Scan, learn more

www.pomeas.cn www.pomeas.com

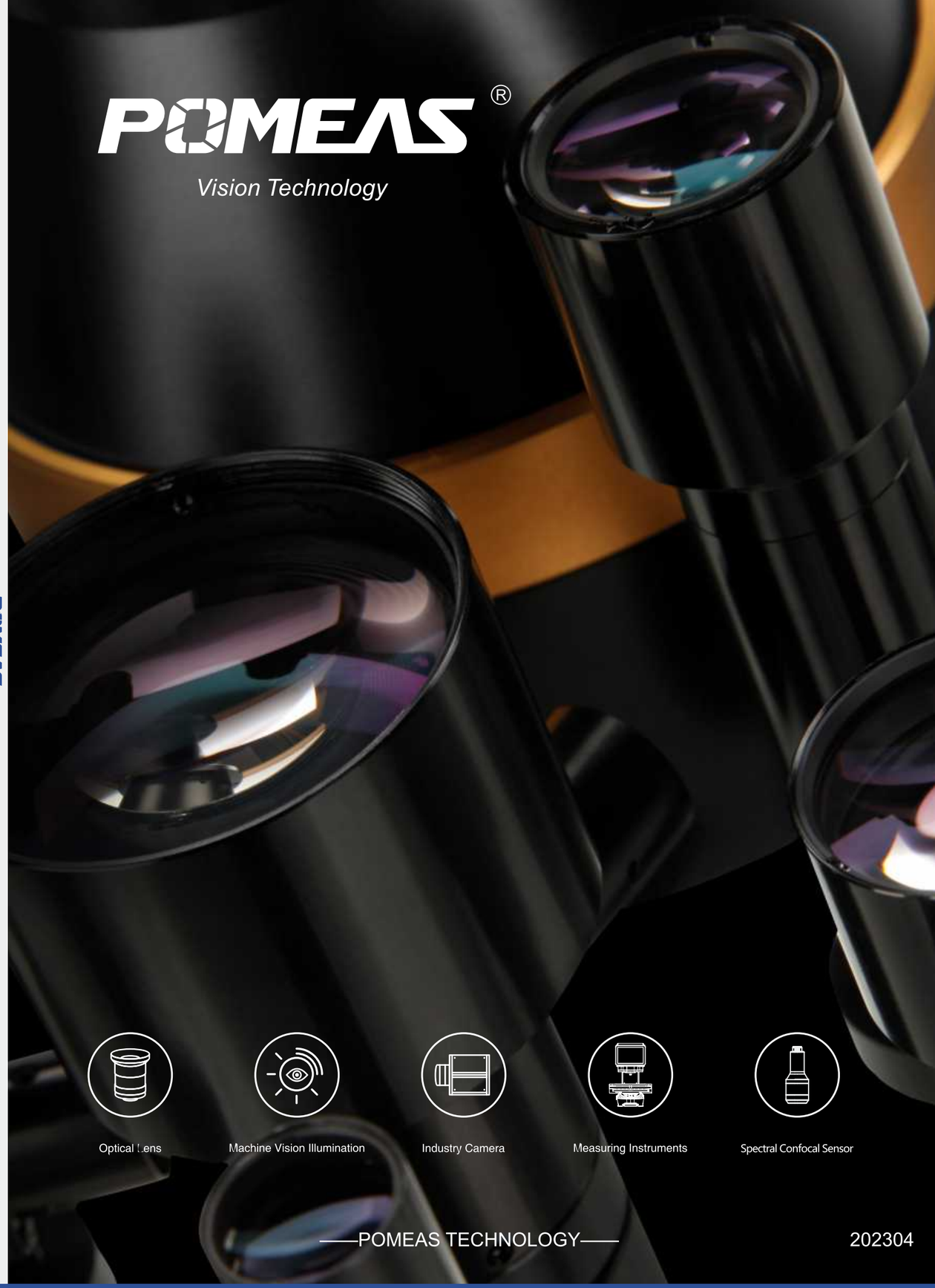
Manufacturing Center:

68# Yongwei Street,Bozhuobian Industry Road,East District Dongguan City,Guangdong Province,China.

T.86-769-2266 0867 F.86-769-2266 0857

POMEAS

www.pomeas.cn www.pomeas.com



POMEAS®

Vision Technology

Optical Lens

Machine Vision Illumination

Industry Camera

Measuring Instruments

Spectral Confocal Sensor

——POMEAS TECHNOLOGY——

202304

SUPPLIER OF MACHINE VISION AND INDUSTRIAL AUTOMATION CORE PRODUCTS

POMEAS®
Vision Technology

ABOUT POMEAS

POMEAS is a national high-tech enterprise with profound accumulation in optical design, structural design, electronic design, acoustic detection, software algorithm and other fields. It integrates product development, system integration, marketing and technical support and takes root in machine vision more than ten years in the field of industrial automation. POMEAS has been listening to customers' needs and meeting customer expectations. Based on the 3D platform software 3D OS , APP software (such as vision, positioning, measurement, and sensors), smart sensors (such as self-developed optical component, spectral confocal, and laser structured light), together with tailor-made vision systems for customers, POMEAS helps customers improve production efficiency and production quality. POMEAS is committed to promoting the intelligence and automation of industrial manufacturing. Products and services are helping thousands of customers in more than 30 countries around the world,to improve their comprehensive competitiveness.

OUR VALUES

If You Are A Manufacturer In The Field Of Intelligent Equipment And Automation.

POMEAS can provide you with a full range of professional optical components or vision systems with complete functions, which can help you save time and cost in R&D and production, and make your products more competitive. POMEAS can also do customized service for your needs, have win-win cooperation with you.

If You Are The Quality Inspection Department Of A Manufacturing Company

POMEAS can provide you with professional optical components or solutions on visual aids, precise measurement, and specific measurement, and can provide superior technologies, such as high-depth imaging, real-time focusing, fast measurement, and 3D scanning, to allow your quality inspection work faster, more stable and more accurate.

If You Are A Manufacturing Enterprise Dedicated To Machine Substitution And Intelligent Transformation

POMEAS can concentrate all software and hardware technical strengths, to provide you with work in scheme design, hardware selection (or custom development), software construction and other aspects, especially in the fields of 3C, electronics, mobile phones, and display manufacturing. POMEAS has rich experience in architecture and can offer the diverse solutions of industry customers, making you more efficient and less labor-saving.

CORPORATE CULTURE

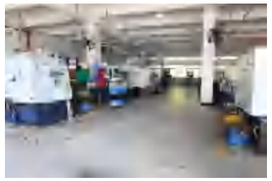
VIEW OF DEVELOPMENT	POMEAS advocates the five values of [Integrity, Responsibility, Simplicity, Innovation, and Sharing], and is willing to deeply integrate innovative resources with a macro perspective and a scientific, reasonable, and transparent mechanism to achieve a win-win development goal for customers, enterprises, partners, and society.
VIEW OF TALENT	POMEAS believes that intellectual resources are the first element to support the development of technology companies, and advocates an open attitude towards talents, partners, friends and other cooperation resources in the industry ecology, and is willing to deeply share the benefits of the value chain. POMEAS believes in the core value of "struggle-oriented", advocates the talent concept of preserving the principles of nature, obeying people's desires, distributing according to work, getting more for more work, and never letting Lei Feng suffer, and has established the "Struggle Award" honor system.
VIEW OF THE WORLD	POMEAS believes that industrial production and testing is monotonous and lacks humanistic care, and is eager to further liberate human beings from the boring industrial production and testing links through continuous struggle in groups and the use of optimization methods of visual technology

ENTERPRISE ENVIRONMENT

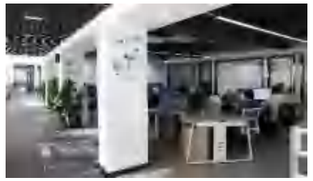
Production Center Panorama

Showroom

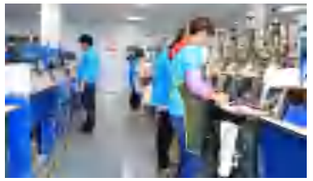
Storehouse



Machining Workshop



Office Center



Optical Lens Processing

In 2022, Huizhou Pumisi Technology Co., Ltd. will be established in Zhongkai High-tech Zone, Huizhou City, focusing on the research and development of high -precision sensors and motion controllers to provide customers with high-quality solutions.

POMEAS purchased a 1,200-square-meter detached office property in the "CIMC Zhigu Industrial Park" located in the south of Songshan Lake, next to Huawei Town, as the company's marketing center.

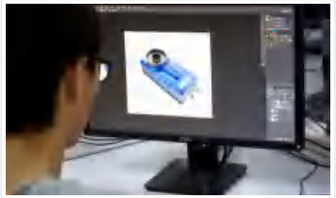
RESEARCH PRODUCTIVITY

POMEAS have big manufacture center in Dongguan, consist of lens producing, machining, dust-freeassembly. quality control, warehouse, and software/hardware development. integration and vision systemdepartment. There are optical lab, application lab for RD. It has one stop service for RD, manufacturer andcustomer support.

2D Structure Design

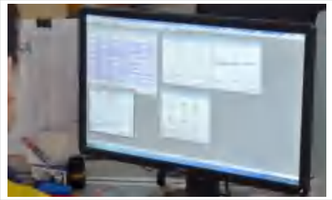
3D Structure Design

Electronic Design

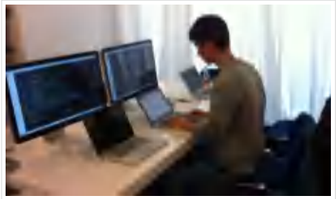


Industry Design

Industry Control

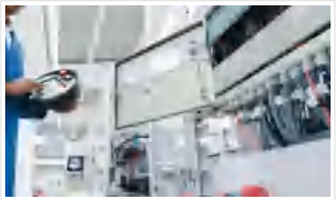


Optical Design



Software Development

PLC Control Design



Vision System Integratio

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

ENTERPRISE HONOR

POMEAS
VISION
TECHNOLOGY

- National Hi-tech Venture
- Over 10 software Copyright
- ATC Certificated
- AIA member
- Guangdong Privated Technology Venture
- ISO 9001:2015 System Certificated
- Made-In-China Authorized Supplier
- 2014 Dongguan Innovation and Entrepreneurship Prize One
- Over 50pcs Patent Technology
- Guangdong Trustworth Venture
- CMVU
- Global Trademark

DIRECTORY

Company Profilf

New Products

New Products ---------- 09
Image Measurement Instrument

New Products ---------- 14
New Products Preview

Zoom Lens Series

PMS-K75 Series ---------- 16
Support 1" sensor, the new generation of 4K level large field of view continuous zoom lens

PMS-LZME Series ---------- 21
Support 2/3 sensor, aperture and working distance variable zoom macro lens

PMS-L125/L65 Series ---------- 23
Support 2/3" sensor, built-in double guide structure continuous zoom lens

Zoom Navigation Lens Series ---------- 27
Add coaxial large field of view image acquisition function, easy for the main lens point finding and positioning

PMS-Z65 Series ---------- 31
Support 2/3" sensor, 0.7X-4.5X continuous zoom lens

PMS-Z125 Series ---------- 35
Support 2/3" sensor, 0.58X-7.5X continuous zoom lens

Telecentric Lens Series

High Resolution Telecentric Lens Series ---------- 43
Support 1"、2/3" various sensor, high resolution telecentric lens

PMS-TF Series ---------- 53
Support FULL sensor, 29 million pixels, F-port large field of view telecentric lens

PMS-DTC Series ---------- 57
Support 2/3" sensor, double side double telecentric lens

Standard Telecentric Lens Series ---------- 61
Support 2/3", 1/2" sensor, standard telecentric lens

Zoom Telecentric Lens Series ---------- 67
Support 2/3" sensor, adjustable focal length, 55mm telecentric lens

PMS-ML Series ---------- 68
Support 2/3" sensor, fixed magnification macro lens

FA Lens Series

Low Distortion HD Industrial Lens Series ---------- 72
Support MP/5MP/10MP, 2/3", 1", 4/3" sensor low distortion HD industrial lens

PMS-LC Series ---------- 81
8MP 1" Low Distortion HD Industrial Lens

PMS-UC Series ---------- 83
20 MP 1.1" Low Aberration HD Industrial Lens

Sensor Series

8000 Series Spectral Confocal Sensor ---------- 88
Suitable for all materials - accurate and stable measurement - complete application solutions

Point Spectral Confocal Measurement Microscope System ---------- 96
Simple structure - High measurement accuracy - Fast speed

Illumination Series

Ring Light Series ---------- 98
High brightness, no diagonal irradiation shadow, a variety of color options ring light

Shadowless Ring Light Source Series ---------- 105
High brightness, no diagonal irradiation shadow, a variety of color options ring light

Bar Light Source Series ---------- 107
Bar light source is especially suitable for imaging situations with large size features

Coaxial Light Source Series ---------- 110
High density LED array for mirror reflector detection

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

DIRECTORY

Surface Light Source Series ---------- 114

Parallel Surface Light Source Series ---------- 118

Parallel Light Source Series ---------- 121
Support 35~265mm aperture parallel light source with telecentric lens

Corner Parallel Light Source Series ---------- 122
Coaxial light source with coaxial lens, high LED power, small size

Dome Light Source Series ---------- 124
Dome light source is suitable for objects with undulating and reflective surfaces

Point Light Source Series ---------- 126
Point light source has the advantages of high brightness and small light-emitting area

Infrared Light Source Series ---------- 128
Infrared light source has stronger penetration than conventional visible light

Ultraviolet Light Source Series ---------- 129
UV light source has more energy than the conventional visible light

Industrial Cameras Series

Gigabit Ethernet Industrial Camera Series ---------- 131
1.6 Megapixel 1/2.9" Gigabit Ethernet Industrial Camera

Large Format Industrial Camera Series ---------- 134
Large Format Industrial Camera

VGA Interface Industrial Camera Series ---------- 136
Industrial camera with VGA interface supporting 1 to 2MP

Corner Parallel Light Source Series ---------- 137
Megapixel HDMI Industrial Camera

Measurement Projector Accessories

PMS-PLD300/400 Series ---------- 140
Projection lens supporting D300, D400, magnification covering 5X~50X

PMS-PA Series ---------- 142
Projection screen with cross scale, uniform surface frosting density and low dispersion loss

PMS-PG Series ---------- 142
Carrier glass with visible light transmittance >95%, flatness <0.01mm.

PMS-PM Series ---------- 143
Flat reflector with high reflectivity and high precision of face shape

PMS-PGS Series ---------- 143
Projection LED light source with high brightness, high parallelism and good uniformity

Microscope Series

PMS-MM Series ---------- 145
High precision and high efficiency metallographic microscope integrating software, light, machine and electricity

PMS-XHD-AF Series ---------- 147
Autofocus Video Microscope with Measurement

PMS-VA/VH Series ---------- 149
All In One Video Microscope

PMS-SM Series ---------- 151
Body microscope with continuous magnification

PMS-VHL Series ---------- 152
High DOF 3D microscope with 360° real-time image viewing

DIC microscope Series ---------- 154
High contrast, interference color uniform DIC microscope

Accessories Series

Optical Terms

New Product

Image Dimension Measurement System

NEW IMAGE 3 SERIES

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

PRODUCT INTRODUCTION

IMAGE 3 SERIES Products
Introduced Into The Automated Production Line

Solve The Common Problems Of Dimension Measurement

Fast

- 100 parts of measurement in 1 second, greatly reducing the measurement time.
- Reports can be automatically uploaded to the customer data management system.
- With auto focus, auto positioning and auto measurement functions, anyone can get consistent and stable measuring result.

Accurate

- Double telecentric lens with two 20MP cameras and automatic lifting multi-angle surface light and surface coaxial light.
- Powerful AI edge computing algorithm, easily realize precise edge finding on the surface, and filter the invalid area of boundary noise.
- Achieve high-precision measurement of surface dimensions, and the measurement repeatability of surface light can reach the same level as that of bottom light.

Simple

- Simple software operation interface, easy programing and report parameter setting.
- One tap measure, an also be used with customer IO signal to realize automatic measurement.
- Desktop Structure, Small Size, Convenient Hanging, Suitable For Rapid Online And Officedimension Measurement.

PRODUCT INTRODUCTION

IMAGE 3 SERIES

At present, IMAGE 3 series has three models: standard type and movement stage type. The measuring range of IMAGE3: φ100;200mmX200mmX75mm;300mmX200mmX75mm.

