOP**

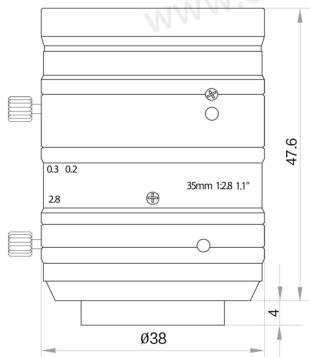
<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	25±5%
<b>Aperture, F/#</b>	F1.4±10%
<b>M.O.D.</b>	1m
<b>FOV(°)</b>	40.03°×33°×22.87°
<b>Distortion(TV)</b>	<-2.9%@Φ16mm
<b>FBL(mm)</b>	17.526
<b>BFL(mm)</b>	11.70 (in air)
<b>MBF(mm)</b>	11.10 (in air)
<b>Resolution</b>	12 MP
<b>Design Wavelength</b>	420-650nm
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	195±5g

**VT-LEN2528MP12-H1.1**

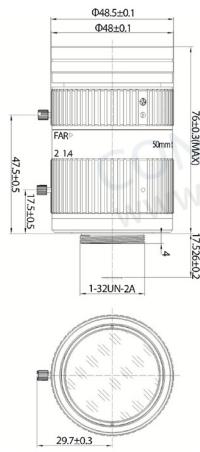
<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	25.0
<b>Aperture, F/#</b>	F2.8-F22
<b>M.O.D.</b>	0.1m
<b>FOV(°)</b>	37.6°×30.4°×23°
<b>Distortion(TV)</b>	0.10%
<b>FBL (mm)</b>	17.526
<b>Resolution</b>	12MP
<b>Design Wavelength</b>	400-1000nm
<b>Filter Size</b>	M35.5×0.5
<b>Dimension</b>	Φ37×82 mm
<b>Mount</b>	C-Mount
<b>Weight</b>	180 g
<b>Temperature Range</b>	-10~+50°C

**VT-LEN3514MP12-H1.1 OOP**

<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	35±5%
<b>Aperture, F/#</b>	F1.4±10%
<b>M.O.D.</b>	2m
<b>FOV(°)</b>	28.9°×23.65°×16.3°
<b>Distortion(TV)</b>	<-2.6%@Φ16mm
<b>FBL(mm)</b>	17.526
<b>BFL(mm)</b>	12.4 (in air)
<b>MBF(mm)</b>	10.89 (in air)
<b>Resolution</b>	12 MP
<b>Design Wavelength</b>	420-650nm
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	126.5±5g

**VT-LEN3528MP12-H1.1**

<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	35.0
<b>Aperture, F/#</b>	F2.8-F22
<b>M.O.D.</b>	0.2m
<b>FOV(°)</b>	28.3°×22.6°×17°
<b>Distortion(TV)</b>	0.02%
<b>FBL (mm)</b>	17.526
<b>Resolution</b>	12MP
<b>Design Wavelength</b>	400-1000nm
<b>Filter Size</b>	M35.5×0.5
<b>Dimension</b>	Φ38×47.6 mm
<b>Mount</b>	C-Mount
<b>Weight</b>	107 g
<b>Temperature Range</b>	-10~+50°C

**VT-LEN5014MP12-H1.1 OOP**

<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	50±5%
<b>Aperture, F/#</b>	F1.4±10%
<b>M.O.D.</b>	1.5m
<b>FOV(°)</b>	20.5°×16.5°×11.8°
<b>Distortion(TV)</b>	<-2.35%@Φ17.8mm
<b>FBL(mm)</b>	17.526±0.5
<b>BFL(mm)</b>	19.6 (in air)
<b>MBF(mm)</b>	13.526 (in air)
<b>Resolution</b>	12 MP
<b>Design Wavelength</b>	420-650nm
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C~+70°C
<b>Weight</b>	318.3g±5g

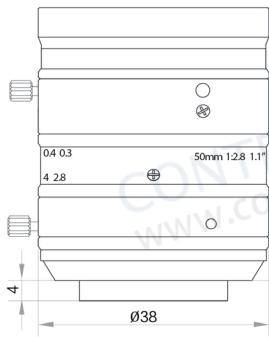
**VT-LEN5028MP12-H1.1**

Image Size (inch)	1.1"
EFL (mm)	50.0
Aperture, F/#	F2.8-F22
M.O.D.	0.3m
FOV(°)	19.9°×15.9°×11.9°
Distortion(TV)	0.04%
FBL (mm)	17.526
Resolution	12MP
Design Wavelength	400-1000nm
Filter Size	M35.5×0.5
Dimension	Φ38×53.9 mm
Mount	C-Mount
Weight	121 g
Temperature Range	-10~+50°C

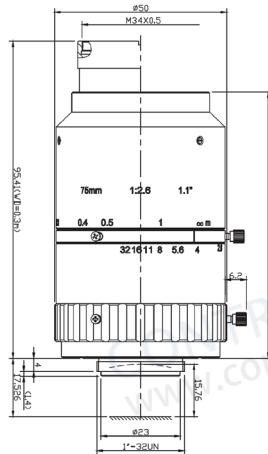
**VT-LEM7526MP12-H1.1**

Image Size (inch)	1.1"
EFL (mm)	75
Aperture, F/#	F2.6~F32
M.O.D.	0.3m
FOV(°)	7.53°×6.05°×4.65°
Distortion(TV)	<-0.35%
BFL (mm)	15.76
Design Wavelength	400-700nm
Iris	Manual
Resolution	12 MP
Filter Size	M34 × 0.5
Mount	C-Mount
Temperature Range	-30°C ~ +70°C
Dimension (mm)	Ø50 x 95.41mm
Weight	270g

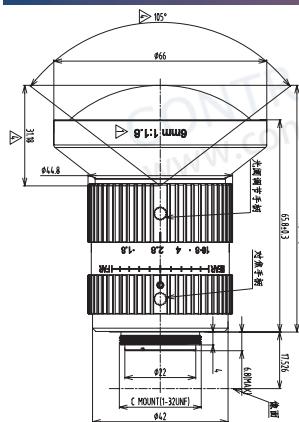
**VT-LEM0618MP20-H1.1**

Image Size (inch)	1.1"
EFL (mm)	6.0
Aperture, F/#	F1.8~16
M.O.D.	0.1m
FOV(°) H×V×D	104.9°×86.2°×118.2°
Distortion(TV)	<2.3%
FBL (mm)	17.526
BFL (mm)	13.57
Filter Size	-
Front/Rear Effective Dia.	Front Ø58.6mm Rear Ø15.05mm
Resolution	20MP
Design Wavelength	400-1000nm
Mount	C-Mount
Operating Temperature	-10~+50°C

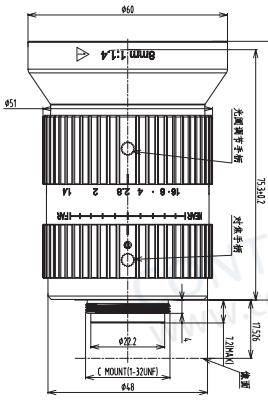
**VT-LEM0814MP20-H1.1**

Image Size (inch)	1.1"
EFL (mm)	8.0
Aperture, F/#	F1.4~16
M.O.D.	0.1m
FOV(°) H×V×D	84.8°×68°×98.4°
Distortion(TV)	<5.3%
FBL (mm)	17.526
BFL (mm)	10.35
Filter Size	M58 × P0.75
Front/Rear Effective Dia.	Front Ø40.52mm Rear Ø17.32mm
Resolution	20MP
Design Wavelength	400-1000nm
Mount	C-Mount
Operating Temperature	-10~+50°C

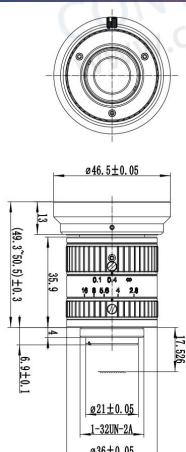
**VT-LEN1228MP20-H1.1**

Image Size (inch)	1.1"
EFL (mm)	12±5%
Aperture, F/#	F2.8±10%
M.O.D.	0.1m
FOV(°)	66.9°×56°×43.3°
Distortion(TV)	<-1.05%
FBL(mm)	17.526
BFL(mm)	14.45 (in air)
MBF(mm)	10.63 (in air)
Resolution	20 MP
Design Wavelength	420-850nm
Mount	C-Mount
Temperature Range	-30°C~+70°C
Weight	130±5g

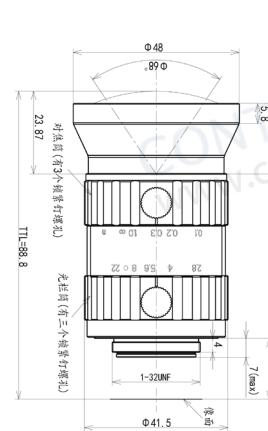
**VT-LEM1228CBMP20-H1.1**

Image Size (inch)	1.1"
EFL (mm)	12
Aperture, F/#	F1.8~22
M.O.D.	0.1m
FOV(°) H×V×D	57°×45°×66.7°
Distortion(TV)	<1.5%
FBL (mm)	17.526
BFL (mm)	10.6
Filter Size	-
Front/Rear Effective Dia.	Front Ø42.9mm Rear Ø20.5mm
Resolution	20MP
Design Wavelength	-
Dimension	-
Mount	C-Mount
Temperature Range	-10~+50°C

### VT-LEN1628MP20-H1.1

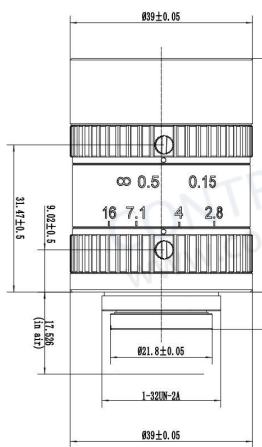


Image Size (inch)	1.1"
EFL (mm)	16±5%
Aperture, F/#	F2.8±10%
M.O.D.	0.15m
FOV(°)	56.3°×47.7°×33.7°
Distortion(TV)	>1% (y=8.8mm)
FBL(mm)	17.526(in air)
BFL(mm)	9.67 (in air)
MBF(mm)	>9.5(in air)
Resolution	20 MP
Design Wavelength	420-850nm
Mount	C-Mount
Temperature Range	-30°C~+70°C
Weight	119±5g

### VT-LEM1628CBMP20-H1.1

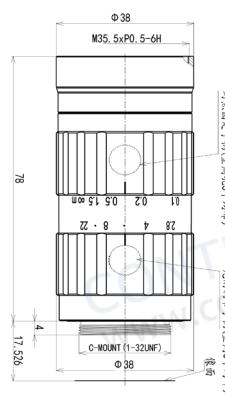


Image Size (inch)	1.1"
EFL (mm)	16
Aperture, F/#	F2.8-22
M.O.D.	0.1m
FOV(°) HxVxD	46.3° × 36° × 55.4°
Distortion(TV)	<0.5%
FBL (mm)	17.526
BFL (mm)	22.4
Filter Size	M35.5×0.5
Front/Rear Effective Dia.	Front Ø26.7mm Rear Ø19.2mm
Resolution	20MP
Design Wavelength	-
Dimension	-
Mount	C-Mount
Temperature Range	-10~+50°C

### VT-LEN2528MP20-H1.1

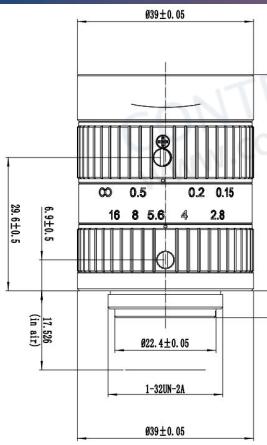


Image Size (inch)	1.1"
EFL (mm)	25±5%
Aperture, F/#	F2.8±10%
M.O.D.	0.1m
FOV(°)	32.7°×26.4°×19.9°
Distortion(TV)	<0.50%
FBL(mm)	17.526
BFL(mm)	12.7 (in air)
MBF(mm)	>11.3 (in air)
Resolution	20 MP
Design Wavelength	420-850nm
Mount	C-Mount
Temperature Range	-30°C~+70°C
Weight	126±5g

### VT-LEM2528CBMP20-H1.1

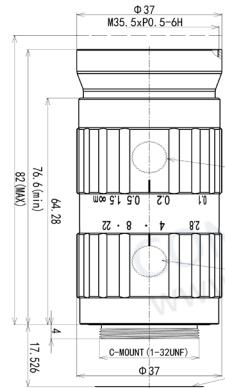


Image Size (inch)	1.1"
EFL (mm)	25
Aperture, F/#	F2.8-22
M.O.D.	0.1m
FOV(°) HxVxD	30.4° × 23° × 37.6°
Distortion(TV)	<0.1%
FBL (mm)	17.526
BFL (mm)	29.6
Filter Size	MP35x0.5
Front/Rear Effective Dia.	Front Ø20mm Rear Ø19.2mm
Resolution	20MP
Design Wavelength	-
Dimension	-
Mount	C-Mount
Temperature Range	-10~+50°C

### VT-LEN3528MP20-H1.1

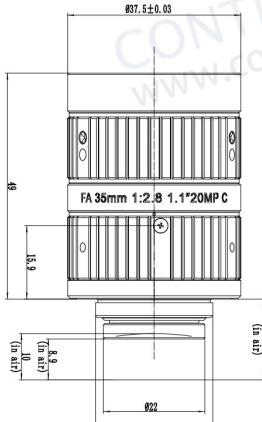


Image Size (inch)	1.1"
EFL (mm)	35±5%
Aperture, F/#	F2.8±10%
M.O.D.	0.2m
FOV(°)	23.33°×19.33°×13.32°
Distortion(TV)	<0.30%
FBL(mm)	17.526
BFL(mm)	10.52 (in air)
MBF(mm)	8.9 (in air)
Resolution	20 MP
Design Wavelength	420-850nm
Mount	C-Mount
Temperature Range	-30°C~+70°C
Weight	-

### VT-LEM3528CBMP20-H1.1

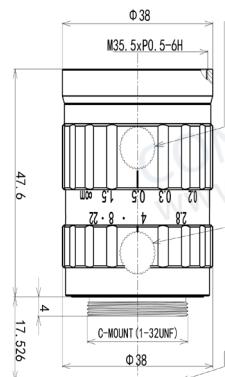
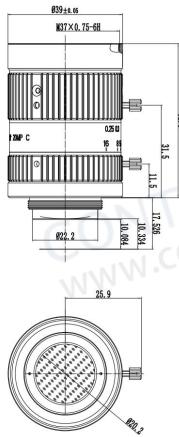


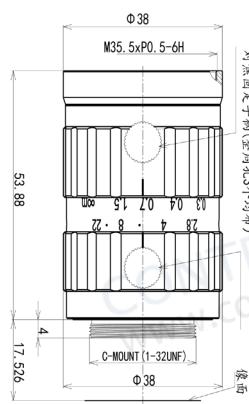
Image Size (inch)	1.1"
EFL (mm)	35
Aperture, F/#	F2.8-22
M.O.D.	0.2m
FOV(°) HxVxD	22.6° × 17° × 28.3°
Distortion(TV)	<0.02%
FBL (mm)	17.526
BFL (mm)	22.9
Filter Size	M35.5×0.5
Front/Rear Effective Dia.	Front Ø23mm Rear Ø19.1mm
Resolution	20MP
Design Wavelength	-
Dimension	-
Mount	C-Mount
Temperature Range	-10~+50°C

VT-LEN5028MP20-H1.1



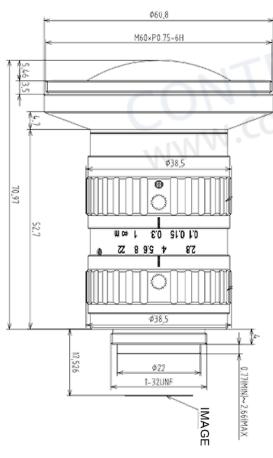
<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	50±5%mm
<b>Aperture, F/#</b>	F2.8±10%
<b>M.O.D.</b>	0.25m
<b>FOV(°) H×V×D</b>	18.6°×15°×11.2°
<b>Distortion(TV)</b>	<0.05% @16mm
<b>FBL</b>	17.526
<b>BFL (mm)</b>	10.3 (in air)
<b>MBF</b>	10.08 (in air)
<b>Resolution</b>	20 MP
<b>Design Wavelength</b>	420-850nm
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-30°C ~ +70°C
<b>Weight</b>	118±5g

VT-LEM5028CBMP20-H1.1



<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	50
<b>Aperture, F/#</b>	F2.8-22
<b>M.O.D.</b>	0.3m
<b>FOV(°) H×V×D</b>	15.9° × 11.9° × 19.9°
<b>Distortion(TV)</b>	<0.04%
<b>FOV(°) H×V×D</b>	17.526
<b>BFL (mm)</b>	21.1
<b>Filter Size</b>	M35.5×0.5
<b>Front/Rear Effective Dia.</b>	FrontØ24mm RearØ21.7mm
<b>Resolution</b>	20MP
<b>Design Wavelength</b>	-
<b>Dimension</b>	-
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-10~+50°C

VT-LEN0828MP25-H1.1



<b>Image Size (inch)</b>	1.1"
<b>EFL (mm)</b>	8.0
<b>Aperture, F/#</b>	F2.8~22
<b>M.O.D.</b>	0.1m
	2/3" 55.2°×47.5°
<b>Angle FOV</b>	1" 70.35°×70.35°
	1.1" 82.8°×65.8°
<b>Distortion(TV)</b>	<3.0%
<b>FBL (mm)</b>	-
<b>BFL (mm)</b>	-
<b>Filter Size</b>	-
<b>Resolution</b>	20MP
<b>Weight</b>	337g
<b>Mount</b>	C-Mount
<b>Temperature Range</b>	-10~+50°C

# 1.2" C-Mount FIXED LENSES

**NEW**

1. Ultra-high resolution, high consistency of picture clarity
2. 1.2" large target surface, large aperture, low distortion, high peripheral brightness ratio
3. Achromatic design, better imaging with color camera
4. Excellent high and low temperature stability, suitable for harsh environments
5. Excellent anti-vibration and impact resistance



**VT-LEN1224MP25-H1.2**

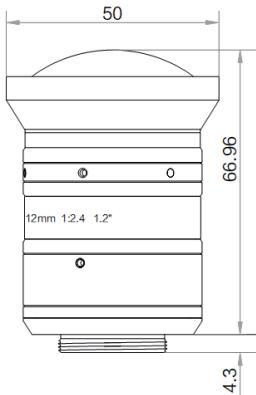


Image Size (inch)	1.2"
EFL (mm)	12.0
Aperture, F/#	F2.4-F16
M.O.D.	0.1m
FOV(°)	76.12°×62.33°×55.33°
Distortion(TV)	0.39%
FBL (mm)	17.526
Resolution	25MP
Design Wavelength	380-780 nm
Filter Size	-
Dimension (mm)	Φ42.5×59.8
Mount	C-Mount
Weight	215 g
Temperature Range	-10~+50°C

**VT-LEN1624MP25-H1.2**

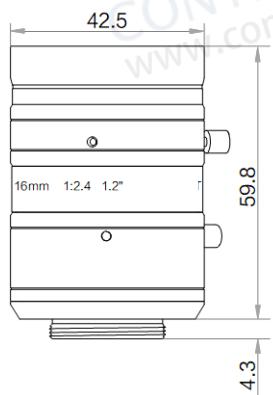


Image Size (inch)	1.2"
EFL (mm)	16.0
Aperture, F/#	F2.4-F16
M.O.D.	0.1m
FOV(°)	61.36°×48.83°×42.86°
Distortion(TV)	0.07%
FBL (mm)	17.526
Resolution	25MP
Design Wavelength	380-780 nm
Filter Size	M40.5x0.5
Dimension (mm)	Φ42.5×59.8
Mount	C-Mount
Weight	186 g
Temperature Range	-10~+50°C

**VT-LEN2524MP25-H1.2**

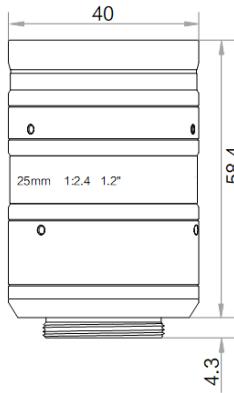


Image Size (inch)	1.2"
EFL (mm)	25.0
Aperture, F/#	F2.4-F16
M.O.D.	0.1m
FOV(°)	41.19°×31.42°×27.32°
Distortion(TV)	-0.04%
FBL (mm)	17.526
Resolution	25MP
Design Wavelength	380-780nm
Filter Size	M37x0.5
Dimension (mm)	Φ40×58.4
Mount	C-Mount
Weight	163 g
Temperature Range	-10~+50°C

**VT-LEN3524MP25-H1.2**

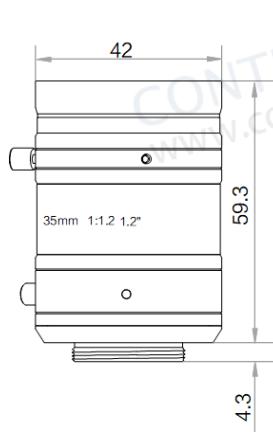


Image Size (inch)	1.2"
EFL (mm)	35.0
Aperture, F/#	F2.4-F16
M.O.D.	0.15m
FOV(°)	29.33°×22.51°×19.53°
Distortion(TV)	0.02%
FBL (mm)	17.526
Resolution	25MP
Design Wavelength	380-780nm
Filter Size	M40.5x0.5
Dimension (mm)	Φ42×59.3
Mount	C-Mount
Weight	174 g
Temperature Range	-10~+50°C

**VT-LEN5024MP25-H1.2**

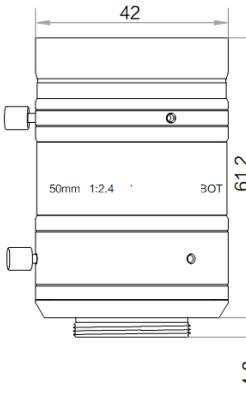


Image Size (inch)	1.2"
EFL (mm)	50.0
Aperture, F/#	F2.4-F16
M.O.D.	0.25m
FOV(°)	20.5°×15.66°×13.57°
Distortion(TV)	0.01%
FBL(mm)	17.526
Resolution	25MP
Design Wavelength	380-780 nm
Filter Size	M40.5x0.5
Dimension (mm)	Φ42×61.2
Mount	C-Mount
Weight	177 g
Temperature Range	-10~+50°C

## 1.4" C-Mount FIXED LENSES

1. Ultra-high resolution, high consistency of picture clarity
2. 1.4" large target surface, large aperture, low distortion, high peripheral brightness ratio
3. Achromatic design, better imaging with color camera
4. Excellent high and low temperature stability, suitable for harsh environments
5. Excellent anti-vibration and impact resistance



**VT-LEN1228MP45-H1.4**

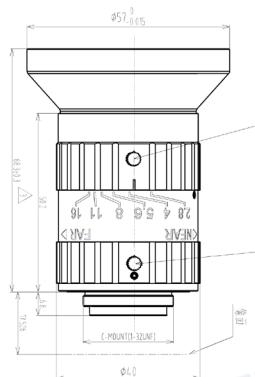


Image Size (inch)	1.4"
EFL(mm)	12
Aperture, F/#	2.8~16
M.O.D.	0.1m
FOV(°)	76.1° × 86.8° × 55.7°
Distortion(TV)	<-0.5%
BFL (mm)	11.7
TTL	-
Resolution	45MP
FBL (mm)	17.526(in air)
Mount	C-Mount
Dimension(mm)	Ø42.6×16.2
Lris	Manual
Temperature Range	-20°C ~ +60°C

**VT-LEN1628MP45-H1.4**

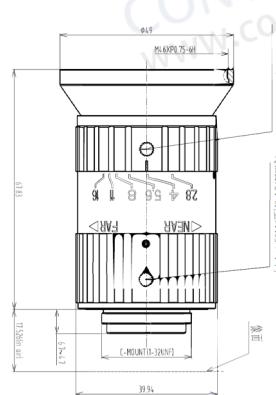


Image Size (inch)	1.4"
EFL (mm)	16
Aperture, F/#	2.8~16
M.O.D.	0.15m
FOV(°)	61.4° × 71.27° × 43.83°
Distortion(TV)	<0.70%
BFL (mm)	11.7
TTL	-
Resolution	45MP
Filter Size	M46×0.75
Mount	C-Mount
Dimension(mm)	Ø33×18
Lris	Manual
Temperature Range	-20°C ~ +60°C

**VT-LEN2528MP45-H1.4**

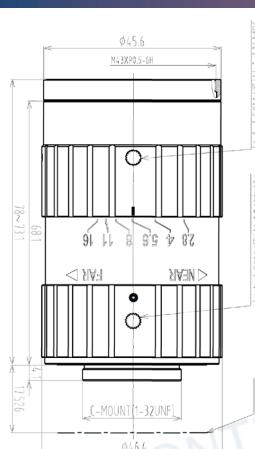


Image Size (inch)	1.4"
EFL(mm)	25
Aperture, F/#	2.8~16
M.O.D.	0.15m
FOV(°)	41.6° × 49.2° × 28.9°
Distortion(TV)	<0.05%
BFL (mm)	17.2
TTL	-
Resolution	45MP
Filter Size	M43×0.5
Mount	C-Mount
Dimension(mm)	Ø28.0×16.5
Lris	Manual
Temperature Range	-20°C ~ +60°C

**VT-LEN3528MP45-H1.4**

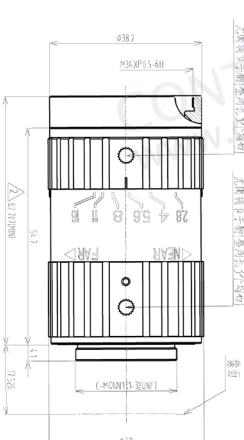


Image Size (inch)	1.4"
EFL(mm)	35
Aperture, F/#	2.8~16
M.O.D.	0.15m
FOV(°)	30.4° × 36.3° × 20.8°
Distortion(TV)	<-0.01%
BFL (mm)	20
TTL	-
Resolution	45MP
Filter Size	M34×0.5
Mount	C-Mount
Dimension(mm)	Ø24.2×16.74
Lris	Manual
Temperature Range	-20°C ~ +60°C

**VT-LEN5028MP45-H1.4**

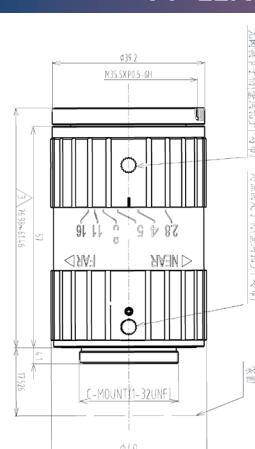


Image Size (inch)	1.4"
EFL(mm)	50
Aperture, F/#	2.8~16
M.O.D.	0.25m
FOV(°)	21.5° × 25.8° × 14.7°
Distortion(TV)	<-0.03%
BFL (mm)	23.5
TTL	-
Resolution	45MP
Filter Size	M35.5×0.5
Mount	C-Mount
Dimension(mm)	Ø23.6×19.8
Lris	Manual
Temperature Range	-20°C ~ +60°C

# 4/3" C-Mount FIXED LENSES

1. Adopt professional optical lens module and coating process
2. Provides higher performance for 10-megapixel cameras
3. Large aperture ratio, low illumination
4. TV distortion is less than 1%
5. The whole series reaches 5 million optical points



