Contrastech
LEO Series Large Area Scan Cameras
Excellent cost performance ratio
GigE / 10GigE / Camera Link / CoaXPress
0.8MP to 150MP
Advanced I / O Control
GiGE VISION
CoaXPress
CAMERA Link
REGISTERED PRODUCT
LEO Series

Contrastech LEO Series

Large Area Scan Cameras

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

Brief Introduction

With the wide application and popularization of machine vision technology, more and more higher requirements proposed by industrial applications, like high precision measurements and high speed inspection. Depend on decade technology accumulation efforts from former cameras, Contrastech has developed a new series cameras - LEO Series which available in the market to answer different challenges.

LEO series camera covering a range of resolution from 0.8MP to 150MP, can meet various requirements of machine vision application.

LEO series cameras with various popular data interfaces. The GigE interface, its max transmission distance up to 100 meters; the 10GigE interface provide high frames rate acquisition of large resolution images; the Camera Link interface with mature and stable industrial image data interface which easy answer all kinds of harsh working environment; the CoaXPress interface combine with features of GigE interface and Camera Link interface. You can choose the right data interface flexibly according to your actual demands. The cameras also provide separate input/output ports for triggering or flashing control.

LEO Series industrial cameras compatible with GigE, 10GigE, Camera Link and CoaXPress data bus standards, support GenICam, GigE Vision®, can smoothly connect with third-party software, like HALCON, Vision Pro etc., without secondary development. LEO Series cameras with excellent cost performance and fully suitable for various inspection, measurements and high-speed imaging applications. This series cameras won customers high praise because its perfect performance in cellphone and tablet PC screen inspection, LED automatic packing, defect inspection, electronic components manufacturing, wafer positioning and other applications. With this variety of sensors and interfaces, combined with the extensive features offered, LEO series is fit for a wide range of vision applications.

Applications

Cellphone Screen Inspection, Defect Inspection,
SMT, Panel Inspection, Vision Location,
Luminous Module Inspection, LED/LCWDOLED,
High Precision Dimension Measurement,
Document Digitization, HSR Catenary System Inspection,
Tunnel Wall Crack Inspection.

Main Feature

Wide Range of Resolution

Resolution from 0.8MP to 150MP for Various Applications.

High Quality Sensors

Latest Kodark, Onsemi Series Sensors
Sony Pregius Series Sensors

High Frame Rate, Up to 68fps

High Frame Rate Ideal for High-speed Application.

128 MB RAM

Internal memory up to 128 MB guarantees no image loss.

Excellent Cost Performance.

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GigE

Model	Resolution	Frame Rate	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	No.
LEO 8MK-14 gm/gc	3296 × 2472	14	4/3"	5.5	KAI 08051	Global CCD	Mono / Color	4
LEO 25MP-5 gm/gc	5120 × 5120	5	23 x 23 mm	4.5	PYTHON 25K	Global, CMOS	Mono / Color	4
LEO 29MK-4 gm/gc	6576 × 4384	4	36 x 24 mm	5.5	KAI 29050	Global CCD	Mono / Color	4
LEO 29MK1-4 gm	6576 × 4384	4	36 x 24 mm	5.5	KAI 29050-C1	Global CCD	Mono	4
LEO 31MS-4 gm	6464 × 4852	4	24.9 x 16.6 mm	3.45	IMX 342	Global, CMOS	Mono	4

10GigE

Model	Resolution	Frame Rate	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	No.
LEO 12MS-68tgm/tgc	4096 × 3000	68	1.1"	3.45	IMX 253	Global CMOS	Mono / Color	5
LEO 25MP-40tgm/tgc	5120 × 5120	40	23 x 23 mm	4.5	PYTHON 25K	Global, CMOS	Mono / Color	5

Camera Link

Model	Resolution	Frame Rate	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	No.
LEO 8MK-14 gm/gc	6576 × 4384	4.5	36 x 24 mm	5.5	KAI 29050	Global CCD	Mono / Color	6
LEO 29MK1-5 cm	6576 × 4384	4.5	36 x 24 mm	5.5	KAI 29050-C1	Global CCD	Mono	6
LEO 43MK-4 cm	8032 × 5360	4	36 x 24 mm	4.5	KAI 43140	Global CCD	Mono	6
LEO 50MK-4 cm	10440 × 4800	4	46.9 x 21.6 mm	4.5	KAI 50140	Global CCD	Mono	6

CoaXPress

Model	Resolution	Frame Rate	Sensor Size	Pixel Size	Sensor	Sensor Technology	Color	No.
LEO 31MS-35xm	6480 × 4860	35	APS-C	5.5	IMX 342	Global CMOS	Mono	7
LEO 43MG-17xm	7904 × 5432	17	22 x 15 mm	2.8	GMAX 0806	Global CMOS	Mono	7
LEO 150MS-6xm	1419 × 10640	6	M72	3.76	IMX 411	Rolling CMOS	Mono	7