IMAGE 3

- Measuring Range (mm): Φ100mm
- Ring Lighting (Variable Lighting)
- Auto Focus
- POMEAS Double-Magnification Double Telecentric Lens

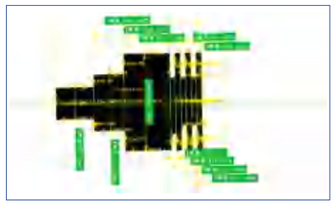
IMAGE 3 Plus

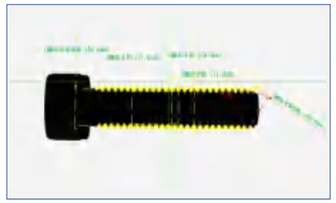
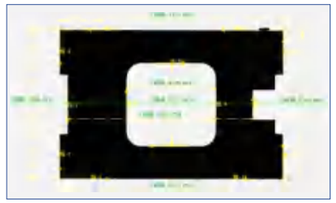
- Measuring Range (mm): 200X200X75
- Ring Lighting (Variable Lighting)
- Auto Focus
- POMEAS Double-Magnification Double Telecentric Lens

IMAGE 3 Pro

- Measuring Range (mm): 300X200X75
- Ring Lighting (Variable Lighting)
- Auto Focus
- POMEAS Double-Magnification Double Telecentric Lens

SUCCESS CASES



APPLICATIONS

- Suitable For Various Inspection Processes
- Initial Sample Inspection
- Warehousing Inspection
- In-Process Sampling Inspection
- Inspection Before Shipment
- Automatic Size Measurement On Production Line
- High-precision Measurement In The Laboratory
- Automatic Size Measurement Next To The Production Line

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

PRODUCT INTRODUCTION

IMAGE 3 Series Datasheet

Device Model			IMAGE 3	IMAGE 3 Plus	IMAGE 3 Pro
Measuring Range	X		Φ100	200mm	300mm
	Y			200mm	200mm
	Z		75mm	75mm	75mm
Lens Field Of View	High Precision Measurement Mode		26mm×18mm		
	Wide FOV Measurement Mode		Φ100		
Repeatitive Accuracy	High Precision Measurement Mode		± 1.5 μ m		
	Wide Fov Measurement Mode		± 3 μ m		
Min. Display Unit			0.0001mm		
Measurement Accuracy	High Precision Measurement Mode	Not Connected	± 1.5 μ m		
		Connected	\	± 2+L/150 μ m	± 2+L/150 μ m
	Wide Fov Measurement Mode	Not Connected	± 3 μ m		
		Connected	\	± 3+L/150 μ m	± 3+L/150 μ m
Instrument Weight			33kg	45kg	50kg
Optical System	Camera		1" 20MP Black And White Camera × 2		
	Lens		Double Magnification Double Telecentric Lens		
	Surface Light		Two-Ring Adjustable Light Source		
	Back Light		Green Parallel Bottom Light		
Power Supply			220V±10%,50Hz		
Working Environment			Temperature: 20+3°C; Temperature: 30-80% (No Condensation); Vibration: <0.002g,15HZ		
Work Stage Load			5kgs		
C1 Controller Size (L*W*H)			132*208*288mm		
Dimensions (L*W*H) mm			600×300×650mm	600×410×650mm	600×510×650mm

New Product

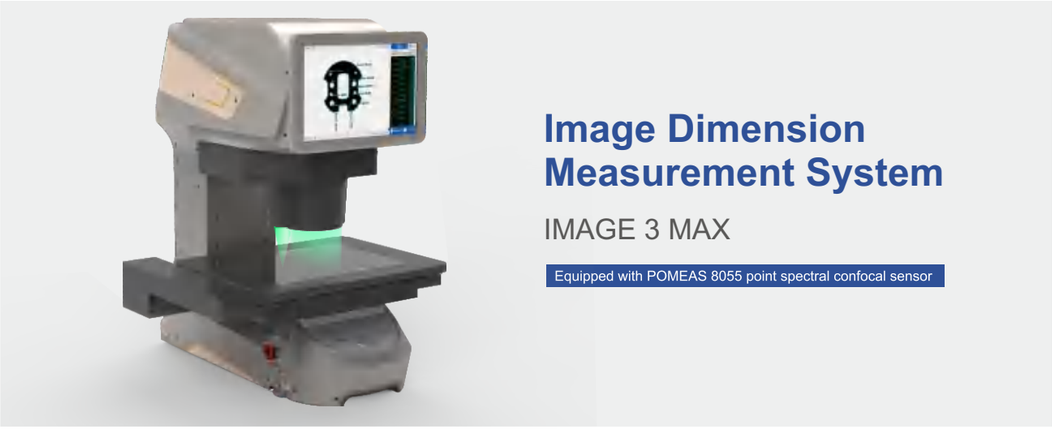


Image Dimension Measurement System

IMAGE 3 MAX

Equipped with POMEAS 8055 point spectral confocal sensor

IMAGE 3 Series Datasheet

Model				IMAGE 3 MAX
Camera				1″12MP pixel black white CMOS
Lens				Double magnification double side telecentric lens
Height Measurement Sensor				8055-point spectral confocal sensor
Monitor				12.1″LCD monitor
Z-Axis Travel				75mm
Image Measurement	Measurement Range	High Precision Mode		206.4×104.8mm
		Big FOV Mode		218.8×114.1mm
	Lens FOV	High Precision Mode		6.4×4.8mm
		Big FOV Mode		18.8×14.1mm
	Repeatability	High Precision Mode		±1um
		Big FOV Mode		±1.5um
	Measuring Accuracy	High Precision	Non-Connected	±1um
			Connected	±(1.5+L/150)um
		Big FOV	Non-Connected	±1.5um
			Connected	±(2+L/150)um
	Working Distance			80mm
Height Measurement	Repeatability			±2um
	Measuring Accuracy			±(3.5+L/25)um
	Working Distance			55mm
	Range			±3mm
Light Control	Bottom Light			Green through light source
	Surface Light			Liftable four-drive white ring light source
	Coaxial Light			Inside coaxial light source
Working Stage Load				5KG
Software				Image
Power Supply				220V±10%
Working Environment				Temperature: 20±3℃, Humidity: 30%-80%, Vibration: <0.002G, 15Hz
Dimension (L×W×H)				600×510×700mm

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

New Product

PMS-8000 SERIES

Details page 81

Spectral Confocal Sensor

Accurate And Stable Measurements

PMS-75 SERIES

Details page 15

4k Big Fov Zoom Lens

Larger FOV Higher Resolution

PMS-MHCC SERIES

Details page 95

Point Spectrum Confocal Measurement Microscope

Simple Structure, High Measurement Accuracy, Fast Speed

PMS-DTC SERIES

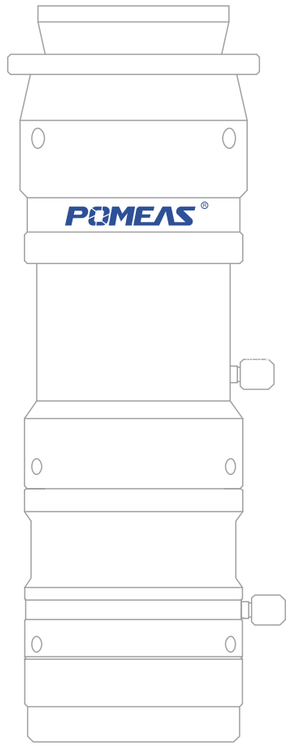
Details page 61

Bilateral Double Telecentric Lens

Larger FOV, Higher Precision

ZOOM LENS SERIES

Based on years of experience in optical design and auto-control technology, POMEAS optical zoom lens auto-control system is developed to meet the requirements of quick accurate inspection. Widely used in industry inspection, automation, electronic communication, semiconductor, scientific research, etc.



PRODUCT ADVANTAGES

1.Precise optical path design, high resolution, low distortion, excellent optical properties.
2.Super long working distance, wide FOV range.
3.Multi Codinedond, reduce the stray light and ghost, offer high quality image.
4.Anodized metal part, more durable.
5.Compact and reliable structure.

PRODUCT FEATURES

Coaxial Illumination

1.Infinity parallel incident light, achieve shadow-free lighting.
2.Coaxial illumination structure can make the incident light irradiation more uniform.

Motorized Zoom

1.High speed in zoom and focus and high accuracy in repetitive positioning; Imported DC servo motor, closed loop control.
2.Single or double motor control system via 9-PIN Rs232.
3.Stable quality performance even in the strong vibration environment.

Detented Zoom Lens

1.Detented structure, high accuracy in zoom and repetitive positioning.
2.15-divided points for mechanical positioning.
3.High hardness alloy material , for a long lifespan; precision mechanical structure.

Fine-Focus Device

1.Used in narrow space, adjust fine-focus part for focusing on different height surface of parts, no need to change WD.
2.Fine focus range: 3mm-12mm.
Manual and electric control fine tuning is available.

NEW

Support 1”sensor, 4K Big Fov Zoom Lens

The 4K big FOV high-resolution zoom lens not only has excellent performance in zoominq, but also has big FOV and higher speed; it's an ideal choice for high speed detection and accurate application. Compared with the traditional zoom system, the field of vision is improved by more than 1.45X.

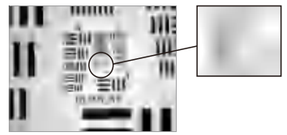
PRODUCT ADVANTAGES

1.Support 1”sensor camera, which expands the FOV by more than 1.45X compared with the traditional lens at the same magnification.
2.Designed with higher resolution requirements, the horizontal resolution with a 1 inch camera can reach 4K level.
3.The magnification is 0.68X-5X, which is suitable for most testing applications.
4.Modular design, multiple magnification TV tube and lens attachment are optional, modules with other functions are additionally provided for selection.

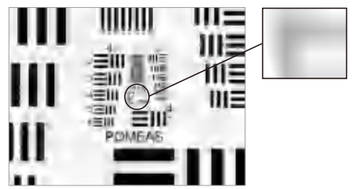
APPLICATION FIELDS

Widely used in biology, electronics, semiconductor, machine vision and other high-precision industries.

ACTUAL IMAGE



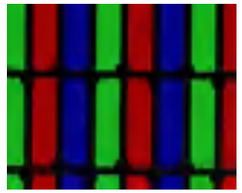
Ordinary zoom lens 5x resolution board



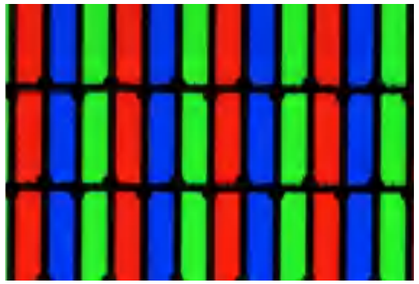
4K high resolution zoom lens 5X resolution board

PRODUCT INTRODUCTION

◆ 1-Inch CCD Compatibility, Larger Sensor Size, Better Light Passage



Traditional Image Lens



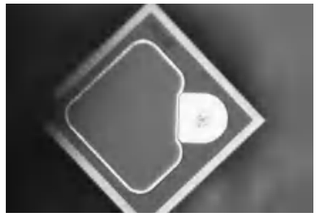
4k Zoom Lens

◆ Better Sharpness

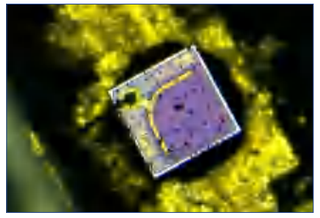
Traditional Image Lens

4k Zoom Lens

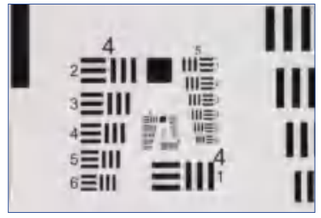
Success Cases



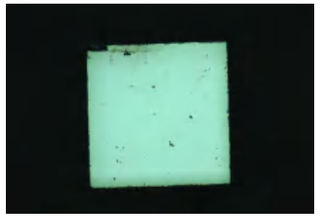
Chip Lamination Alignment



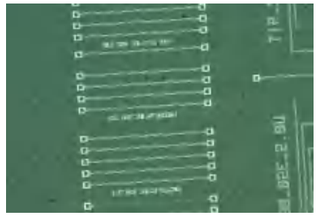
Chip Character Recognition



0.002μm Object Space Resolution



Silicon Wafer Chipping Detection



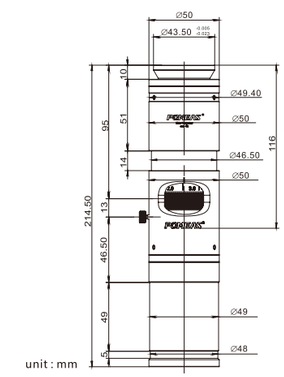
FPC Solder Line Detection

Gold Finger Micro-scratch Detection

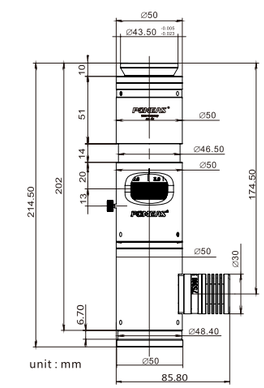
POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Magnification Range		0.68X~5.0X					
Working Distance(mm)		80					
Magnification		0.68X	1.0X	2.0X	3.0X	4.0X	5.0X
DOF(mm)		1.78	0.89	0.25	0.12	0.08	0.07
N.A.		0.033	0.045	0.08	0.11	0.12	0.12
F.No.		10.3	11.0	12.4	13.5	16.5	20.6
Resolution(μm)		10.17	7.46	4.19	3.05	2.8	2.8
TV Distortion		< 0.02%	< 0.02%	< 0.02%	< 0.02%	< 0.02%	< 0.02%
FOV (mm)	1"	23.53×18.82×14.12	16.0×12.8×9.6	8.0×6.4×4.8	5.33×4.27×3.2	4.0×3.2×2.4	3.2×2.56×1.92
	2/3"	16.18×12.94×9.71	11.0×8.8×6.6	5.5×4.4×3.3	3.67×2.93×2.2	2.75×2.2×1.65	2.2×1.76×1.32
	1/2"	11.76×9.41×7.06	8.0×6.4×4.8	4.0×3.2×2.4	2.67×2.13×1.6	2.0×1.6×1.2	1.6×1.28×0.96
	1/3"	8.82×7.06×5.29	6.0×4.8×3.6	3.0×2.4×1.8	2.0×1.6×1.2	1.5×1.2×0.9	1.2×0.96×0.72
Max. Sensor Size		1"					
Total Length(mm)		328					
Zooming Method		Manual/Motorized					
Mount		C-Mount					