**VT-LEM0828CE-H2**

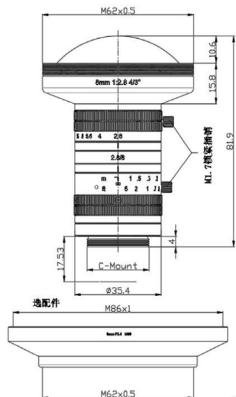


Image Size (inch)	4/3"
EFL (mm)	8
Aperture, F/#	F2.8-F16
Focus Range	0.2m-∞
FOV(°)	108°×96°×80.4°
Distortion	-2.2%@y=11.5mm
BFL (mm)	17.526
Resolution	12 MP
Design Wavelength	420-1100 nm
Mount	C-Mount
Filter Size	M86×1
Iris	Manual
Focus	M-Iris
Temperature Range	-10~+50°C

**VT-LEM08528CD-H2**

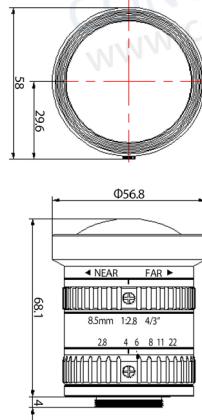


Image Size (inch)	4/3"
EFL (mm)	8.5
Aperture, F/#	F2.8-F22
M.O.D.	0.5m-∞
FOV(°)	107.4°×94.9°×77.9°
Distortion(TV)	<-4.54%
BFL (mm)	18.87 (in air)
Resolution	10 MP
Design Wavelength	420-1100 nm
Mount	C-Mount
Temperature Range	-10°C~+50°C
Weight	-
Dimension (mm)	Φ 58.61 × 72.08

**VT-LEM1220CD-H2**

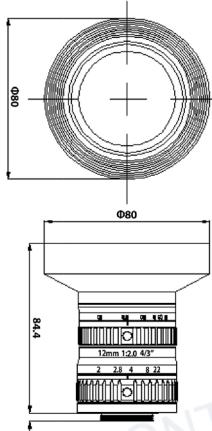


Image Size (inch)	4/3"
EFL (mm)	12
Aperture, F/#	F2.0-F22
M.O.D.	0.15m-∞
FOV(°)	89.02°×75.46°×61.08°
Distortion(TV)	<-2.40%
BFL (mm)	18.93 (in air)
Resolution	10 MP
Design Wavelength	420-1100nm
Mount	C-Mount
Temperature Range	-10°C~+50°C
Weight	447g
Dimension (mm)	Φ 80 × 84.4 mm

**VT-LEM1620CD-H2**

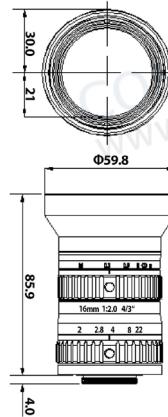


Image Size (inch)	4/3"
EFL (mm)	16
Aperture, F/#	F2.0-F22
M.O.D.	0.15m-∞
FOV(°)	73.0°×61.0°×47.2°
Distortion(TV)	<-2.81%
BFL (mm)	21.0
Resolution	10 MP
Design Wavelength	420-1100 nm
Mount	C-Mount
Temperature Range	-10°C~+50°C
Weight	338 g
Dimension (mm)	Ø 60 x 89.9

**VT-LEM2520CD-H2**

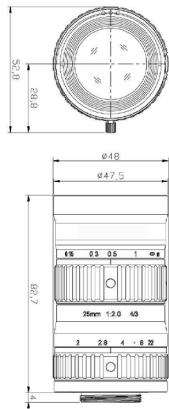


Image Size (inch)	4/3"
EFL (mm)	25
Aperture, F/#	F2.0-F22
M.O.D.	0.15m-∞
FOV(°)	49.7°×40.6°×31°
Distortion(TV)	<-0.66%
BFL (mm)	22.43
Resolution	10 MP
Design Wavelength	420-1100 nm
Mount	C-Mount
Temperature Range	-10°C~+50°C
Weight	251 g
Dimension (mm)	Ø 48 x 86.7

**VT-LEM3520CD-H2**

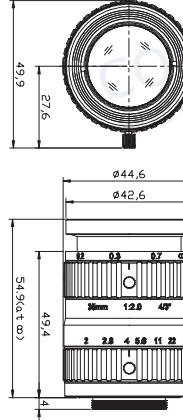


Image Size (inch)	4/3"
EFL (mm)	35
Aperture, F/#	F2.0-F22
M.O.D.	0.2m-∞
FOV(°)	36.6°×29.6°×22.4°
Distortion(TV)	<-0.56%
BFL (mm)	18.65
Resolution	10 MP
Design Wavelength	420-1100 nm
Mount	C-Mount
Temperature Range	-10°C~+50°C
Weight	173 g
Dimension (mm)	Ø 44.6 x 58.9

## VT-LEM5020CD-H2

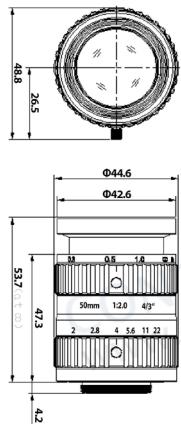


Image Size (inch)	4/3"
EFL (mm)	50
Aperture, F/#	F2.0-F22
M.O.D.	0.3m-∞
FOV(°)	25.9°×20.9°×15.7°
Distortion(TV)	<-0.14%
BFL (mm)	20.29
Resolution	10 MP
Design Wavelength	420-1100 nm
Mount	C-Mount
Temperature Range	-10°C~+50°C
Weight	170 g
Dimension (mm)	Ø44.6 x 57.9

## VT-LEM8520CD-H2

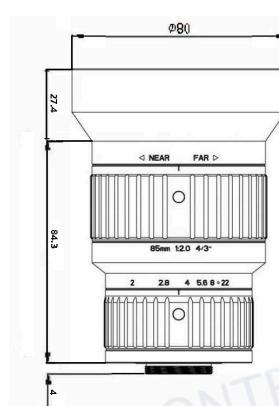


Image Size (inch)	4/3"
EFL (mm)	85
Aperture, F/#	F2.0-F22
M.O.D.	1.2m-∞
FOV(°)	15.4°×12.1°×9.3°
Distortion(TV)	0.04%@y=11.5mm
BFL (mm)	24.53 (in air)
Resolution	10 MP
Design Wavelength	420-1100 nm
Mount	C-Mount
Temperature Range	-10~+50°C
Filter Size	M77.0 x 0.75
Dimension (mm)	Ø80 x 115.7

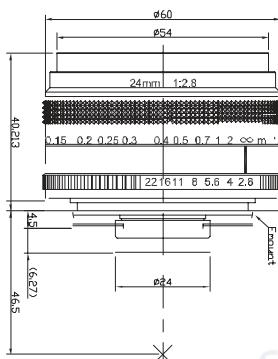
# 5MP Large Format F/T Mount Lenses

## FEATURES

1. Wide wavelength from 400~950nm
2. Full-frame design covering φ43mm
3. Support 4K line scan cameras
4. Low cost

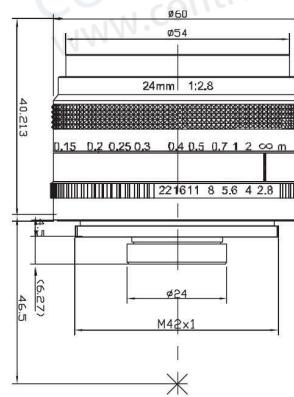


**VT-LHF2428MP5**



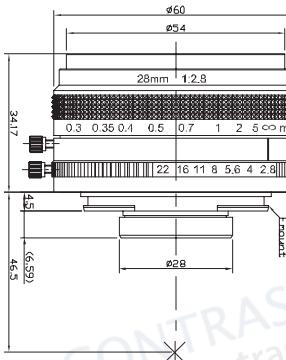
Resolution	30lp/mm(5MP)
Format (mm)	43
WD (m)	0.5~∞
EFL(mm)	24
Aperture(F/#)	F2.8 - 22
BFL(mm)	36
Angle FOV(D)	84°
Distortion	<-4%
Focusing Range	∞ - 0.15m
Filter Thread	M52 x 0.75
Design Wavelength	-
Iris	Manual
Mount	F-Mount
Weight (g)	227.5
Dimension (mm)	Ø28 x 27.02

**VT-LHT2428MP5**



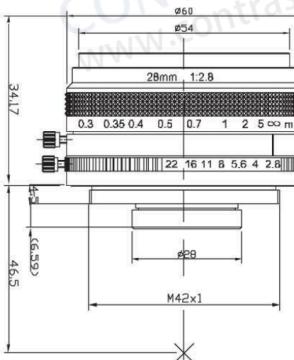
Resolution	30lp/mm(5MP)
Format (mm)	43
WD (m)	0.5~∞
EFL(mm)	24
Aperture(F/#)	F2.8 - 22
BFL(mm)	36
Angle FOV(D)	84°
Distortion	<-4%
Focusing Range	∞ - 0.1m
Filter Thread	-
Design Wavelength	400-950
Iris	Manual
Mount	M42
Weight (g)	227.5
Dimension (mm)	Ø60 x 40.21

**VT-LHF2828MP5**



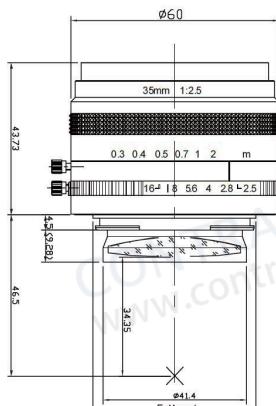
Resolution	30lp/mm(5MP)
Format (mm)	43
WD (m)	0.3~∞
EFL(mm)	28
Aperture(F/#)	F2.8 - 22
BFL(mm)	35.7
Angle FOV(D)	74°
Distortion	<-3%
Focusing Range	∞ - 0.3m
Filter Thread	M52 x 0.75
Design Wavelength	-
Iris	Manual
Mount	F-Mount
Weight (g)	199.5
Dimension (mm)	Ø60 x 34.17

**VT-LHT2828MP5**



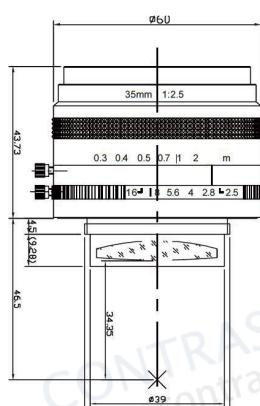
Resolution	30lp/mm(5MP)
Format (mm)	43
WD (m)	0.3~∞
EFL(mm)	28
Aperture(F/#)	F2.8 - 22
BFL(mm)	35.7
Angle FOV(D)	74°
Distortion	<-3%
Focusing Range	∞ - 0.3m
Filter Thread	M52 x 0.75
Design Wavelength	400-950
Iris	Manual
Mount	M42
Weight (g)	173.5
Dimension (mm)	Ø60 x 34.17

## VT-LHF3525MP5



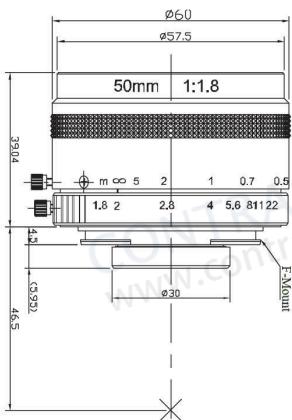
Resolution	30lp/mm(5MP)
Format (mm)	43
WD (m)	0.3~∞
EFL(mm)	35
Aperture(F/#)	F2.5-F22
BFL(mm)	34.35
Angle FOV(D)	52.3°
Distortion	-3%
Focusing Range	∞ - 0.3m
Filter Thread	M52 x 0.75
Design Wavelength	-
Iris	Manual
Mount	F-Mount
Weight (g)	273
Dimension (mm)	Ø60 x 43.73

## VT-LHT3525MP5



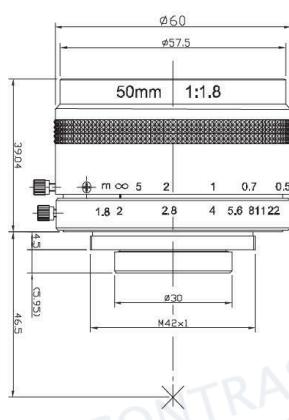
Resolution	30lp/mm(5MP)
Format (mm)	43
WD (m)	0.3~∞
EFL(mm)	35
Aperture(F/#)	F2.5 - F22
BFL(mm)	34.35
Angle FOV(D)	52.3°
Distortion	<-3%
Focusing Range	∞ - 0.3m
Filter Thread	M52 x 0.75
Design Wavelength	400-950
Iris	Manual
Mount	M42
Weight (g)	253
Dimension (mm)	Ø60 x 43.73

## VT-LHF5018MP5



Resolution	30lp/mm(5MP)
Format (mm)	43
WD (m)	0.4~∞
EFL(mm)	50
Aperture(F/#)	F1.8
BFL(mm)	36.33
Angle FOV(D)	45°
Distortion	<1%
Focusing Range	∞ - 0.3m
Filter Thread	M52 x 0.75
Design Wavelength	-
Iris	Manual
Mount	F-Mount
Weight (g)	210
Dimension (mm)	Ø60 x 39.04

## VT-LHT5018MP5



Resolution	30lp/mm(5MP)
Format (mm)	43
WD (m)	0.4~∞
EFL(mm)	50
Aperture(F/#)	F1.8 - F22
BFL(mm)	36.33
Angle FOV(D)	45°
Distortion	<1%
Focusing Range	∞ - 0.4m
Filter Thread	M52 x 0.75
Design Wavelength	400-950
Iris	Manual
Mount	M42
Weight (g)	210
Dimension (mm)	Ø60 x 39.04

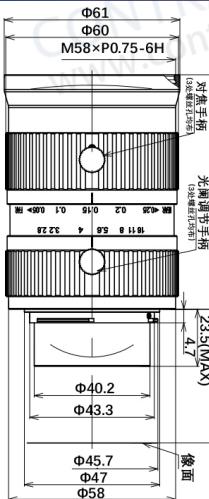
# 29MP Large Format Lenses

## FEATURES

1. Maximum image area of 43mm, supporting 29 million pixel sensor
2. Compatible with 4K line scan cameras, corresponding to 5μ/ 7μ pixels
3. Optional focal lengths and magnifications
4. Suitable for printing and packaging inspection

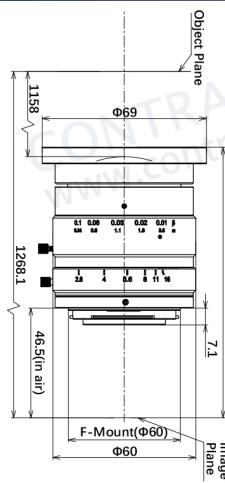


**VT-LEMF3528MP29-0.1X**



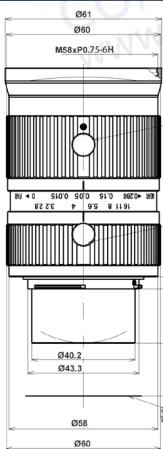
Mag. (x)	0.05x	0.10x	0.20x
WD (mm)	728.7±5	350.9±5	163±5
Conjugate Distance (mm)	850.8±9	474.5±9	289.5±9
FFL (mm)	46.5		
Max Image	Ø45		
Aperture (F/#)	F2.8-16		
EFL (mm)	35		
FOV	60.3°		
Focus Distance (min)	125.5 mm(0.25x)		
TV Distortion	<0.4%		
Filter Size	M58×P0.75		
Mount	F-Mount		
Relative Illumination	-		
Dimensions	-		

**VT-LEMF3528MP29-0.03X**



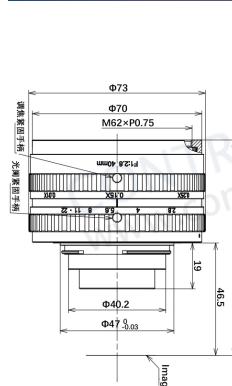
Mag. (x)	0.01x	0.03x	0.1x
WD (mm)	3500	1158.7	340
Conjugate Distance (mm)	1268.1		
FFL (mm)	46.5		
Max Image	Ø45.3		
Aperture (F/#)	F2.8-16		
EFL (mm)	35		
FOV	65°		
ENP Diameter	Ø12.2		
TV Distortion	<0.5%		
Filter Size	M67×P0.75		
Mount	F-Mount		
Relative Illumination	-		
Dimensions	-		

**VT-LEMF3528MP29-0.057X**



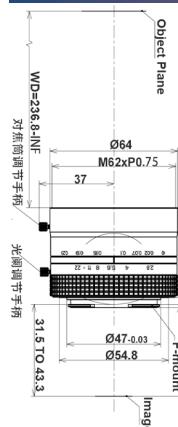
Mag. (x)	0.286x	0.2x	0.1x	0.057x	0.0141x
WD (mm)	100±5	150±5	235±5	589.2±5	2487.9±5
Conjugate Distance (mm)	228±9	278.1±9	363±9	717.2±9	2615.9±9
FFL (mm)	46.5				
Max Image	Ø45				
Aperture (F/#)	F2.8-16				
EFL (mm)	35				
FOV	60.3°				
Focus Distance	-				
TV Distortion	<0.4%				
Filter Size	M58×P0.75				
Mount	F-Mount				
Relative Illumination	-				
Dimensions	Ø61X81.5				

**VT-LEMF4028MP29-0.1X**



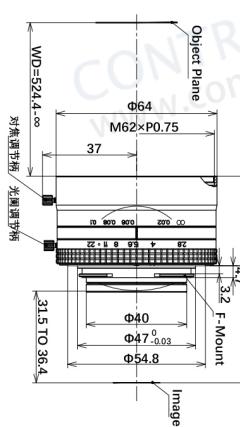
Mag. (x)	0.01x	0.1x	0.238x
WD (mm)	4000±5	436±5	200±5
Conjugate Distance (mm)	4054.8±9	468.68±9	264.15±9
FFL (mm)	46.5		
Max Image	Ø43.2		
Aperture (F/#)	F2.8-22		
EFL (mm)	40		
FOV	1085.3	402.9	130.8
Focus Distance	0.2m - +∞		
TV Distortion	<0.2%		
Filter Size	M62×P0.75		
Mount	F-Mount		
Relative Illumination	40%		
Dimensions	-		

**VT-LEMF5028MP29-0.1X**



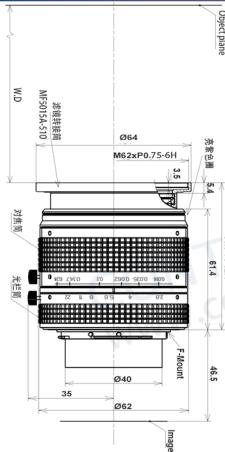
Mag. (x)	0.23x	0.19x	0.15x	0.1x	0.07x	0.02x
WD (mm)	236.8	283.7	355.0	524.4	741.6	2472.5
FFL (mm)	46.5					
Max Image	Ø43					
Aperture (F/#)	F2.8-22					
EFL (mm)	50					
FOV	45.5°					
ENP Diameter	-					
TV Distortion	0.2%					
Filter Size	M62×P0.75					
Mount	F-Mount					
Relative Illumination	-					
Dimensions	Ø64X42.4					

**VT-LEMF5028MP29-0.06X**



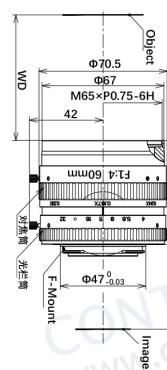
Mag. (x)	0.10x	0.08x	0.06x	0.02x
WD (mm)	524.4	625	862.1	2472.5
Conjugate Distance (mm)	-	-	942.2	-
FFL (mm)	46.5			
Max Image	Ø43			
Aperture (F/#)	F2.8-22			
EFL (mm)	50±5%			
FOV	45.4°±3°			
ENP Diameter	Ø21.1			
TV Distortion	<0.2%			
Filter Size	M62×P0.75			
Mount	F-Mount			
Relative Illumination	-			
Dimensions	Ø56.8X35.6			

### VT-LEMF5028MP29-0.062X



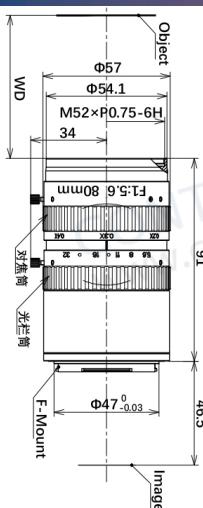
<b>Mag. (x)</b>	0.24x	0.1x	0.062x	0.035x	0.014x
<b>WD (mm)</b>	228	522.6	828	1442.1	3580.5
<b>FFL (mm)</b>	46.5				
<b>Max Image</b>	Ø44				
<b>Aperture (F/#)</b>	F2.8-22				
<b>EFL (mm)</b>	50±5%				
<b>FOV</b>	47°				
<b>Focus Distance</b>	Ø18.1				
<b>TV Distortion</b>	<0.3%				
<b>Filter Size</b>	M62×P0.75				
<b>Mount</b>	F-Mount				
<b>Relative Illumination</b>	-				
<b>Dimensions</b>	Ø62×(61.1-77)				

### VT-LEMF6040MP29-0.167X



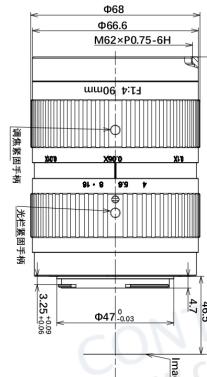
<b>Mag. (x)</b>	0.04x	0.167x	0.33x
<b>WD (mm)</b>	1537.9±5	384.9±5	199.5±5
<b>Image Distance (mm)</b>	40.49±2.5	48.07±2.5	58.24±2.5
<b>Conjugate Distance (mm)</b>	1641.73±9	496.32±9	321.05±9
<b>FFL (mm)</b>	46.5		
<b>Max Image</b>	Ø64		
<b>Aperture (F/#)</b>	F4.0-32		
<b>EFL</b>	60		
<b>FOV</b>	1591.2	386.92	192.5
<b>TV Distortion</b>	0.6%	0.19%	0.12%
<b>Filter Size</b>	M65×P0.75		
<b>Mount</b>	F-Mount		
<b>Relative Illumination</b>	45%		
<b>Dimensions</b>	-		

### VT-LEMF8056MP29-0.3X



<b>Mag. (x)</b>	0.2x	0.3x	0.4x
<b>WD (mm)</b>	439.6±5	314.3±5	255.6±5
<b>Image Distance (mm)</b>	80.67±2.5	88.79±2.5	96.7±2.5
<b>Conjugate Distance (mm)</b>	577.1±9	451.8±9	393.1±9
<b>FFL (mm)</b>	46.5		
<b>Max Image</b>	Ø58		
<b>Aperture (F/#)</b>	F5.6-32		
<b>EFL</b>	80		
<b>FOV</b>	-		
<b>TV Distortion</b>	<0.03%	<0.01%	<0.01%
<b>Filter Size</b>	M52×P0.75		
<b>Mount</b>	F-Mount		
<b>Relative Illumination</b>	68%		
<b>Dimensions</b>	-		

### VT-LEMF9040MP29-0.05X



<b>Mag. (x)</b>	0.01x	0.05x	0.1x
<b>WD (mm)</b>	INF	1985±9	1000±5
<b>Conjugate Distance (mm)</b>	INF	2112±5	1132±9
<b>FFL (mm)</b>	46.5		
<b>Max Image</b>	Ø43.2		
<b>Aperture (F/#)</b>	F4.0-16		
<b>EFL (mm)</b>	90		
<b>FOV</b>	4320mm	864mm	432mm
<b>Focus Distance</b>	1m-∞		
<b>TV Distortion</b>	<0.01%		
<b>Filter Size</b>	M62×P0.75		
<b>Mount</b>	F-Mount		
<b>Relative Illumination</b>	40%		
<b>Dimensions</b>	-		

# 65MP Large Format Lenses

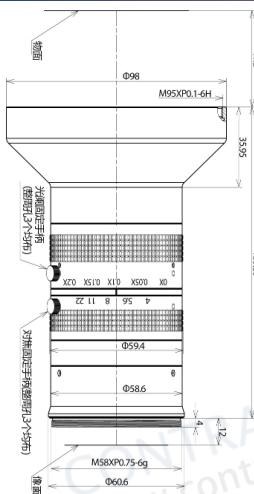
**NEW**

## FEATURES

1. Super high resolution for 3.2μ, Support 65MP sensor
2. Suitable for high-precision detection of large format
3. Optional focal lengths and magnifications
4. Compatible with 8K5μ line scan cameras

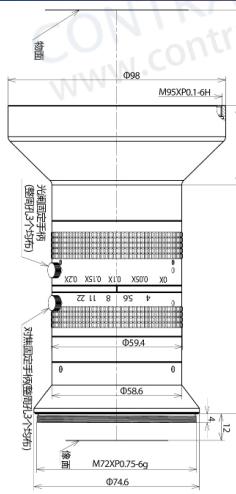


**VT-LEM58-2540MP65**



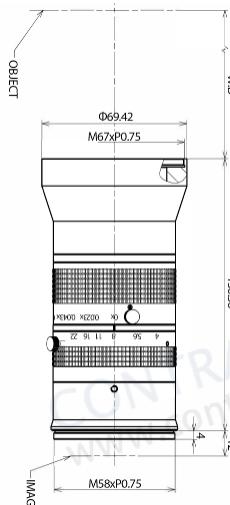
<b>Mag. (x)</b>	0	0.05	0.1	0.15	0.2
<b>WD (mm)</b>	∞	500	220	140	100
<b>Format (mm)</b>	Ø46				
<b>Aperture (F/#)</b>	F4 - 22				
<b>EFL (mm)</b>	25±5%				
<b>FOV (D)</b>	83.8°				
<b>ENP Diameter</b>	Ø47.2				
<b>TV Distortion</b>	<0.2%				
<b>Mount</b>	M58 x P0.75				
<b>Weight (g)</b>	-				
<b>Dimensions</b>	Ø98 x 139.09				

**VT-LEM72-2540MP65**



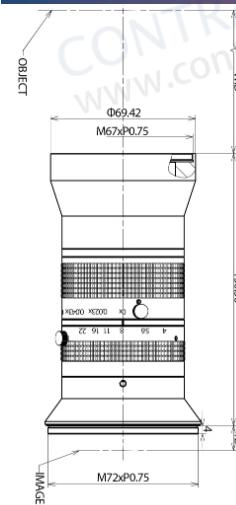
<b>Mag. (x)</b>	0	0.05	0.1	0.15	0.2
<b>WD (mm)</b>	∞	500	220	140	100
<b>Format (mm)</b>	Ø46				
<b>Aperture (F/#)</b>	F4 - 22				
<b>EFL (mm)</b>	25±5%				
<b>FOV (D)</b>	83.8°				
<b>ENP Diameter</b>	Ø47.2				
<b>TV Distortion</b>	<0.2%				
<b>Mount</b>	M72 x P0.75				
<b>Weight (g)</b>	-				
<b>Dimensions</b>	Ø98 x 139.09				

**VT-LEM58-3540MP65**



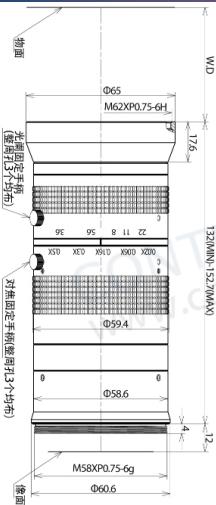
<b>Mag. (x)</b>	0	0.023	0.038	0.067	0.2
<b>WD (mm)</b>	∞	1500	1000	500	150
<b>Format (mm)</b>	Ø42				
<b>Aperture (F/#)</b>	F4 - 22				
<b>EFL (mm)</b>	35±5%				
<b>FOV (D)</b>	59°				
<b>ENP Diameter</b>	Ø40				
<b>TV Distortion</b>	<0.7%				
<b>Mount</b>	M58 x P0.75				
<b>Weight (g)</b>	-				
<b>Dimensions</b>	Ø69.42 x 133.5				