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Specifications

Model	LEO 8MK-14gm/gc	LEO 25MP-5gm/gc	LEO 29MK-4gm/gc	LEO 29MK1-4gm	LEO 31MS-4gm
Camera					
Resolution (H*V pixels)	3296 × 2472	5120 × 5120	6576 × 4384	6576 × 4384	6464 × 4852
Sensor	KODARK KAI08051	ON Semiconductor PYTHON 25K	KODARK KAI29050	KODARK KAI29050	SONY IMX 342
Sensor Size (optical)	4/3''	23 x 23mm	36 x 24mm	36 x 24mm	29.9 x 16.6mm
Sensor Technology	CCD, Global	CMOS, Global	CCD, Global	CCD, Global	CMOS, Global
Pixel Size (μm^2)	5.5 × 5.5	4.5 × 4.5	5.5 × 5.5	5.5 × 5.5	3.45 x 3.45
Frame Rate (fps)	14	5	4	4	4
Data Bits	8bit / 10bit / 12bit	8bit / 10bit / 12bit	8bit / 10bit / 12bit	8bit / 10bit / 12bit	8bit / 10bit / 12bit
Exposure Time	50μs~1s	17μs~10s	110μs~1s	110μs~1s	110μs~1s
Dynamic Range	>66dB	>58dB	>64dB	>64dB	>73dB
Mono/Color	Mono/Color	Mono/Color	Mono/Color	Mono	Mono
Image Format	Mono： Mono8/10/10p/12/12p Color： Bayer RG 8/10/10p/12/12p				
Interface	Gigabit Ethernet (1000 Mbit/s)				
Synchronization	Via hardware trigger, via software trigger or free run				
Programmable Control (ISP)	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction.				
Electrical					
Housing Size (L*W*H)	M58 Mount(Standard)(*A) 74.0×74.0×47.0mm (410g) M58 Mount(Air-cooling)(*B) 74.0×74.0×74.3.0mm(450g)	M58 Mount(Air-cooling)(*C) 74.0×74.0×72.7mm (450g) F Mount(Air-cooling)(*D) 74.0 ×74.0 ×78.7mm(590g)	M58 Mount (Standard) (*A) 74.0×74.0×47.0mm (410g) F Mount (Standard)(*E) 74.0 ×74.0 ×53.9mm(590g) M58 Mount(Air-cooling) (*B) 74.0×74.0×74.3 mm (450g) F Mount(Air-Cooling)(*F) 74.0 ×74.0 ×81.7mm(590g)		F Mount (Air-cooling)(*G) 74.0 ×74.0×80.1mm(595g)
Operating Temperature	-30~80 ° C (Storage), 0~50° C (Working)				
Lens Mount	M58-Mount (R0.75/ BF11.48)	M58-Mount (R0.75/BF11.48) / F-Mount (BF46.50)			F-Mount (BF46.50)
Digital I/O	1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O, 1 RS232, 1 RS485				
Power Input	DC12V 2A	DC 11-25V	DC12V 2A	DC12V 2A	DC9-26V
Power Consumption	12V @11.7W	12V @11.7W	12V @11.7W	12V @11.7W	12V @8.8W
Driver	LEO Series camera Software Suite (iDatum) or 3rd party GigE Vision Software				
Operating System	Windows, Linux,Arm				
Conformity	GigE Vision, GenICam				