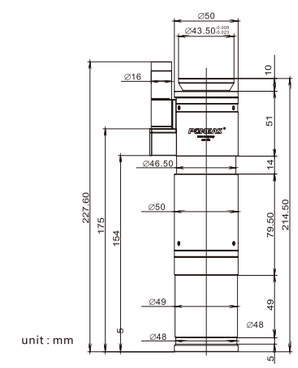
PMS-K75D



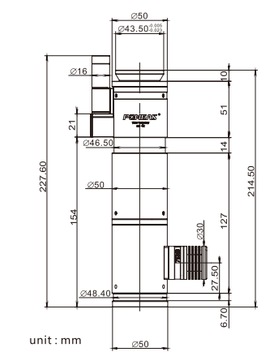
PMS-K75D-C



PMS-K75M



PMS-K75M-C

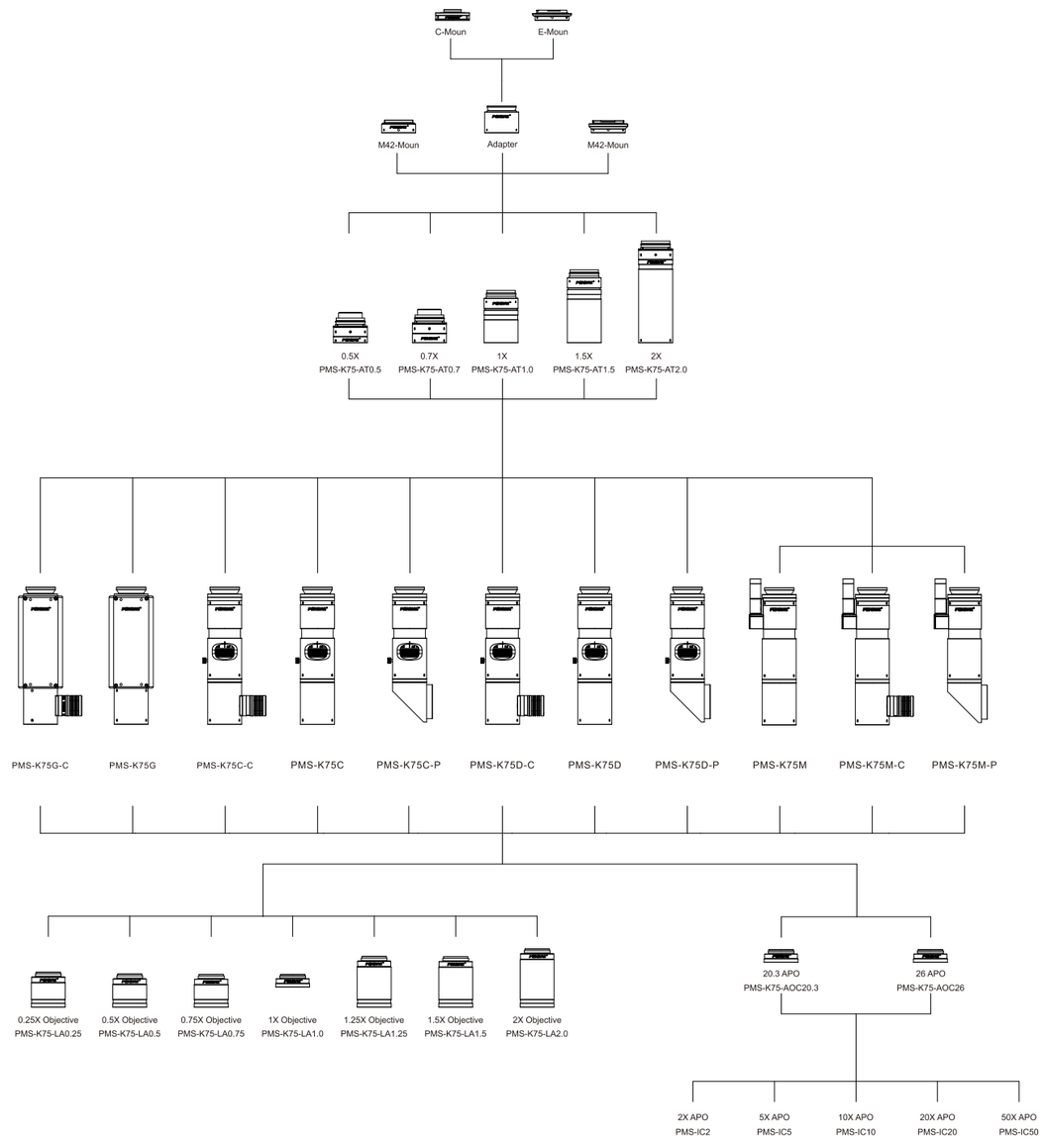


4K Zoom Lens Fov Table

Lens Attachment	WD(mm)	N.A.		Object Resolution(μm)		Tube Mag.		0.7X		1X		1.5X		2X	
		Low Magnification	High Magnification	Low Magnification	High Magnification			Low Magnification	High Magnification	Low Magnification	High Magnification	Low Magnification	High Magnification	Low Magnification	High Magnification
0.25X	240	0.0083	0.03	40.67	11.18	Magnification		0.119X	0.857X	0.17X	1.25X	0.255X	1.875X	0.34X	2.5X
						Depth of field (mm)		40.74	1.52	28.52	1.07	19.01	0.71	14.26	0.53
						CameraSensor(D*H*V)(mm)	1/2"	67.2×53.8×40.3	9.1×7.3×5.5	47.1×37.6×28.2	6.4×5.1×3.8	31.4×25.1×18.8	4.3×3.4×2.6	23.5×18.8×14.1	3.2×2.6×1.9
							2/3"	92.4×73.9×55.5	12.6×10.1×7.5	64.7×51.8×38.8	8.8×7.0×5.3	43.1×34.5×25.9	5.9×4.7×3.5	32.4×25.9×19.4	4.4×3.5×2.6
							1"	-	-	94.1×75.3×56.5	12.8×10.2×7.7	62.7×50.2×37.6	8.5×6.8×5.1	47.1×37.6×28.8	6.4×5.1×3.8
							4/3"	-	-	-	-	84.7×67.8×50.8	11.5×9.2×6.9	63.5×50.8×38.1	8.6×6.9×5.2
							32mm	-	-	-	-	-	-	94.1×75.3×56.5	12.8×10.2×7.7
0.5X	135	0.0165	0.06	20.33	5.59	Magnification		0.238X	1.75X	0.34X	2.5X	0.51X	3.75X	0.68X	5X
						Depth of field (mm)		10.19	0.38	7.13	0.27	4.75	0.18	3.57	0.13
						CameraSensor(D*H*V)(mm)	1/2"	33.6×26.9×20.2	4.6×3.7×2.7	23.5×18.8×14.1	3.2×2.6×1.9	15.7×12.5×9.4	2.1×1.7×1.3	11.8×9.4×7.1	1.6×1.3×1.0
							2/3"	46.2×37.0×27.7	6.3×5.0×3.8	32.4×25.9×19.4	4.4×3.5×2.6	21.6×17.3×12.9	2.9×2.3×1.8	16.2×12.9×9.7	2.2×1.8×1.3
							1"	-	-	47.1×37.6×28.2	6.4×3.5×2.6	31.4×25.1×18.8	4.3×3.4×2.6	23.5×18.8×14.1	3.2×2.6×1.9
							4/3"	-	-	-	-	42.4×33.9×24.4	5.8×4.6×3.5	31.8×25.4×19.1	4.3×3.5×2.6
							32mm	-	-	-	-	-	-	47.1×37.6×28.2	6.4×5.1×3.8
0.75X	111	0.025	0.09	13.56	3.73	Magnification		0.375X	2.625X	0.51X	3.75X	0.765X	5.625X	1.02X	7.5X
						Depth of field (mm)		4.53	0.17	3.17	0.12	2.11	0.08	1.58	0.06
						CameraSensor(D*H*V)(mm)	1/2"	22.4×17.9×13.4	3.0×2.4×1.8	15.7×12.5×9.4	2.1×1.7×1.3	10.5×8.4×6.3	1.4×1.1×0.9	7.8×6.3×4.7	1.1×0.9×0.6
							2/3"	30.8×24.6×18.5	4.2×3.4×2.5	21.6×17.3×12.9	2.9×2.3×1.8	14.4×11.5×8.6	2.0×1.6×1.2	10.8×8.6×6.5	1.5×1.2×0.9
							1"	-	-	31.4×25.1×18.8	4.3×3.4×2.6	20.9×16.7×12.5	2.8×2.3×1.7	15.7×12.5×9.4	2.1×1.7×1.3
							4/3"	-	-	-	-	28.2×22.6×16.9	3.8×3.1×2.3	21.2×16.9×12.7	2.9×2.3×1.7
							32mm	-	-	-	-	-	-	31.4×25.1×18.8	4.3×3.4×2.6
1X	80	0.033	0.12	10.17	2.80	Magnification		0.476X	3.5X	0.68X	5X	1.02X	7.5X	1.36X	10X
						Depth of field (mm)		2.55	0.10	1.78	0.07	1.19	0.04	0.89	0.03
						CameraSensor(D*H*V)(mm)	1/2"	16.8×13.4×10.1	2.3×1.8×1.4	11.8×9.4×7.1	1.6×1.3×1.0	7.8×6.3×4.7	1.1×0.9×0.6	5.9×4.7×3.5	0.8×0.6×0.5
							2/3"	23.1×18.5×13.9	3.1×2.5×1.9	16.2×12.9×9.7	2.2×1.8×1.3	10.8×8.6×6.5	1.5×1.2×0.9	8.1×6.5×4.9	1.1×0.9×0.7
							1"	-	-	23.5×18.8×14.1	3.2×2.6×1.9	15.7×12.5×9.4	2.1×1.7×1.3	11.8×9.4×7.1	1.6×1.3×1.0
							4/3"	-	-	-	-	21.2×16.9×12.7	2.9×2.3×1.7	15.9×12.7×9.5	2.2×1.7×1.3
							32mm	-	-	-	-	-	-	23.5×18.8×14.1	3.2×2.6×1.9
1.5X	45	0.0495	0.18	6.78	1.86	Magnification		0.714X	5.25X	1.02X	7.5X	1.53X	11.25X	2.04X	15X
						Depth of field (mm)		1.13	0.04	0.79	0.03	0.53	0.02	0.40	0.01
						CameraSensor(D*H*V)(mm)	1/2"	11.2×9.0×6.7	1.5×1.2×0.9	7.8×6.3×4.7	1.1×0.9×0.6	5.2×4.2×3.1	0.7×0.6×0.4	3.9×3.1×2.4	0.5×0.4×0.3
							2/3"	15.4×12.3×9.2	2.1×1.7×1.3	10.8×8.6×6.5	1.5×1.2×0.9	7.2×5.8×4.3	1.0×0.8×0.6	5.4×4.3×3.2	0.7×0.6×0.4
							1"	-	-	15.7×12.5×9.4	2.1×1.7×1.3	10.5×8.4×6.3	1.4×1.1×0.9	7.8×6.3×4.7	1.1×0.9×0.6
							4/3"	-	-	-	-	14.1×11.3×8.5	1.9×1.5×1.2	10.6×8.5×6.4	1.4×1.2×0.9
							32mm	-	-	-	-	-	-	15.7×12.5×9.4	2.1×1.7×1.3
2X	27	0.066	0.24	5.08	1.40	Magnification		0.952X	7X	1.36X	10X	2.04X	15X	2.72X	20X
						Depth of field (mm)		0.64	0.02	0.45	0.02	0.30	0.01	0.22	0.01
						CameraSensor(D*H*V)(mm)	1/2"	8.4×6.7×5.0	1.1×0.9×0.7	5.9×4.7×3.5	0.8×0.6×0.5	3.9×3.1×2.4	0.5×0.4×0.3	2.9×2.4×1.8	0.4×0.3×0.2
							2/3"	11.6×9.2×6.9	1.6×1.3×0.9	8.1×6.5×4.9	1.1×0.9×0.7	5.4×4.3×3.2	0.7×0.6×0.4	4.0×3.2×2.4	0.6×0.4×0.3
							1"	-	-	11.8×9.4×7.1	1.6×1.3×1.0	7.8×6.3×4.7	1.1×0.9×0.6	5.9×4.7×3.5	0.8×0.6×0.5
							4/3"	-	-	-	-	10.6×8.5×6.4	1.4×1.2×0.9	7.9×6.4×4.8	1.1×0.9×0.6
							32mm	-	-	-	-	-	-	11.8×9.4×7.1	1.6×1.3×1.0

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

4K Zoom Lens Selection Diagram



Support 2/3” Sensor, Variable Iris And Working Distance, Macro Zoom

The product has excellent imaging quality, not only has telecentric optical path design, ultra-low distortion imaging, but also is a high resolution telecentric lens with variable working distance, compact structure and flexible and convenient use.

PRODUCT ADVANTAGES

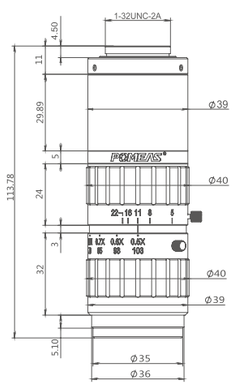
1. Ultra-low distortion imaging based on telecentric optical path design;
2. High resolution, superior to other zoom lenses at the same magnification.
3. The aperture is adjustable, and the depth of field and resolution can be adjusted flexibly according to the requirements of use.
4. The working distance can be adjusted. The working distance can be adjusted according to the need when the visual field is allowed. It is flexible and convenient to use.
5. The front end of the lens is equipped with a universal filter interface to facilitate the installation of filters.
6. Compact structure .

APPLICATION FIELDS

It can be used in semiconductor, automation, electronic communication and other industries.

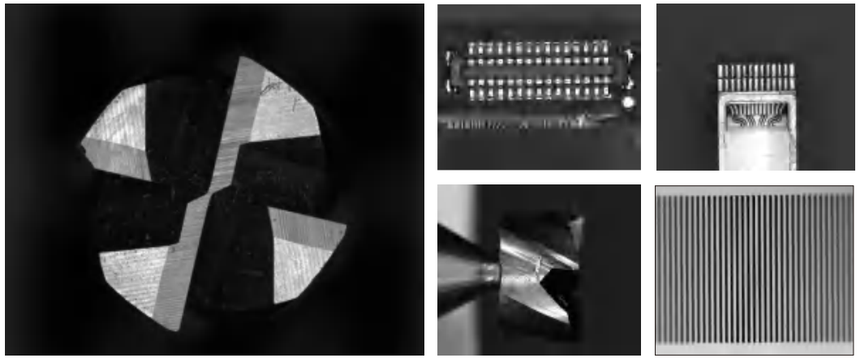
DIMENSIONS

PMS-LZME501M

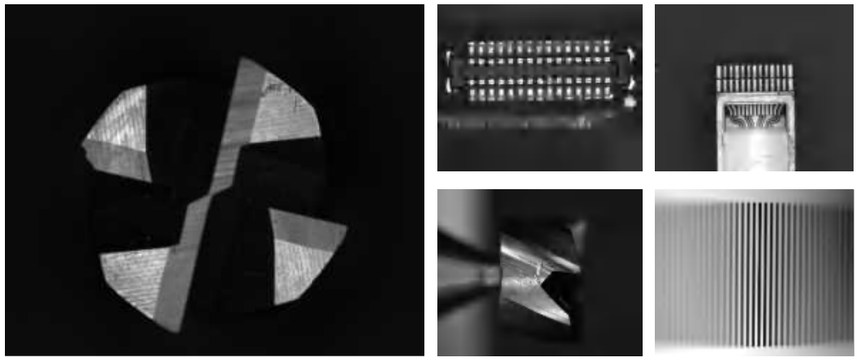


POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

PMS-LZME501M EFFECT PIC



CONVENTIONAL INDUSTRIAL LENS EFFECT PIC



PMS-LZME-0510M Parameter Table

Magnification Range		0.5X~1.0X					
Working Distance(mm)		106	96	88	83	78	75
Magnification		0.5X	0.6X	0.7X	0.8X	0.9X	1.0X
DOF		1.6	1.11	0.82	0.63	0.49	0.40
N.A.		0.05	0.06	0.07	0.08	0.09	0.10
F.No.		5	5	5	5	5	5
Resolution(μm)		6.71	5.59	4.79	4.19	3.73	3.36
TV Distortion		< 0.02%	< 0.02%	< 0.02%	< 0.02%	< 0.02%	< 0.02%
FOV(mm)	2/3"	22.0x17.6x13.2	18.33x14.67x11.0	15.71x12.57x9.43	13.75x11.0x8.25	12.22x9.78x7.33	11.0x8.8x6.6
	1/2"	16.0x12.8x9.6	13.33x10.67x8.0	11.43x9.14x6.86	10.0x8.0x6.0	8.89x7.11x5.33	8.0x6.4x4.8
	1/3"	12.0x9.6x7.2	10.0x8.0x6.0	8.57x6.86x5.14	7.5x6.0x4.5	6.67x5.33x4.0	6.0x4.8x3.6
Max. Sensor Size		2/3"					
Mount		C-Mount					
Zooming Method		Manual					

Linear Zoom Lens

Compared with the traditional electric zoom lens, the latest 12.5X electric zoom lens has built-in double guide rail structure. It has a linear guide motion system with high precision, high efficiency and smaller friction coefficient, which greatly improves the optical performance, accuracy, stability and service life of the lens.

PRODUCT ADVANTAGES

1. High ratio of variation, up to 12.5x;
2. Use the guide rail structure to eliminate the restriction of the times of zooming.
3. High contrast. Core-adjusting method is used to solve the influence of optical element center deviation on image contrast.
4. Quick and accurate zooming;

APPLICATION FIELDS

Widely used in biology, electronics, semiconductor, machine vision and other high-precision industries.