**VT-LEM72-3540MP65**



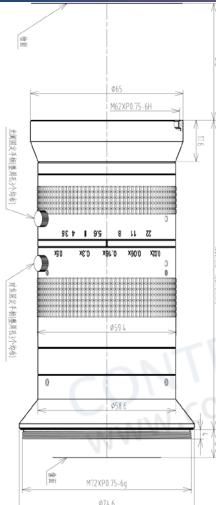
<b>Mag. (x)</b>	0	0.023	0.038	0.067	0.2
<b>WD (mm)</b>	∞	1500	1000	500	150
<b>Format (mm)</b>	Ø42				
<b>Aperture (F/#)</b>	F4 - 22				
<b>EFL (mm)</b>	35±5%				
<b>FOV (D)</b>	59°				
<b>ENP Diameter</b>	Ø40				
<b>TV Distortion</b>	<0.7%				
<b>Mount</b>	M72 x P0.75				
<b>Weight (g)</b>	-				
<b>Dimensions</b>	Ø69.42 x 130.56				

### VT-LEM58-5036MP65



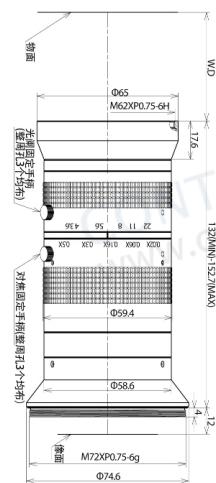
<b>Mag. (x)</b>	0.02	0.06	0.16	0.3	0.5
<b>WD (mm)</b>	2500	800	300	150	80
<b>Format (mm)</b>	Ø46				
<b>Aperture (F/#)</b>	F3.6 ~ 22				
<b>EFL (mm)</b>	50±5%				
<b>FOV (D)</b>	43.4°				
<b>ENP Diameter</b>	Ø47.2				
<b>TV Distortion</b>	<0.2%				
<b>Mount</b>	M58 x P0.75				
<b>Weight (g)</b>	-				
<b>Dimensions</b>	Ø65 x 152.7				

### VT-LEM72-5036MP65



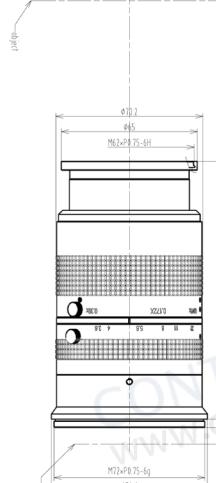
<b>Mag. (x)</b>	0.02	0.06	0.16	0.3	0.5
<b>WD (mm)</b>	2500	800	300	150	80
<b>Format (mm)</b>	Ø46				
<b>Aperture (F/#)</b>	F3.6 ~ 22				
<b>EFL (mm)</b>	50±5%				
<b>FOV (D)</b>	43.4°				
<b>ENP Diameter</b>	Ø47.2				
<b>TV Distortion</b>	<0.2%				
<b>Mount</b>	M72 x P0.75				
<b>Weight (g)</b>	-				
<b>Dimensions</b>	Ø65 x 152.7				

### VT-LEM58-8036MP65



<b>Mag. (x)</b>	0.041	0.172	0.39
<b>WD (mm)</b>	2000	500	235
<b>Format (mm)</b>	Ø46		
<b>Aperture (F/#)</b>	F3.6 ~ 22		
<b>EFL (mm)</b>	80±5%		
<b>FOV (D)</b>	26.8°		
<b>ENP Diameter</b>	Ø47.2		
<b>TV Distortion</b>	<0.2%		
<b>Mount</b>	M58 x P0.75		
<b>Weight (g)</b>	-		
<b>Dimensions</b>	Ø69.8 x 133.5		

### VT-LEM72-8036MP65



<b>Mag. (x)</b>	0.041	0.172	0.39
<b>WD (mm)</b>	2000	500	235
<b>Format (mm)</b>	Ø46		
<b>Aperture (F/#)</b>	F3.6 ~ 22		
<b>EFL (mm)</b>	80±5%		
<b>FOV (D)</b>	26.8°		
<b>ENP Diameter</b>	Ø47.2		
<b>TV Distortion</b>	<0.2%		
<b>Mount</b>	M72 x P0.75		
<b>Weight (g)</b>	-		
<b>Dimensions</b>	Ø69.8 x 133.5		

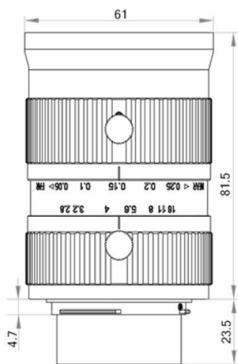
# 100MP Large Format Lenses

## FEATURES

1. 100MP high resolution supporting 3.1μm
2. Support large target area camera and 8K7μ/16K3.5μ line camera
3. Low distortion, high relative illumination
4. Excellent picture definition consistency

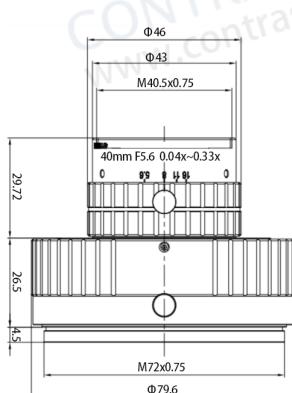


**VT-LEMF3528MP100**



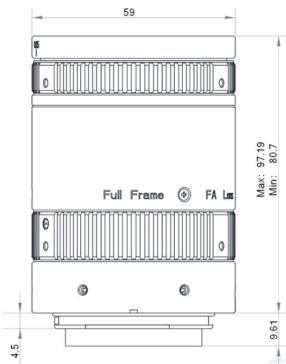
Format (mm)	Ø46
EFL (mm)	35
WD (mm)	-
M.O.D (m)	0.12 m
Aperture (F/#)	F2.8-16
Mag. (x)	0.25x~0.05x
FOV	101.4°×86°×46°
TV Distortion	0.40%
Filter Size	M58×0.75
FBL (mm)	46.5
Mount	F-Mount
Weight(g)	536
Dimensions (mm)	Ø61×81.5

**VT-LEN72-4056MP100**



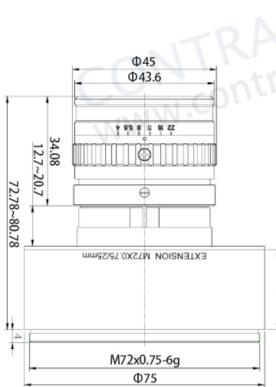
Format (mm)	Ø60
EFL (mm)	40
Aperture (F/#)	F5.6~F16
Distortion	0.55%
Mag. (x)	0.04x-0.33x
WD (mm)	144~1043
Iris	Manual
Focus	Manual
FBL (mm)	12
Mount	M72 × P0.75
Filter Size	M40.5×P0.75
Weight(g)	-
Dimensions (mm)	Ø79.6×56.2-77.2
Operating Temp.	-10 - 50°C

**VT-LEMF5040MP100**



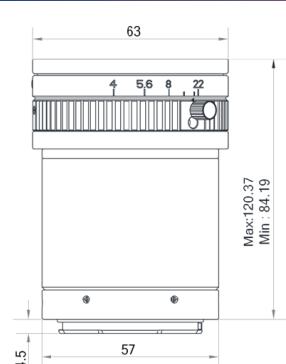
Format (mm)	Ø56
EFL (mm)	50
WD (mm)	150-inf
M.O.D (m)	-
Aperture (F/#)	F4.0-32
Mag. (x)	0.01x~0.33x
FOV	-
TV Distortion	0.41%
Filter Size	M52×0.75
FBL (mm)	46.5
Mount	F-Mount
Weight(g)	601.5
Dimensions (mm)	Ø59×97.19

**VT-LEN72-6040MP100**



Format (mm)	Ø62
EFL (mm)	60
Aperture (F/#)	F4.0-F22
Distortion	0.14%
Mag. (x)	0.118x - 0.233x
WD (mm)	300-550
Iris	Manual
Focus	Manual
FBL (mm)	12
Mount	M72 × P0.75
Filter Size	M39 × P0.75
Weight(g)	-
Dimensions (mm)	Ø75 × 72.8-80.8
Operating Temp.	-10 - 50°C

**VT-LEMF8040MP100**



Format (mm)	Ø56
EFL (mm)	80
WD (mm)	235 - ∞
M.O.D (m)	-
Aperture (F/#)	F4.0-22
Mag. (x)	0.01x ~ 0.4x
FOV	-
TV Distortion	0.12%
Filter Size	M52×0.75
FBL (mm)	46.5
Mount	F-Mount
Weight(g)	601.0
Dimensions (mm)	Ø63×120.37

# 150MP Large Format Lenses

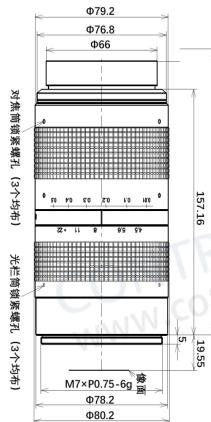
**NEW**

## FEATURES

1. 150Mega Pixel,large format to 66.7mm
2. Compatible with 8K7μ/16K3.5μ line scan cameras
3. VT-LEN72-5545MP150
  - Full field uniform imaging
  - Meet the requirement of high-precision pixel (3.76um)
  - Supports 0.01x-0.5x super large magnification range,to meet wide FOV requirements EFL of 55mm
  - At the same magnification,the conjuguate distance of is only half of traditional lens
  - Suitable for OLED screen detection , ranging from electronic watch screen to TV screen

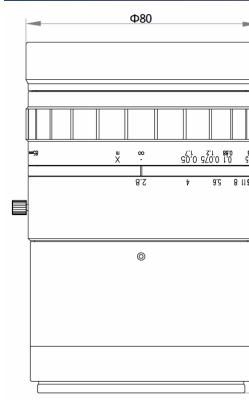


**VT-LEN72-5545MP150**



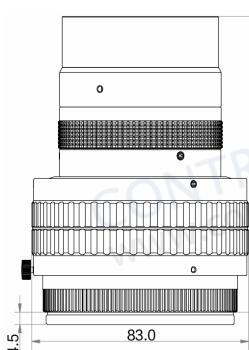
<b>Format (mm)</b>	<b>Ø67</b>
<b>EFL (mm)</b>	<b>55</b>
<b>Aperture (F/#)</b>	<b>F4.5 - F22</b>
<b>Distortion</b>	<b>0.05%</b>
<b>Mag. (x)</b>	<b>0.01x - 0.5x</b>
<b>WD (mm)</b>	<b>98 - ∞</b>
<b>Iris</b>	<b>Manual</b>
<b>Focus</b>	<b>Manual</b>
<b>FBL (mm)</b>	<b>19.55</b>
<b>Mount</b>	<b>M72 × P0.75</b>
<b>Filter Size</b>	-
<b>Weight(g)</b>	<b>1618.6 g</b>
<b>Dimensions (mm)</b>	<b>Ø80.2 × 179.5</b>
<b>Operating Temp.</b>	<b>-10 - 50°C</b>

**VT-LEN72-8528MP150**



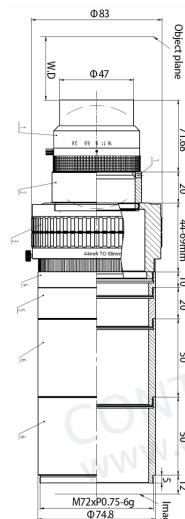
<b>Format (mm)</b>	<b>Ø62</b>
<b>EFL (mm)</b>	<b>85</b>
<b>Aperture (F/#)</b>	<b>F2.8-F32</b>
<b>Distortion</b>	<b>0.04%</b>
<b>Mag. (x)</b>	<b>0.001x - 0.2x</b>
<b>WD (mm)</b>	<b>460 - ∞</b>
<b>Iris</b>	<b>Manual</b>
<b>Focus</b>	<b>Manual</b>
<b>FBL (mm)</b>	<b>19.55</b>
<b>Mount</b>	<b>M72 × P0.75</b>
<b>Filter Size</b>	<b>M77 × P0.75</b>
<b>Weight(g)</b>	<b>690 g</b>
<b>Dimensions (mm)</b>	<b>Ø80 × 117.95</b>
<b>Operating Temp.</b>	<b>-10 - 50°C</b>

**VT-LEN72-9040MP150**



<b>Format (mm)</b>	<b>Ø67</b>
<b>EFL (mm)</b>	<b>90</b>
<b>Aperture (F/#)</b>	<b>F4.0-F16</b>
<b>Distortion</b>	<b>0.01%</b>
<b>Mag. (x)</b>	<b>0.08x - 0.14x</b>
<b>WD (mm)</b>	<b>722 - 1229</b>
<b>Object Image Distance (mm)</b>	<b>857 - 1358</b>
<b>Iris</b>	<b>Manual</b>
<b>Focus</b>	<b>Manual</b>
<b>FBL(mm)</b>	<b>19.55</b>
<b>Mount</b>	<b>M72 × P0.75</b>
<b>Filter Size</b>	<b>M58 × P0.75</b>
<b>Weight(g)</b>	<b>653 g</b>
<b>Dimensions (mm)</b>	<b>Ø83 × 126.9</b>
<b>Operating Temp.</b>	<b>-10 - 50°C</b>

**VT-LEN72-11635MP150**



<b>Format (mm)</b>	<b>Ø66</b>
<b>EFL (mm)</b>	<b>116</b>
<b>Aperture (F/#)</b>	<b>F3.5~F16</b>
<b>Distortion</b>	<b>0.0005%</b>
<b>Mag. (x)</b>	<b>0.93x - 1.07x</b>
<b>WD (mm)</b>	<b>176 - 192</b>
<b>Object Image Distance (mm)</b>	<b>440</b>
<b>Iris</b>	<b>Manual</b>
<b>Focus</b>	<b>Manual</b>
<b>FBL (mm)</b>	<b>12</b>
<b>Mount</b>	<b>M72 × P0.75</b>
<b>Filter Size</b>	-
<b>Weight(g)</b>	-
<b>Dimensions (mm)</b>	<b>Ø83×266-291</b>
<b>Operating Temp.</b>	<b>-10 - 50°C</b>

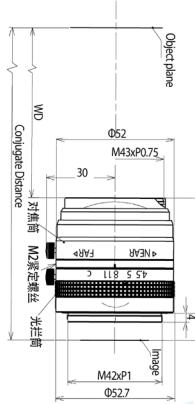
# Compact Line Scan Lenses

## FEATURES

1. Designed for compact line scan cameras
2. Compatible with 4K7μ line scan cameras
3. Small magnification for the application of large size inspection
4. Interface could be changed from V-Mount to M42, M58 or F-Mount

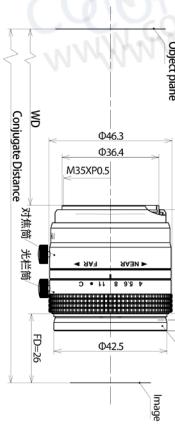


**VTL-2045-0.03X**



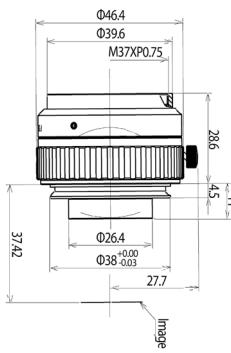
Mag.	0.1x	0.0358x	0.02x
WD (mm)	198.7±5	557.4±5	998.7±5
Image Distance (mm)	14.6±2.5	13.3±2.5	13.0±2.5
Conjugate Distance (mm)	261.7±9	619.1±9	1060.1±9
FFL (mm)	12±0.1		
EFL (mm)	20		
Format	Ø30		
Aperture (F/#)	F4.5		
TV Distortion	0.2%		
Relative Illumination	>50%		
Mount	M42		

**VTL-2840-0.1X**



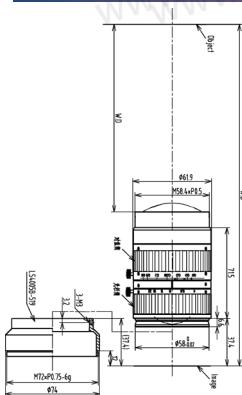
Mag.	0.05x	0.1x	0.3x
WD (mm)	594.7±5	299.7±5	103.0±5
Image Distance (mm)	24.5±2.5	26.0±2.5	31.8±2.5
Conjugate Distance (mm)	661.5±9	368±9	177.2±9
FOV	600	300	100
FFL (mm)	26±0.1		
EFL (mm)	29		
Format	Ø30		
Aperture (F/#)	F4.0		
TV Distortion	0.1%		
Relative Illumination	40%		
Mount	V (Ø42.5)		

**VTL-3545-0.08X**

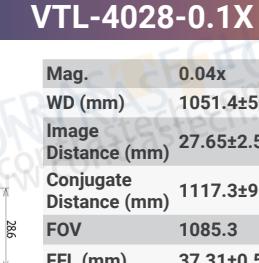


Mag.	0.04x	0.08x	0.1x
WD (mm)	1008.49±5	508.49±5	408.49±5
Image Distance (mm)	25.23±2.5	26.84±2.5	27.64±2.5
Conjugate Distance (mm)	1072.89±9	574.5±9	475.31±9
FFL (mm)	35.81±0.5	37.42±0.5	38.22±0.5
EFL (mm)	35		
Format	Ø30		
Aperture (F/#)	F4.5		
TV Distortion	<0.05%	<0.01%	<0.03%
Relative Illumination	80%		
Mount	V (Ø38)		

**VTL-4040-0.05X**

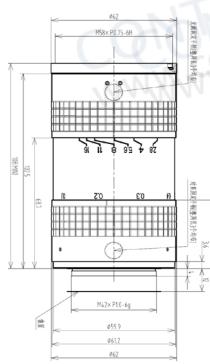


Mag.	0.16x	0.05x	0.02x
WD (mm)	256.3±5	818.8±5	1982.1±5
Image Distance (mm)	-		
Conjugate Distance (mm)	385.78±9	943.08±9	2104.87±9
FOV	71°		
FFL (mm)	12±0.5 (37.4)		
EFL (mm)	40		
Format	Ø60		
Aperture (F/#)	F4.0		
TV Distortion	<0.2%		
Relative Illumination	-		
Mount	M72		



Mag.	0.04x	0.1x	0.33x
WD (mm)	1051.4±5	400±5	140.7±5
Image Distance (mm)	27.65±2.5	30.43±2.5	39.68±2.5
Conjugate Distance (mm)	1117.3±9	468.67±9	218.65±9
FOV	1085.3	402.9	130.8
FFL (mm)	37.31±0.5	40.1±0.5	49.34±0.5
EFL (mm)	40		
Format	Ø43.2		
Aperture (F/#)	F2.8		
TV Distortion	0.39%	0.5%	0.62%
Relative Illumination	40%		
Mount	V (Ø38)		

**VTL-8028-0.177X**



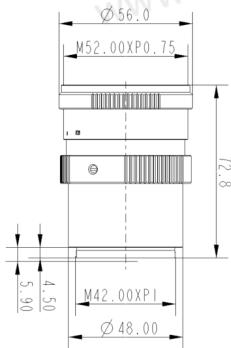
WD	220-5000	WD(mm)	Mag.
Magnification Range	0.46x-0.02x	220	0.46x
Max image	Ø30	250	0.394x
F.No	2.8-16	300	0.317x
FFL (mm)	12	350	0.26x
EFL (mm)	80±5%	500	0.177x
FOV	19.5°	600	0.145x
ENP Diameter	Ø28.5	800	0.106x
Distortion	<0.2%	1000	0.084x
Relative Illumination	>78%	1500	0.055x
Dimensions	Ø62x112	2000	0.04x
Filter Screw Size	M58xP0.75	3000	0.027x
Mount	M42xP1.0	5000	0.02x

## 5.5K $\mu$ Line Scan Lenses

### FEATURES

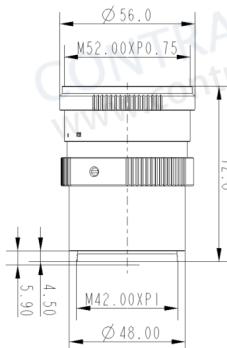
1. Designed for high resolution up to 5.5K $\mu$
2. M42 mount as standard, adaptable to various camera mount
3. Large aperture F2.8

VTL-5.5K-0.1X-A



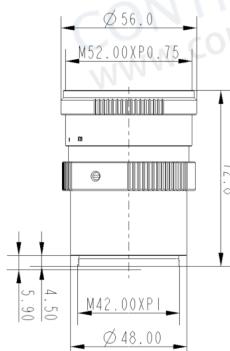
EFL (mm)	50
Mag. (x)	0.0946
Format (mm)	φ30
Aperture(F/#)	F2.8
Distortion	-0.61%
Relative Illumination	95.50%
Min WD (mm)	574
Best WD (mm)	600-700
Mount	M42 x 1
FFL (mm)	12
Resolution	5.5K 5 $\mu$

VTL-5.5K-0.1X-B



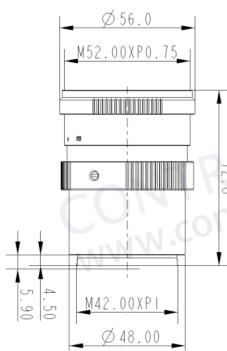
EFL (mm)	50
Mag. (x)	0.0946
Format (mm)	φ30
Aperture(F/#)	F2.8
Distortion	-0.61%
Relative Illumination	95.50%
Min WD (mm)	574
Best WD (mm)	600-700
Mount	M42 x 1
FFL (mm)	5.9
Resolution	5.5K 5 $\mu$

VTL-5.5K-0.09X-A



EFL (mm)	50
Mag. (x)	0.094
Format (mm)	φ30
Aperture(F/#)	F4.0
Distortion	-0.61%
Relative Illumination	95.50%
Min WD (mm)	574
Best WD (mm)	600-700
Mount	M42 x 1
FFL (mm)	12
Resolution	5.5K 5 $\mu$

VTL-5.5K-0.09X-B



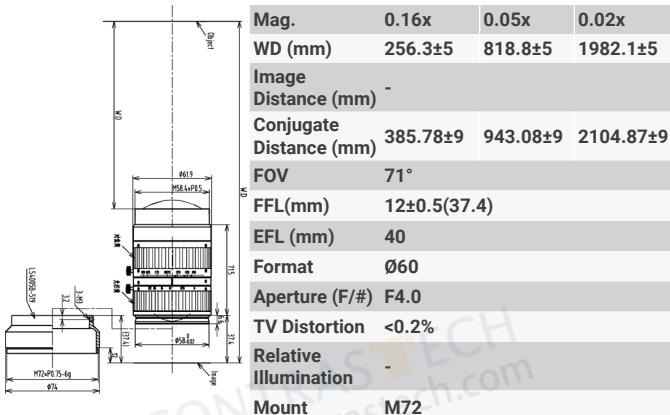
EFL (mm)	50
Mag. (x)	0.094
Format (mm)	φ30
Aperture(F/#)	F4.0
Distortion	-0.61%
Relative Illumination	95.50%
Min WD (mm)	574
Best WD (mm)	600-700
Mount	M42 x 1
FFL (mm)	5.9
Resolution	5.5K 5 $\mu$

# 8K7 $\mu$ Line Scan Lenses

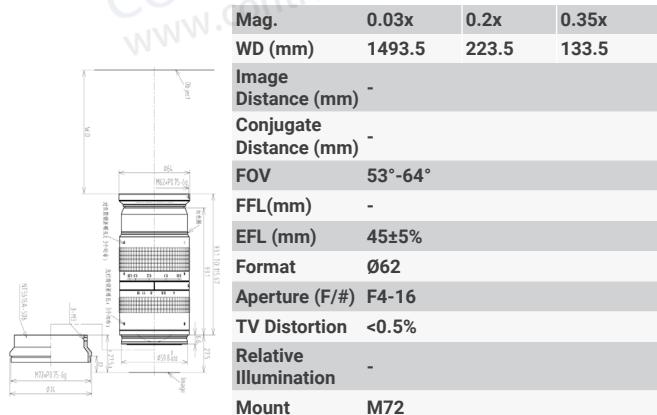
## FEATURES

1. Specially designed for 8K7 $\mu$  line scan camera
2. Optional standard EFL and magnification
3. Magnification from 0.02x-0.4x
4. V-mount as standard, adaptable to various camera mount
5. Applied to big size detection such as lithium battery

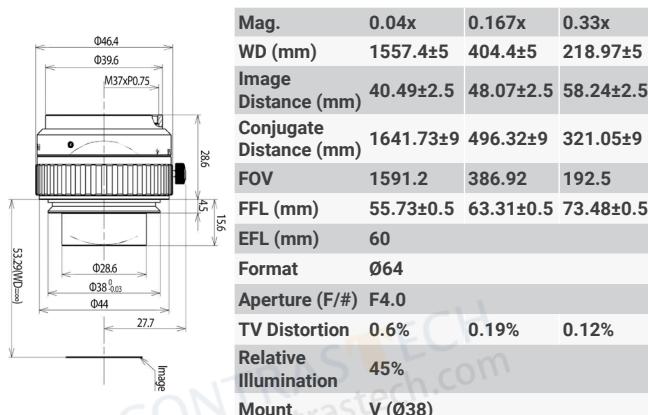
**VTL-4040-0.05X**



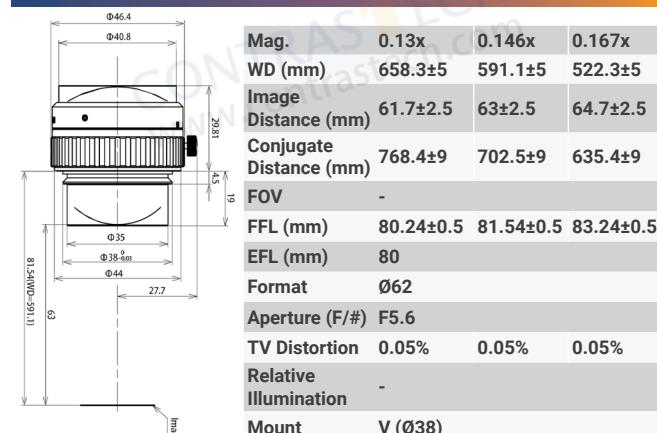
**VTL-4540-0.2X**



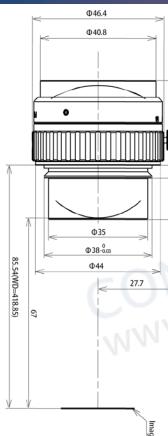
**VTL-6040-0.167X**



**VTL-8056-0.146X**

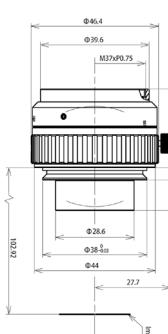


### VTL-8056-0.21X



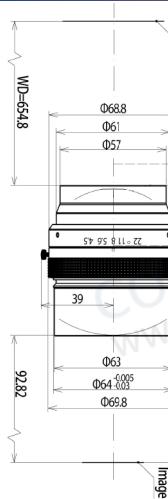
Mag.	0.194x	0.21x	0.233x
WD (mm)	449.8±5	418.85±5	381.8±5
Image Distance (mm)	65.7±2.5	67±2.5	68.8±2.5
Conjugate Distance (mm)	563.32±9	533.67±9	498.42±9
FOV	-		
FFL (mm)	84.24±0.5	85.54±0.5	87.34±0.5
EFL (mm)	80		
Format	Ø62		
Aperture (F/#)	F5.6		
TV Distortion	0.05%	0.05%	0.05%
Relative Illumination	-		
Mount	V (Ø38)		