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Specifications

Model	LEO 12MS-68 Tgm/Tgc	LEO 25MP-40 Tgm/Tgc
Camera		
Resolution (H*V pixels)	4096 × 3000	5120 × 5120
Sensor	SONY IMX 253	ON Semiconductor PYTHON 25K
Sensor Size (optical)	1.1''	23 x 23mm
Sensor Technology	CMOS, Global	CMOS, Global
Pixel Size (μm^2)	3.45 x 3.45	4.5 × 4.5
Frame Rate (fps)	68	40
Data Bits	8bit / 10bit / 12bit	8bit / 10bit / 12bit
Exposure Time	34μs~2s	17μs~10s
Dynamic Range	>65dB	>58dB
Mono/Color	Mono/Color	Mono/Color
Image Format	Mono： Mono8/10/10p/12/12p Color： Bayer RG 8/10/10p/12/12p	
Interface	Gigabit Ethernet (10GigE)	
Synchronization	Via hardware trigger, via software trigger or free run	
Programmable Control (ISP)	Image Resolution, RGB Gain, Exposure Time, Contrast, Gamma Chart, Image Roller, Raw, LUT, Black Level Correction.	
Electrical		
Housing Size (L*W*H)	M58 Mount(Air-cooling)(*H) 74.0×74.0×74.4 mm (450g) F Mount(Air-cooling)(*J) 74.0 ×74.0 ×78.4mm(590g)	M58 Mount(Air-cooling)(*C)74.0×74.0×72.7mm (450g) F Mount(Air-cooling)(*D)74.0 ×74.0 ×78.7mm(590g)
Operating Temperature	-30~80 ° C (Storage), 0~50° C (Working)	
Lens Mount	M58-Mount (R0.75/BF11.48) / F-Mount (BF46.50)	
Digital I/O	1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O, 1 RS232, 1 RS485	
Power Input	VDC 11-25V	VDC 11-25V
Power Consumption	12V @12.6W	12V @13.9W
Driver	LEO Series Camera Software Suite (iDatum) or 3rd party GigE Vision Software	
Operating System	Windows, Linux,Arm	
Conformity	GigE Vision, GenICam	

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Specifications

Model	LEO 29MK-5cm/cc	LEO 29MK1-5cm	LEO 43MK-4cm	LEO 50MK-4cm
Camera				
Resolution (H*V pixels)	6576 × 4384	6576 × 4384	8032 × 5360	10440 × 4800
Sensor	KODARK KAI29050	KODARK KAI29050	KODARK KAI43140	KODARK KAI50140
Sensor Size (optical)	36 x 24mm	36 x 24mm	36 x 24mm	46.9 x 21.6mm
Sensor Technology	CCD, Global	CCD, Global	CCD, Global	CCD, Global
Pixel Size (μm^2)	5.5 × 5.5	5.5 × 5.5	4.5 × 4.5	4.5 × 4.5
Frame Rate (fps)	4.5	4.5	4	4
Data Bits	8bit / 10bit / 12bit	8bit / 10bit / 12bit	8bit / 10bit / 12bit	8bit / 10bit / 12bit
Exposure Time	110μs~1s	110μs~1s	100μs~10s	102μs~10s
Dynamic Range	>64dB	>64dB	>60dB	>60dB
Mono/Color	Mono/Color	Mono	Mono	Mono
Image Format	Mono： Mono8/10/10p/12/12p Color： Bayer RG 8/10/10p/12/12p			
Interface	Camera Link (Base / Medium)			
Synchronization	Via hardware trigger, via software trigger or free run			
Programmable Control (ISP)	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction			
Electrical				
Housing Size (L*W*H)	M58 Mount(Air-cooling) (*K)74.0×74.0×73.1mm (450g) F Mount(Air-cooling)(*L) 74.0 ×74.0 ×79.5mm(590g)		tandard(*M) 86.0×86.0×87.3mm(897g)	Standard(*N) 86.0×86.0×87.2 mm (1280g)
Operating Temperature	-30~80 ° C (Storage), 0~50° C (Working)			
Lens Mount	M58-Mount (R0.75/BF11.48) / F-Mount (BF46.50)		F-Mount (BF46.50)	M58-Mount (R0.75/BF28.0)
Digital I/O	1 opto-isolated input, 1 opto-isolated output,1 bidirectional Custom non-isolation I/O, 1 RS232, 1 RS485		1 opto-isolated input, 1 opto-isolated output, 1 bidirectionalCustom non-isolation I/O, 1 RS232	
Power Input	VDC 12-24V		VDC 12-24V	VDC 22-26V
Power Consumption	12V @ 9.8W		12V @10W 12V @57W(refrigeration)	24V @12W 24V @69W(refrigeration)
Driver	LEO Series Camera Software Suite (iDatum) or 3rd party GenIcam software.			
Operating System	Windows, Linux			
Conformity	GenICam			

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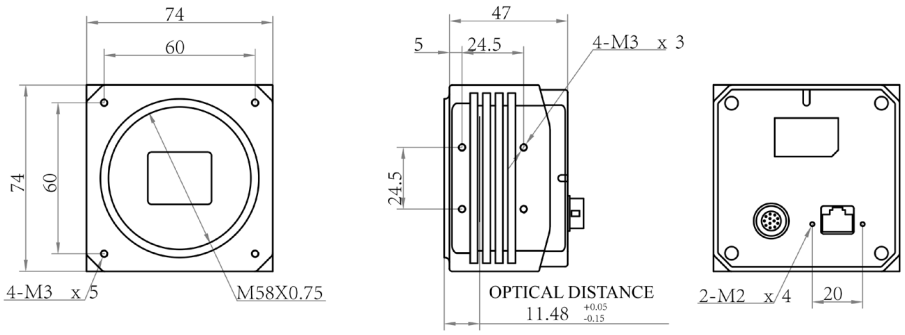
Specification