PRODUCT ADVANTAGES

Filter-1X

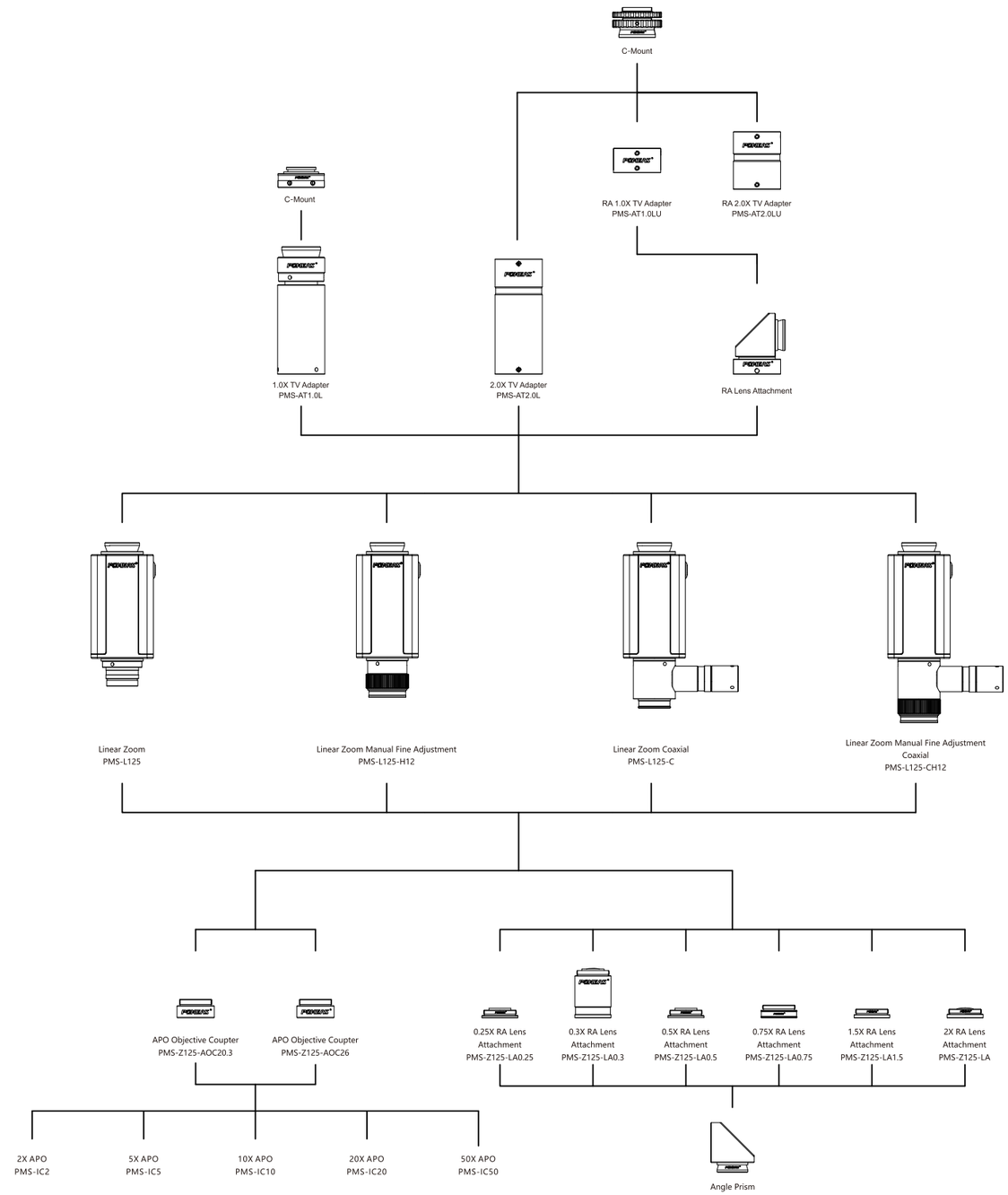
Filter-4X

Tool

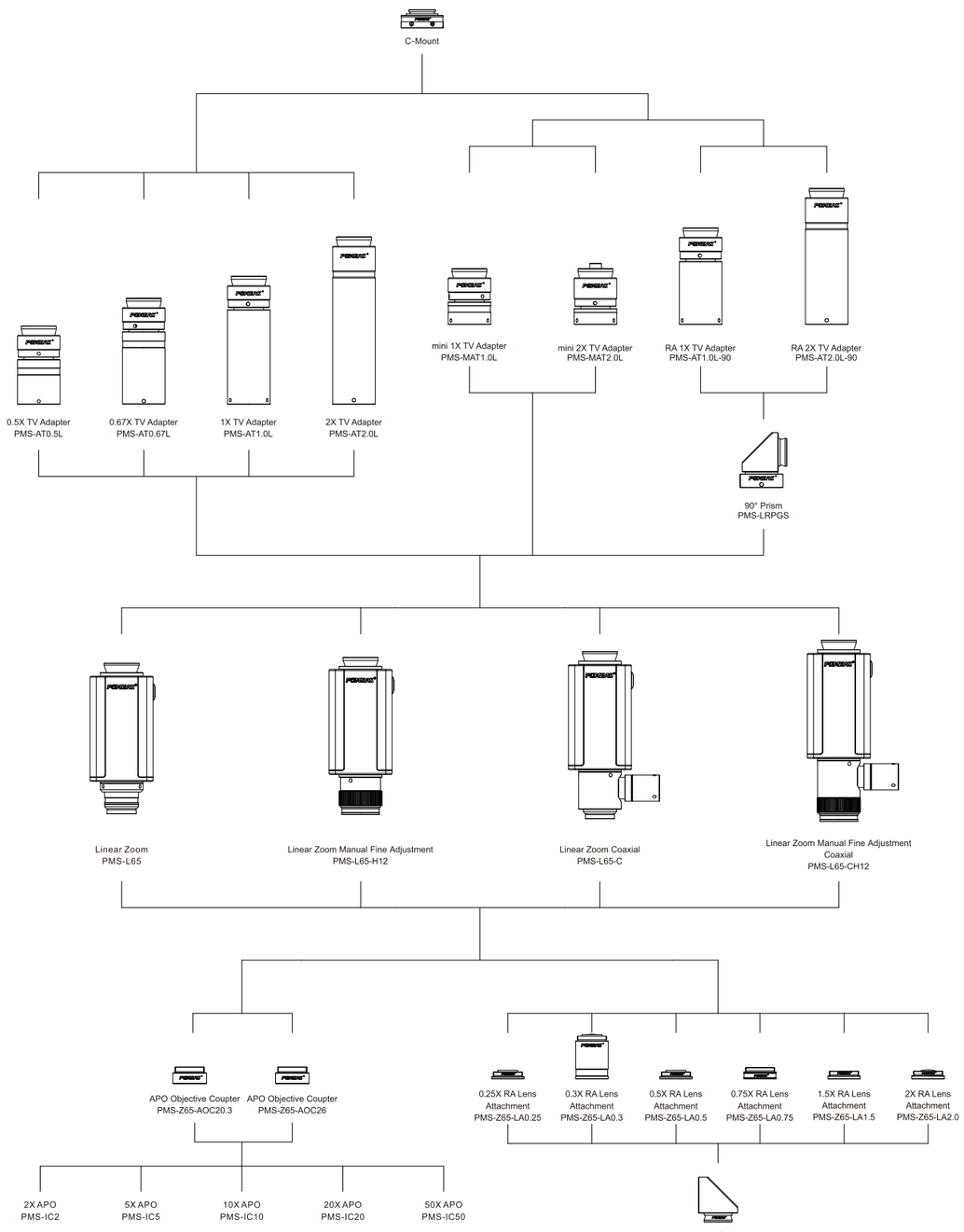
PCB Board Inspection

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

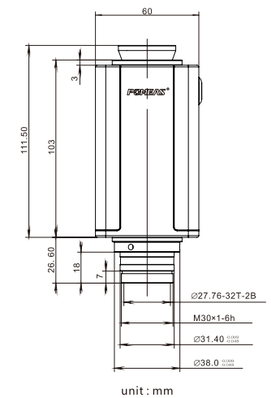
12.5X Linear Zoom Lens Selection Diagram



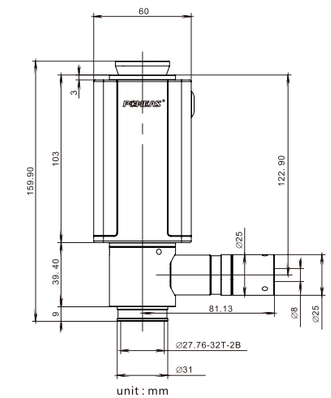
6.5X Linear Motorized Zoom Lens Selection Diagram



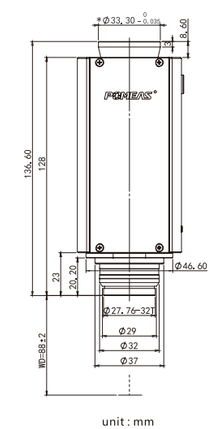
PMS-L125



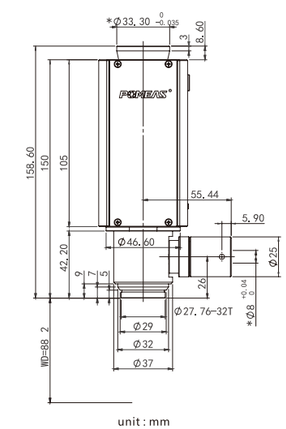
PMS-L125-C



PMS-L65(S)



PMS-L65-C(S)



12.5X Linear Zoom Lens Parameter

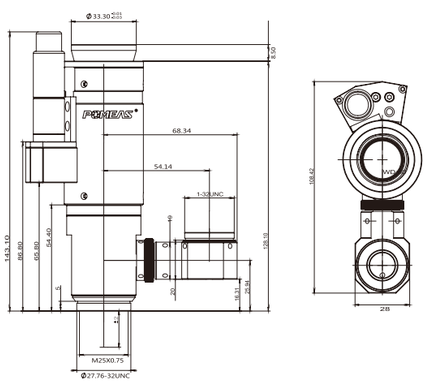
Magnification Range		0.58X~7.5X															
Working Distance(mm)		77.4±2mm															
Magnification		0.58X	0.6X	1X	1.5X	2X	2.5X	3X	3.5X	4X	4.5X	5X	5.5X	6X	6.5X	7X	7.5X
DOF(mm)		2.75	2.67	0.95	0.43	0.27	0.2	0.15	0.12	0.1	0.081	0.073	0.066	0.061	0.056	0.052	0.05
N.A.		0.025	0.025	0.043	0.063	0.074	0.082	0.09	0.097	0.1	0.11	0.11	0.11	0.11	0.11	0.11	0.11
F.NO.		12.5	12.5	11.85	11.95	13.65	15.3	16.5	18.4	19.9	20.4	22.45	22.7	26.8	29.4	31.7	33.9
Resolution(μm)		13	13	7.8	5.3	4.53	4.09	3.73	3.46	3.36	3.05	3.05	3.05	3.05	3.05	3.05	3.05
TV Distortion		0.050%	0.050%	0.002%	0.010%	0.020%	0.003%	0.020%	0.020%	0.018%	0.020%	0.010%	0.010%	0.001%	0.010%	0.005%	0.005%
2/3" FOV (mm)	Diagonal	18.97	18.33	11	7.33	5.5	4.4	3.67	3.14	2.75	2.44	2.2	2	1.83	1.69	1.57	1.47
	Horizontal	15.17	14.67	8.8	5.87	4.4	3.52	2.93	2.51	2.2	1.96	1.76	1.6	1.47	1.35	1.26	1.17
	Vertical	11.38	11	6.6	4.4	3.3	2.64	2.2	1.89	1.65	1.47	1.32	1.2	1.1	1.02	0.94	0.88
Max. Sensor Size		2/3"															
Mount		C-Mount															

6.5X Linear Zoom Lens Parameter

Magnification Range		0.7X~4.5X								
Working Distance(mm)		87±2mm								
Magnification		0.7X	1.0X	1.0X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
DOF(mm)		1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12	0.1
N.A.		0.03	0.042	0.06	0.07	0.07	0.085	0.085	0.085	0.085
F.NO.		11.6	12.1	12.5	14.2	17.8	17.6	20.5	23.5	26.5
Resolution(μm)		11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95	3.95
TV Distortion		0.019%	0.035%	0.002%	0.003%	0.004%	0.001%	0.001%	0.002%	0.002%
FOV (mm) D×H×V	2/3"	15.71×12.57×9.43	11.00×8.80×6.60	7.33×5.87×4.40	5.50×4.40×3.30	4.40×3.52×2.64	3.67×2.93×2.20	3.14×2.21×1.89	2.75×2.20×1.65	2.44×1.96×1.47
	1/2"	11.43×9.14×6.86	8.00×6.40×4.80	5.33×4.27×3.20	4.00×3.20×2.40	3.20×2.56×1.92	2.67×2.13×1.60	2.29×1.83×1.37	2.00×1.60×1.20	1.78×1.42×1.07
	1/3"	8.57×6.86×5.14	6.00×4.80×3.60	4.00×3.20×2.40	3.00×2.40×1.80	2.40×1.92×1.44	2.00×1.60×1.20	1.71×1.37×1.03	1.50×1.20×0.90	1.33×1.07×0.80
Max. Sensor Size		2/3"								
Mount		C-Mount								

Variable Navigation Lens - PMS-Z65D-CH

Add coaxial big fov image acquisition function, easy to find the point and positioning of the main lens, etc.



Unit : mm

APPLICATION FIELDS

A widely use in high precision industries such as biologyelectronics,semiconductor and machine vision.

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

6.5X Zoom Lens With Positioning Lens Specidication Sheet

Optical Magnification		0.7X-4.5X								
Working Distance(mm)		77.4±2mm								
Optical Magnification		0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
Depth Of Field(mm)		1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12	0.1
N.A.		0.03	0.04	0.063	0.07	0.085	0.085	0.095	0.095	0.105
F.No.		11.7	12.7	11.95	14.4	15.3	17.6	18.5	20.8	21.3
Resolution(μm)		11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95	3.95
TV Distortion		0.06%	0.02%	0.01%	0.03%	0.03%	0.02%	0.03%	0.03%	0.03%
Field Of View (mm) D×H×V	2/3"	15.71x12.57x9.43	11.00x8.80x6.60	7.33x5.87x4.40	5.50x4.40x3.30	4.40x3.52x2.64	3.67x2.93x2.20	3.14x2.21x1.89	2.75x2.20x1.65	2.44x1.96x1.47
	1/2"	11.43x9.14x6.86	8.00x6.40x4.80	5.33x4.27x3.20	4.00x3.20x2.40	3.20x2.56x1.92	2.67x2.13x1.60	2.29x1.83x1.37	2.00x1.60x1.20	1.78x1.42x1.07
	1/3"	8.57x6.86x5.14	6.00x4.80x3.60	4.00x3.20x2.40	3.00x2.40x1.80	2.40x1.92x1.44	2.00x1.60x1.20	1.71x1.37x1.03	1.50x1.20x0.90	1.33x1.07x0.80
Maximum Compatible Sensor		2/3"								
Mount		C-Mount								
Coaxial Functional Components		Zoom Lens with positioning lens								
		Manual / Motorize								

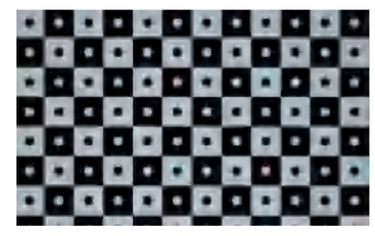
Zoom Lens With Positioning Lens Specification Sheet

Working Distance(mm)	77.4±2mm
Optical Magnification	0.128X
F.No.	12
Resolution(μm)	62.6
Field Of View(mm) 1/3"	46.88 ×37.50 × 28.13
Maximum Compatible Sensor	1/3"
Mount	C-Mount

*1 : Theoretical value(Diffused diameter φ0.04mm).It is better that only use 1/2 of the theoretical range for better application.

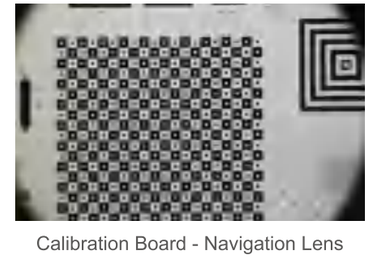
SUCCESS CASES

PCB Board - Main Lens



Calibration Board - Main Lens

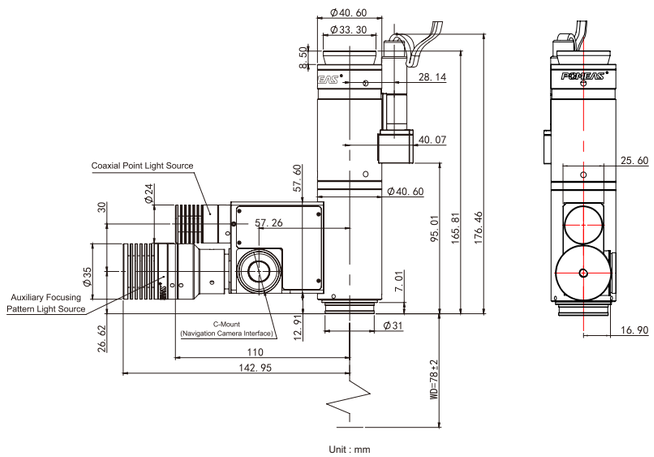
PCB Board - Navigation Lens



Calibration Board - Navigation Lens

Variable Navigation Lens - PMS-Z125D-H3

Coaxial large field of view image acquisition function and coaxial light falling illumination function, as well asand laser light point indication function.



Unit : mm

APPLICATION FIELDS

A widely use in high precision industries such as biologyelectronics, semiconductor and machine vision.