### VTL-8056-0.3X



Mag.	0.2x	0.3x	0.4x
WD (mm)	453.71±5	320.26±5	253.68±5
Image Distance (mm)	80.67±2.5	88.79±2.5	96.7±2.5
Conjugate Distance (mm)	577.11±9	451.78±9	393.11±9
FOV	-		
FFL (mm)	94.8±0.5	102.92±0.5	110.83±0.5
EFL (mm)	80		
Format	Ø64		
Aperture (F/#)	F5.6		
TV Distortion	<0.03%	<0.01%	<0.01%
Relative Illumination	M37xP0.75		
Mount	V (Ø38)		

### VTL-10045-0.2X



Mag.	0.15x	0.2x	0.25x
WD (mm)	860±5	654.8±5	538±5
Image Distance (mm)	86.58±2.5	92.82±2.5	98.81±2.5
Conjugate Distance (mm)	1026.7±9	827.8±9	717.1±9
FFL (mm)	117.0	123.5	129.2
FOV	34.6°		
EFL (mm)	100		
Format	Ø66		
Aperture (F/#)	F4.5		
TV Distortion	0.005%		
Relative Illumination	-		
Mount	V (Ø64)		

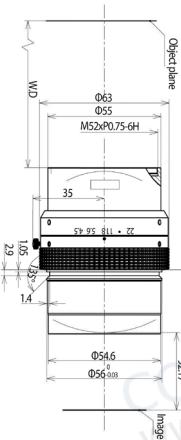
# 12K5 $\mu$ Line Scan Lenses

## FEATURES

1. Max image circle up to  $\Phi$ 62mm
2. Suitable for 8K/12K resolution camera
3. Standard magnification from 0.18x-1.29x
4. Big aperture F4.5
5. Ultra-low optical distortion

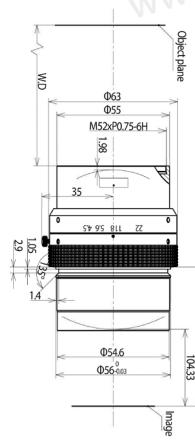


**VTL-12K-0.2X**



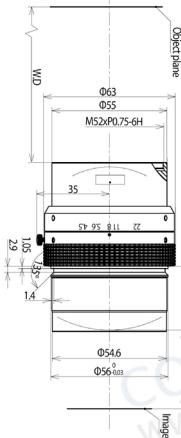
Mag.	0.18x	0.2x	0.24x
WD (mm)	717.3±5	652.4±5	550.87±5
Image Distance (mm)	89.8±2.5	92.17±2.5	97.05±2.5
Conjugate Distance (mm)	887.35±9	824.9±9	728.2±9
FFL (mm)	120.4	122.8	127.6
FOV	28°		
EFL (mm)	116		
Format	Ø62		
Aperture (F/#)	F4.5		
TV Distortion	<0.01%		
ENP Diam.	23		
Filter Thread	M52 x P0.75		
Mount	V(Ø56)		

**VTL-12K-0.33X**



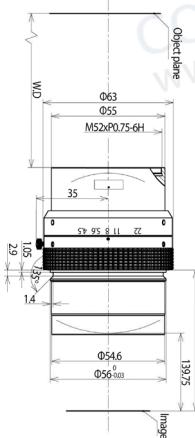
Mag.	0.29x	0.33x	0.4x
WD (mm)	465±5	415.1±5	351.2±5
Image Distance (mm)	99.55±2.5	104.33±2.5	112.78±2.5
Conjugate Distance (mm)	644.85±9	599.7±9	544.58±9
FFL (mm)	130.1	134.9	143.4
FOV	29°		
EFL (mm)	116		
Format	Ø62		
Aperture (F/#)	F4.5		
TV Distortion	<0.005%		
ENP Diam.	23.37		
Filter Thread	M52 x P0.75		
Mount	V(Ø56)		

**VTL-12K-0.5X**



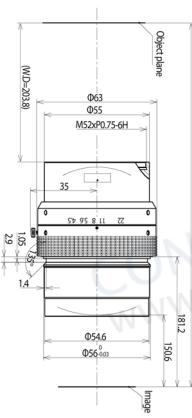
Mag.	0.45x	0.5x	0.6x
WD (mm)	318.2±5	291.7±5	251.9±5
Image Distance (mm)	113.17±2.5	119.03±2.5	131.05±2.5
Conjugate Distance (mm)	511.61±9	491±9	463.19±9
FFL (mm)	143.8	149.6	161.6
FOV	29°		
EFL (mm)	116		
Format	Ø62		
Aperture (F/#)	F4.5		
TV Distortion	<0.01%		
ENP Diam.	24.1		
Filter Thread	M52 x P0.75		
Mount	V(Ø56)		

**VTL-12K-0.75X**



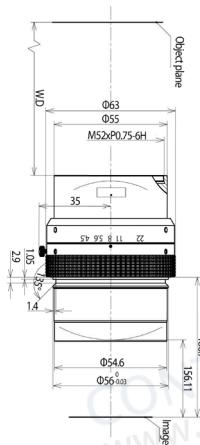
Mag.	0.7x	0.75x	0.85x
WD (mm)	220.9±5	209.8±5	191.4±5
Image Distance (mm)	133.96±2.5	139.75±2.5	151.58±2.5
Conjugate Distance (mm)	435.1±9	429.85±9	423.2±9
FFL (mm)	164.5	170.3	182.2
FOV	29°		
EFL (mm)	116		
Format	Ø62		
Aperture (F/#)	F4.5		
TV Distortion	<0.005%		
ENP Diam.	25		
Filter Thread	M52 x P0.75		
Mount	V(Ø56)		

### VTL-12K-0.8X



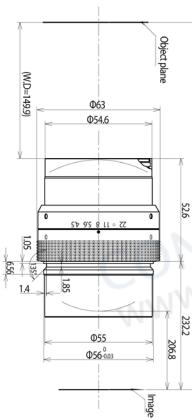
<b>Mag.</b>	<b>0.85x</b>	<b>0.806x</b>	<b>0.75x</b>
<b>WD (mm)</b>	<b>196±5</b>	<b>203.8±5</b>	<b>214.9±5</b>
<b>Image Distance (mm)</b>	<b>155.88±2.5</b>	<b>150.6±2.5</b>	<b>143.82±2.5</b>
<b>Conjugate Distance (mm)</b>	<b>432.2±9</b>	<b>434.66±9</b>	<b>439.9±9</b>
<b>FFL (mm)</b>	<b>186.5</b>	<b>181.2</b>	<b>174.4</b>
<b>FOV</b>	<b>23°</b>		
<b>EFL (mm)</b>	<b>116</b>		
<b>Format</b>	<b>Ø62</b>		
<b>Aperture (F/#)</b>	<b>F4.5</b>		
<b>TV Distortion</b>	<b>&lt;0.005%</b>		
<b>ENP Diam.</b>	<b>26.08</b>		
<b>Filter Thread</b>	<b>M52 x P0.75</b>		
<b>Mount</b>	<b>V(Ø56)</b>		

### VTL-12K-1.0X



<b>Mag.</b>	<b>0.9x</b>	<b>1.0x</b>	<b>1.1x</b>
<b>WD (mm)</b>	<b>176.7±5</b>	<b>164.2±5</b>	<b>153.7±5</b>
<b>Image Distance (mm)</b>	<b>144.8±2.5</b>	<b>156.11±2.5</b>	<b>167.67±2.5</b>
<b>Conjugate Distance (mm)</b>	<b>401.8±9</b>	<b>400.56±9</b>	<b>401.67±9</b>
<b>FFL (mm)</b>	<b>175.4</b>	<b>186.7</b>	<b>198.3</b>
<b>FOV</b>	<b>28°</b>		
<b>EFL (mm)</b>	<b>116</b>		
<b>Format</b>	<b>Ø62</b>		
<b>Aperture (F/#)</b>	<b>F4.5</b>		
<b>TV Distortion</b>	<b>&lt;0.05%</b>		
<b>ENP Diam.</b>	<b>25.6</b>		
<b>Filter Thread</b>	<b>M52 x P0.75</b>		
<b>Mount</b>	<b>V(Ø56)</b>		

### VTL-12K-1.24X



<b>Mag.</b>	<b>1.29x</b>	<b>1.24x</b>	<b>1.19x</b>
<b>WD (mm)</b>	<b>146.2±5</b>	<b>149.9±5</b>	<b>154±5</b>
<b>Image Distance (mm)</b>	<b>212.56±2.5</b>	<b>206.8±2.5</b>	<b>200.62±2.5</b>
<b>Conjugate Distance (mm)</b>	<b>436.67±9</b>	<b>434.66±9</b>	<b>432.54±9</b>
<b>FFL (mm)</b>	<b>237.9</b>	<b>232.2</b>	<b>226</b>
<b>FOV</b>	<b>20.88°</b>		
<b>EFL (mm)</b>	<b>116</b>		
<b>Format</b>	<b>Ø62</b>		
<b>Aperture (F/#)</b>	<b>F4.5</b>		
<b>TV Distortion</b>	<b>&lt;0.005%</b>		
<b>ENP Diam.</b>	<b>29.75</b>		
<b>Filter Thread</b>	<b>M52 x P0.75</b>		
<b>Mount</b>	<b>V(Ø56)</b>		

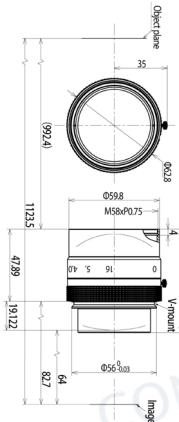
## 16K3.5 $\mu$ Line Scan Lenses

## FEATURES

1. Resolution of  $3.5\mu$ , up to 160lp/mm
  2. Max image circle is up to 66mm, also compatible with 12K5 $\mu$  camera
  3. Optical distortion <0.005%
  4. Big aperture F4.0

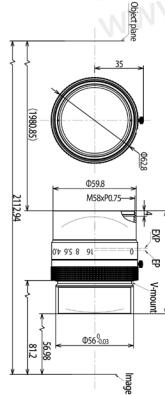


VTL-9040-0.1X



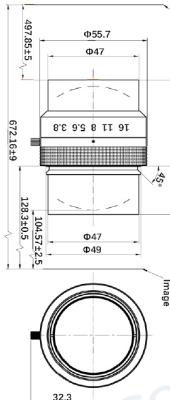
<b>Mag.</b>	0.14x	0.1x	0.08x
<b>WD (mm)</b>	722±5	922.4±5	1229.2±5
<b>Image Distance (mm)</b>			
<b>Conjugate Distance (mm)</b>	856.86±9	1123.5±9	1358.34±9
<b>FOV</b>	-		
<b>FFL (mm)</b>	87±0.5	82.7±0.5	81.3±0.5
<b>EFL (mm)</b>	90		
<b>Format</b>	Ø64		
<b>Aperture (F/#)</b>	F4.0-16		
<b>TV Distortion</b>	0.01%		
<b>Relative Illumination</b>			
<b>Mount</b>	V (Ø64)		

VTL-9540-0.05X



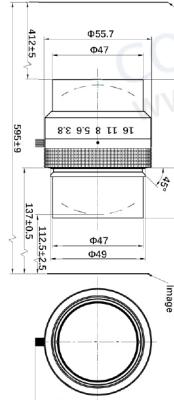
Mag.	0.03x	0.05x	0.08x
WD (mm)	3274.18±5	1980.85±5	1253.35±5
Image Distance (mm)	-		
Conjugate Distance (mm)	3403.23±9	2112.94±9	1388.36±9
FOV	-		
FFL (mm)	79.26±0.5	81.2±0.5	84.11±0.5
EFL (mm)	95		
Format	Ø62		
Aperture (F/#)	F4.0-16		
TV Distortion	<0.05%		
Relative Illumination	-		
Mount	V (Ø56)		

VTL-16K-0.26X



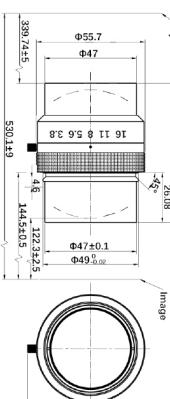
Mag. (x)	0.23x	0.26x	0.28x
WD (mm)	555.5±5	497.85±5	466.6±5
Image Distance (mm)	101.14±2.5	104.57±2.5	106.89±2.5
Conjugate Distance (mm)	726.28±9	672.16±9	643.08±9
FFL (mm)	124.72±0.5	128.3±0.5	130.47±0.5
FOV	28.6°		
EFL (mm)	114		
Format	Ø66		
Aperture(F/#)	F4.2		
Distortion	0.01%		
ENP Diameter	27.12		
Mount	V (Ø49)		

VTL-16K-0.33X



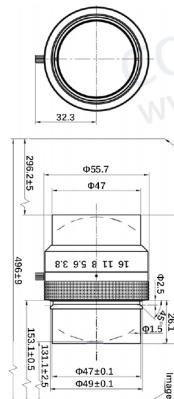
Mag. (x)	0.31x	0.33x	0.36x
WD (mm)	434.7±5	412±5	382.8±5
Image Distance (mm)	110.2±2.5	112.5±2.5	116±2.5
Conjugate Distance (mm)	615.4±9	595±9	569.3±9
FFL (mm)	134.7	137	140.5
FOV	13.83°		
EFL (mm)	116		
Format	Ø66		
Aperture(F/#)	F4.2		
Distortion	0.001%		
ENP Diameter	27.57		
Mount	V (Ø49)		

VTL-16K-0.42X

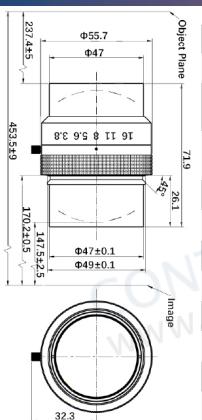


Mag. (x)	0.38x	0.42x	0.45x
WD (mm)	368.69±5	339.74±5	321.15±5
Image Distance (mm)	117.67±2.5	122.3±2.5	125.78±2.5
Conjugate Distance (mm)	554.4±9	530.1±9	514.97±9
FFL (mm)	139.85±0.5	144.5±0.5	147.96±0.5
FOV	28.5°		
EFL (mm)	116		
Format	Ø66		
Aperture(F/#)	F3.8		
Distortion	0.007%		
ENP Diameter	30.46		
Mount	V (Ø49)		

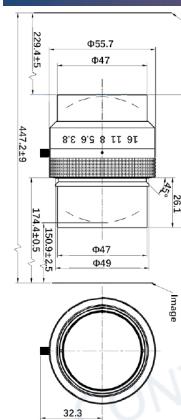
VTL-16K-0.5X



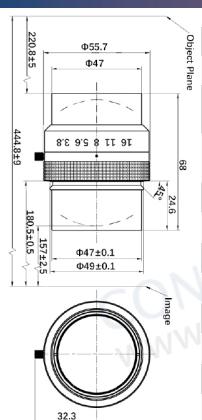
Mag. (x)	0.46x	0.469x	0.5x	0.54x
WD (mm)	315.9±5	311.2±5	296.2±5	278.7±5
Image Distance (mm)	126.6 ±2.5	127.6 ±2.5	131.1 ±2.5	135.8 ±2.5
Conjugate Distance (mm)	511.2±9	507.5±9	496±9	483.2±9
FFL (mm)	148.8	149.8	153.3	158
FOV	21.8°			
EFL (mm)	116			
Format	Ø66			
Aperture(F/#)	F3.8			
Distortion	0.0008%			
ENP Diameter	30.52			
Mount	V (Ø49)			

**VTL-16K-0.67X**

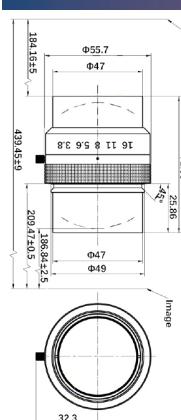
Mag. (x)	0.65x	0.67x	0.7x
WD (mm)	242.7±5	237.4±5	230.1±5
Image Distance (mm)	145.3±2.5	147.5±2.5	151±2.5
Conjugate Distance (mm)	456.4±9	453.5±9	449.5±9
FFL (mm)	167.9±0.5	170.2±0.5	173.6±0.5
FOV	98.5 mm		
EFL (mm)	116		
Format (mm)	Ø66		
Aperture(F/#)	F3.8		
Distortion	0.1%		
ENP Diameter	Ø30.5		
Mount	V (Ø49)		

**VTL-16K-0.7X**

Mag. (x)	0.66x	0.7x	0.75x
WD (mm)	240.1±5	229.4±5	219.3±5
Image Distance (mm)	145.9±2.5	150.9±2.5	156.2±2.5
Conjugate Distance (mm)	452.9±9	447.2±9	442.4±9
FFL (mm)	169.4	174.4	179.7
FOV	14.1°		
EFL (mm)	116		
Format (mm)	Ø66		
Aperture(F/#)	F3.8		
Distortion	0%		
ENP Diameter	30.28		
Mount	V (Ø49)		

**VTL-16K-0.75X**

Mag. (x)	0.7x	0.75x	0.8x
WD (mm)	232±5	220.8±5	211±5
Image Distance (mm)	151.2±2.5	157±2.5	162.9±2.5
Conjugate Distance (mm)	450.1±9	444.8±9	440.9±9
FFL (mm)	174.7±0.5	180.5±0.5	186.4±0.5
FOV	18.8°		
EFL (mm)	100		
Format (mm)	Ø66		
Aperture(F/#)	F3.8		
Distortion	0.0008%		
ENP Diameter	30.28		
Mount	V (Ø49)		

**VTL-16K-1.0X**

Mag. (x)	0.93x	1.0x	1.07x
WD (mm)	192.48±5	184.16±5	176.28±5
Image Distance (mm)	178.78±2.5	186.84±2.5	194.87±2.5
Conjugate Distance (mm)	439.7±9	439.45±9	439.6±9
FFL (mm)	201.4±0.5	209.47±0.5	217.5±0.5
FOV	16.2°		
EFL (mm)	116		
Format (mm)	Ø66		
Aperture(F/#)	F3.5		
Distortion	0.0005%		
ENP Diameter	33.06		
Mount	V (Ø49)		

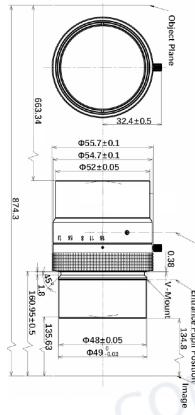
# 16K5 $\mu$ Line Scan Lenses

## FEATURES

1. Specially designed for 16K5 $\mu$  super high resolution line scan camera
2. Lens real resolution up to 160lp / mm
3. Provide higher contrast for cameras
4. Max image circle up to 82mm ,also compatible with 12K5 $\mu$  / 16K3.5 $\mu$  camera
5. Optical distortion < 1 pixel size
6. Magnification from 0.22x-4.5x

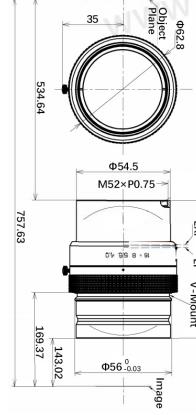


**VTL-16KP-0.26X**



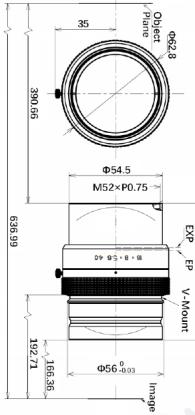
Mag. (x)	0.22x	0.26x	0.3x
WD (mm)	767.64±5	663.34±5	587.64±5
<b>Image Distance (mm)</b>			
Conjugate Distance (mm)	969.75±9	874.3±9	804.5±9
FFL (mm)	155.15	160.95	166.85
FOV	-		
EFL (mm)	116		
Format (mm)	Ø82		
Aperture(F/#)	F3.8-16		
Distortion	0.001%		
ENP Diameter	-		
Mount	V (Ø49)		

**VTL-16KP-0.3X**



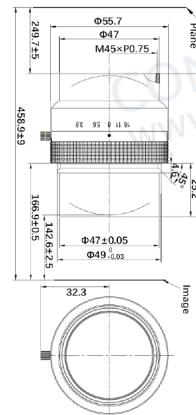
Mag. (x)	0.29x	0.33x	0.38x
WD (mm)	599.5±5	534.64±5	480±5
<b>Image Distance (mm)</b>			
Conjugate Distance (mm)	816.1±9	757.63±9	709.9±9
FFL (mm)	163±0.5	169.37±0.5	176.3±0.5
FOV	-		
EFL (mm)	120		
Format (mm)	Ø82		
Aperture(F/#)	F4.0-16		
Distortion	0.005%		
ENP Diameter	-		
Mount	V (Ø56)		

**VTL-16KP-0.5X**



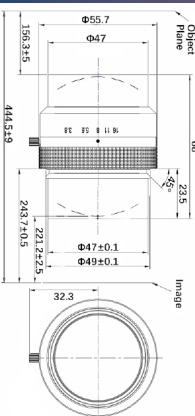
Mag. (x)	0.43x	0.5x	0.57x
WD (mm)	437.5±5	390.66±5	354±5
<b>Image Distance (mm)</b>			
Conjugate Distance (mm)	674±9	636.99±9	611±9
FFL (mm)	181±0.5	192.71±0.5	202±0.5
FOV	-		
EFL (mm)	120		
Format (mm)	Ø82		
Aperture(F/#)	F4.0-16		
Distortion	0.002%		
ENP Diameter	-		
Mount	V (Ø56)		

**VTL-16KP-0.625X**



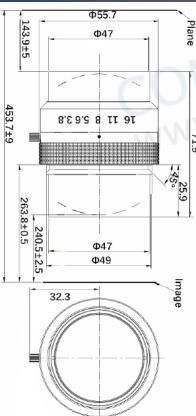
Mag. (x)	0.59x	0.625x	0.67x
WD (mm)	260.5±5	245.9±5	237.5±5
<b>Image Distance (mm)</b>			
Conjugate Distance (mm)	465.7±9	458.9±9	451.7±9
FFL (mm)	163±0.5	166.9±0.5	172±0.5
FOV	26.2°		
EFL (mm)	116		
Format (mm)	Ø82		
Aperture(F/#)	F3.8		
Distortion	0.001%		
ENP Diameter	Ø29.8		
Mount	V (Ø49)		

**VTL-16KP-1.3X**

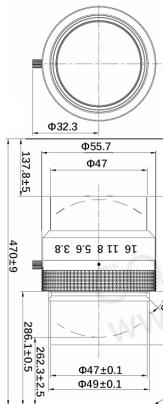


Mag. (x)	1.25x	1.33x	1.47x
WD (mm)	161.9±5	156.36±5	148.1±5
<b>Image Distance (mm)</b>			
Conjugate Distance (mm)	440.8±9	444.5±9	452.4±9
FFL (mm)	234.5	243.7	259.8
FOV	13.9°		
EFL (mm)	116		
Format (mm)	Ø84		
Aperture(F/#)	F3.8		
Distortion	0.0003%		
ENP Diameter	Ø30.28		
Mount	V (Ø49)		

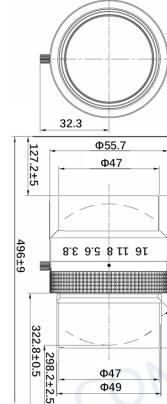
**VTL-16KP-1.5X**



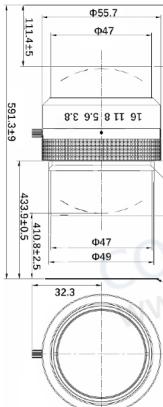
Mag. (x)	1.3x	1.5x	1.6x
WD (mm)	155.7±5	143.9±5	139.1±5
<b>Image Distance (mm)</b>			
Conjugate Distance (mm)	442.6±9	453.7±9	460.4±9
FFL (mm)	240.9±0.5	263.8±0.5	275.3±0.5
FOV	54.7 mm		
EFL (mm)	116		
Format (mm)	Ø84		
Aperture(F/#)	F3.8		
Distortion	0.08%		
ENP Diameter	Ø30.6		
Mount	V (Ø49)		

**VTL-16KP-1.7X**

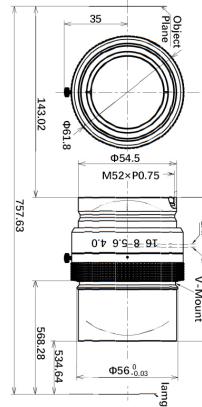
	Mag. (x)	1.65x	1.7x	1.73x
WD (mm)	139.9±5	137.8±5	136.7±5	
Image Distance (mm)	256.5±2.5	262.3±2.5	265.8±2.5	
Conjugate Distance (mm)	466.3±9	470±9	472.3±9	
FFL (mm)	280.3	286.1	289.6	
FOV	Ø38.8			
EFL (mm)	116			
Format (mm)	Ø84			
Aperture(F/#)	F3.8			
Distortion	0.05%			
ENP Diameter	Ø30.9			
Mount	V (Ø49)			

**VTL-16KP-2.0X**

	Mag. (x)	1.75x	2x	2.25x
WD (mm)	135.7±5	127.2±5	121±5	
Image Distance (mm)	268.4±2.5	298.3±2.5	326.4±2.5	
Conjugate Distance (mm)	474.7±9	496±9	517.9±9	
FFL (mm)	292.9±0.5	322.8±0.5	350.9±0.5	
FOV	11.3°			
EFL (mm)	116			
Format (mm)	Ø84			
Aperture(F/#)	F3.8			
Distortion	0.0008%			
ENP Diameter	Ø30.52			
Mount	V (Ø49)			

**VTL-16KP-3.0X**

	Mag. (x)	2.5x	3x	4.5x
WD (mm)	119.2±5	111.4±5	98.6±5	
Image Distance (mm)	352.8±2.5	410.8±2.5	583.8±2.5	
Conjugate Distance (mm)	541.1±9	591.3±9	751.5±9	
FFL (mm)	375.9	433.9	606.9	
FOV	13.83°			
EFL (mm)	116			
Format (mm)	Ø84			
Aperture(F/#)	F4.2			
Distortion	0.001%			
ENP Diameter	Ø29.52			
Mount	V (Ø49)			

**VTL-16KP-3.0X-L**

	Mag. (x)	2.5x	3x	4.5x
WD (mm)	155.3±5	143.02±5	128.8±5	
Image Distance (mm)	-	-	-	
Conjugate Distance (mm)	681±9	757.63±9	864.5±9	
FFL (mm)	479.1±0.5	568.28±0.5	585±0.5	
FOV	-			
EFL (mm)	120			
Format (mm)	Ø82			
Aperture(F/#)	F4.0-16			
Distortion	0.001%			
ENP Diameter	Ø31.4			
Mount	V (Ø56)			

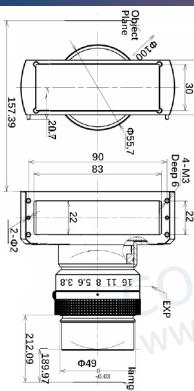
# Coaxial Illumination Line Scan Lenses

## FEATURES

1. Designed for coaxial lighting system
2. Avoid the resolution deduction caused by using the beam splitter
3. **High resolution and contrast, supporting 16K 5μ line scan cameras**
4. With 30\*80mm beam splitter
5. Ultra-low optical distortion, less than 0.001% or 1 pixel

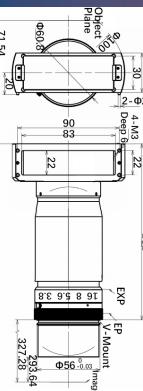


**VTCL-16KP-1.0X**



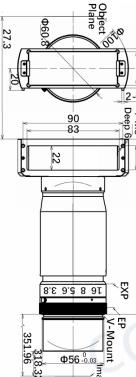
Mag. (x)	0.9x	1x	1.2x
WD (mm)	170.1±5	157.39±5	138±5
Conjugate Distance (mm)	450.8±9	449.53±9	453.4±9
FFL (mm)	200.6±0.5	212.09±0.5	235.33±0.5
Resolution	16k5μ		
EFL (mm)	116		
Format (mm)	Ø82		
Aperture (F/#)	F3.8-16		
Distortion	0.0005%		
Relative Illumination	90%		
Mount	V (Ø49)		