Model	LEO 31MS-35xm	LEO 43MG-17xm	LEO 150MS-6xm
Camera			
Resolution (H*V pixels)	6480 × 4860	7904 × 5412	14192 × 10640
Sensor	SONY IMX342	GMAX0806	SONY IMX411
Sensor Size (optical)	APS-C	22.16 x 15.22mm	53.4 x 40.0mm
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size (μm^2)	5.5 × 5.5	2.8 × 2.8	3.76 × 3.76
Frame Rate (fps)	35	17	6
Data Bits	8bit / 10bit	8bit / 10bit / 12bit	8bit / 10bit / 12bit
Exposure Time	Shutter Control:3μs~33μs 8bit:47μs~2s 12bit: 36μs~2s	12μs-2s	15μs~10s
Dynamic Range	>73dB	>69dB	>90dB
Mono/Color	Mono		
Image Format	8bit: Mono8/10 12bit: Mono8/10/12	Mono 8/10/12	
Interface	CoaXPress		
Synchronization	Via hardware trigger, via software trigger, or free run.		
Programmable Control (ISP)	Image Resolution, RGB Gain, Exposure Time, Contrast, Gamma Chart, Image Roller, Raw, LUT, Black Level Correction		
Electrical			
Housing Size (L*W*H)	Air-cooling: (*P) 74.0 mm × 74.0 mm × 75.6 mm (650g)	Air-cooling: (*Q) 74.0 mm × 74.0 mm × 76.8 mm (650g)	Air-cooling: (*R) 120.0 mm × 120.0 mm × 124.0 mm (2850g)
Operating Temperature	-30~80 ° C (Storage), 0~50° C (Working)		
Lens Mount	F-Mount (BF46.50)		M72-Mount (R0.75/BF19.55)
Digital I/O	1 opto-isolated input, 1 opto-isolated output, 1 bidirectional Custom non-isolation I/O, 1 RS232, 1 RS485		
Power Input	DC 9-26V	DC 8-30V	DC 24V
Power Consumption	12V @9W	12V @7.1W	18 W @24 VDC (non-refrigeration) 64.8 W @24 VDC (refrigeration)
Driver	Frame grabber software compliant with CoaXPress protocol		
Operating System	Windows, Linux		
Conformity	GenICam		

Housing Size: (mm)

***A**



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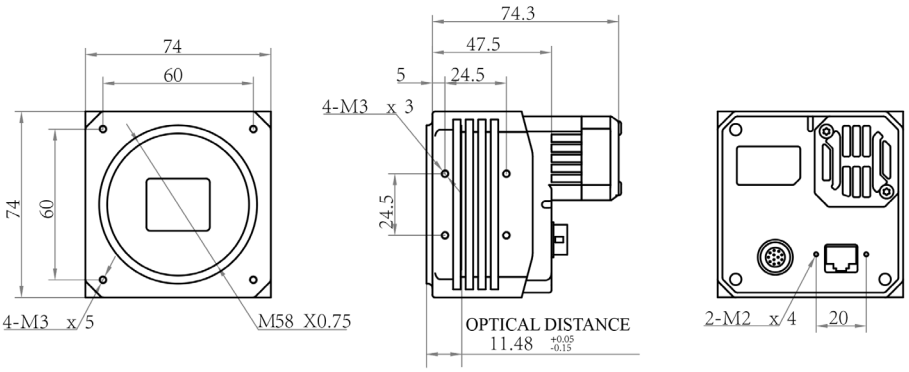

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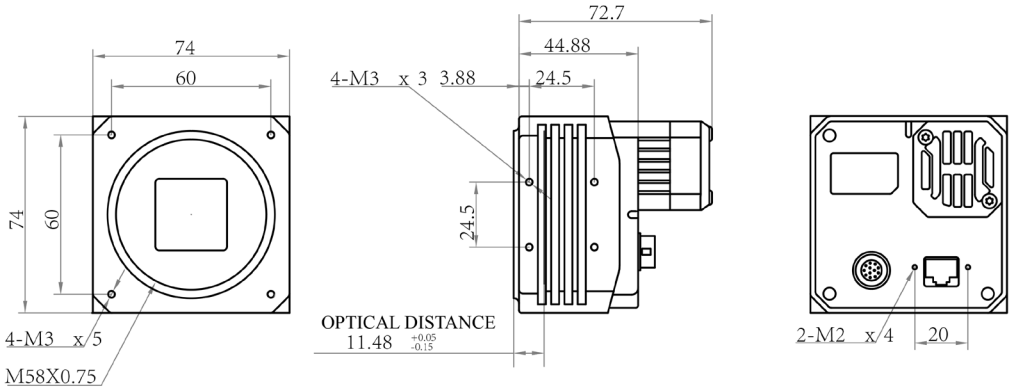