Multifunctional Motorized Zoom Lens Product Parameter Table

Working Distance		77.4 ± 2mm								
Optical Magnification		0.7X	1X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
Depth Of Field(mm) * 1		1.90	0.952	0.44	0.29	0.23	0.16	0.13	0.12	0.10
N.A.		0.03	0.04	0.063	0.07	0.085	0.085	0.095	0.095	0.105
F.No.		11.7	12.7	11.95	14.4	15.3	17.6	18.5	20.8	21.3
Resolution(μm)		11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95	3.96
TV Distortion		0.06%	0.02%	0.01%	0.03%	0.03%	0.02%	0.03%	0.03%	0.03%
Field Of View (mm) D×H×V	2/3"	15.71x12.57x9.43	11x8.8x6.6	7.33x5.87x4.40	5.50x4.40x3.30	4.40x3.52x2.64	3.67x2.93x2.20	3.14x2.51x1.89	2.75x2.20x1.65	2.44x1.96x1.47
	1/2"	11.43x9.14x6.86	8x6.4x4.8	5.33x4.27x3.20	4.00x3.20x2.40	3.20x2.56x1.92	2.67x2.13x1.60	2.29x1.83x1.37	2.00x1.60x1.20	1.78x1.42x1.97
	1/3"	8.57x6.86x5.14	6x4.8x3.6	4.00x3.20x2.40	3.00x2.40x1.80	2.40x1.92x1.44	2.00x1.60x1.20	1.71x1.37x1.03	1.50x1.2x0.90	1.33x1.07x0.80
Maximum Compatible Sensor		2/3"								
Mount		C-Mount								
Coaxial Functional Components		Zoom Lens with positioning lens								
Zoom Method		Manual / Motorize								

Zoom Lens With Positioning Lens Specification Sheet

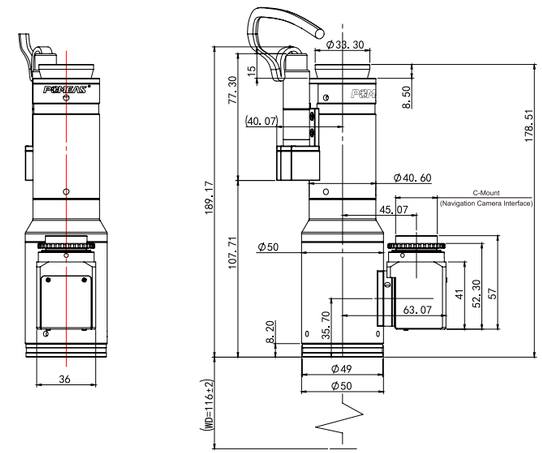
Working Distance(mm)	77.4±2mm
Optical Magnification	0.128X
F.No.	12
Resolution(μm)	62.6
Field Of View(mm) 1/3"	46.88 ×37.50 × 28.13
Maximum Compatible Sensor	1/3"
Mount	C-Mount

*1 : Theoretical value(Diffused diameter φ0.04mm).It is better that only use 1/2 of the theoretical range for better application.

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Variable Navigation Lens - PMS-Z125D-H3+WD

This lens is a coaxial large field of view image acquisition function enhanced version, field of view acquisition.



Unit : mm

APPLICATION FIELDS

A widely use in high precision industries such as biologyelectronics, semiconductor and machine vision.

12.5X WD Extended With Navigation Lens Product Parameter Table

Working Distance		116±2mm							
Optical Magnification		0.38X	0.7X	1X	2X	3X	4X	4.5X	4.83X
Telecentricity		0.812	0.208	0.242	0.497	0.352	0.147	0.058	0.015
Depth Of Field(mm) * 1		4.21	1.43	0.67	0.24	0.16	0.11	0.10	0.08
N.A.		0.025	0.04	0.06	0.085	0.085	0.09	0.09	0.11
F.No.		12.3	12.4	11.13	17.07	21.17	28.3	31.13	35.9
Resolution(μm)		13.42	8.39	5.59	3.95	3.95	3.75	3.75	3.05
Optical Distortion		0.47%	0.06%	0.01%	0.03%	0.02%	0.00%	0.00%	0.00%
TV Distortion		0.15%	0.02%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%
Field Of View (mm) D×H×V	2/3"	——	——	——	——	——	——	——	——
	1/2"	21.05x16.84x12.63	11.43x9.14x6.86	8.00x6.40x4.80	4.00x3.20x2.40	2.67x2.13x1.60	2.00x1.60x1.20	1.78x1.42x1.07	1.66x1.33x0.99
	1/3"	15.79x12.63x9.47	8.57x6.86x5.14	6.00x4.80x3.60	3.00x2.40x1.80	2.00x1.60x1.20	1.50x1.20x0.90	1.33x1.07x0.80	1.24x0.99x0.75
Maximum Compatible Sensor		1/2"							
Mount		C-Mount							
Coaxial Functional Components		Zoom Lens with positioning lens							
Zoom Method		Manual / Motorize							

Zoom Lens With Positioning Lens Specification Sheet

Working Distance(mm)	116±2mm
Optical Magnification	0.1X
F.No.	8
Resolution(μm)	53.3
Field Of View(mm) 1/3"	80 ×64 × 48
Maximum Compatible Sensor	1/2"
Mount	C-Mount

*1 : Theoretical value(Diffused diameter φ0.04mm).It is better that only use 1/2 of the theoretical range for better application.

Support 2/3" CCD, Optical Magnification 0.7X-4.5X, Continuous Zoom Lens

With the perfect combination of high resolution and big magnification ratio, the most universal zoom lens is widely used in various industry applications.

PRODUCT ADVANTAGES

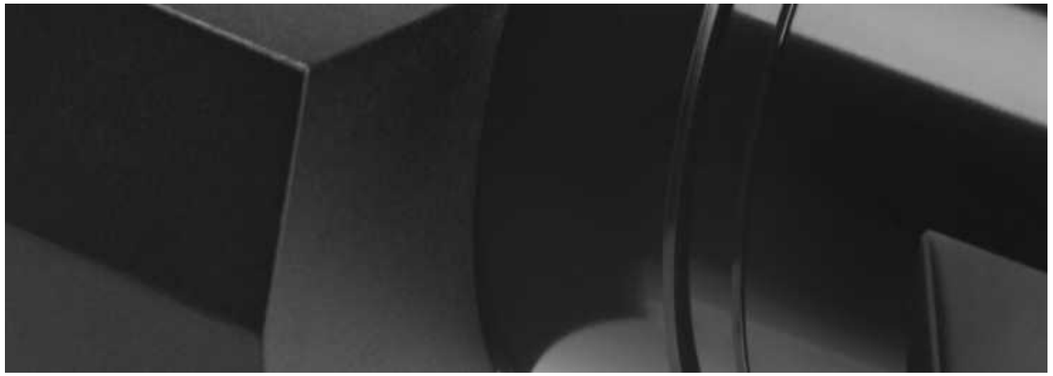
1.Professional optical design, optical magnification 0.7x-4.5x, magnification ratio 6.5:1.
2.Big FOV application, based on 2/3" camera.
3.Compact structure, easily for assembly and installation.

APPLICATION FIELDS

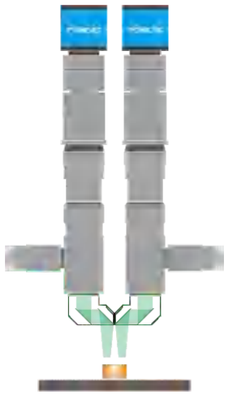
It can be used in semiconductor, automation, electronic communication and other industries.

CONTROLLER BOX

The integrated motorized control system is suitable for all the POMEAS zoom lenses. Motorized controlling system can control single or dual shafts via RS212 or USB. The underlying software code for the OEM platform will also be provided.



EXAMPLES OF APPLICATION



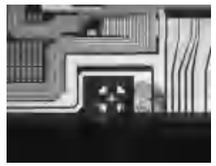
Bonding Machine

ACTUAL IMAGE

Silicone Cover Metal Aligner

PCB Inspection

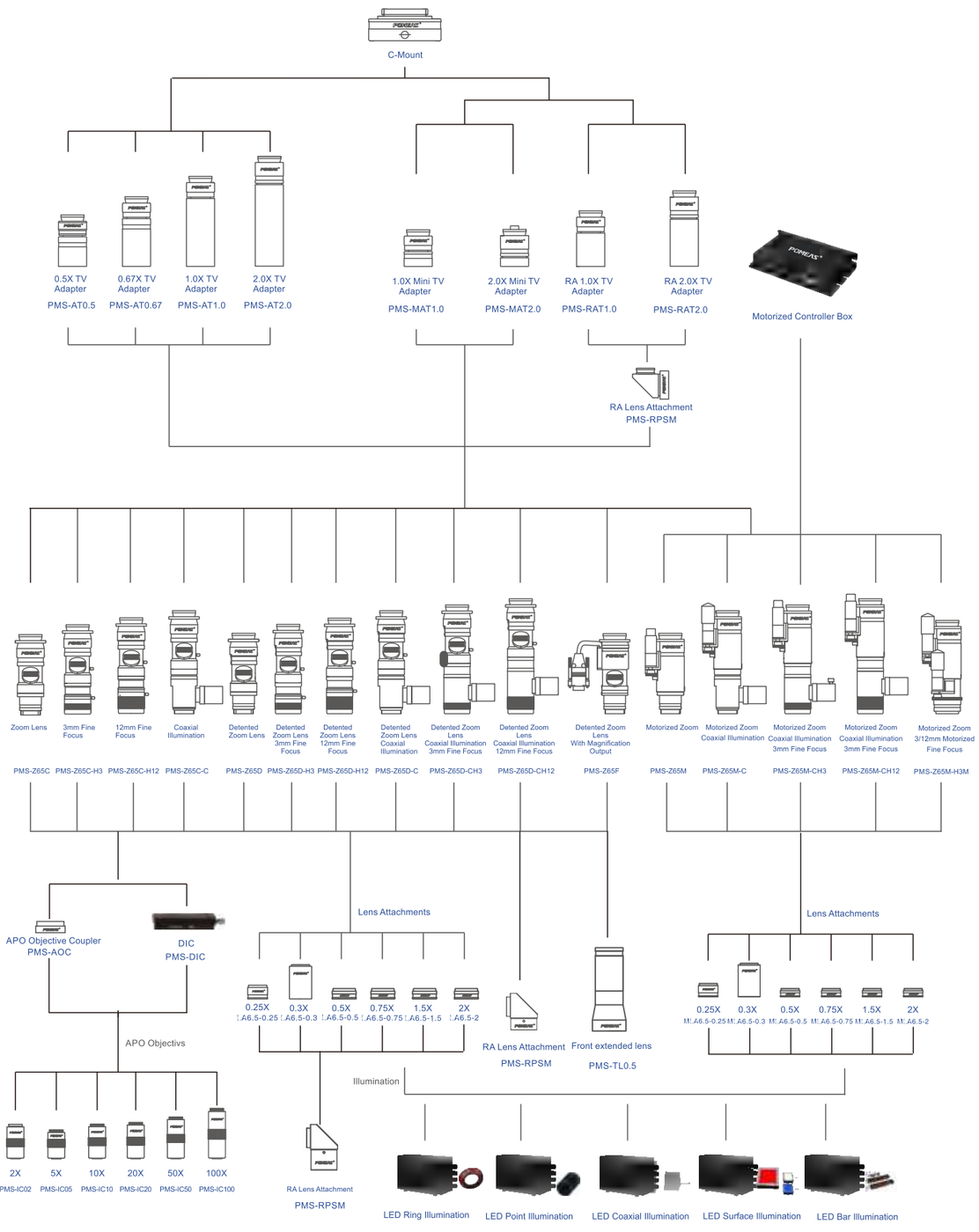
3um Mask Aligner Silicone Cover



LCD Panel Mark Point Positioning

Parameter

Optical Magnification Range		0.7X–4.5X								
Working Distance		87±2mm								
Optical Magnification		0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
DOF(mm)		1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12	0.1
N.A.		0.03	0.042	0.06	0.07	0.07	0.085	0.085	0.085	0.085
F.No.		11.6	12.1	12.5	14.2	17.8	17.6	20.5	23.5	26.5
Resolution(μm)		11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95	3.95
TV Distortion		0.019%	0.035%	0.002%	0.003%	0.004%	0.001%	0.001%	0.002%	0.002%
FOV (mm) DxHxV	2/3"	15.71x12.57x9.43	11.00x8.80x6.60	7.33x5.87x4.40	5.50x4.40x3.30	4.40x3.52x2.64	3.67x2.93x2.20	3.14x2.21x1.89	2.75x2.20x1.65	2.44x1.96x1.47
	1/2"	11.43x9.14x6.86	8.00x6.40x4.80	5.33x4.27x3.20	4.00x3.20x2.40	3.20x2.56x1.92	2.67x2.13x1.60	2.29x1.83x1.37	2.00x1.60x1.20	1.78x1.42x1.07
	1/3"	8.57x6.86x5.14	6.00x4.80x3.60	4.00x3.20x2.40	3.00x2.40x1.80	2.40x1.92x1.44	2.00x1.60x1.20	1.71x1.37x1.03	1.50x1.20x0.90	1.33x1.07x0.80
Max.Sensor Size		2/3"								
Mount		C-Mount								



6.5X Zoom Lens Field Of View Table

Lens Attachment			0.5X Adapter Tube(PMS-AT0.5)						1.0X Adapter Tube(PMS-AT1.0)						2.0X Adapter Tube(PMS-AT2.0)					
			Low Magnification			High Magnification			Low Magnification			High Magnification			Low Magnification			High Magnification		
			Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)
0.25X (PMS-Z65-LA025) WD:318mm	Magnification		0.09X-0.56X						0.18X-1.13X						0.35X-2.25X					
	Camera FOV	2/3"	100.6	75.4	(125.7)	15.6	11.7	19.6	50.3	37.7	62.9	7.8	5.9	9.8	25.1	18.9	(31.4)	3.9	2.9	4.9
		1/2"	73.1	54.9	(91.4)	11.4	8.5	14.2	36.6	27.4	45.7	5.7	4.3	7.1	18.3	13.7	22.9	2.8	2.1	3.6
		1/3"	54.9	41.1	68.6	8.5	6.4	10.7	27.4	20.6	34.3	4.3	3.2	5.3	13.7	10.3	17.1	2.1	1.6	2.7
0.3X (PMS-Z65-LA03) WD:126mm	Magnification		0.11X-0.68X						0.21X-1.35X						0.42X-2.70X					
	Camera FOV	2/3"	83.8	62.9	(104.8)	13.0	9.8	16.3	41.9	31.4	52.4	6.5	4.9	8.2	21.0	15.7	(26.2)	3.3	2.4	4.1
		1/2"	61.0	45.7	(76.2)	9.5	7.1	11.9	30.5	22.9	38.1	4.7	3.6	5.9	15.2	11.4	19.1	2.4	1.8	3.0
		1/3"	45.7	34.3	57.1	7.1	5.3	8.9	22.9	17.1	28.6	3.6	2.7	4.4	11.4	8.6	14.3	1.8	1.3	2.2
0.5X (PMS-Z65-LA05) WD:163mm	Magnification		0.18X-1.13X						0.35X-2.25X						0.70X-4.50X					
	Camera FOV	2/3"	50.3	37.7	(62.9)	7.8	5.9	9.8	25.1	18.9	31.4	3.9	2.9	4.9	12.6	9.4	(15.7)	2.0	1.5	2.4
		1/2"	36.6	27.4	(45.7)	5.7	4.3	7.1	18.3	13.7	22.9	2.8	2.1	3.6	9.1	6.9	11.4	1.4	1.1	1.8
		1/3"	27.4	20.6	34.3	4.3	3.2	5.3	13.7	10.3	17.1	2.1	1.6	2.7	6.9	5.1	8.6	1.1	0.8	1.3
0.75X (PMS-Z65-LA075) WD:104mm	Magnification		0.26X-1.69X						0.53X-3.38X						1.05X-6.75X					
	Camera FOV	2/3"	33.5	25.1	(41.9)	5.2	3.9	6.5	16.8	12.6	21.0	2.6	2.0	3.3	8.4	6.3	(10.5)	1.3	1.0	1.6
		1/2"	24.4	18.3	(30.5)	3.8	2.8	4.7	12.2	9.1	15.2	1.9	1.4	2.4	6.1	4.6	7.6	1.0	0.7	1.2
		1/3"	18.3	13.7	22.9	2.8	2.1	3.6	9.1	6.9	11.4	1.4	1.1	1.8	4.6	3.4	5.7	0.7	0.5	0.9
1.0X (PMS-Z65-LA1.0) WD:87mm	Magnification		0.35X-2.25X						0.70X-4.50X						1.40X-9.00X					
	Camera FOV	2/3"	25.1	18.9	31.4	3.9	2.9	4.9	12.6	9.4	15.7	2.0	1.5	2.4	6.3	4.7	(7.9)	1.0	0.7	1.2
		1/2"	18.3	13.7	22.9	2.8	2.1	3.6	9.1	6.9	11.4	1.4	1.1	1.8	4.6	3.4	5.7	0.7	0.5	0.9
		1/3"	13.7	10.3	17.1	2.1	1.6	2.7	6.9	5.1	8.6	1.1	0.8	1.3	3.4	2.6	4.3	0.5	0.4	0.7
1.5X (PMS-Z65-LA1.5) WD:50mm	Magnification		0.53X-3.38X						1.05X-6.75X						2.10X-13.50X					
	Camera FOV	2/3"	16.8	12.6	(21.0)	2.6	2.0	3.3	8.4	6.3	10.5	1.3	1.0	1.6	4.2	3.1	5.2	0.7	0.5	0.8
		1/2"	12.2	9.1	(15.2)	1.9	1.4	2.4	6.1	4.6	7.6	1.0	0.7	1.2	3.1	2.3	3.8	0.5	0.4	0.6
		1/3"	9.1	6.9	11.4	1.4	1.1	1.8	4.6	3.4	5.7	0.7	0.5	0.9	2.3	1.7	2.9	0.4	0.3	0.4
2.0X (PMS-Z65-LA2.0) WD:35mm	Magnification		0.70X-4.50X						1.40X-9.00X						2.80X-18.00X					
	Camera FOV	2/3"	12.6	9.4	(15.7)	2.0	1.5	2.4	6.3	4.7	7.9	1.0	0.7	1.2	3.1	2.4	(3.9)	0.5	0.4	0.6
		1/2"	9.1	6.9	(11.4)	1.4	1.1	1.8	4.6	3.4	5.7	0.7	0.5	0.9	2.3	1.7	2.9	0.4	0.3	0.4
		1/3"	6.9	5.1	8.6	1.1	0.8	1.3	3.4	2.6	4.3	0.5	0.4	0.7	1.7	1.3	2.1	0.3	0.2	0.3

Zoom Lens Series 0.58x-7.5x Zoom Lens

Super high magnification ratio and excellent optical performance, suitable for inspecting various kinds of parts.