**VTCL-16KP-1.3X**



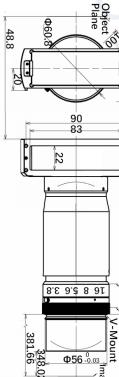
Mag. (x)	1.2x	1.33x	1.43x
WD (mm)	83.33±5	71.54±5	63.87±5
Conjugate Distance (mm)	572.34±9	579.35±9	586.3±9
FFL (mm)	308.5±0.5	327.28±0.5	341.92±0.5
Resolution	16k5μ		
EFL (mm)	116		
Format (mm)	Ø82		
Aperture (F/#)	F4.3-16		
Distortion	0.001%		
Relative Illumination	90%		
Mount	V (Ø56)		

**VTCL-16KP-1.5X**



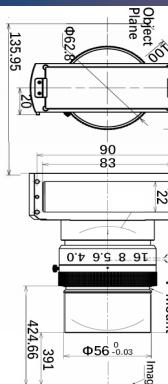
Mag. (x)	1.4x	1.5x	1.6x
WD (mm)	34.1±5	27.3±5	21.2±5
Conjugate Distance (mm)	584.2±9	592.1±9	600.28±9
FFL (mm)	337.59±0.5	351.95±0.5	366.56±0.5
Resolution	16k5μ		
EFL (mm)	145		
Format (mm)	Ø82		
Aperture (F/#)	F4.3-16		
Distortion	0.001%		
Relative Illumination	90%		
Mount	V (Ø56)		

**VTCL-16KP-1.7X**



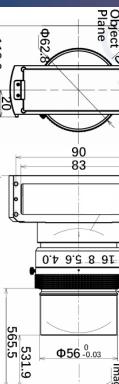
Mag. (x)	1.45x	1.7x	2x
WD (mm)	67.2±5	48.83±5	35.7±5
Conjugate Distance (mm)	586.5±9	611.85±9	643.1±9
FFL (mm)	337.86±0.5	381.66±0.5	425.6±0.5
Resolution	16k5μ		
EFL (mm)	116		
Format (mm)	Ø82		
Aperture (F/#)	F4.0-16		
Distortion	0.001%		
Relative Illumination	90%		
Mount	V (Ø56)		

**VTCL-16KP-2.0X**



Mag. (x)	1.7x	2x	2.4x
WD (mm)	92±5	135.95±5	117±5
Conjugate Distance (mm)	611±9	641.94±9	688±9
FFL (mm)	380.6±0.5	424.66±0.5	482±0.5
Resolution	16k5μ		
EFL (mm)	120		
Format (mm)	Ø82		
Aperture (F/#)	F4.0-16		
Distortion	0.0005%		
Relative Illumination	90%		
Mount	V (Ø56)		

**VTCL-16KP-3.0X**



Mag. (x)	2.5x	3x	3.5x
WD (mm)	102.4±5	112.6±5	105.5±5
Conjugate Distance (mm)	696.5±9	759.5±9	825.9±9
FFL (mm)	493±0.5	565.5±0.5	639±0.5
Resolution	16k5μ		
EFL (mm)	120		
Format (mm)	Ø82		
Aperture (F/#)	F4.0-16		
Distortion	0.005%		
Relative Illumination	90%		
Mount	V (Ø56)		

# Focusing Ring and Adapter



	Lens Mount	Camera Mount	Length (mm)
Adapter Ring	M58 × P0.75	C-Mount	10
	M58 × P0.75	F Mount	9
	M58 × P0.75	M42 × P0.75	10
	M58 × P0.75	M42 × P1	10
	M58 × P0.75	M42 × P1	24.3
	M58 × P0.75	M48 × P0.75	10
	M58 × P0.75	M48 × P0.75	29.74
	M58 × P0.75	M72 × P0.75	2
	M58 × P0.75	M72 × P0.75	16.75
	M58 × P0.75	M72 × P0.75	24.3
	M58 × P0.75	M72 × P0.75	25
	M58 × P0.75	M72 × P0.75	50
	M58 × P0.75	M72 × P0.75	100
	M58 × P0.75	M95 × P1	25
	M58 × P0.75	M95 × P1	50
	M58 × P0.75	M95 × P1	100

	Lens Mount	Camera Mount	Length (mm)
Adapter Ring	C-Mount	M42 × P1	5.526
	C-Mount	M42 × P1	12.5
	M42 × P1	M58 × P0.75	4
	M42 × P1	M72 × P0.75	4
	M72 × P0.75	M58 × P0.75	6
	M72 × P0.75	M90 × P1	3
	M72 × P0.75	M90 × P1	50
	M72 × P0.75	M95 × P1	3
	M72 × P0.75	M95 × P1	50
	V (Ø38)	M42 × P0.75	4.5
	V (Ø38)	M42 × P1	4.5
	V (Ø38)	M42 × P1	6.5
	V (Ø42.5)	C-Mount	8.47
	V (Ø42.5)	M42 × P1	14
	V (Ø42.5)	M58 × P0.75	14.52

	Lens Mount	Camera Mount	Focus Range (mm)	Length (mm)
Focus Adjusting Ring	V (Ø38)	V(Ø38)	17.4-29.4	12
	M54 × P0.75	M72 × P0.75	44-69	25
	V (Ø38)	M58 × P0.75	24-45	21
	M60 × P0.75	M72 × P0.75	44-69	25
	F Mount	M58 × P0.75	-	10.2
	M72 × P0.75	M72 × P0.75	43.3-68.3	25
	V (Ø38)	M72 × P0.75	40.7-64.7	24

	Mount 1	Mount 2	Length (mm)
Extension Tube	M58 × P0.75	M58 × P0.75	10
	M58 × P0.75	M58 × P0.75	24
	M58 × P0.75	M58 × P0.75	24.82
	M58 × P0.75	M58 × P0.75	25
	M58 × P0.75	M58 × P0.75	50
	M58 × P0.75	M58 × P0.75	100
	M72 × P0.75	M72 × P0.75	10
	M72 × P0.75	M72 × P0.75	20
	M72 × P0.75	M72 × P0.75	35
	M72 × P0.75	M72 × P0.75	50
	M90 × P1	M90 × P1	20
	M90 × P1	M90 × P1	50
	M95 × P1	M95 × P1	20
	M95 × P1	M95 × P1	50

	Lens Mount	Mount 2	Length (mm)
Lens Holder	V (Ø38)	M42 × P0.75	4.5
	V (Ø38)	M42 × P0.75	6.5
	V (Ø42.5)	M42 × P0.75	14
	V (Ø42.5)	M58 × P0.75	14.52
	V (Ø49)	M49 × P0.75	30
	V (Ø49)	M54 × P0.75	20
	V (Ø56)	M60 × P0.75	10
	V (Ø64)	M72 × P0.75	6

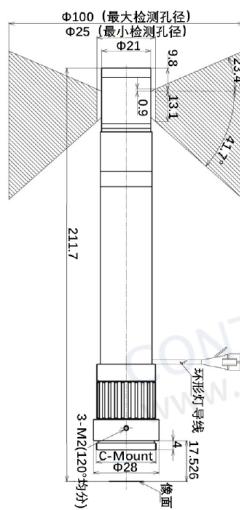
# 360°Inner Surface Lenses

## FEATURES

1. High resolution and compact design
2. Can clearly detect hidden features and defects
3. Highlight the tiny defects of the detected object
4. The lens comes with an integrated LED light source
5. Able to detect tiny defects under a very wide viewing angle
6. Applicable to objects whose internal features can only enter the hole through the internal inspection lens

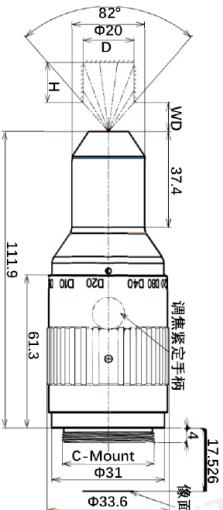


**VT-360LEN-IN01**



Sensor Size	1/3"
Format (mm)	Ø3.6
Aperture (F/#)	F14
WD (mm)	-
Object Diam. (mm)	Ø25-Ø100
Object Height (mm)	12.4-58.2
Wavelength Range	420-1150 nm
FOV (Diam x Height)	Min Ø25 x 12.4 Max Ø100 x 58.2
FOV	62°
Dimensions (mm)	Ø100 x 63.6 mm
Mount	C-Mount

**VT-360LEN-IN02**



Sensor Size	2/3"
Format (mm)	Ø6.6
Aperture (F/#)	-
WD (mm)	2.7-70
Object Diam. (mm)	5-120
Object Height (mm)	5-123
Wavelength Range	450-650 nm
FOV (Diam x Height)	Min 5 x 5 Max 120 x 123
Dimensions (mm)	Ø100 x 63.6 mm
Mount	C-Mount

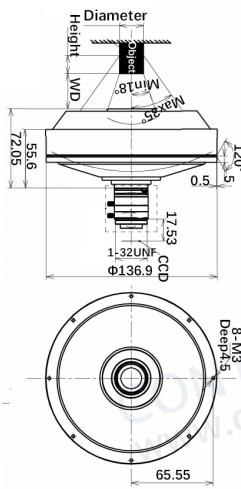
# 360°Outer Surface Lenses

## FEATURES

1. High resolution and compact design
2. Used to achieve 360° side view imaging of small objects
3. The minimum measuring object is 4.5mm (outer surface)
4. Suitable for detecting components such as drug containers, bottlenecks, and other threaded objects

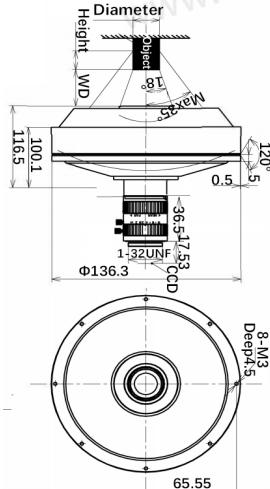


**VT-360LEN-OUT01**



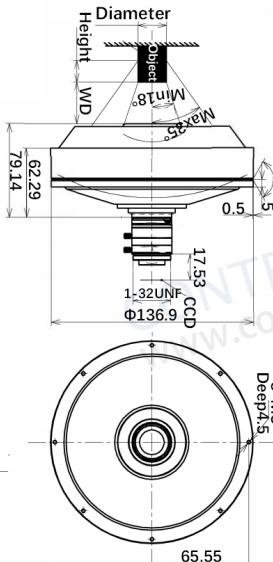
Sensor Size	1/3"
Format (mm)	Ø3.6
Aperture (F/#)	F6-16
WD (mm)	19-46.2
Object Diam. (mm)	7.5-25
Object Height (mm)	4.6-19.54
Wavelength Range	450-650 nm
FOV (Diam x Height)	Min Ø7.5 x 4.9 Typical Ø15 x 10.9 Max Ø25 x 19.54
Dimensions (mm)	-
Mount	C-Mount

**VT-360LEN-OUT02**



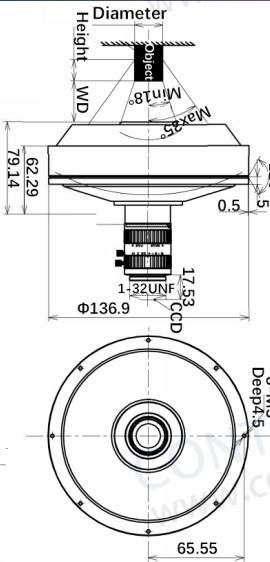
Sensor Size	1/3"
Format (mm)	Ø3.6
Aperture (F/#)	F6-16
WD (mm)	9-48
Object Diam. (mm)	4.5-30
Object Height (mm)	3.1-25.6
Wavelength Range	450-650 nm
FOV (Diam x Height)	Min Ø4.5 x 3.1 Typical Ø15 x 12.8 Max Ø30 x 25.6
Dimensions (mm)	-
Mount	C-Mount

**VT-360LEN-OUT03**



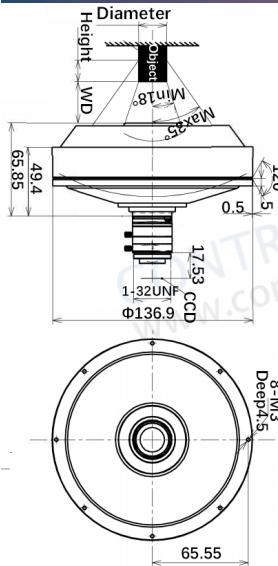
Sensor Size	1/1.8"
Format (mm)	Ø5.32
Aperture (F/#)	F8-16
WD (mm)	9-45.4
Object Diam. (mm)	7.5-30
Object Height (mm)	5.3-25
Wavelength Range	450-650 nm
FOV (Diam x Height)	Min Ø7.5 x 5.3 Typical Ø15 x 11.86 Max Ø30 x 25
Dimensions (mm)	-
Mount	C-Mount

**VT-360LEN-OUT04**



Sensor Size	1/1.8"
Format (mm)	Ø5.32
Aperture (F/#)	F8-16
WD (mm)	9-45.4
Object Diam. (mm)	4.5-30
Object Height (mm)	2.7-25
Wavelength Range	450-650 nm
FOV (Diam x Height)	Min Ø4.5 x 2.7 Typical Ø15 x 11.86 Max Ø30 x 25
Dimensions (mm)	-
Mount	C-Mount

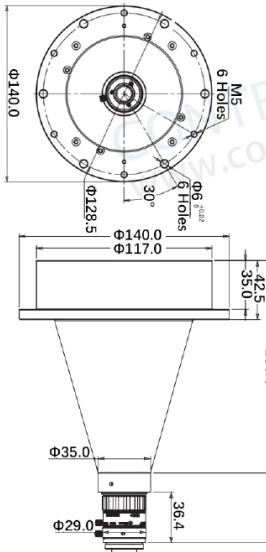
## VT-360LEN-OUT05



Sensor Size	2/3"
Format (mm)	Ø6.6
Aperture (F/#)	F8-16
WD (mm)	14-48.2
Object Diam. (mm)	7.5-30
Object Height (mm)	4-23.4
Wavelength Range	450-650 nm
FOV (Diam x Height)	Min Ø7.5 x 4 Typical Ø15 x 10.6 Max Ø30 x 23.4
Dimensions (mm)	-
Mount	C-Mount

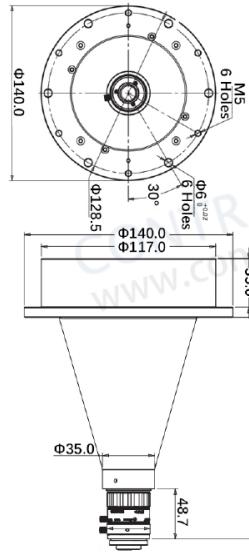
# 360°Multi-Angle Lenses

**VT-360LEN-0825-118**



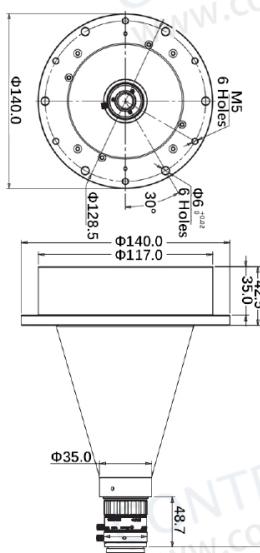
Sensor Size	2/3"
Wavelength Range	400-600 nm
WD	3-40 mm
MTF30	150 lp/mm
Aperture (F/#)	2.8~16
Max Diam.	140
Length	230.9
Max Object Diam. From Side	Object height 30 mm 20 mm Object height 60 mm 5 mm
Max Object Diam. From Side + Top	Object height 30 mm 10 mm
Mount	C-Mount

**VT-360LEN-0825-230**



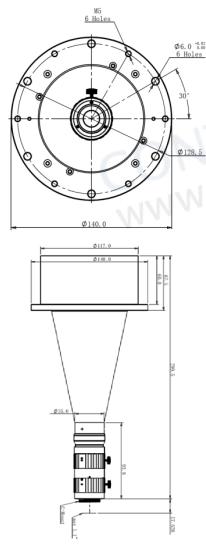
Sensor Size	2/3"
Wavelength Range	450-650 nm
WD	20-40 mm
MTF30	150 lp/mm
Aperture (F/#)	8~16
Max Diam.	140
Length	229.3
Max Object Diam. From Side	Object height 30 mm 20 mm Object height 50 mm 5 mm
Max Object Diam. From Side + Top	Object height 30 mm 10 mm
Mount	C-Mount

**VT-360LEN-0825-H1.1**



Sensor Size	1.1 "
Wavelength Range	400-680 nm
WD	3-40 mm
MTF30	126 lp/mm
Aperture (F/#)	2.8~25
Max Diam.	140
Length	229.3
Max Object Diam. From Side	Object height 30 mm 20 mm Object height 72 mm 5 mm
Max Object Diam. From Side + Top	Object height 30 mm 10 mm
Mount	C-Mount

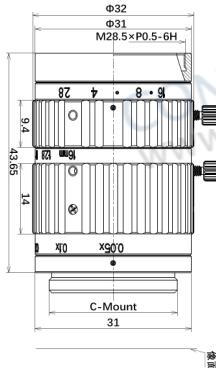
**VT-360LEN-0816-H1.1**



Sensor Size	1.1 "
Wavelength Range	400-680 nm
WD	5-100 mm
MTF30	120 lp/mm
Aperture (F/#)	2.8~25
Max Diam.	140
Length	299.5
Max Object Diam. From Side	Object height 5 mm 10 mm 25 mm 45 mm 60 mm 75 mm
Max Object Diam. From Side + Top	Object height 85 mm 72 mm 40 mm 10 mm 15 mm 5 mm
Mount	C-Mount

# Macro Lenses

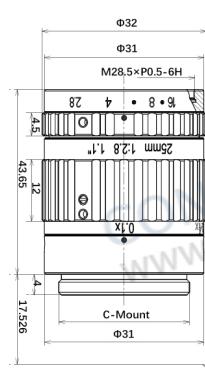
## VT-MC1628



EFL (mm)	16
F.NO (F/#)	F2.8-16(±10%)
FFL (mm)	17.526
O/I	115.5-606.9 mm
TV Distortion	<0.33%

WD (mm)	Mag. (x)	FOV(mm)					
		1.1"(Ø17.6)		1"(Ø16)		2/3"(Ø11)	
H	V	H	V	H	V	H	V
52	-0.25	56.6	42	51.2	38.4	35.2	26.4
66	-0.2	66.4	50	62.4	46.8	42.9	32
94	-0.15	92.8	70	84	63	58	43.5
152	-0.10	142	106	144	108	89	66.8
321	-0.05	284	213	260	195	179	134
546	-0.03	474	356	433	325	299	224

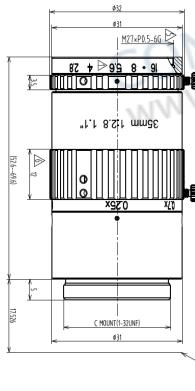
## VT-MC2528



EFL (mm)	25
F.NO (F/#)	F2.8-16(±10%)
FFL (mm)	17.526
O/I	126-314.1 mm
TV Distortion	<0.07%

WD (mm)	Mag. (x)	FOV(mm)					
		1.1"(Ø17.6)		1"(Ø16)		2/3"(Ø11)	
H	V	H	V	H	V	H	V
65	-0.4	35	26	32	24	22	16.5
74.4	-0.35	40	30	35.6	27.4	25	18.8
85.4	-0.3	47	35	42.6	32	29	22
103.4	-0.25	56	42	51	38	35	26
125.4	-0.2	70	52.8	64	48	44	33
173.4	-0.15	93	70	85	64	58.6	44
260.4	-0.1	140	105	128	96	88	66

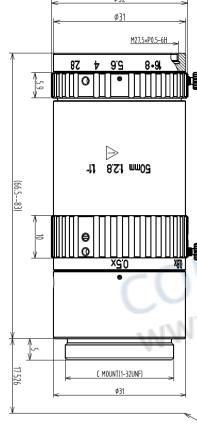
## VT-MC3528



EFL (mm)	35
F.NO (F/#)	F2.8-16(±10%)
FFL (mm)	17.526
O/I	145.3-220.6 mm
TV Distortion	<0.05%

WD (mm)	Mag. (x)	FOV(mm)					
		1.1"(Ø17.6)		1"(Ø16)		2/3"(Ø11)	
H	V	H	V	H	V	H	V
59	-0.7	20.1	15	18.2	13.7	12.6	9.5
63	-0.65	21.6	16.2	19.6	14.7	13.6	10.2
67	-0.6	23.4	17.6	21.3	16	14.8	11.1
73	-0.55	25.6	19.2	23.2	17.4	16.1	12.1
78	-0.5	28.1	21.1	25.6	19.2	17.6	13.3
87	-0.45	31.2	23.4	28.4	21.3	19.7	14.8
97	-0.4	35.2	26.4	32	24	22.2	16.6
110	-0.35	40.2	30.1	36.5	27.4	25.3	19
125	-0.3	46.9	35.2	42.6	32	29.6	22.2
150	-0.25	56.3	42.2	55.6	41.7	38.6	28.9

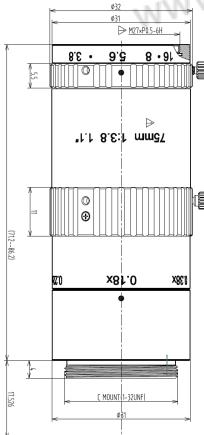
## VT-MC5028



EFL (mm)	50
F.NO (F/#)	F2.8-16(±10%)
FFL (mm)	17.526
O/I	195.6-220.1 mm
TV Distortion	<0.05%

WD (mm)	Mag. (x)	FOV(mm)					
		1.1"(Ø17.6)		1"(Ø16)		2/3"(Ø11)	
H	V	H	V	H	V	H	V
95.4	-0.8	17.5	13	15.9	11.9	11	8.2
99.4	-0.75	18.6	14	16.9	12.7	11.7	8.8
103.4	-0.7	20	15	18.2	13.6	12.6	9.4
109.4	-0.65	21.5	16.1	19.6	14.7	13.6	10.2
115.4	-0.6	23.3	17.6	21.2	15.9	14.7	11
123.4	-0.55	25.5	19.1	23.1	17.3	16	12
132.4	-0.5	28	21	25.4	19	17.6	13.2

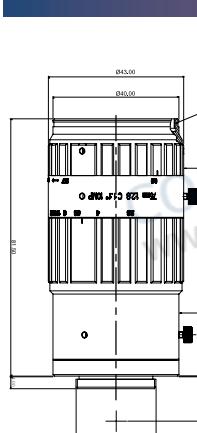
## VT-MC7538



EFL (mm)	75
F.NO (F/#)	F3 .8-16(±10%)
FFL (mm)	17.526
O/I	357-557 mm
TV Distortion	<0.05%

WD (mm)	Mag. (x)	FOV(mm)					
		1.1"(Ø17.6)		1"(Ø16)		2/3"(Ø11)	
H	V	H	V	H	V	H	V
257	-0.38	30.75	27.78	33.68	25.26	23.15	17.36
282	-0.337	41.78	31.33	37.98	28.48	26.11	19.58
307	-0.302	46.62	34.96	42.38	31.78	29.13	21.85
332	-0.274	51.38	38.54	46.71	35.03	32.11	24.08
357	-0.25	56.32	42.24	51.2	38.4	35.2	26.4
382	-0.231	60.95	45.71	55.41	41.55	38.09	28.57
407	-0.214	65.79	45.71	59.81	44.85	41.12	30.84
432	-0.2	70.4	52.8	64	48	44	33
457	-0.186	75.69	56.77	68.81	51.61	47.31	35.48
471	-0.18	78.22	58.66	71.11	53.33	48.88	36.66

## VT-MC7526



EFL (mm)	75
F.NO (F/#)	F2.6
FFL (mm)	15.76
O/I	357-557 mm
TV Distortion	<0.05%

WD (mm)	Mag. (x)	FOV(mm)					
		1.1"(Ø17.6)		1"(Ø16)		2/3"(Ø11)	
H	V	H	V	H	V	H	V
1800	-0.059	238.6	179.0	216.9	162.7	149.2	111.9
1500	-0.071	198.3	148.7	180.3	135.2	123.9	93.0
1200	-0.09	156.4	117.3	142.2	106.7	97.8	73.3
900	-0.122	115.4	86.6	104.9	78.7	72.1	54.1
600	-0.189	74.5	55.9	67.7	50.8	46.6	34.9
300	-0.425	33.1	24.8	30.1	22.6	20.7	15.5
100	-2.520	5.6	4.2	5.1	3.8	3.5	2.6

# Fisheye Lenses

VT-LEN02321FE

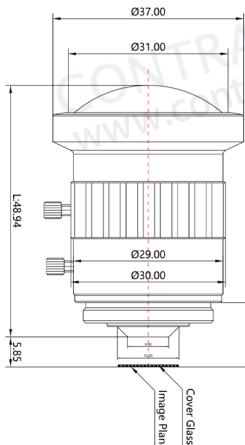


Image Size (inch)	2/3"
EFL (mm)	2.3
Aperture, F/#	F2.1-21
Resolution	8MP
D*H*V	190°x 190°x 190°
Distortion(OPT)	-97%
BFL (mm)	12.53
M.O.D	0.3m~∞
Filter Size	-
Focusing Method	Manual
Iris Type	Manual
Mount	CS-Mount
Weight	81g
Dimension	Φ37x48.94mm
Operating Temperature	-20~+85°C

VT-LEN03324FE-H1

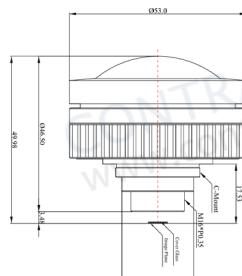


Image Size (inch)	1"
EFL (mm)	3.3
Aperture, F/#	F2.4
Resolution	20MP
D*H*V	190°x 190°x /°
Distortion	0%-F-∞
BFL (mm)	4.90
M.O.D	0.1m~∞
Filter Size	-
Focusing Method	Manual
Iris Type	Fixed
Mount	C-Mount
Weight	145g
Dimension	Φ53x46.5mm
Operating Temperature	-25~+85°C

VT-LEN03514FE

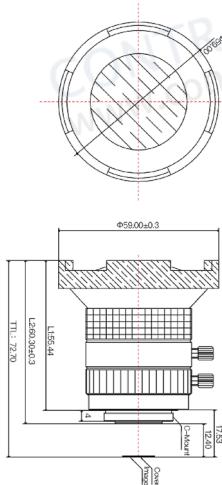


Image Size (inch)	2/3"(Φ11.2mm)
EFL (mm)	3.5
Aperture, F/#	F1.4
Resolution	5MP
F.O.V (D)	Φ11/152°
TV Distortion	<-37%
BFL (mm)	17.53
M.O.D	0.1m~∞
Filter Size	-
Focusing Method	Manual
Iris Type	Manual
Mount	C/CS-Mount
Weight	200g
Dimension	Φ59x60.3mm
Operating Temperature	-20~+85°C