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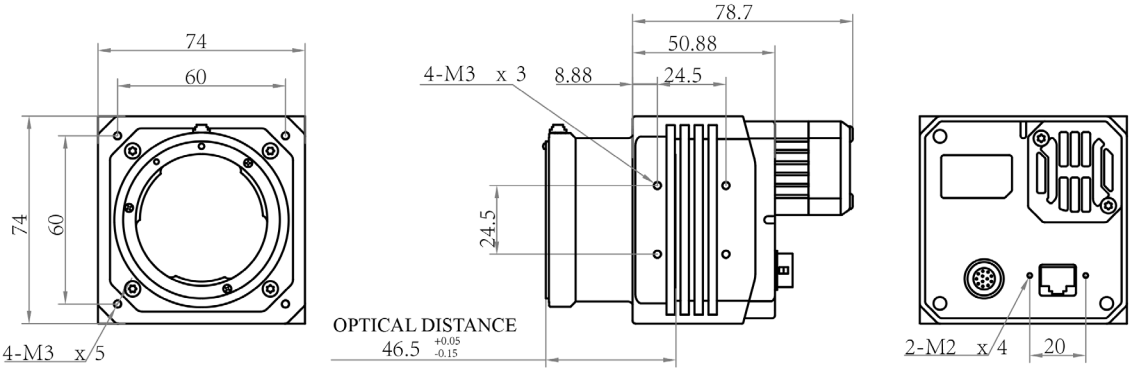
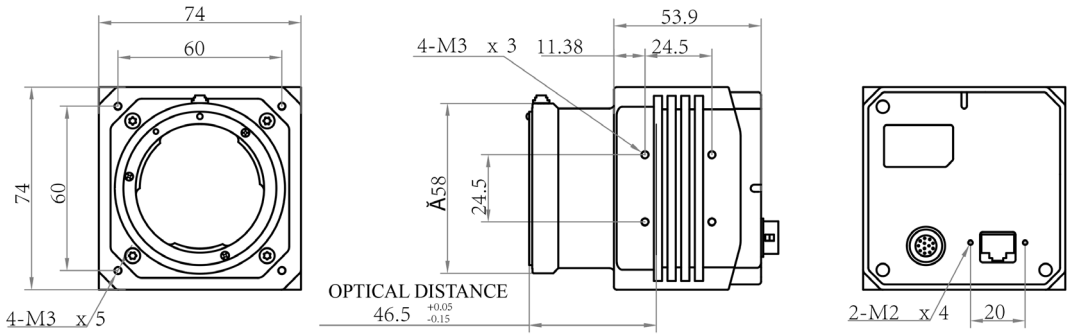


Housing Size: (mm)

***E**



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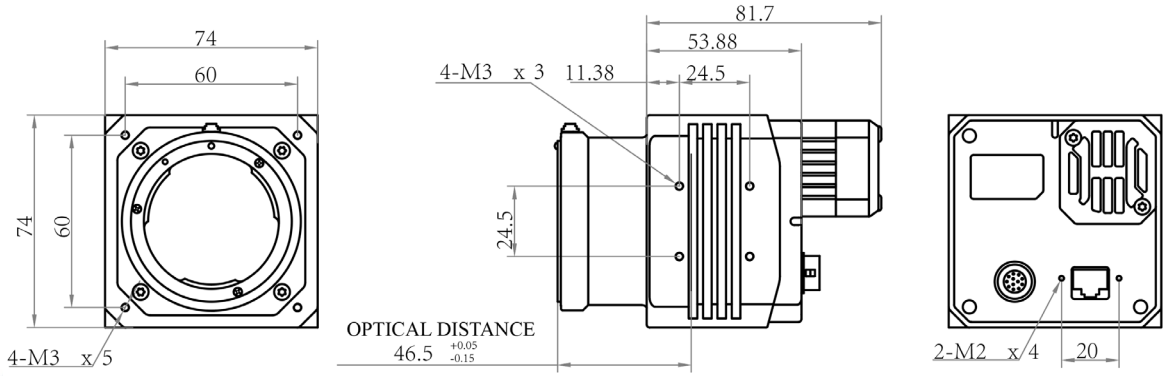