PRODUCT ADVANTAGES

1.Professional optical design, optical magnification 0.58X-7.5X, magnification ratio 12:5:1.

2.Excellent optical performance, high resolution, low distortion, super high N.A.

CONTROLLER BOX

The integrated motorized control system is suitable for all the POMEAS zoom lenses. Motorized controlling system can control single or dual shafts via RS232 or USB. The underlying software code for the OEM platform will also be provided.

APPLICATION FIELDS

Widely used in biology, electronics, semiconductor, machine vision and other high-precision industries.

12.5X Zoom Lens Parameter

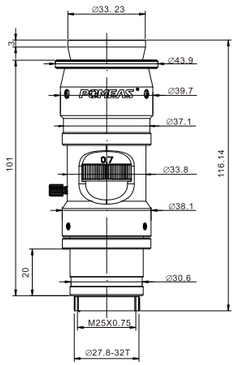
Optical Magnification Range		0.58X~7.5X															
Working Distance		77.4±2mm															
Optical Magnification		0.58X	0.6X	1X	1.5X	2X	2.5X	3X	3.5X	4X	4.5X	5X	5.5X	6X	6.5X	7X	7.5X
DOF(mm)		2.75	2.67	0.95	0.43	0.27	0.2	0.15	0.12	0.1	0.081	0.073	0.066	0.061	0.056	0.052	0.05
N.A.		0.025	0.025	0.043	0.063	0.074	0.082	0.09	0.097	0.1	0.11	0.11	0.11	0.11	0.11	0.11	0.11
F.No.		12.5	12.5	11.85	11.95	13.65	15.3	16.5	18.4	19.9	20.4	22.45	22.7	26.8	29.4	31.7	33.9
Resolution(μm)		13	13	7.8	5.3	4.53	4.09	3.73	3.46	3.36	3.05	3.05	3.05	3.05	3.05	3.05	3.05
TV Distortion		0.050%	0.050%	0.002%	0.010%	0.020%	0.003%	0.020%	0.020%	0.018%	0.020%	0.010%	0.010%	0.001%	0.010%	0.005%	0.005%
2/3" FOV (mm)	Diagonal	18.97	18.33	11	7.33	5.5	4.4	3.67	3.14	2.75	2.44	2.2	2	1.83	1.69	1.57	1.47
	Horizontal	15.17	14.67	8.8	5.87	4.4	3.52	2.93	2.51	2.2	1.96	1.76	1.6	1.47	1.35	1.26	1.17
	Vertical	11.38	11	6.6	4.4	3.3	2.64	2.2	1.89	1.65	1.47	1.32	1.2	1.1	1.02	0.94	0.88
Max.Sensor Size		2/3"															
Mount		C-Mount															

12.5X Zoom Lens Field of View Table

Lens Attachment			0.5X Adapter Tube(PMS-AT0.5)						1.0X Adapter Tube(PMS-AT1.0)						2.0X Adapter Tube(PMS-AT2.0)					
			Low Magnification			High Magnification			Low Magnification			High Magnification			Low Magnification			High Magnification		
			Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)	Length (mm)	Width (mm)	Diagonal (mm)
0.25X PMS-Z125-LA025 WD:297mm	Magnification		0.07X-1.94X						0.15X-1.87X						0.30X-3.75X					
	Camera FOV	2/3"	121.4	91.0	(151.7)	9.4	7.0	11.7	60.7	45.5	75.9	4.7	3.5	5.9	30.3	22.8	(37.9)	2.4	1.8	2.9
		1/2"	88.3	66.2	(110.3)	6.8	5.1	8.5	44.1	33.1	55.2	3.4	2.6	4.3	22.1	16.6	27.6	1.7	1.3	2.1
		1/3"	66.2	49.7	82.8	5.1	3.8	6.4	33.1	24.8	41.4	2.6	1.9	3.2	16.6	12.4	20.7	1.3	1.0	1.6
0.3X PMS-Z125-LA03 WD:120mm	Magnification		0.09X-1.12X						0.17X-2.25X						0.35X-4.50X					
	Camera FOV	2/3"	101.2	75.9	(126.4)	7.8	5.9	9.8	50.6	37.9	63.2	3.9	2.9	4.9	25.3	19.0	31.6	2.0	1.5	2.4
		1/2"	73.6	55.1	(92.0)	5.7	4.3	7.1	36.8	27.6	46.0	2.8	2.1	3.6	18.4	13.8	23.0	1.4	1.1	1.8
		1/3"	55.2	41.4	69.0	4.3	3.2	5.3	27.6	20.7	34.5	2.1	1.6	2.7	13.8	10.3	17.2	1.1	0.8	1.3
0.5X PMS-Z125-LA05 WD:155mm	Magnification		0.14X-1.87X						0.29X-3.75X						0.58X-7.50X					
	Camera FOV	2/3"	60.7	45.5	(75.9)	4.7	3.5	5.9	30.3	22.8	38.0	2.4	1.8	2.9	15.2	11.4	19.0	1.2	0.9	1.5
		1/2"	44.1	33.1	55.2	3.4	2.6	4.3	20.1	16.6	27.6	1.7	1.3	2.1	11.0	8.3	13.8	0.9	0.6	1.0
		1/3"	33.1	24.8	41.4	2.6	1.9	3.2	16.6	12.4	20.7	1.3	1.0	1.6	8.3	6.2	10.3	0.6	0.5	0.8
0.75X PMS-Z125-LA075 WD:93mm	Magnification		0.22X-2.81X						0.43X-5.62X						0.87X-11.25X					
	Camera FOV	2/3"	40.5	30.3	(50.6)	3.1	2.4	3.9	20.2	15.2	25.3	1.6	1.2	2.0	10.1	7.6	12.6	0.8	0.6	1.0
		1/2"	29.4	22.1	36.8	2.3	1.7	2.8	14.7	11.0	18.4	1.1	0.9	1.4	7.4	5.5	9.2	0.6	0.4	0.7
		1/3"	22.1	16.6	27.6	1.7	1.3	2.1	11.0	8.3	13.8	0.9	0.6	1.1	5.5	4.1	6.9	0.3	0.3	0.5
1.0X PMS-Z125-LA1.0 WD:77.4mm	Magnification		0.29X-3.75X						0.58X-7.50X						1.16X-15.00X					
	Camera FOV	2/3"	30.3	22.8	(37.9)	2.4	1.8	2.9	15.2	11.4	19.0	1.2	0.9	1.5	7.6	5.7	9.5	0.6	0.4	0.7
		1/2"	22.1	16.6	(27.6)	1.7	1.3	2.1	11.0	8.3	13.8	0.9	0.6	1.1	5.5	4.1	6.9	0.4	0.3	0.5
		1/3"	16.6	12.4	20.7	1.3	1.0	1.6	8.3	6.2	10.3	0.6	0.5	0.8	4.1	3.1	5.2	0.3	0.2	0.4
1.5X PMS-Z125-LA1.5 WD:48mm	Magnification		0.43X-5.62X						0.87X-11.25X						1.74X-22.50X					
	Camera FOV	2/3"	20.2	15.2	(25.3)	1.6	1.2	2.0	10.1	7.6	12.6	0.8	0.6	1.0	5.1	3.8	6.3	0.4	0.3	0.5
		1/2"	14.7	11.0	18.4	1.4	0.9	1.4	7.4	5.5	9.2	0.6	0.4	0.7	3.7	2.8	4.6	0.3	0.2	0.4
		1/3"	11.0	8.3	13.8	0.9	0.6	1.1	5.5	4.1	6.9	0.4	0.3	0.5	2.8	2.1	3.5	0.2	0.2	0.3
2.0X PMS-Z125-LA2.0 WD:34.5mm	Magnification		0.58X-7.50X						1.16X-15.00X						2.32X-30.00X					
	Camera FOV	2/3"	15.2	11.4	(19.0)	1.2	0.9	1.5	7.6	5.7	9.5	0.6	0.4	0.7	3.8	2.8	4.7	0.3	0.2	0.4
		1/2"	11.0	8.3	(13.8)	0.9	0.6	1.0	5.5	4.1	6.9	0.4	0.3	0.5	2.8	2.1	3.5	0.2	0.2	0.3
		1/3"	8.3	6.2	10.3	0.6	0.5	0.8	4.1	3.1	5.2	0.3	0.2	0.4	2.1	1.6	2.6	0.2	0.1	0.2

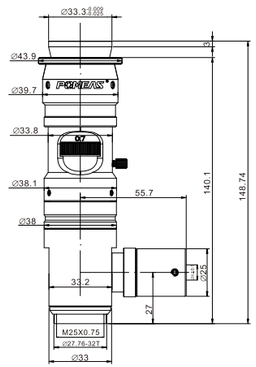
All the value is theoretical ones, the image will have dark color, if the value is in brackets.

PMS-Z65C



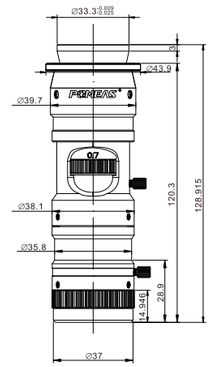
unit : mm

PMS-Z65C-C



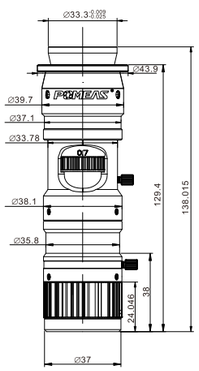
unit : mm

PMS-Z65C-H3



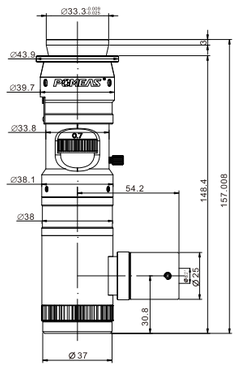
unit : mm

PMS-Z65C-H12



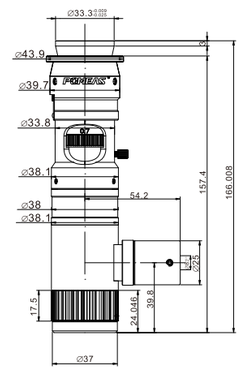
unit : mm

PMS-Z65C-CH3



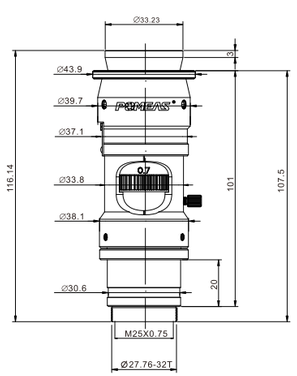
unit : mm

PMS-Z65C-CH12



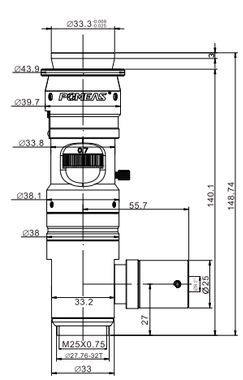
unit : mm

PMS-Z65D



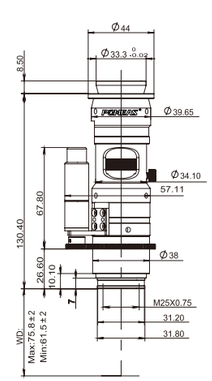
unit : mm

PMS-Z65D-C



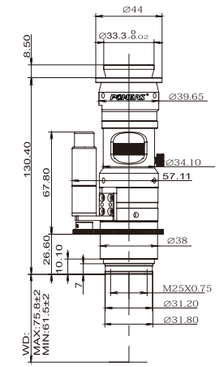
unit : mm

PMS-Z65D-Z15



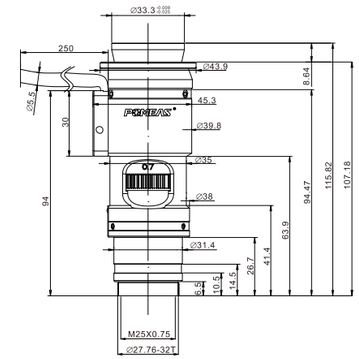
unit : mm

PMS-Z65F(A)