VT-LEN04618FE

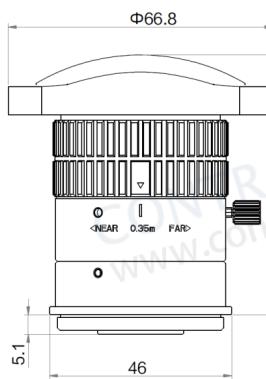


Image Size	Φ14.2mm (0.9" )
EFL (mm)	4.6
Aperture, F/#	F1.8
FOV(°)	2K7μm(14.2mm):183°
Distortion(TV)	-2.0%
FBL (mm)	12
Working Distance	0.2m
Filter Size	-
Focusing Method	Manual
Iris Type	Fixed
Mount	M42XP1
Weight	247g
Dimension	Φ66.8x66.2mm
Operating Temperature	-10~+50°C

VT-LEN04922FE-C

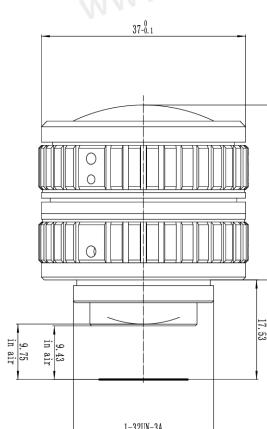


Image Size	Φ14.2mm (180° )
EFL (mm)	4.9
Aperture, F/#	F2.2±0.15
FOV(°)	180°x150.2°x118°
Distortion(TV)	-97%
FBL (mm)	17.53
Working Distance	0.1m~∞
Filter Size	-
Focusing Method	Manual
Iris Type	Fixed
Mount	C-Mount
CAR	≤9.9°
Dimension	Φ37x38.9mm
Operating Temperature	-20~+55°C

## IR Corrected Lenses

**VT-VIRLEN0815MP3**

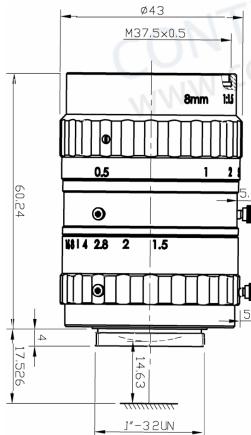


Image Size (inch)	1/1.2"
Resolution	3MP
EFL(mm)	8
Aperture, F/#	F1.5
D*H*V	90.2°x 71°x 54.6°
Optical Distortion	<-20%
CRA	6.79°
BFL (mm)	14.63
Design Wavelength	400-1000nm
Relative illuminatio	31%
IR Correction	Yes
Mount	C-Mount
Dimension	Φ43x60.24mm
Filter Thread	M37.5X0.5
Operating Temperature	-20°C~+65°C

**VT-VIRLEN2518MP5-H1**

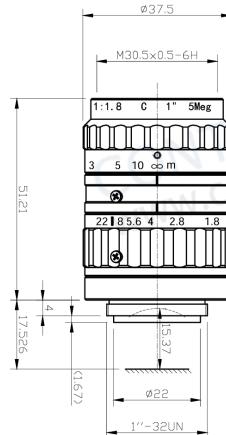


Image Size (inch)	1"
Resolution	5MP(150lp/mm)
EFL(mm)	25
Aperture, F/#	F1.8
D*H*V	34.8°x28°x21.2°
Optical Distortion	<-0.8%
CRA	12.05°
BFL (mm)	15.37
Design Wavelength	400-1000nm
Relative illuminatio	50%
IR Correction	Yes
Mount	C-Mount
Dimension	Φ37.5x51.21mm
Filter Thread	M30.5X0.5
Operating Temperature	-20°C~+65°C

**VT-VIRLEN3520MP5-H1**

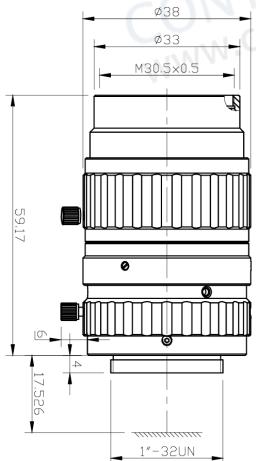


Image Size (inch)	1"
Resolution	5MP(100lp/mm)
EFL(mm)	35
Aperture, F/#	F2.0
D*H*V	26.03°x20.7°x15.45°
Optical Distortion	<-3.4%
CRA	11.68°
BFL (mm)	19.59
Design Wavelength	400-1000nm
Relative illuminatio	67%
IR Correction	Yes
Mount	C-Mount
Dimension	Φ38x59.17mm
Filter Thread	M30.5X0.5
Operating Temperature	-20°C~+65°C

**VT-VIRLEN5028MP5-H1**

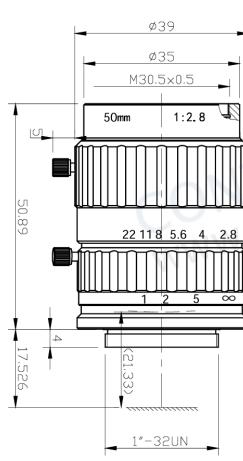


Image Size (inch)	1"
Resolution	5MP
EFL(mm)	50
Aperture, F/#	F2.8
D*H*V	18.4°x14.62°x11°
Optical Distortion	<0.26%
CRA	11.20°
BFL (mm)	21.33
Design Wavelength	400-1000nm
Relative illuminatio	55.55%
IR Correction	Yes
Mount	C-Mount
Dimension	Φ39x50.89mm
Filter Thread	M30.5X0.5
Operating Temperature	-20°C~+65°C

**VT-VIRLEN0821MP8-H1**

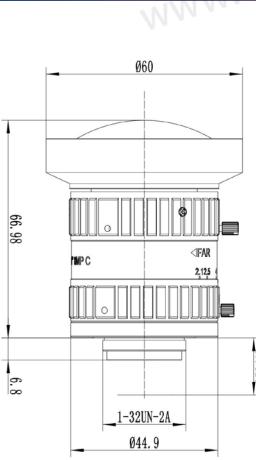


Image Size (inch)	1"
Resolution	8MP
EFL (mm)	8±5%
Aperture, F/#	F2.1±10%
Lens composition	12G
D*H*V	93.9°x 86.9°x 50.9°
Optical Distortion	< -8.1%
CRA	3.26°
FBL(mm)	17.526 (in air)
BFL(mm)	11.5 (in air)
Relative illuminatio	40%@ Φ16.1mm
IR Correction	Yes
Mount	C-Mount
Dimension	Φ60x66.98mm
Temperature Range	-30~+70°C

**VT-VIRLEN1214MP12-H1**

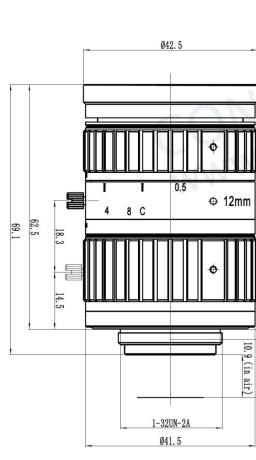


Image Size (inch)	1"
Resolution	12MP
EFL (mm)	12
Aperture, F/#	F1.4 (Iris Manual)
D*H*V	68.2°x 61.7°x 34.4°
Optical Distortion	-3.65% (MAX)
CRA	≤16°
M.O.D.	0.5m
FBL(mm)	17.526 (in air)
BFL(mm)	14.9 (in air)
MBF(mm)	10.9 (in air)
IR Correction	Yes
Mount	C-Mount
Dimension	Φ42.5x69.1mm
Temperature Range	-30~+70°C

## VT-VIRLEN1614MP12-H1

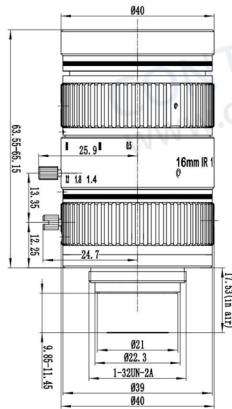


Image Size (inch)	1"
Resolution	12MP
EFL (mm)	16
Aperture, F/#	F1.4 (Iris Manual)
D*H*V	55.6°x 45.3°x 34.3°
Optical Distortion	-3.95%
M.O.D.	0.3m
FBL(mm)	17.53(in air)
BFL(mm)	13.76 (in air)
MBF(mm)	9.85-11.45 (in air)
IR Correction	Yes
Mount	C-Mount
Dimension	Ø40x63.55-65.15mm
Temperature Range	-30~+70°C

## VT-VIRLEN1616MP10-H1

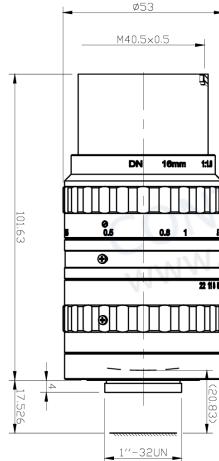


Image Size (inch)	1"
Resolution	10MP(120 lp/mm)
EFL (mm)	16
Aperture, F/#	F1.6
D*H*V	52.38°x42.49°x32.21°
Optical Distortion	<-3.56%
CRA	7.4°
BFL (mm)	20.83
Design Wavelength	400-850nm
Relative illuminatio	76.7%
IR Correction	Yes
Mount	C-Mount
Dimension	Ø53x101.63mm
Filter Thread	M40.5X0.5
Operating Temperature	-20°C~+65°C

## VT-VIRLEN2012MP10-H1

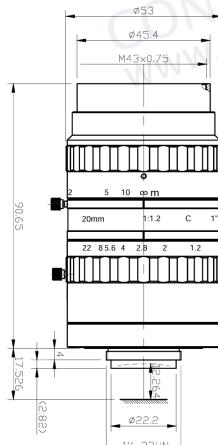


Image Size (inch)	1"
Resolution	10MP
EFL(mm)	20
Aperture, F/#	F1.2
D*H*V	45.4°x 33.18°x 26.2°
Optical Distortion	<-4.0%
CRA	5.48°
BFL (mm)	12.26
Design Wavelength	400-1000nm
Relative illuminatio	42%
IR Correction	Yes
Mount	C-Mount
Dimension	Ø53x90.65mm
Filter Thread	M43X0.75
Operating Temperature	-20°C~+65°C

## VT-VIRLEN2512MP10-H1

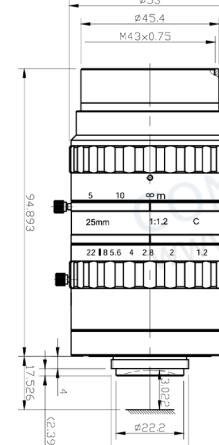


Image Size (inch)	1"
Resolution	10MP
EFL(mm)	25
Aperture, F/#	F1.2
D*H*V	36.4°x 27.68°x 18.36°
Optical Distortion	<-2.5%
CRA	8.51°
BFL (mm)	13.02
Design Wavelength	400-1000nm
Relative illuminatio	46%
IR Correction	Yes
Mount	C-Mount
Dimension	Ø53x94.89mm
Filter Thread	M43X0.75
Operating Temperature	-20°C~+65°C

## VT-VIRLEN3512MP10-H1

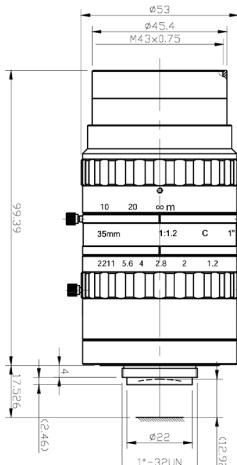


Image Size (inch)	1"
Resolution	10MP
EFL(mm)	35
Aperture, F/#	F1.2
D*H*V	26°x 20.96°x 15.72°
Optical Distortion	<-2.2%
CRA	16.47°
BFL (mm)	12.92
Design Wavelength	400-1000nm
Relative illuminatio	37%
IR Correction	Yes
Mount	C-Mount
Dimension	Ø53x99.39mm
Filter Thread	M43X0.75
Operating Temperature	-20°C~+65°C

## VT-VIRLEN2514MP12-H1.1

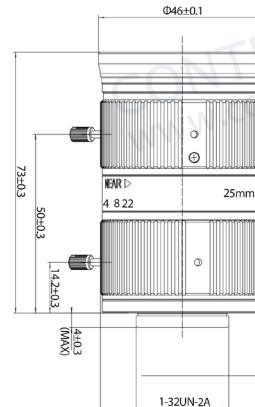


Image Size (inch)	1.1"
EFL (mm)	25±5%
Aperture, F/#	F1.4±10%
M.O.D.	1.5m
FOV(°)	40.8°x33.4°x22.7°
Distortion(TV)	<-6.2% (y=8.8mm)
FBL(mm)	17.526(in air)
BFL(mm)	18.96 (in air)
MBF(mm)	13.526(in air)
Resolution	12 MP
Design Wavelength	420-850nm
IR Correction	YES
Mount	C-Mount
Temperature Range	-30°C~+70°C
Weight	-

### VT-VIRLEN3514MP12-H1.1

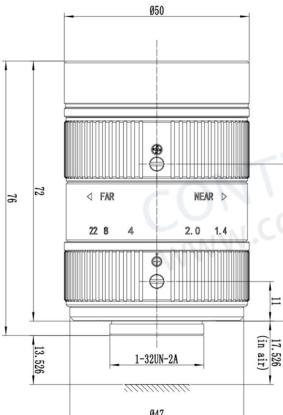


Image Size (inch)	1.1"
Resolution	12MP
EFL (mm)	35±5%
Aperture, F/#	F1.4 ±10% (Iris Manual)
D*H*V	29.5°x 23.7°x 17.3°
Optical Distortion	-3.05%
CRA	8.6°
M.O.D.	3m
FBL(mm)	17.526 (in air)
BFL(mm)	21.14 (in air)
MBF(mm)	13.526 (in air)
IR Correction	Yes
Mount	C-Mount
Dimension	Φ50x76mm
Operating temperature	-30~+70° C

### VT-VIRLEN5015MP12-H1.1

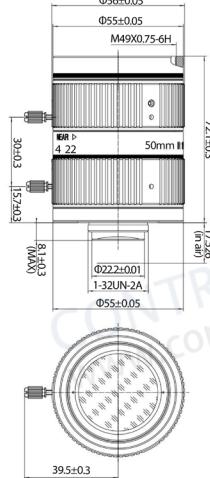


Image Size (inch)	1.1"
EFL (mm)	50±5%
Aperture, F/#	F1.5±10%
M.O.D.	1m
FOV(°)	19.1°x 13.6°x 13.3°
Distortion(TV)	<-2.13% @ φ17.6mm
FBL(mm)	17.526±0.5
BFL(mm)	11.453 (in air)
MBF(mm)	9.872 (in air)
Resolution	12 MP
Design Wavelength	420-850nm
IR Correction	YES
Mount	C-Mount
Temperature Range	-30°C~+70°C
Weight	335±5g

### VT-VIRLEN1616MP10-H2

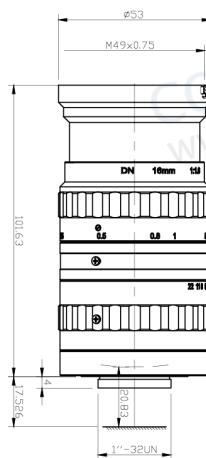


Image Size (inch)	4/3"
Resolution	10MP
EFL(mm)	16
Aperture, F/#	F1.6
D*H*V	66.26°x 56.04°x 43.7°
Optical Distortion	<-5.63%
CRA	7.49°
BFL (mm)	20.83
Design Wavelength	400-850nm
Relative illuminatio	45.3%
IR Correction	Yes
Mount	C-Mount
Dimension	Φ53x101.63mm
Filter Thread	M49X0.75
Operating Temperature	-20°C~+65°C

### VT-VIRLEN2516MP10-H2

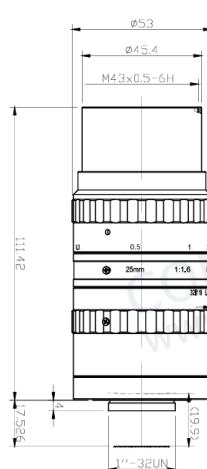


Image Size (inch)	4/3"
Resolution	10MP
EFL(mm)	25
Aperture, F/#	F1.6
D*H*V	48.15°x 38.91°x 29.39°
Optical Distortion	<-3.54%
CRA	6.8°
BFL(mm)	19.9
Design Wavelength	400-850nm
Relative illuminatio	49.9%
IR Correction	Yes
Mount	C-Mount
Dimension	Φ53x111.42mm
Filter Thread	M43X0.75
Operating Temperature	-20°C~+65°C

### VT-VIRLEN2514MP8-H2

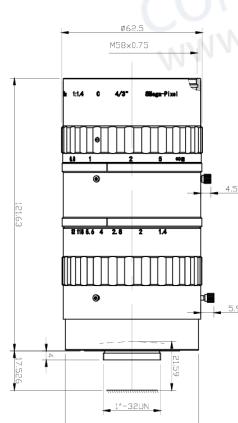
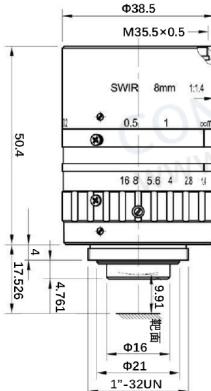


Image Size (inch)	4/3"
Resolution	8MP
EFL(mm)	25
Aperture, F/#	F1.4-32
D*H*V	48.15°x 39.74°x 30.02°
Optical Distortion	<-3.5%
CRA	6.8°
BFL (mm)	21.59
Design Wavelength	400-850nm
Relative illuminatio	50%
IR Correction	Yes
Mount	C-Mount
Dimension	Φ62.5x121.63mm
Filter Thread	M58X0.75
Operating Temperature	-20°C~+65°C

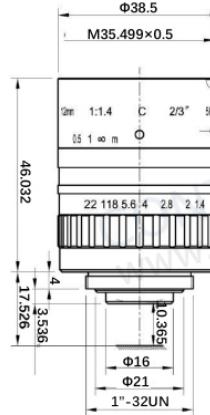
# SWIR Lenses

## VT-LEM0814SWIR



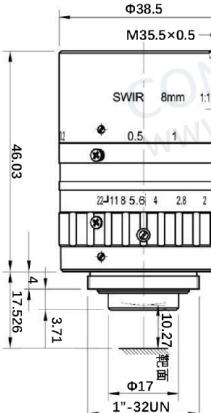
EFL (mm)	8.5
Aperture (F/#)	F1.4
Sensor Size	2/3"
FOV (D/H/V)	61°/54.8°/42.8°
BFL (mm)	9.91
TTL (mm)	65
Front/Rear Effective Dia. (mm)	Front : Ø24.9 Rear : Ø8.54
Max. CRA	16.38°
Iris	Manual
Distortion	<-1.2%
Filter Screw Size	M35.5×P0.5
Dimension (mm)	Ø38.5×50.4
Mount	C-Mount
Resolution	60lp/mm

## VT-LEM1214SWIR



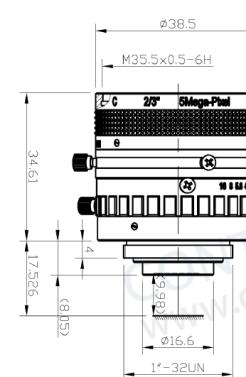
EFL (mm)	12.5
Aperture (F/#)	F1.4
Sensor Size	2/3"
FOV (D/H/V)	46.8°/38.2°/29.2°
BFL (mm)	10.4
TTL (mm)	60.5
Front/Rear Effective Dia. (mm)	Front : Ø20.44 Rear : Ø8.63
Max. CRA	16.44°
Iris	Manual
Distortion	<-0.4%
Filter Screw Size	M35.5×P0.5
Dimension (mm)	Ø38.5×64.032 mm
Mount	C-Mount
Resolution	40lp/mm

## VT-LEM1614SWIR



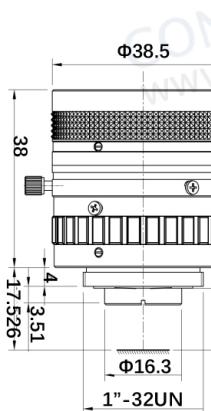
EFL (mm)	16.3
Aperture (F/#)	F1.4
Sensor Size	2/3"
FOV (D/H/V)	36.6°/29.6°/22.4°
BFL (mm)	10.27
TTL (mm)	59.2
Front/Rear Effective Dia. (mm)	Front : Ø19.35; Rear : Ø9.43
Max. CRA	15.59°
Iris	Manual
Distortion	<-0.4%
Filter Screw Size	M35.5×P0.5
Dimension (mm)	Ø38.5×46.03 mm
Mount	C-Mount
Resolution	40lp/mm

## VT-LEM2514SWIR



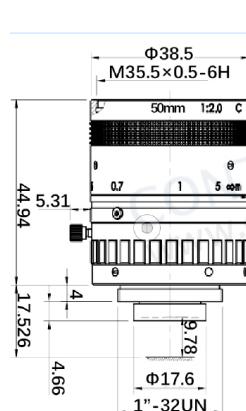
EFL (mm)	25.9
Aperture (F/#)	F1.4
Sensor Size	2/3"
FOV (D/H/V)	23.6°/19°/14.4°
BFL (mm)	9.98
TTL (mm)	38.3
Front/Rear Effective Dia. (mm)	Front : Ø18.6 Rear : Ø9.55
Max. CRA	14.32°
Iris	Manual
Distortion	<-0.5%
Filter Screw Size	M35.5×P0.5
Dimension (mm)	Ø38.5×34.61 mm
Mount	C-Mount
Resolution	60lp/mm

## VT-LEM3514SWIR



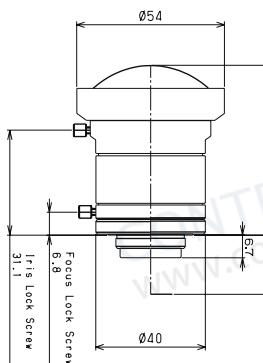
EFL (mm)	35
Aperture (F/#)	F1.4
Sensor Size	2/3"
FOV (D/H/V)	17.44°/13.99°/10.51°
BFL (mm)	13.09
TTL (mm)	46.6
Front/Rear Effective Dia. (mm)	Front : Ø22.20 Rear : Ø11.20
Max. CRA	10.85°
Iris	Manual
Distortion	<0.03%
Filter Screw Size	M35.5×P0.5
Dimension (mm)	Ø38.5×38 mm
Mount	C-Mount
Resolution	50lp/mm

## VT-LEM5020SWIR



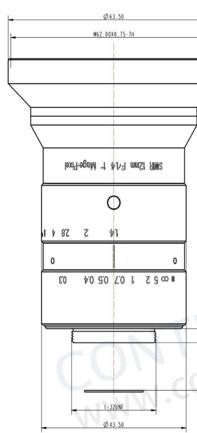
EFL (mm)	50
Aperture (F/#)	F2.0
Sensor Size	2/3"
FOV (D/H/V)	12.36°/9.92°/7.45°
BFL (mm)	9.78
TTL (mm)	55.9
Front/Rear Effective Dia. (mm)	Front : Ø24.09 Rear : Ø12.55
Max. CRA	5.42°
Iris	Manual
Distortion	<-0.16%
Filter Screw Size	M35.5×P0.5
Dimension (mm)	Ø38.5×44.94 mm
Mount	C-Mount
Resolution	30lp/mm

### VT-LEM0618SWIR-H1



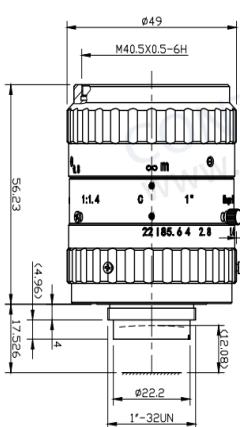
EFL (mm)	6
Aperture (F/#)	F1.8-F22
Sensor Size	1"
FOV (D/H/V)	104.6°/95.1°/78.7°
Minimum Object Distance	0.1m
BFL (mm)	11.5 (in air)
TV Distortion	-0.7% (at far)
Iris	Manual
FBL (mm)	17.526
Size	Ø54x50.3mm
Mount	C-Mount
Resolution	6.4μm

### VT-LEM1214SWIR-H1



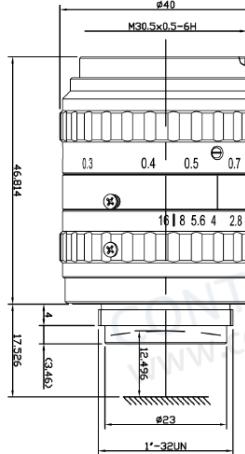
EFL (mm)	12.25
Aperture (F/#)	F1.4-22
Sensor Size	1"
FOV (D/H/V)	66.83°/54.58°/44.10°
BFL (mm)	15.08
TTL (mm)	93.1
M.O.D	300mm
Max. CRA	8.1°
Iris	Manual
Distortion	-2.88%
Filter Screw Size	M62X0.75-7H
Focus Rang	300mm~∞
Mount	C-Mount
Resolution	5MP

### VT-LEM2514SWIR-H1



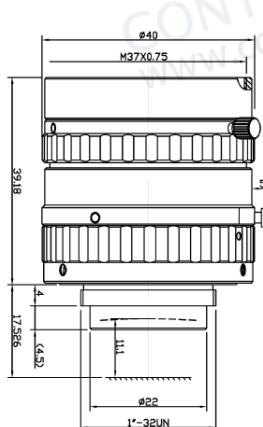
EFL (mm)	25
Aperture (F/#)	F1.49
Sensor Size	1"
FOV (D/H/V)	36°/27.8°/21°
BFL (mm)	12.08
TTL (mm)	65.5
Front/Rear Effective Dia. (mm)	Front : Ø29.54 Rear : Ø19.5
Max. CRA	4.16°
Iris	Manual
Distortion	<-0.15%
Filter Screw Size	M40xP0.5
Dimension (mm)	Ø49x56.23 mm
Mount	C-Mount
Resolution	40lp/mm

### VT-LEM2518SWIR-H1



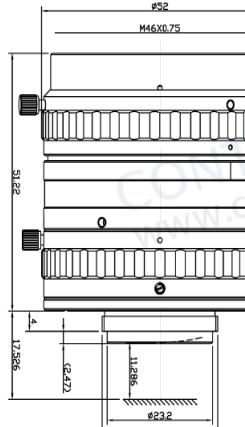
EFL (mm)	25
Aperture (F/#)	F1.8
Sensor Size	1"
FOV (D/H/V)	35.49°/28.5°/21.74°
BFL (mm)	13.09
TTL (mm)	59.639
Front/Rear Effective Dia. (mm)	Front : Ø24.19 Rear : Ø19.76
Max. CRA	0.65°
Iris	Manual
Distortion	<-0.5%
Filter Screw Size	M30.5xP0.5
Dimension (mm)	Ø40x46.81 mm
Mount	C-Mount
Resolution	100lp/mm

### VT-LEM3514SWIR-H1



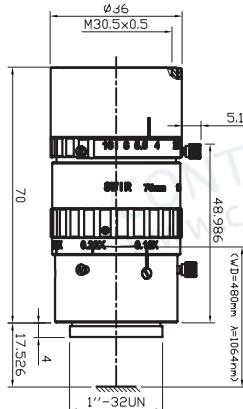
EFL (mm)	35
Aperture (F/#)	F1.4
Sensor Size	1"
FOV (D/H/V)	31.2°/25.4°/18.7°
BFL (mm)	11.1
TTL (mm)	54.01
Front/Rear Effective Dia. (mm)	Front : Ø28.64 Rear : Ø15.62
Max. CRA	0.65°
Iris	Manual
Distortion	<0.1%
Filter Screw Size	M37xP0.75
Dimension (mm)	Ø40x39.18 mm
Mount	C-Mount
Resolution	50lp/mm