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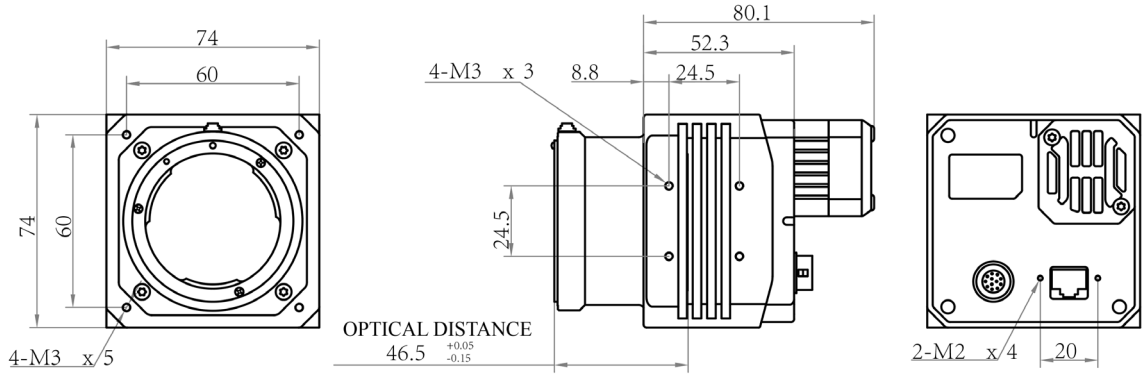

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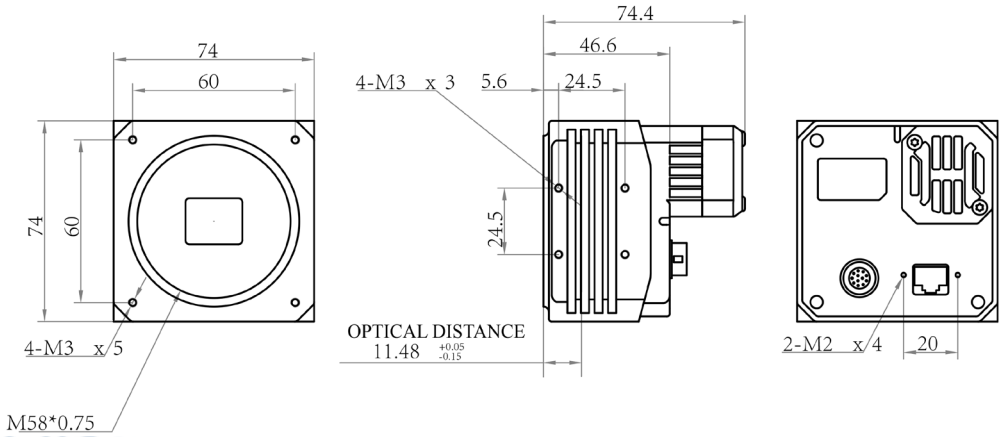
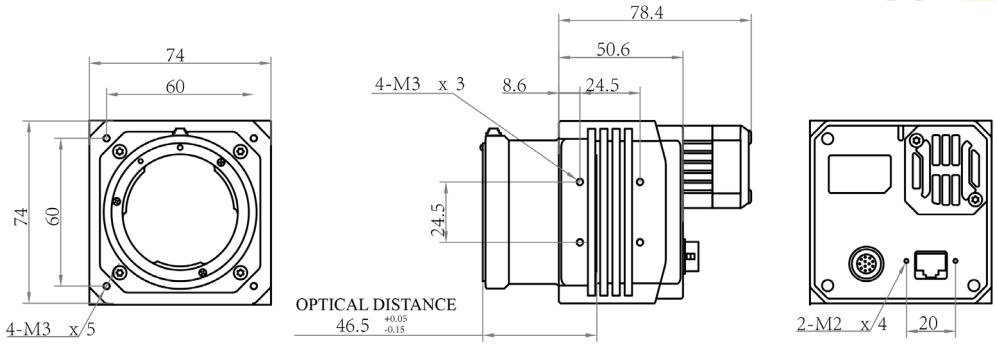


Housing Size: (mm)

***J**



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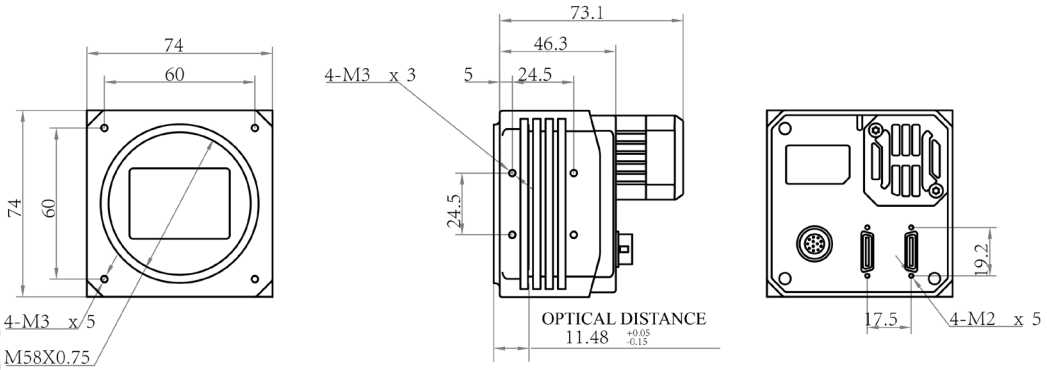