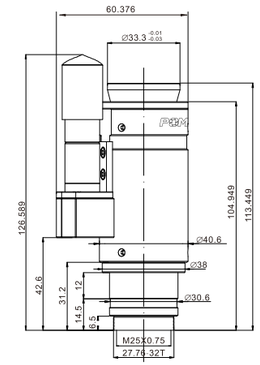
unit : mm

PMS-Z65F-RS9



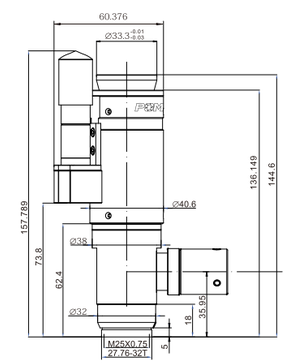
unit : mm

PMS-Z65M



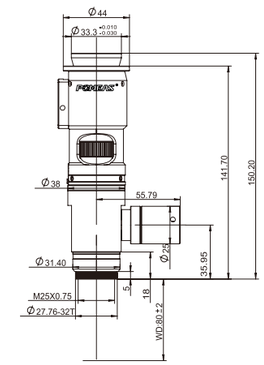
unit : mm

PMS-Z65M-C



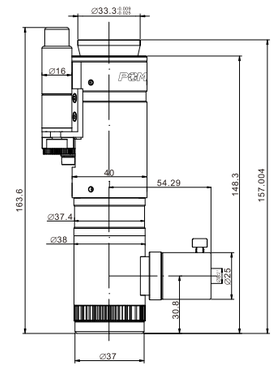
unit : mm

PMS-Z65M-C9



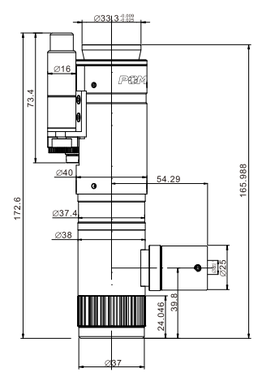
unit : mm

PMS-Z65M-CH3



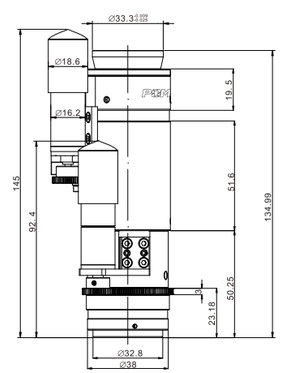
unit : mm

PMS-Z65M-CH12



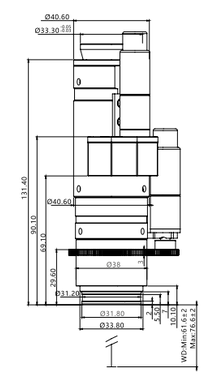
unit : mm

PMS-Z65M-H3M

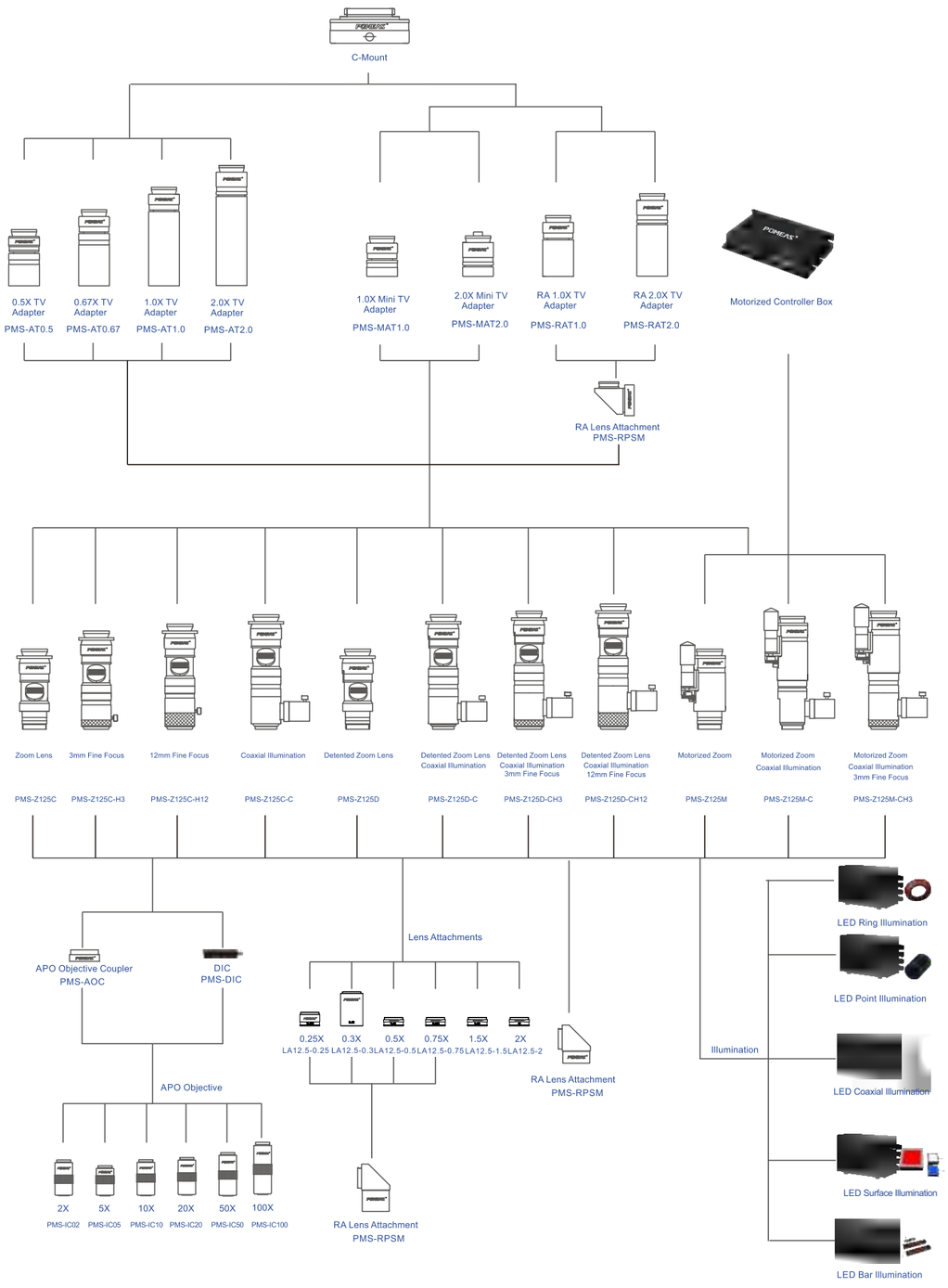


unit : mm

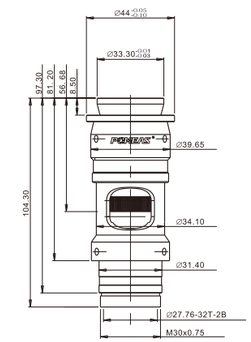
PMS-Z65M-H5M



unit : mm

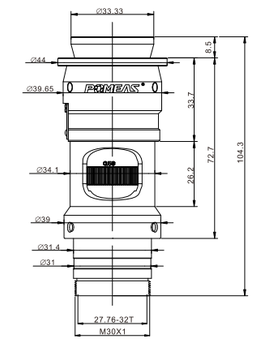


PMS-Z125C



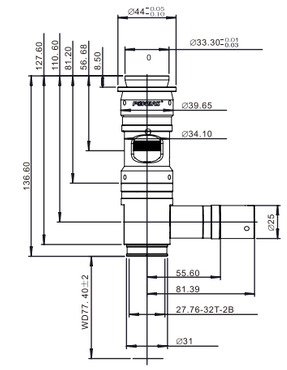
unit : mm

PMS-Z125D



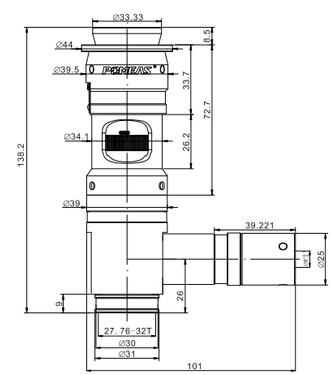
unit : mm

PMS-Z125C



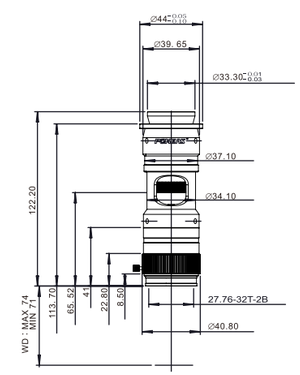
unit : mm

PMS-Z125D-C



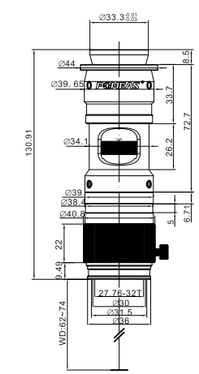
unit : mm

PMS-Z125C-H3



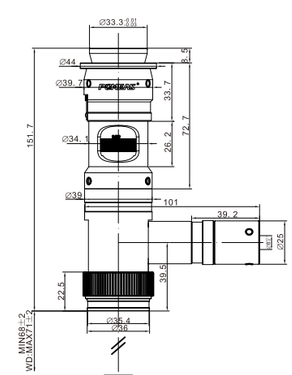
unit : mm

PMS-Z125C-H12



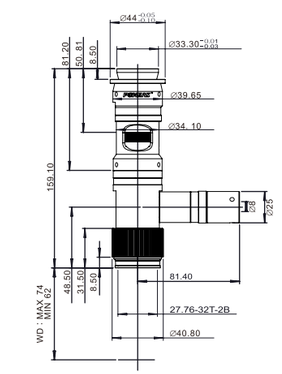
unit : mm

PMS-Z125D-CH3



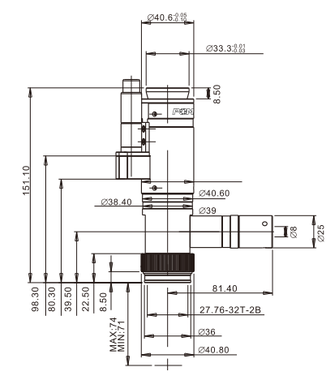
unit : mm

PMS-Z125D-CH12



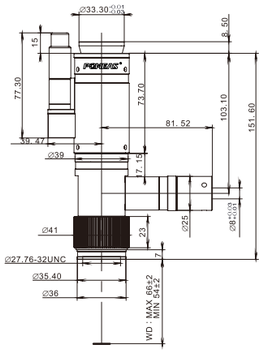
unit : mm

PMS-Z125D-CH3



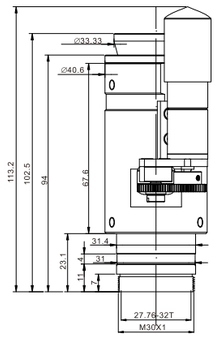
unit : mm

PMS-Z125M-CH12



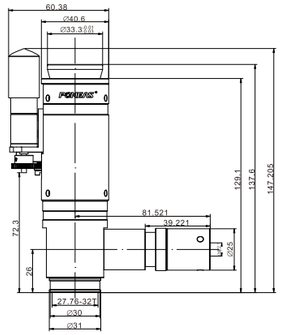
unit : mm

PMS-Z125M



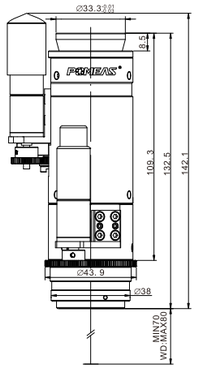
unit : mm

PMS-Z125M-C



unit : mm

PMS-Z125M-CH12M

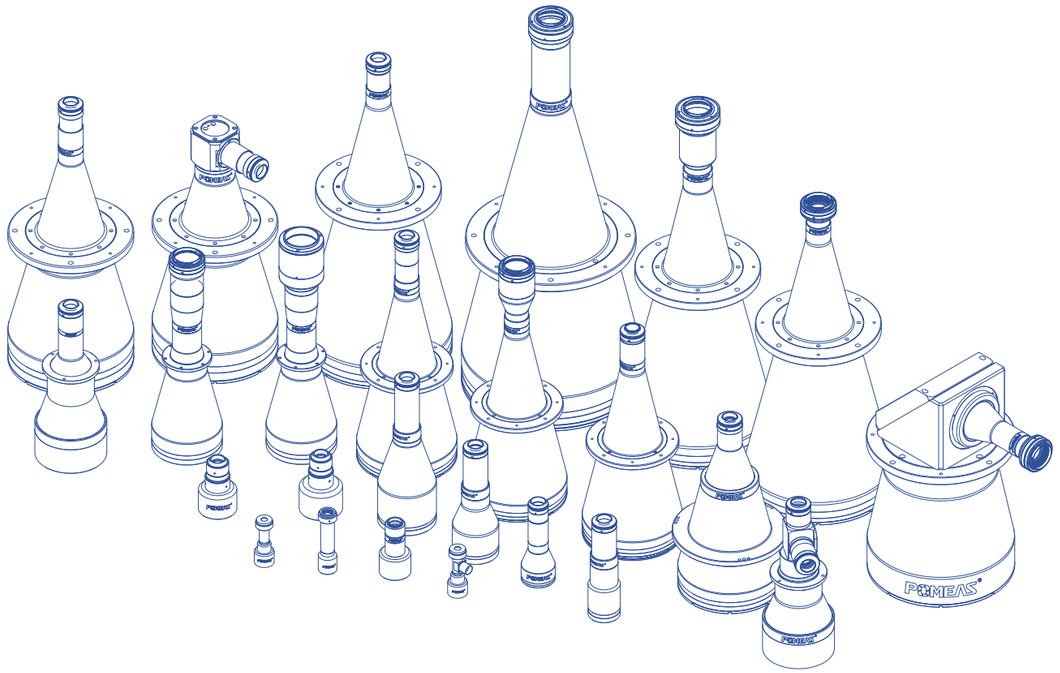


unit : mm

TELECENTRIC LENS SERIES

POMEAS has excellent optical performance, and the whole series of products are the result of continuous research and development to meet the market demand in recent years.

Application areas: Widely used in the electronics industry, printing industry, cell phone industry, the high precision inspection industry.



1. Full range products all use special optical material, and have excellent image quality.
2. FOV range up to 250mm, to meet different FOV requirement.
3. Support C mount 1/3″ -4/3″ camera sensor, F or M mount 4/3″ -35mm camera sensor.
4. Full range telecentric lens, widely used for all application field.
5. High resolution, low distortion image, good quality image, meet different system requirements.
6. Accurate calibrated, and offer full testing report.

Support 1.1" Sensor, High Resolution Telecentric Lens

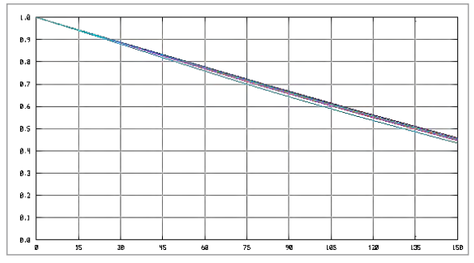
Telecentric light design, low distortion, high telecentricity, high DOF, suitable for defectsrecognition,production auto inspection field.

PRODUCT ADVANTAGES

1. Support Max.1.” sensor.
2. DOF can be changed in certain range, max.DOF can be 3.6mm.
3. Coaxial lighting is optional, even illumination.Within the DOF, the magnification and target image size is fixed.
4. The mechanical dimension is reasonable, variable shadowless ring light optional.

Light Path Design

MTF Curve

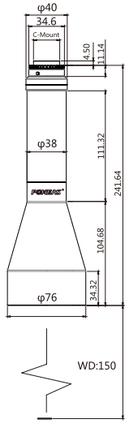


APPLICATION FIELDS

Widely used in factory automation and machine vision field.

DIMENSIONS

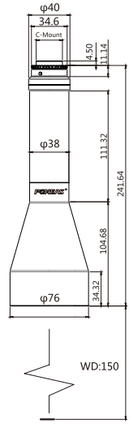
PMS-037LHD150



Unit:mm

Product Parameter :
Magnification : 0.37X
Working Distance : 150MM
F No. : 6
Tv Distortion : 0.02%
DOF : 3.6mm
N.A. : 0.03
Resolution (μm) : 5.59
Max. Sensor Size : 2/3"
Mount : C-Mount
Ligh : --
Working Distance : -10°C~+50°C
FOV (MM) (HxV)
1/2'' 17.3 X 13.0
1/1.8'' 19.3 X 14 5
2/3'' 23.8 X 17.8
1'' 34 6X 25.6
1.1'' 38.1 X 28.5

PMS-037LHD150-C



Unit:mm

Product Parameter :
Magnification : 0.37X
Working Distance : 150MM
F No. : 6 (Adjustable)
Tv Distortion : 0.02%
DOF : 3.6mm (Adjustable)
N.A. : 0.03 (Adjustable)
Resolution (μm) : 11.18(Adjustable)
Max. Sensor Size : 2/3"
Mount : C-Mount
Ligh : Coaxial illumination
Working Distance : -10°C~+50°C
FOV (MM) (HxV)
1/2'' 17.3 X 13.0
1/1.8'' 19.3 X 14.5
2/3'' 23.8 X 17.8
1'' 34 6X 25.6
1.1'' 38.1 X 28.5

Code	Magnification	FOV(mm)(H×V)					Working Distance (mm)	F No.		DOF*1 (mm)	N.A.	Resolution (μm)	Max. Sensor Size	Mount	Light	Working Distance
		1/2"	1/1.8"	2/3"	1"	1.1"										
PMS-037LHD150	0.37X	17.3x13.0	19.3x14.5	23.8x17.8	34.6x25.6	38.1x28.5	150	6	0.02%	3.6	0.03	11.18	1.1"	C-Mount	——	-10°C~+50°C
PMS-037LHD150-C	0.37X	17.3x13.0	19.3x14.5	23.8x17.8	34.6x25.6	38.1x28.5	150	6 (Adjustable)	0.02%	3.6 (Adjustable)	0.03 (Adjustable)	11.18 (Adjustable)	1.1"	C-Mount	Coaxial illumination	-10°C~+50°C

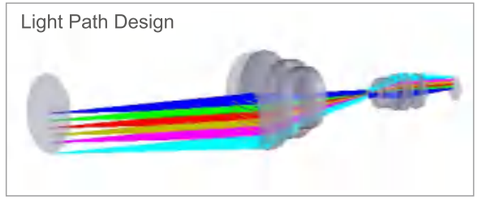
High Resolution Telecentric Lens

Telecentric optical design, super low distortion, high telecentricity and deep DOF, which is suitable for defection inspection and auto inspection in-line.

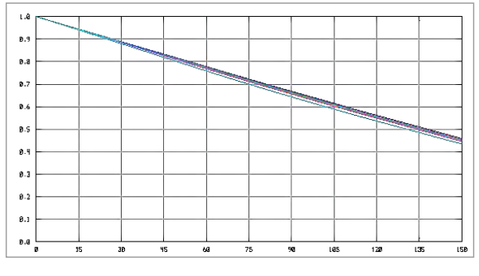
PRODUCT ADVANTAGES

1. Supports 5MP camera with 2/3” sensor;
2. DOF can be expanded properly according to customer’s requirement,the maximum DOF can be up to 10mm;
3. Coaxial function is optional, coaxial light is even. During the DOF,magnification and objective dimension keep same;
4. Reasonable design of connector dimension, many options of ring shadowless light for different environment.