### VT-LEM5014SWIR-H1



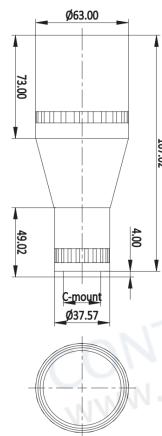
EFL (mm)	50
Aperture (F/#)	F1.4
Sensor Size	1"
FOV (D/H/V)	18.18°/14.48°/10.97°
BFL (mm)	11.29
TTL (mm)	65.99
Front/Rear Effective Dia. (mm)	Front : Ø36.12 Rear : Ø16.12
Max. CRA	12.66°
Iris	Manual
Distortion	<0.05%
Filter Screw Size	M46xP0.75
Dimension (mm)	Ø52x51.22 mm
Mount	C-Mount
Resolution	50lp/mm

## VT-LEM7525SWIR-H1



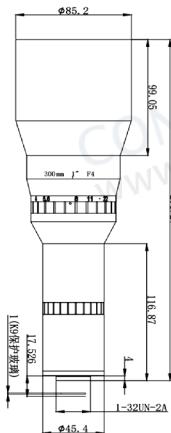
EFL (mm)	75
Aperture (F/#)	F2.5
Sensor Size	1"
FOV (D/H/V)	9.08°/7.26°/5.45°
BFL (mm)	38.875
TTL (mm)	95
Front/Rear Effective Dia. (mm)	Front: Ø22.4 Rear: Ø10.9
Max. CRA	-
Iris	Manual
Wavelength	900-1700nm
Distortion	<0.32%
Filter Screw Size	M30.5x0.5
Dimension (mm)	Ø36x70 mm
Mount	C-Mount
Resolution	90lp/mm

## VT-LEM20040SWIR-H1



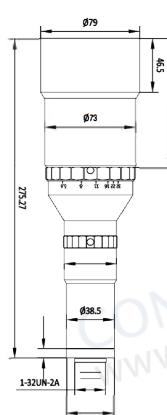
EFL (mm)	200
Aperture (F/#)	F4-F22
Sensor Size	1"(16mm)
Working Distance	10m~∞
FOV (D/H/V)	4.57°x3.66°x2.75°
BFL (mm)	48.7
TTL (mm)	180
Iris	Manual
Wavelength	900-1700nm
Distortion	0.3%@y=8mm
Filter Screw Size	M60x0.5mm
Dimension (mm)	Ø63x170
Mount	C-Mount
Object Size[in M.O.D]	800x640x480mm

## VT-LEM30040SWIR-H1



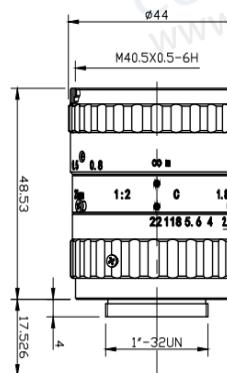
EFL (mm)	300
Aperture (F/#)	F4-F22
Sensor Size	1"(16mm)
Working Distance	10m~∞
FOV (D/H/V)	3.06°x2.44°x1.83°
BFL (mm)	81.02
TTL (mm)	300
Iris	Manual
Wavelength	400-1700nm
Distortion	0.06%@y=8mm
Filter Screw Size	M82x0.75mm
Dimension (mm)	Ø85.2x292
Mount	C-Mount
Object Size[in M.O.D]	535x428x321 mm

## VT-LEM40056SWIR-H1



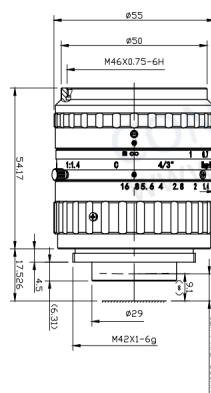
EFL (mm)	400
Aperture (F/#)	F5.6
Sensor Size	1"(16mm)
Working Distance	20m~∞
FOV (D/H/V)	2.29°X1.83°X1.37°
BFL (mm)	106.6
TTL (mm)	290
Iris	Manual
Wavelength	900-1700nm
Distortion	0.28%
Filter Screw Size	/
Dimension (mm)	Ø33.5x58
Mount	C-Mount
Object Size[in M.O.D]	805.1x644.1x483.1mm

## VT-LEM2520SWIR-H2



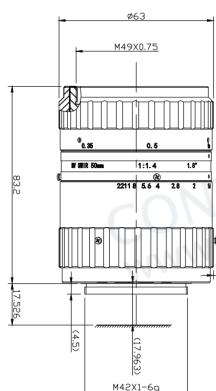
EFL (mm)	25
Aperture (F/#)	F2.0
Sensor Size	28 mm
FOV (D/H/V)	48.04°/39.19°/29.8°
BFL (mm)	15.07 mm
TTL (mm)	64 mm
Front/Rear Effective Dia. (mm)	Front : Ø27.37 Rear : Ø16.37
Max. CRA	25.05°
Iris	Manual
Distortion	<-2.3%
Filter Screw Size	M40.5xP0.5
Dimension (mm)	Ø44x48.53
Mount	C-Mount
Resolution	40lp/mm

## VT-LEM3514SWIR-H2



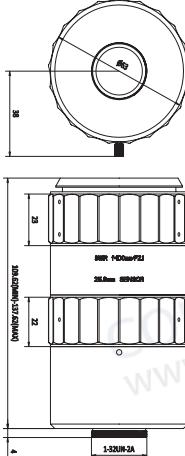
EFL (mm)	35
Aperture (F/#)	F1.4
Sensor Size	4/3"
FOV (D/H/V)	31.2°/25.4°/18.7°
BFL (mm)	9.1
TTL (mm)	67
Front/Rear Effective Dia. (mm)	Front : Ø34.13 Rear : Ø20.91
Max. CRA	15.64°
Iris	Manual
Distortion	<-0.4%
Filter Screw Size	M46xP0.75
Dimension (mm)	Ø55x54.17
Mount	M42
Resolution	60lp/mm

## VT-LEM5014SWIR-H2



EFL (mm)	50
Aperture (F/#)	F1.4
Sensor Size	28.6 mm
FOV (D/H/V)	23.18°/18.66°/14.05°
BFL (mm)	17.96
TTL (mm)	101
Front/Rear Effective Dia. (mm)	Front : Ø42.91 Rear : Ø30.16
Max. CRA	10.67°
Iris	Manual
Distortion	<-0.22%
Filter Screw Size	M49xP0.75
Dimension (mm)	Ø63x83.2
Mount	M42 x 1
Resolution	90lp/mm

## VT-LEM10021SWIR-H2



EFL (mm)	100
Aperture (F/#)	F2.1-22
Sensor Size	25.6 mm
	25.6mm 14.33°/11.52°/8.72°
FOV (D/H/V)	4/3" 11.96°/9.68°/7.26°
	1" 9.08°/7.30°/5.50°
	1/2" 4.58°/3.64°/2.80°
BFL (mm)	25.485
Focusing Range	0.4m-∞
	25.6mm 109.44/87.55/65.66mm
Object Size[in M.O.D]	4/3" 90.84x72.67x54.50mm
	1" 68.10x54.48x40.86mm
	1/2" 34.00x27.20x20.40mm
Wavelength	800-1700nm
Iris	Manual
	25.6mm 0.17%@y=12.8mm
Distortion	4/3" 0.12%@y=11.5mm
	1" 0.068%@y=8mm
	1/2" 0.018%@y=4mm
Filter Screw Size	M49xP0.75
Size	Ø69.5x141.62 mm
Mount	M42/C/F-Mount

## VT-LEM1616022SWIR-H1

EFL (mm)	16 - 160
Aperture (F/#)	F2.2-Close
Sensor Size	1"(16mm)
Field of View	43.6 X 33.4 °. at 16mm 4.6 X 3.4 °. at 160mm
BFL (mm)	18.6(In Air)
FBL (mm)	17.526
Iris	Motorized
Focus	Motorized
Zoom	Motorized
Zoom Ratio	10X
M.O.D	1.1m(From Front Vertex)
Wavelength	900-1700nm
Filter Screw Size	M77x0.75mm
Dimension (mm)	117X100X176mm
Mount	C-Mount

## VT-LEM2036060SWIR

EFL (mm)	20 - 360
Aperture (F/#)	F6-10
Sensor Size	12.3 mm
Field of View	20.3X15.1°. at 20mm 1.1X 0.84 °. at 360mm
Image Format :	7.2X5.4mm(D9mm)
FBL (mm)	17.526
Zoom Ratio	18X
M.O.D	15m(From Front Vertex)
Wavelength	400-1700nm
Dimension (mm)	93X92X196mm
Iris	-
Focus	Motorized
Zoom	Motorized
Mount	C-Mount

## VT-LEM2050036SWIR

EFL (mm)	20- 500
Aperture (F/#)	F3.6-Close
Sensor Size	1/1.8"
Field of View	18.9 X 14.2°. at 20mm 0.84 X 0.63°. at 500mm
Iris	Motorized
Focus	Motorized
Zoom	Motorized
FBL (mm)	17.526
Zoom Ratio	37.5X
M.O.D	4m(From Front Vertex)
Wavelength	900-1700nm
Dimension (mm)	120X120.5X306.8
Mount	C-Mount

## VT-LEM2075036SWIR

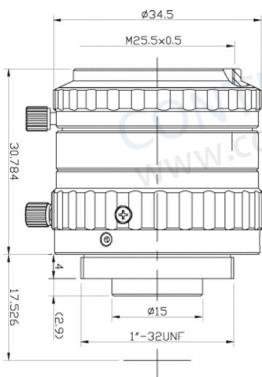
EFL (mm)	20- 750
Aperture (F/#)	F3.6-Close
Sensor Size	1/1.8"
Field of View	18.9 X 14.2°. at 20mm 0.6 X 0.4°. at 750mm
Iris	Motorized
Focus	Motorized
Zoom	Motorized
FBL (mm)	17.526
Zoom Ratio	37.5X
M.O.D	4m(From Front Vertex)
Wavelength	900-1700nm
Dimension (mm)	120X120.5X306.8
Mount	C-Mount

## VT-LEM25120048SWIR

EFL (mm)	25 - 1200
Aperture (F/#)	F4.8 - 10
Sensor Size	12.3 mm
Field of View	16.4 X 9.2°. at 25mm 0.34 X 0.2°. at 1200mm
Iris	Fixed
Focus	Motorized
Zoom	Motorized
FBL (mm)	17.526
Zoom Ratio	48X
Working Distance	15m~∞
Wavelength	400-1700nm
Dimension (mm)	178X139X429mm
Mount	C-Mount

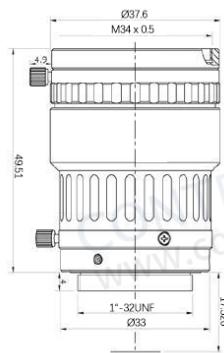
## UV Lenses

### VT-LEN2528UV



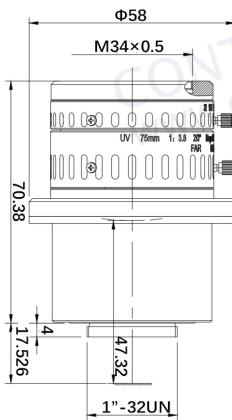
EFL (mm)	25
Resolution	100lp/mm (2MP)
Aperture (F/#)	F2.8
Sensor Size	2/3"
FOV (D/H/V)	24.81°/15.04°/19.96°
BFL (mm)	12.45
Distortion	<0.4%
Focusing Range	∞ ~ 0.2m
Iris	Manual
Design Wavelength (nm)	200-1000
Filter Thread Size	M25.5 x 0.5
Dimension (mm)	Ø34.5 x 30.78
Mount	C-Mount

### VT-LEN5030UV



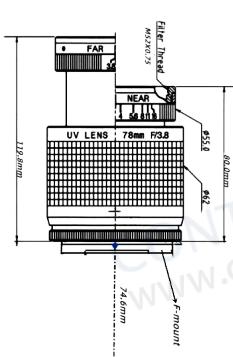
EFL (mm)	50
Resolution	100lp/mm (2MP)
Aperture (F/#)	F3.0
Sensor Size	2/3"
FOV (D/H/V)	12.55°/7.55°/10.06°
BFL (mm)	26.5
Distortion	<-0.08%
Focusing Range	∞ ~ 0.3m
Iris	Manual
Design Wavelength (nm)	200nm-1000nm
Filter Thread Size	M34 x 0.5
Dimension (mm)	Ø37.6 x 49.51
Mount	C-Mount

### VT-LEN7538UV



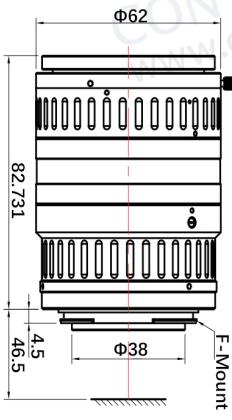
EFL (mm)	75
Resolution	100lp/mm (2MP)
Aperture (F/#)	F3.8
Sensor Size	2/3"
FOV (D/H/V)	8.38°/5.04°/6.72°
BFL (mm)	47.32
Distortion	<0.1%
Focusing Range	∞ ~ 0.5m
Iris	Manual
Design Wavelength (nm)	200-1000
Filter Thread Size	M34 x 0.5
Dimension (mm)	Ø40.2 x 70.38
Mount	C-Mount

### VT-LENF7838UV



EFL (mm)	78
Resolution	-
Aperture (F/#)	F3.8-16
Image Circle/mm	35mm
FOV (D/H/V)	15.05° x 12.29° x 9°
BFL (mm)	74.6
Distortion	<0.1%
Working Distance	0.22m- ∞
Iris	Manual
Design Wavelength (nm)	190-1000
Filter Thread Size	M52 x 0.75
Dimension (mm)	Φ 64 x 80
Mount	F-Mount

### VT-LENF8528UV

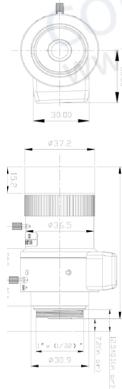


EFL (mm)	85
Resolution	65lp/mm
Aperture (F/#)	F2.8
Sensor Size	25 mm
FOV (D/H/V)	14.03°/11.28°/8.48°
BFL (mm)	43.34
Distortion	<0.1%
Focusing Range	-
Iris	Manual
Design Wavelength (nm)	-
Filter Thread Size	M55 x 0.75
Dimension (mm)	Ø62 x 82.73
Mount	F-Mount

# 1/3" -1" ZOOM Lenses

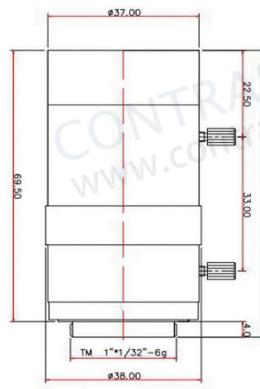
1. 1-12MP pixels.
2. Any focal length within the zoom range can be used for photography.
3. Arrange the picture composition more ideally before shooting.
4. High environmental adaptability, can work normally in the environment of -10°C ~ 50°C .

**VT-LEM0510016i-AI**



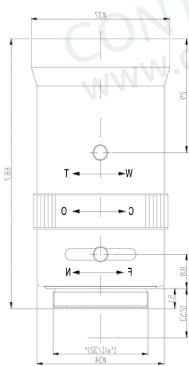
EFL (mm)	5-100
FNo.	F=1.6
Image Fromat	1/3"
F.O.V. (H)	52 ~ 2.8°
M.O.D. (m)	0.7
Lens-Mount	CS-Mount
Dimension Ø×L×W(mm)	Ø37.5 × 87.4 ×57.4
Weight (g)	164±5%
Focus	W / Locks
Operation	Zoom W / Locks
Iris	DC
Temperature	-10~+50°C

**VT-LEM055016**



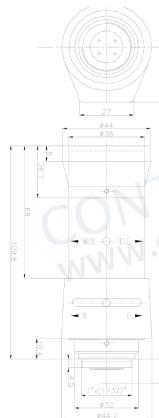
EFL (mm)	5-50
FNo.	F=1.6
Image Fromat	1/3" CCD/CMOS
F.O.V.	4.2 ~ 53.6°
M.O.D. (m)	0.3
BFL(mm)	8
Lens-Mount	CS-Mount
Dimension Ø×L(mm)	Ø36 × 74.5
Weight (g)	160
Operation	Zoom W / Locks
Iris	W / Locks
Temperature	-10~+50°C

**VT-LEM066016i**



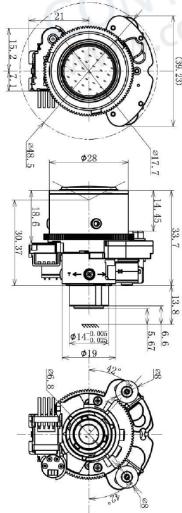
EFL (mm)	6-100
FNo.	F=1.6
Image Fromat	1/3" CCD/CMOS
F.O.V. (H)	44° ~ 4.58°
M.O.D. (m)	0.5
Lens-Mount	CS-Mount
Dimension Ø×L×W(mm)	Ø37 × 68.7 × 34
Weight (g)	118±3
Focus	W / Locks
Operation	Zoom W / Locks
Iris	Manual
Temperature	-10~+50°C

**VT-LEM10120016i-AT**



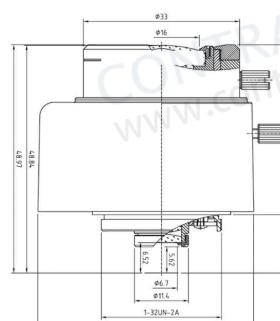
EFL (mm)	10-120
FNo.	F=1.6
Image Fromat	1/3" CCD/CMOS
F.O.V. (H)	27 ~ 2.3°
M.O.D. (m)	2
Resolution	1MP / IR
Lens-Mount	CS-Mount
Dimension Ø×L×W(mm)	Ø44 × 109.8 × 50.6
Weight (g)	210±2
Focus	W / Locks
Operation	Zoom W / Locks
Iris	Manual
Temperature	-10~+50°C

**VT-LEM0281016-AT**



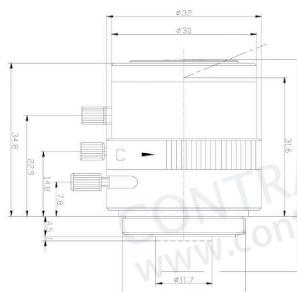
EFL (mm)	2.8-10
FNo.	F=1.6
Image Fromat	1/2.8" CCD/CMOS
F.O.V. (D/H/V)	D: 128° ~ 41° H: 97° ~ 33° V: 70° ~ 24.5°
M.O.D. (m)	0.5
Distortion	-51%W~-5.0%T
Resolution	1MP
TTL (mm)	49.04
BFL (mm)	6.23-12.79
Iris	P-Iris (ICR)
Lens-Mount	Ø14
Dimension Ø×L×W(mm)	Ø28×33.7×Ø48.5
Operation	Zoom
Temperature	-10~+50°C

**VT-LEM0281016i**



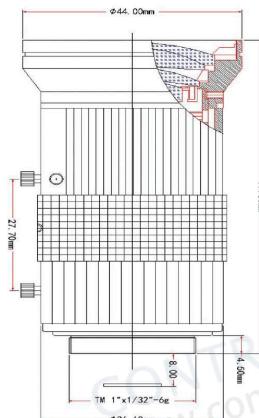
EFL (mm)	2.8-10
FNo.	F=1.6
Image Fromat	1/2.8" CCD/CMOS
F.O.V. (D/H/V)	D: 120.6° ~ 40.2° H: 94.2° ~ 32.1° V: 69° ~ 24.4°
M.O.D. (m)	0.1
Distortion	-
Resolution	0.3@200lp/mm
BFL (mm)	6.52-13.4
Effective Aperture	Ø16mm
Lens-Mount	CS-Mount
Dimension Ø×L×W(mm)	Ø33×36.47×45.5
Operation	Iris Auto
Temperature	-10~+50°C

### VT- LEM03310514i



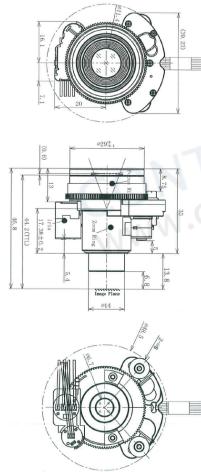
EFL (mm)	3.3-10.5
FNo.	F=1.4
Image Format	1/2.5" CCD/CMOS
F.O.V. (H)	90.5 ~ 30.4°
M.O.D. (m)	0.3
Resolution	3MP / IR
Lens-Mount	CS-Mount
Dimension ØxLxW(mm)	Ø32 x 39.3
Weight (g)	48±2
Focus	W / Locks
Operation	Zoom W / Locks
Iris	Manual
Temperature	-10~+50°C

### VT-LEM055014i-MP3



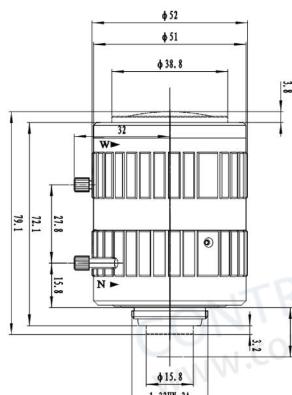
EFL (mm)	5-50
FNo.	F=1.4
Image Format	1/2.5" CCD/CMOS
F.O.V.	5.36° - 51.5°
M.O.D. (m)	0.2
Resolution	3MP
BFL(mm)	8
Lens-Mount	CS-Mount
Dimension ØxLxW(mm)	Ø44 x 77.8
Weight (g)	152.5
Operation	Zoom W / Locks
Iris	W / Locks
Temperature	-10~+50°C

### VT-LEM102221-AT



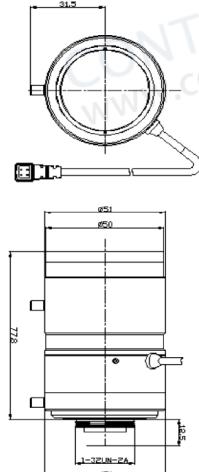
EFL (mm)	10-22
FNo.	F=2.1
Image Format	1/2.5" CCD/CMOS
F.O.V. (D/H/V)	D: 40 ~ 20° H: 31.2 ~ 16° V: 23 ~ 12°
M.O.D. (m)	0.3
Resolution	1MP
BFL(mm)	7.64 ~ 13.95
TV Distortion	-5%W ~ -0.83%T
Iris	DC-Iris(ICR)
Lens-Mount	Ø14
Dimension ØxLxW(mm)	Ø29x33xØ48.5
Operation	Zoom -
Temperature	-10~+50°C

### VT-LEM041816-AI



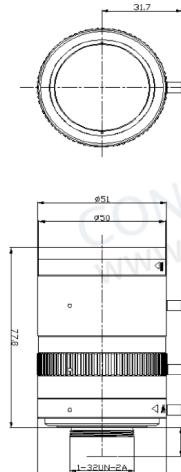
EFL (mm)	4-18
FNo.	F=1.6
Image Format	1/1.8" CCD/CMOS
F.O.V. (D/H/V)	137°/110°/82°
M.O.D. (m)	0.3
Resolution	3MP
BFL(mm)	8-20
Distortion	-57.5% ~ -2.7%
Lens-Mount	C-Mount
Dimension ØxL(mm)	Ø52 x 79.1
Weight (g)	207.3±5
Focus	Manual
Operation	Zoom Manual
Iris	Auto (DC)
Temperature	-20~+60°C

### VT-LEM03818MP12-AT

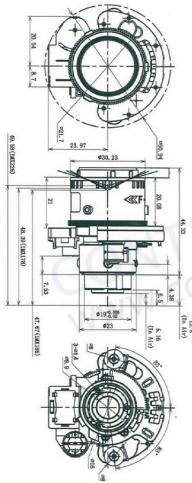


EFL (mm)	3.8-18
FNo.	F=1.5
Image Format	1/1.7" CCD/CMOS
F.O.V. (D/H/V)	W: 156° / 111° / 80° T: 38° / 30° / 23°
Resolution	12MP
FBL (mm)	12.5
Focus range (m)	0.3 (W) ~ ∞
Distortion	-57.5% ~ -2.7%
TTL (mm)	≤96
Lens-Mount	CS-Mount
Dimension ØxL(mm)	Ø51 x 77.8
Focus	Manual
Operation	Zoom Manual
Iris	Auto (DC)
Temperature	-10~+50°C

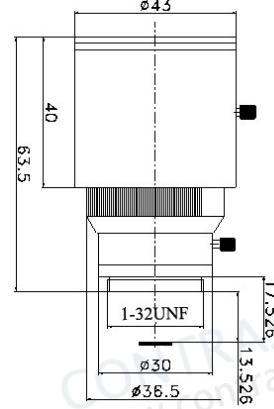
### VT-LEM03618MP12



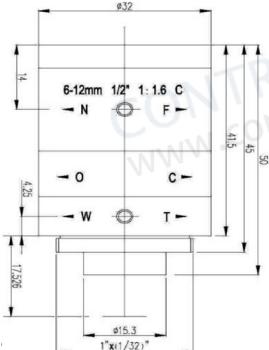
EFL (mm)	3.6-18
FNo.	F=1.5
Image Format	1/1.7" CCD/CMOS
F.O.V. (D/H/V)	W: 156° / 111° / 80° T: 38° / 30° / 23°
Resolution	12MP
FBL (mm)	12.5
Focus range (m)	0.3 (W) ~ ∞
TV Distortion	<-28%
TTL (mm)	≤96
Lens-Mount	CS-Mount
Dimension ØxL(mm)	Ø51 x 77.8
Focus	Manual
Operation	Zoom Manual
Iris	Manual
Temperature	-10~+50°C

**VT-LEM0441012-AT**

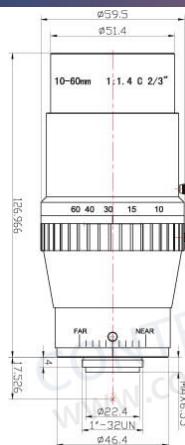
EFL (mm)	4.4-10
FNo.	F=1.2(W)-F2.9(T)
Image Format	1/1.7" CCD/CMOS
F.O.V. (D/H/V)	D: 150 ~ 57.7° / H: 104 ~ 45.8° / V: 73.6 ~ 34.2°
M.O.D. (m)	0.5
Resolution	1MP
BFL(mm)	6.28 ~ 11.64
Focus range	0.3 m (W) ~ $\infty$
Distortion	-29%W ~ -6%T
TTL(mm)	52.76
Iris	P-Iris (ICR)
Lens-Mount	CS-Mount
Dimension ØxLxW(mm)	Ø30.2 x 40.2 x Ø51
Temperature	-10~+50°C

**VT-LEM0281216i**

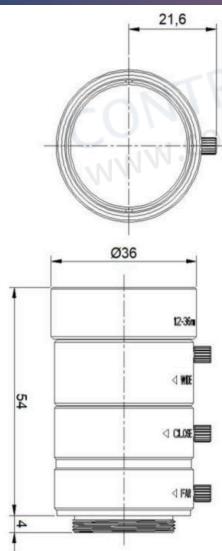
EFL (mm)	2.8-12
FNo.	F=1.6
Image Format	1/2" CCD/CMOS
F.O.V. (H)	98-30.5°
M.O.D. (m)	≥0.3
Resolution	3MP
Lens-Mount	C-Mount
Dimension ØxL (mm)	Ø43 x 67.5
Weight (g)	140g
Focus	W / Locks
Operation	Zoom Fixed
Iris	Manual
Temperature	-10~+50°C

**VT-LEM061216**

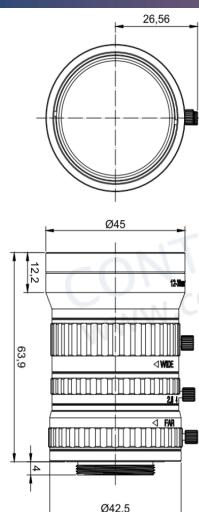
EFL (mm)	6-12
FNo.	F=1.6
Image Format	1/2" CCD/CMOS
F.O.V. (H)	53.9° x 29.6°
M.O.D. (m)	0.1
Resolution	3MP
Distortion	-0.1%
Lens-Mount	C-Mount
Dimension ØxL (mm)	Ø32 x 49.6
Weight (g)	118g
Focus	Manual
Operation	Zoom Manual
Iris	Manual
Temperature	-10~+50°C