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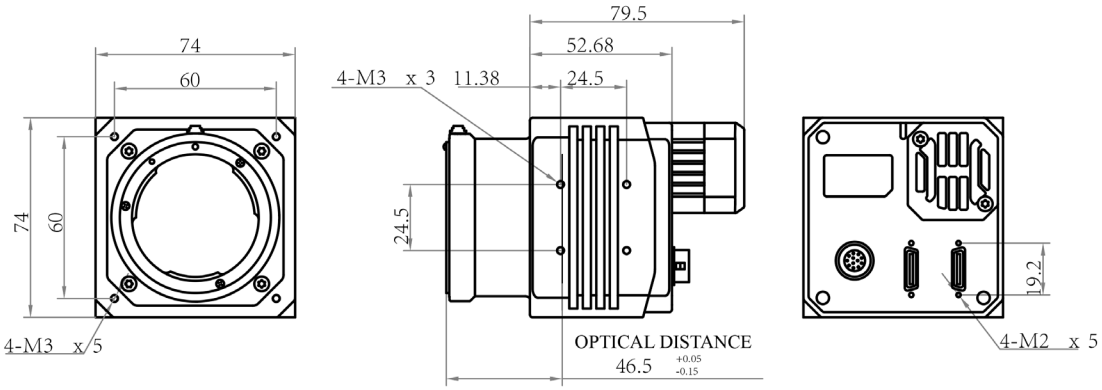

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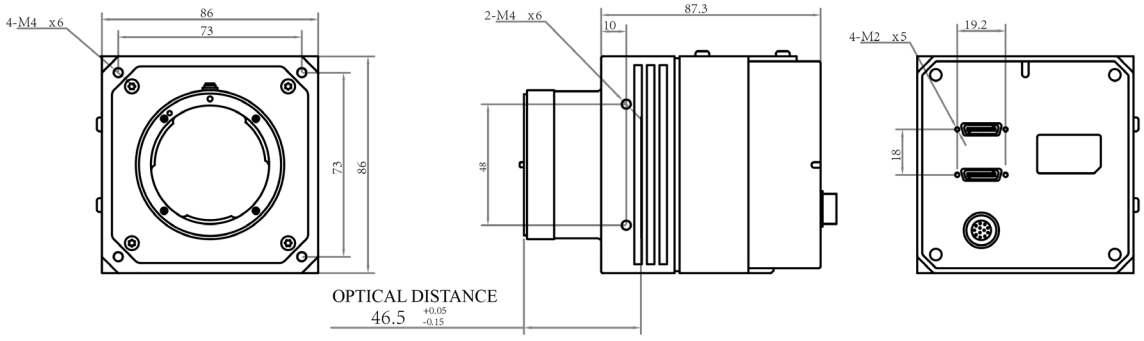
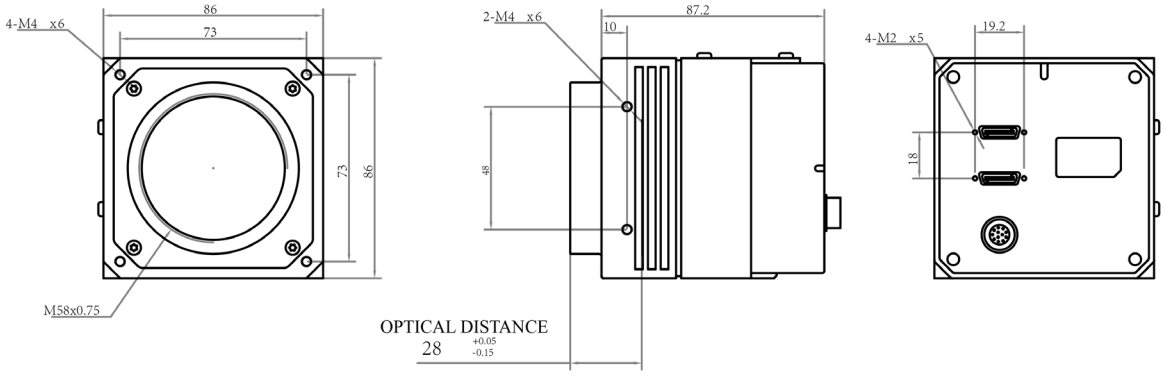


Housing Size: (mm)

***N**



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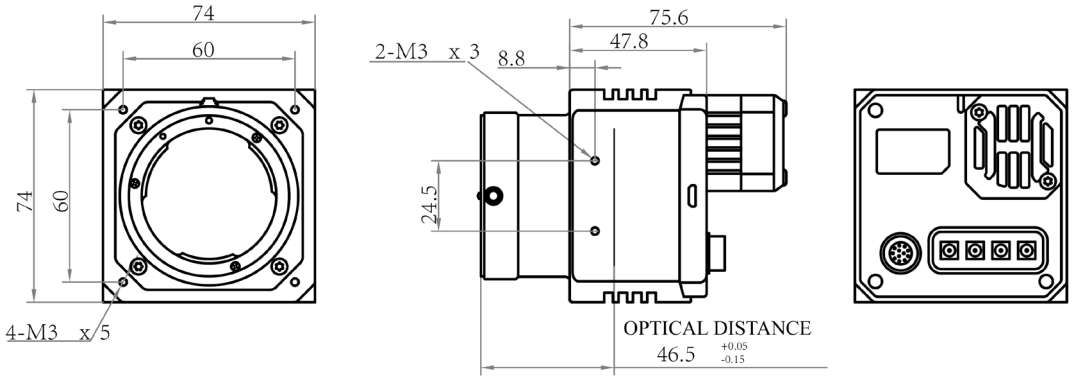

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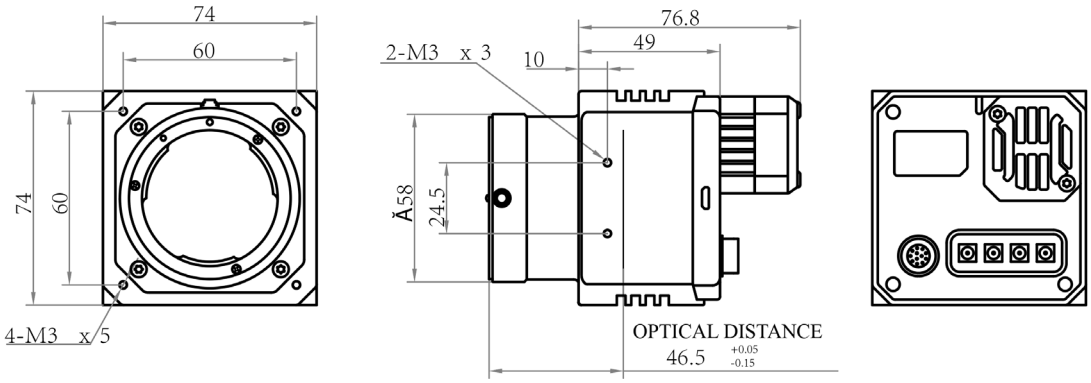

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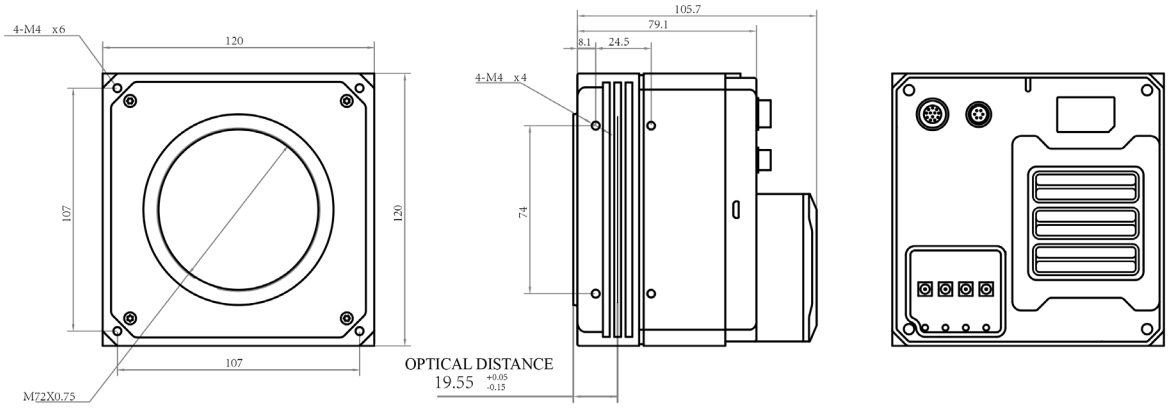

ABOUT US

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

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

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

Contact Us

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