**VT-LEM1060MP2**

EFL (mm)	10-60
FNo.	F=1.4
Image Format	2/3" CCD/CMOS
F.O.V. (D/H/V)	51° ~ 11°
BFL (mm)	10.51
Resolution	2MP
Wavelength(nm)	400-950
Distortion(mm)	<12~1%
IR Correction	OK
Filter Size(mm)	M49x0.75
Lens-Mount	C-Mount
Dimension ØxL (mm)	Ø59.5x126.966
Operation Iris	Manual
Temperature	-10~+50°C

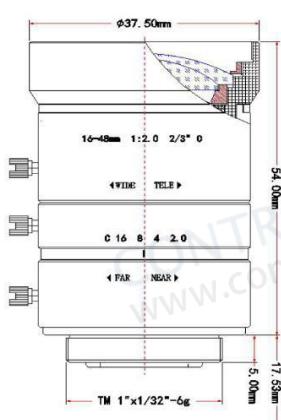
**VT-LEM1236MP3-23**

EFL (mm)	12-36
FNo.	F=2.8
Image Format	2/3"
F.O.V. (D/H/V)	W:50.8°/41.3°/31.2° T: 17.0°/13.8°/10.4°
M.O.D. (m)	-
Resolution	3MP
Wavelength(nm)	420~1000
Focus Range(mm)	W: 0.15m-∞ T: 0.45m-∞
Distortion (mm)	W: -3.43%@y=5.5 T: 2.30%@y=5.5
Filter Size(mm)	M35.5x0.5
Lens-Mount	C-Mount
Dimension ØxL (mm)	Ø36 x 59
Weight (g)	105.25g
Operation	Zoom Manual
Iris	Manual
Temperature	-20~+60°C

**VT-LEM1236MP10**

EFL (mm)	12-36
FNo.	F=2.8
Image Format	2/3"
F.O.V. (D/H/V)	W:50.8°/41.3°/31.2° T: 17.0°/13.8°/10.4°
M.O.D. (m)	-
Resolution	10MP
Wavelength(nm)	420~1000
Focus Range(mm)	W: 0.15m-∞ T: 0.45m-∞
Distortion (mm)	W: -3.43%@y=5.5 T: 2.30%@y=5.5
Filter Size(mm)	C-Mount
Lens-Mount	M40.5x0.5
Dimension ØxL (mm)	Ø36 x 59
Weight (g)	182 g
Operation	Zoom Manual
Iris	Manual
Temperature	-20~+60°C

## VT-LEM1648MP3



EFL (mm)	16-48
FNo.	F=2.0
Image Format	2/3" CCD/CMOS
F.O.V. (D/H/V)	W: 30°x22.7° T: 11.2°x8.4°
M.O.D. (m)	0.2
Resolution	3MP
BFL(mm)	17.53
Lens-Mount	C-Mount
Filter Size(mm)	M40.5x0.5
Dimension ØxL (mm)	Ø37.5 x54.0
Weight (g)	128 g
Focus	W / Locks
Operation	Zoom W / Locks
Iris	W / Locks
Temperature	-10~+50°C

## VT-LEM104020MP3

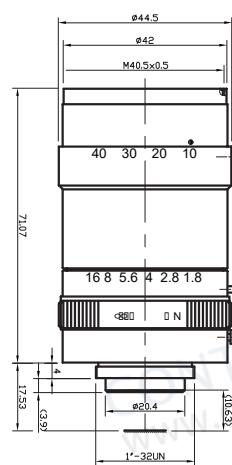


Image Size (inch)	2/3"
EFL(mm)	10-40
Aperture, F/#	2.0
M.O.D.	0.3~ ∞ m
FOV(° )	W:47.5° /40.3° /30.8° T:16.7° /13.4° /10.1°
Distortion(TV)	-3.8% ~ 3.3%
BFL (mm)	10.39-11.50
TTL (mm)	87
Resolution	3MP
Filter Size	M40.5x0.5
Mount	C-Mount
Dimension(mm)	Ø44.5x71.07mm
Iris	Manual
Temperature Range	-20°C ~ +60°C
Weight	-g

## VT-LEM1632MP5-H1

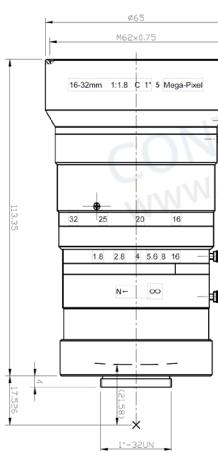


Image Size (inch)	1"
EFL(mm)	16-32
Aperture, F/#	1.8
M.O.D.	1.5~ ∞ m
FOV(° )	W:53.26° /33.44° /43.85° T:27.57° /17.01° /22.43°
Distortion(TV)	-1.89%~1.98%
BFL (mm)	21.58
TTL (mm)	129
Resolution	100 1p/mm
Filter Size	M62x0.75
Mount	C-Mount
Dimension(mm)	Ø65.00x113.35
Iris	Manual
Temperature Range	-20°C ~ +60°C
Weight	619g

## 2/3" Motor Focus Lenses

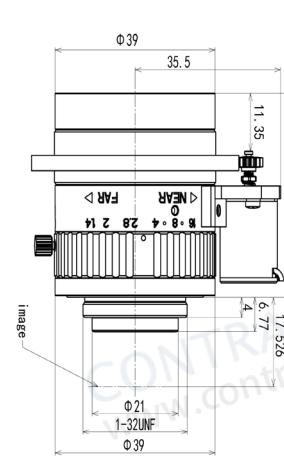
1. Support 20MP area scan cameras
2. High relative illumination, with big aperture
3. Compatible with 2/3" sensor
4. Distortion < 0.1%



**VT-LEMAF0814-MP10**

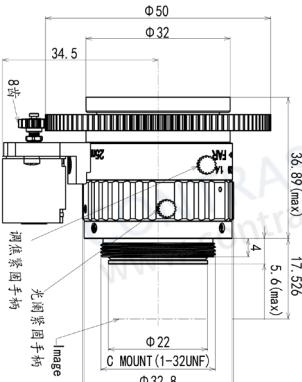
EFL (mm)	8		Working distance(mm)	Optical Magnification	Field of View(H/V)
Aperture, F/#	F1.4~F16		900	0.009X	976.8 731.5
M.O.D.	0.1m		850	0.010X	923.3 691.4
FBL (mm)	17.526		800	0.010X	869.8 651.3
BFL (mm)	10.74		750	0.011X	816.3 611.2
Filter Size	M37×0.5		700	0.012X	762.8 571.1
Front/Rear Effective Dia.	Front Ø26.2mm RearØ12.7mm		650	0.013X	709.3 531.0
Mount	C-Mount		600	0.014X	6558 490.9
Temperature Range	-10~+50° C		550	0.015X	602.3 450.8
Storage Temperature Range	-20~+60° C		500	0.016X	548.8 410.7
Image Size (inch)	2/3"	1/2"	450	0.018X	495.3 370.6
H	56.3°	42.5°	400	0.020X	441.8 330.5
V	43.7°	32.4°	350	0.023X	388.3 290.4
D	67.1°	51.9°	300	0.027X	334.8 250.3
Object Dimension at WD.100mm	H 123mm	88mm	250	0.032X	281.2 210.2
V	91mm	65.5mm	200	0.039X	227.7 170.0
D	154.8mm	111mm	150	0.052X	174.2 129.9
Distortion(TV)	< 1%		100	0.075X	120.7 89.8

**VT-LEMAF1614-MP10**



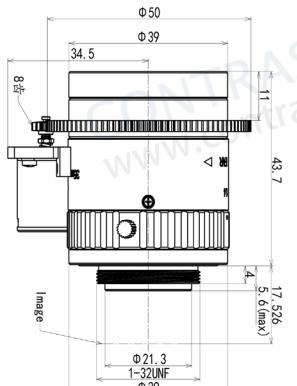
EFL (mm)	16		Working distance(mm)	Optical Magnification	Field of View(H/V)
Aperture, F/#	F1.4~F16		900	0.018X	503.2 376.8
M.O.D.	0.1m		850	0.019X	475.6 356.2
FBL (mm)	17.526		800	0.020X	448.0 335.5
BFL (mm)	12.7		750	0.021X	420.4 314.8
Filter Size	M30.5×0.5		700	0.023X	392.8 294.1
Front/Rear Effective Dia.	FrontØ19mm Rear Ø14.2mm		650	0.024X	365.2 273.4
Mount	C-Mount		600	0.026X	337.6 252.8
Temperature Range	-10~+50° C		550	0.029X	310.0 232.1
Storage Temperature Range	-20~+60° C		500	0.031X	282.5 211.4
Image Size (inch)	2/3"	1/2"	1/3"	450	0.035X
H	30.3°	22.3°	16.8°	400	0.039X
V	23°	16.8°	12.6°	350	0.044X
D	37.3°	27.8°	20.9°	300	0.052X
Object Dimension at WD.100mm	H 170.4mm	123.7mm	116mm	250	0.061X
V	127.6mm	92.7mm	69.4mm	200	0.076X
D	212.8mm	154.9mm	123.7mm	150	0.100X
Distortion(TV)	< 0.1%		< 0.3%	< 0.1%	100 0.145X
					61.7 45.9

## VT-LEMAF2514-MP10



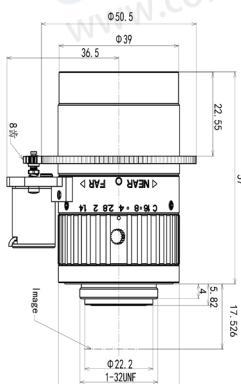
EFL (mm)	25			Working distance(mm)	Optical Magnification	Field of View(H/V)
Aperture, F/#	F1.4~F16			900	0.028X	317.5 237.7
M.O.D.	0.1m			850	0.029X	299.9 224.5
FBL (mm)	17.526			800	0.031X	282.3 211.3
BFL (mm)	12.25			750	0.033X	264.6 198.1
Filter Size	M30.5×0.5			700	0.036X	247.0 184.9
Front/Rear Effective Dia.	Front Ø22.7mm Rear Ø12.6mm			650	0.039X	229.4 171.6
Mount	C-Mount			600	0.042X	211.8 158.4
Temperature Range	-10~+50° C			550	0.046X	194.1 145.2
Storage Temperature Range	-20~+60° C			500	0.050X	176.5 132.0
Image Size (inch)	2/3"	1/2"	1/3"	450	0.056X	158.9 118.8
H	20°	14.6°	11°	400	0.063X	141.2 105.6
V	15°	11°	8.2°	350	0.072X	123.6 92.4
D	24.6°	18.2°	13.7°	300	0.084X	108.0 82.0
Object Dimension at WD.100mm	H 108mm	79.4mm	59.4mm	250	0.100X	88.3 66.0
V	82mm	59.4mm	44.4mm	200	0.126X	70.7 52.7
D	136mm	99.4mm	74.4mm	150	0.168X	53.0 39.5
Distortion(TV)	< 0.2%	< 0.05%	< 0.05%	100	0.253X	35.3 26.3

## VT-LEMAF3514-MP10



EFL (mm)	35			Working distance(mm)	Optical Magnification	Field of View(H/V)
Aperture, F/#	F1.4~F16			900	0.037X	236.2 176.9
M.O.D.	0.15m			850	0.040X	223.2 167.2
FBL (mm)	17.526			800	0.042X	210.3 157.5
BFL (mm)	8.7			750	0.045X	197.3 147.8
Filter Size	M37×0.5			700	0.048X	184.3 138.1
Front/Rear Effective Dia.	Front Ø24.8mm Rear Ø13.6mm			650	0.052X	171.4 128.4
Mount	C-Mount			600	0.056X	158.4 118.6
Temperature Range	-10~+50° C			550	0.061X	145.5 108.9
Storage Temperature Range	-20~+60° C			500	0.067X	132.5 99.2
Image Size (inch)	2/3"	1/2"	1/3"	450	0.074X	119.6 89.5
H	13.9°	10.1°	7.6°	400	0.083X	106.6 79.8
V	10.4°	7.6°	5.2°	350	0.094X	93.7 70.1
D	17.3°	12.6°	8.8°	300	0.110X	80.7 60.4
Object Dimension at WD.100mm	H 81mm	60mm	46mm	250	0.131X	67.7 50.6
V	60mm	46mm	35mm	200	0.162X	54.7 40.9
D	100mm	74mm	58mm	150	0.213X	41.8 31.2
Distortion(TV)	-0.8%	-0.4%	-0.2%	-	-	-

## VT-LEMAF5014-MP10



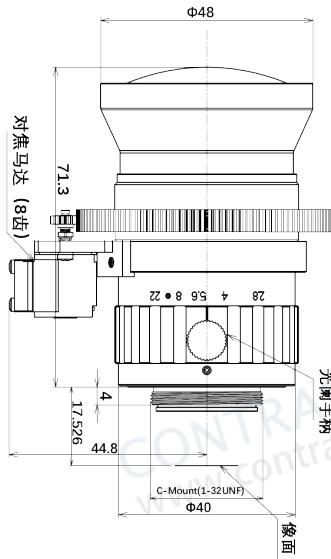
EFL (mm)	50			Working distance(mm)	Optical Magnification	Field of View(H/V)
Aperture, F/#	F1.4~Close			2000	0.025X	352.0 264.0
M.O.D.	0.3m			1000	0.051X	172.5 129.4
FBL (mm)	17.526			900	0.057X	154.4 115.8
BFL (mm)	12.4			850	0.06X	146.7 110.0
Filter Size	M37×0.5			800	0.064X	137.5 103.1
Front/Rear Effective Dia.	Front Ø24mm Rear Ø11.78mm			750	0.068X	129.4 97.1
Mount	C-Mount			700	0.073X	120.5 90.4
Temperature Range	-10~+50° C			650	0.079X	111.4 83.5
Storage Temperature Range	-20~+60° C			600	0.0858X	102.6 76.9
Image Size (inch)	2/3"	1/2"	1/3"	550	0.094X	93.6 70.2
H	10.46°	7.6°	5.2°	500	0.104X	84.6 63.5
V	7.86°	5.27°	3.5°	450	0.116X	75.9 56.9
D	13.04°	9.52°	6.8°	400	0.131X	67.2 50.4
Object Dimension at WD.100mm	H 46.8mm	35.08mm	25.56mm	350	0.15X	58.7 44.0
V	35.08mm	25.56mm	18.88mm	300	0.177X	49.7 37.3
D	58.54mm	46.8mm	35.08mm	-	-	-
Distortion(TV)	-0.8%	-0.4%	-0.2%	-	-	-

## 1.1" Motor Focus Lenses

- 1.Ultra-high imaging quality
- 2.Focus range from 0.1m to infinity
- 3.Compatible with 1" sensor
- 4.Distortion < 0.1%

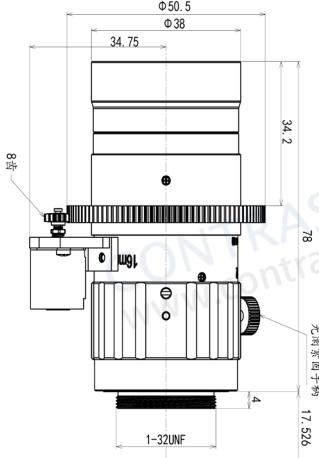


**VT-LEMAF1228-MP20-H1.1**



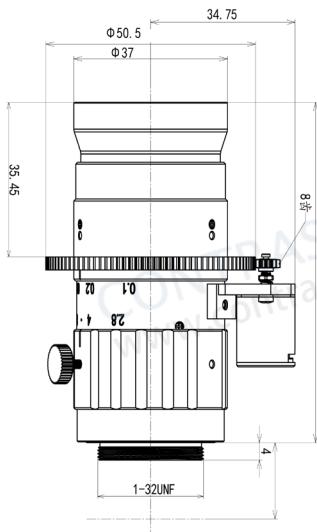
EFL (mm)	12.0			Working distance(mm)	Optical Magnification	Field of View(H/V)
Aperture, F/#	F2.8~F22			5000	0.002X	5727 4295.3
M.O.D.	0.1m			2000	0.006X	2307 1730.2
FBL	17.526			1000	0.012X	1166.9 875.2
BFL (mm)	10.6			900	0.013X	1052.9 789.7
Filter Size	-			800	0.015X	938.9 704.2
Front/Rear Effective Dia.	Front Ø42.9mm Rear Ø20.5mm			700	0.017X	824.9 618.5
Mount	C-Mount			600	0.02X	710.9 533.2
Temperature Range	-10~+50° C			550	0.022X	653.9 490.4
Storage Temperature Range	-20~+60° C			500	0.024X	596.9 447.7
Image Size (inch)	1.1"	1"	2/3"	450	0.026X	539.9 405
Angle of View	H	57°	54.8°	400	0.029X	482.9 362.2
	V	45°	42.3°	350	0.033X	425.9 319.4
	D	66.7°	66.1°	300	0.038X	368.9 276.6
Object Dimension at WD.100mm	H	254.9mm	240.0mm	109.3mm	250	0.045X
	V	191.1mm	179.2mm	119.5mm	200	0.056X
	D	318.6mm	298.7mm	119.2mm	150	0.072X
Distortion(TV)	< 1.5%	< 1.5%	< 1%	100	0.103X	141 105

**VT-LEMAF1628-MP20-H1.1**



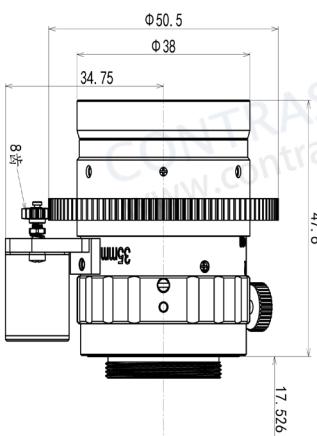
EFL (mm)	16.0			Working distance(mm)	Optical Magnification	Field of View(H/V)
Aperture, F/#	F2.8~F22			5000	0.0032X	4473.2 3361
M.O.D.	0.1m			2000	0.0079X	1793.5 1347.4
FBL (mm)	17.526			1000	0.0158X	900.6 676.4
BFL (mm)	22.4			900	0.0176X	811.3 609.4
Filter Size	M35.5×0.5			800	0.0197X	722.4 542.6
Front/Rear Effective Dia.	Front Ø26.7mm Rear Ø19.2mm			700	0.0225X	632.9 475.4
Mount	C-Mount			600	0.0262X	543.6 408.3
Temperature Range	-10~+50° C			550	0.0286X	498.7 374.6
Storage Temperature Range	-20~+60° C			500	0.0314X	454.2 341
Image Size (inch)	1.1"	1"	2/3"	450	0.0348X	409.5 307.6
Angle of View	H	46.3°	43.6°	30.8°	400	0.0391X
	V	36°	33.4°	23.3°	350	0.0445X
	D	55.4°	53.1°	37.9°	300	0.0518X
Object Dimension at WD.100mm	H	186mm	168.4mm	115.3mm	250	0.0618X
	V	139.6mm	125.9mm	86.3mm	200	0.0767X
	D	232.1mm	210.9mm	144.5mm	150	0.101X
Distortion(TV)	< 0.5%	< 0.5%	< 0.3%	100	0.148X	96.5 72.4

## VT-LEMAF2528-MP20-H1.1



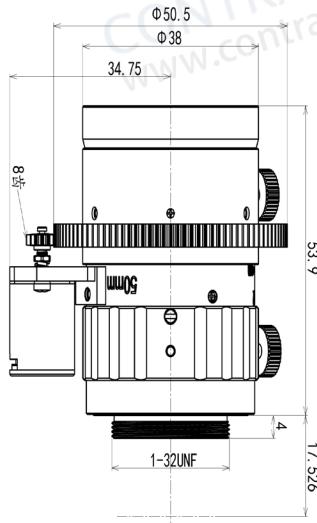
				Working distance(mm)	Optical Magnification	Field of View(H/V)
<b>EFL (mm)</b>	25.0			5000	0.005X	2820 2120
<b>Aperture, F/#</b>	F2.8~F22			2000	0.013X	1084.6 815.4
<b>M.O.D.</b>	0.1m			1000	0.025X	564 424
<b>FBL (mm)</b>	17.526			900	0.028X	503.6 378.6
<b>BFL (mm)</b>	29.6			800	0.031X	454.8 341.9
<b>Filter Size</b>	M35.5×0.5					
<b>Front/Rear Effective Dia.</b>	Front Ø20mm Rear Ø19.2mm			700	0.036X	391.7 294.4
<b>Mount</b>	C-Mount			600	0.042X	335.7 252.4
<b>Temperature Range</b>	-10~+50°C			550	0.045X	313.3 235.5
<b>Storage Temperature Range</b>	-20~+60°C			500	0.050X	282 212
<b>Image Size (inch)</b>	1.1"	1"	2/3"	450	0.055X	256.4 192.7
<b>Angle of View</b>	H	30.4°	27.6°	400	0.061X	231.1 173.8
	V	23°	20.9°	350	0.070X	207.4 151.4
	D	37.6°	34.2°	300	0.081X	174.1 130.9
<b>Object Dimension at WD.100mm</b>	H	119.4mm	108.5mm	74.6mm	0.096X	146.9 110.4
	V	89.5mm	81.4mm	74.6mm	0.118X	119.4 89.5
	D	186.5mm	135.6mm	93.2mm	0.154X	91.6 68.8
<b>Distortion(TV)</b>	< 0.1%			100	0.221X	63.8 48

## VT-LEMAF3528-MP20-H1.1



				Working distance(mm)	Optical Magnification	Field of View(H/V)
<b>EFL (mm)</b>	35.0			5000	0.0069X	2029 1528.2
<b>Aperture, F/#</b>	F2.8~F22			2000	0.0174X	809.4 609.6
<b>M.O.D.</b>	0.2m			1000	0.0349X	503 303.5
<b>FBL (mm)</b>	17.526			900	0.0388X	362.6 273
<b>BFL (mm)</b>	22.9			800	0.0437X	322 242.4
<b>Filter Size</b>	M35.5×0.5					
<b>Front/Rear Effective Dia.</b>	Front Ø23mm Rear Ø19.1mm			700	0.05X	281.4 211.8
<b>Mount</b>	C-Mount			600	0.0585X	240.8 181.2
<b>Temperature Range</b>	-10~+50°C			550	0.0639X	220.5 165.9
<b>Storage Temperature Range</b>	-20~+60°C			500	0.0703X	200.3 187.6
<b>Image Size (inch)</b>	1.1"	1"	2/3"	450	0.0783X	180 135.5
<b>Angle of View</b>	H	22.6°	20.6°	400	0.0882X	199.5 120.2
	V	17°	15.45°	350	0.101X	174.5 140
	D	28.3°	25.75°	300	0.1181X	115.9 89.9
<b>Object Dimension at WD.100mm</b>	H	78.2mm	71mm	48.8mm	0.1421X	99.4 74.7
	V	58.7mm	53.3mm	36.6mm	0.1805X	78.2 58.7
	D	97.68mm	88.8mm	61mm	-	-
<b>Distortion(TV)</b>	< 0.02%			< 0.01%	-	-

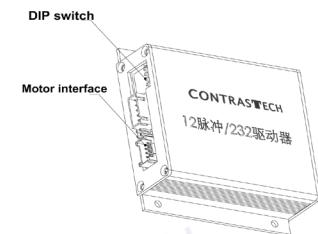
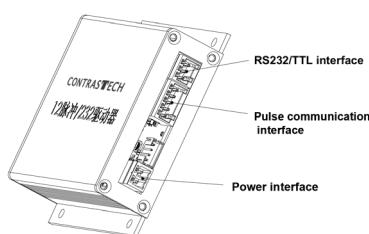
## VT-LEMAF5028-MP20-H1.1



				Working distance(mm)	Optical Magnification	Field of View(H/V)
<b>EFL (mm)</b>	50.0			5000	0.01X	1379 1035.5
<b>Aperture, F/#</b>	F2.8~F22			2000	0.026X	547.1 410.7
<b>M.O.D.</b>	0.3m			1000	0.052X	273.5 205.3
<b>FBL (mm)</b>	17.526			900	0.057X	245.6 184.3
<b>BFL (mm)</b>	21.1			800	0.065X	218.3 163.8
<b>Filter Size</b>	M35.5×0.5					
<b>Front/Rear Effective Dia.</b>	Front Ø24mm Rear Ø21.7mm			750	0.069X	204.5 153.4
<b>Mount</b>	C-Mount			700	0.074X	190.6 143
<b>Temperature Range</b>	-10~+50°C			600	0.08X	176.7 132.5
<b>Storage Temperature Range</b>	-20~+60°C			650	0.087X	162.8 122.1
<b>Image Size (inch)</b>	1.1"	1"	2/3"	550	0.095X	148.9 111.7
<b>Angle of View</b>	H	15.9°	14.6°	500	0.105X	134.9 99
	V	11.9°	10.9°	450	0.117X	121 90.7
	D	19.9°	18.2°	400	0.132X	107 80.2
<b>Object Dimension at WD.100mm</b>	H	79mm	71.6mm	49.3mm	0.152X	92.9 69.7
	V	59.3mm	53.8mm	37mm	0.179X	79 59.3
	D	98.9mm	89.7mm	61.6mm	-	-
<b>Distortion(TV)</b>	< 0.04%			< 0.02%	-	-

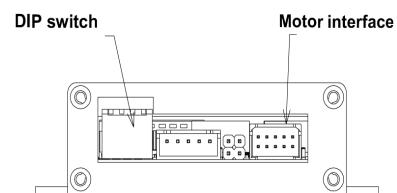
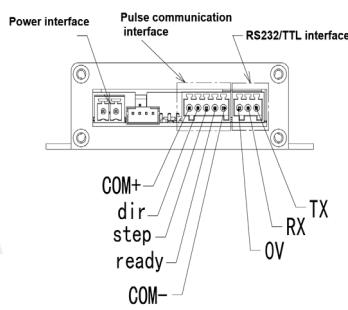
## Motor Parameters

Voltage (v)	24v
Power (w)	5w
Range of speed (RPM)	0-400RPM
Rated speed (RPM)	150RPM
Response time	<1ms
Maximum output torque	0.08N·M
Self-locking torque	0.12N·M
Motion precision/accuracy	±0.001°
Operating temperature/humidity	-40°C - 105°C, RH0%-90%
Rotate direction	CW, CCW



## Drive Interface Definition

Communication mode	Interface definition
Pulse communication interface	COM+ open collector(NPN (OC-NPN)), voltage range 5v-24v
	Dir Motor rotation direction during pulse signal
	Step Pulse signal
	Ready Response signal (low level means the motor is running, high level means the motor is stopped)
	COM- grounding
	OV grounding
RS232/TTL Communication Interface	RX data reception
	TX data transmission



## Telecentric Lenses



**BTL Series: High Precision Bi-telecentric Lenses**



**BTLM Series: High Performance Bi-telecentric Lenses**



**CLW2-10MP Series: High Resolution Telecentric Lenses**



**CLW2-MP Series: Large Object Distance Telecentric Lenses**



**CLW3-ST Series: Standard Resolution Telecentric Lenses**



**BTLP Series: 360 Multi-Angle Imaging Device**

For more telecentric lens product information,  
please contact your sales engineer for confirmation.

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SWIR Camera  
Industrial Camera



Macro Lens  
Industrial Lens



Microscope



System Solution  
No-programming Software



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