Light Path Design



MTF Curve



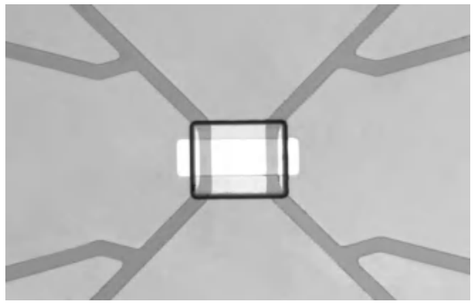
APPLICATION FIELDS

can be used in automation industry and machine vision industry.

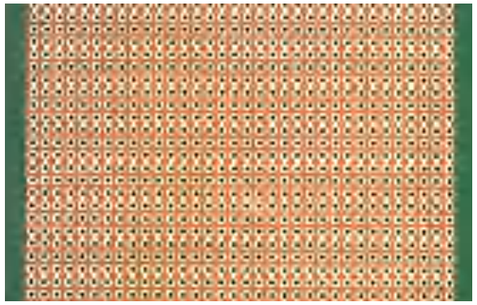
POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

ACTUAL IMAGE

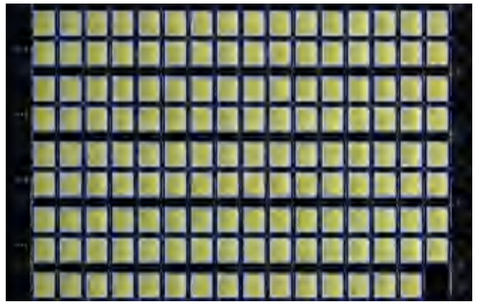
Food Processing - Certificate Of Conformity



ITO Inspection



Precision Processing-Array Through-Hole



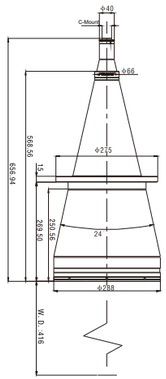
Semiconductor-LED

1" High Resolution Telecentric Lens Parameter Table

Code	Magnification	Field Of View (mm) (H×V)					W.D. (mm)	F No.	TV Distortion	DOF*1 (mm)	N.A.	Resolution (μm)	Max Sensor Size	Mount	Working Temperature
		1/2"	1/1.8"	2/3"	1"	4/3"									
PMS-0063LHT416	0.063X	101.6×76.2	113.4×85.1	139.7×104.8	203.2×152.4	——	416	6.0	0.01%	120.73	0.005	63.80	1"	C-Mount	-10℃~+50℃
PMS-0076LHT468	0.076X	84.2×63.2	94.0×70.5	115.8×86.8	168.4×126.3	——	468	3.5	0.02%	48.37	0.011	57.16	1"	C-Mount	-10℃~+50℃
PMS-0088LHT398	0.088X	72.7×54.5	81.2×60.9	100.0×75.0	145.5×109.1	——	398	6.0	0.01%	61.43	0.007	45.34	1"	C-Mount	-10℃~+50℃
PMS-0108LHT129	0.108X	59.3×44.4	66.2×49.6	81.5×61.1	118.5×88.9	——	129	5.0	0.02%	34.29	0.0108	31.06	1"	C-Mount	-10℃~+50℃
PMS-0118LHT261	0.118X	54.2×40.7	60.6×45.4	74.6×55.9	108.5×81.4	——	261	5.6	0.01%	32.18	0.011	31.85	1"	C-Mount	-10℃~+50℃
PMS-016LHT189	0.16X	40.0×30.0	44.7×33.5	55.0×41.3	80.0×60.0	——	189	6.0	0.01%	18.73	0.013	25.17	1"	C-Mount	-10℃~+50℃
PMS-02LHT180	0.20X	32.0×24.0	35.7×26.8	44.0×33.0	64.0×48.0	——	180	6.0 (Ajustable)	0.01%	12.0 (Ajustable)	0.017 (Ajustable)	20.14 (Ajustable)	1"	C-Mount	-10℃~+50℃
PMS-02LHT180S	0.20X	32.0×24.0	35.7×26.8	44.0×33.0	64.0×48.0	——	180		0.01%				1"	C-Mount	-10℃~+50℃

*1:Theoretical value(Diffused diameter φ0.04mm).It is better that only use 1/2 of the theoretical range for better application.

PMS-0063LHT416

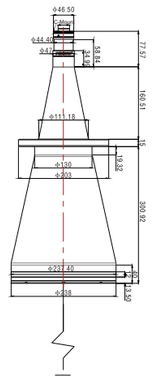


unit: mm

Product Parameter :
Magnification: 0.063X
Working Distance: 416
F No.: 6.0
TV Distortion: 0.01%
DOF*1: 120.73
N.A.: 0.005
Resolution (μm) : 60.38
Max. Sensor Size: 1"
Mount: C-Mount
Lighting: ——
Working Temperature: -10℃~+50℃

FOV (MM) (H×V)			
1/2"	1/1.8"	2/3"	1"
101.6×76.2	113.4×85.1	139.7×104.8	203.2×152.4

PMS-0076LHT468

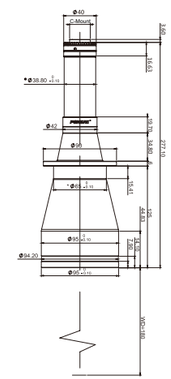


unit: mm

Product Parameter :
Magnification: 0.076X
Working Distance: 468
F No.: 3.5
TV Distortion: 0.02%
DOF*1: 48.37
N.A.: 0.011
Resolution (μm) : 57.16
Max. Sensor Size: 1"
Mount: C-Mount
Lighting: ——
Working Temperature: -10℃~+50℃

FOV (MM) (H×V)			
1/2"	1/1.8"	2/3"	1"
84.2×63.2	94.0×70.5	115.8×86.8	168.4×126.3

PMS-02LHT180

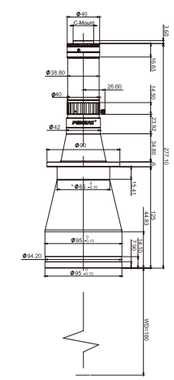


unit: mm

Product Parameter :
Magnification: 0.2X
Working Distance: 180
F No.: 6.0 (Adjustable)
TV Distortion: 0.01%
DOF*1: 12.0 (Adjustable)
N.A.: 0.017 (Adjustable)
Resolution (μm) : 20.14 (Adjustable)
Max. Sensor Size: 1"
Mount: C-Mount
Lighting: ——
Working Temperature: -10℃~+50℃

FOV (MM) (H×V)			
1/2"	1/1.8"	2/3"	1"
32.0×24.0	35.7×26.8	44.0×33.0	64.0×48.0

PMS-02LHT180S

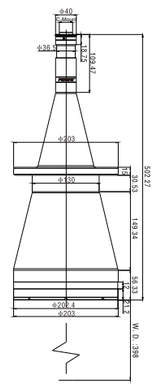


unit: mm

Product Parameter :
Magnification: 0.2X
Working Distance: 180
F No.: 6.0 (Adjustable)
TV Distortion: 0.01%
DOF*1: 12.0 (Adjustable)
N.A.: 0.017 (Adjustable)
Resolution (μm) : 20.14 (Adjustable)
Max. Sensor Size: 1"
Mount: C-Mount
Lighting: ——
Working Temperature: -10℃~+50℃

FOV (MM) (H×V)			
1/2"	1/1.8"	2/3"	1"
32.0×24.0	35.7×26.8	44.0×33.0	64.0×48.0

PMS-0088LHT398

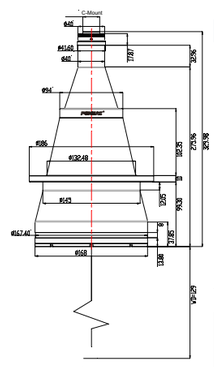


unit: mm

Product Parameter :
Magnification: 0.088X
Working Distance: 398
F No.: 6.0
TV Distortion: 0.01%
DOF*1: 61.43
N.A.: 0.007
Resolution (μm) : 45.34
Max. Sensor Size: 1"
Mount: C-Mount
Lighting: ——
Working Temperature: -10℃~+50℃

FOV (MM) (H×V)			
1/2"	1/1.8"	2/3"	1"
72.7×54.5	81.2×60.9	100.0×75.0	145.5×109.1

PMS-0108LHT129

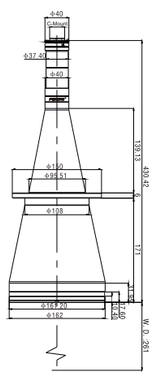


unit: mm

Product Parameter :
Magnification: 0.108X
Working Distance: 129
F No.: 5
TV Distortion: 0.02%
DOF*1: 34.29
N.A.: 0.0108
Resolution (μm) : 31.06
Max. Sensor Size: 1"
Mount: C-Mount
Lighting: ——
Working Temperature: -10℃~+50℃

FOV (MM) (H×V)			
1/2"	1/1.8"	2/3"	1"
59.3×44.4	66.2×49.6	81.5×61.1	118.5×88.9

PMS-0118LHT261

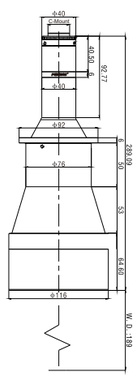


unit: mm

Product Parameter :
Magnification: 0.118X
Working Distance: 261
F No.: 5.6
TV Distortion: 0.01%
DOF*1: 32.18
N.A.: 0.011
Resolution (μm) : 31.85
Max. Sensor Size: 1"
Mount: C-Mount
Lighting: ——
Working Temperature: -10℃~+50℃

FOV (MM) (H×V)			
1/2"	1/1.8"	2/3"	1"
54.2×40.7	60.6×45.4	74.6×55.9	108.5×81.4

PMS-016LHT189



unit: mm

Product Parameter :
Magnification: 0.16X
Working Distance: 189
F No.: 6.0
TV Distortion: 0.01%
DOF*1: 18.75
N.A.: 0.013
Resolution (μm) : 25.17
Max. Sensor Size: 1"
Mount: C-Mount
Lighting: ——
Working Temperature: -10℃~+50℃

FOV (MM) (H×V)			
1/2"	1/1.8"	2/3"	1"
40.0×30.0	44.7×33.5	55.0×41.3	80.0×60.0

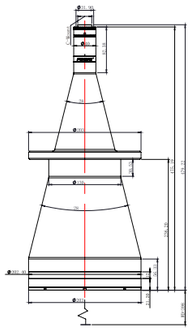
POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

High Resolution Telecentric Lens Parameter Table

Code	Magnification	Field Of View (mm) (H×V)				W.D. (mm)	F No.	TV Distortion	DOF*1 (mm)	N.A.	Resolution (μm)	Light	Max Sensor Size	Mount	Working Temperature
		1/3"	1/2"	1/1.8"	2/3"										
PMS-0061HT398	0.061X	78.7×59.0	104.9×78.7	117.2×87.9	144.3×108.2	398	8	0.01%	171.97	0.0038	87.99	——	2/3"	C-Mount	-10℃~+50℃
PMS-0088HT120	0.088X	54.5×40.9	72.7×54.5	80.6×60.5	Φ100	120	5.6	-0.022%	20	——	45.8	——	2/3"	C-Mount	-10℃~+50℃
PMS-0088HT238	0.088X	54.5×40.9	72.7×54.5	81.2×60.9	Φ100	238	5.6	-0.022%	16	——	30.5	——	2/3"	C-Mount	-10℃~+50℃
PMS-017HT110	0.17X	28.2×21.2	37.6×28.2	42.0×31.5	——	110	4.048	0.01%	11.2	0.021	16	——	1/1.8"	C-Mount	-10℃~+50℃
PMS-02HT110	0.2X	24.0×18.0	32.0×24.0	35.7×26.8	44.0×33.0	110	4.99	0.02%	10	0.02	16.78	——	2/3"	C-Mount	-10℃~+50℃
PMS-023HT90	0.23X	20.9×15.7	27.8×20.9	31.1×23.3	38.3×28.7	90	4.79	0.02%	7.25	0.024	13.98	——	2/3"	C-Mount	-10℃~+50℃
PMS-03HT110	0.3X	16.0×12.0	21.3×16.0	23.8×17.9	29.3×22.0	110	4.99	0.01%	4.44	0.03	11.18	——	2/3"	C-Mount	-10℃~+50℃
PMS-05HT110/ PMS-05HT110-C	0.5X	9.6×7.2	12.8×9.6	14.3×10.7	17.6×13.2	110	9.26	0.01%	2.96	0.027	12.43	--/Coaxial illumination	2/3"	C-Mount	-10℃~+50℃
PMS-05HT150/ PMS-05HT150-C	0.5X	9.6×7.2	12.8×9.6	14.3×10.7	17.6×13.2	150	13	0.03%	4.21	0.019	17.66	--/Coaxial illumination	2/3"	C-Mount	-10℃~+50℃
PMS-1HT40	1.0X	4.8×3.6	6.4×4.8	7.1×5.4	8.8×6.6	40	10	0.01%	0.80	0.05	6.71	——	2/3"	C-Mount	-10℃~+50℃
PMS-1HT110/ PMS-1HT110-C	1.0X	4.8×3.6	6.4×4.8	7.1×5.4	8.8×6.6	110	11	0.02%	0.89	0.045	7.46	--/Coaxial illumination	2/3"	C-Mount	-10℃~+50℃
PMS-1.2HT110/ PMS-1.2HT110-C	1.2X	4.0×3.0	5.3×4.0	6.0×4.5	7.3×5.5	110	12	0.01%	0.67	0.05	6.71	--/Coaxial illumination	2/3"	C-Mount	-10℃~+50℃
PMS-1.5HT110/ PMS-1.5HT110-C	1.5X	3.2×2.4	4.3×3.2	4.8×3.6	5.9×4.4	110	12.5	0.01%	0.44	0.06	5.59	--/Coaxial illumination	2/3"	C-Mount	-10℃~+50℃
PMS-2HT110/ PMS-2HT110-C	2.0X	2.4×1.8	3.2×2.4	3.6×2.7	4.4×3.3	110	13.5	0.03%	0.27	0.0074	4.53	--/Coaxial illumination	2/3"	C-Mount	-10℃~+50℃
PMS-2HT65-S PMS-2HT65-C-S	2.0X	2.4×1.8	3.2×2.4	——	——	65	F6.6 (Ajustable)	0.05%	0.13 (Ajustable)	0.152 (Ajustable)	2.2 (Ajustable)	--/Coaxial illumination	1/2"	C-Mount	-10℃~+50℃

*1:Theoretical value(Diffused diameter φ0.04mm).It is better that only use 1/2 of the theoretical range for better application.

PMS-0061HT398

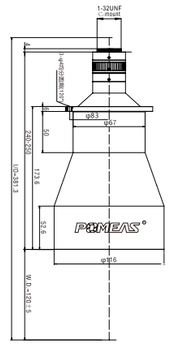


Unit:mm

Product Parameter :
Magnification：0.061X
Working Distance：398
F No.：8
Tv Distortion : 0.01%
DOF : 171.97 mm
N.A.：0.0038
Resolution（μm）：87.99
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
78.7x59.0	104.9x78.7	117.2x87.9	144.3x108.2

PMS-0088HT120

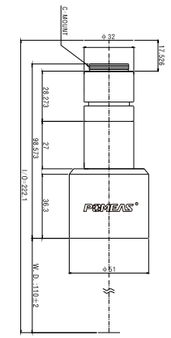


Unit:mm

Product Parameter :
Magnification：0.088X
Working Distance：120
F No.：5.6
Tv Distortion : -0.022%
DOF : 20 mm
N.A.：——
Resolution（μm）：45.8
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
54.5x40.9	72.7x54.5	80.6x60.5	Φ100

PMS-03HT110

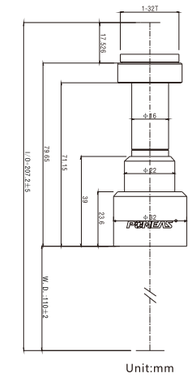


Unit:mm

Product Parameter :
Magnification：0.3X
Working Distance：110
F No.：4.99
Tv Distortion : 0.01%
DOF : 4.44 mm
N.A.：0.03
Resolution（μm）：11.18
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
16.0x12.0	21.3x16.0	23.8x17.9	29.3x22.0

PMS-05HT110

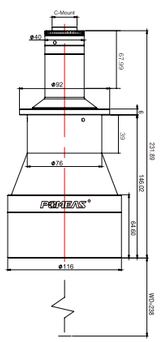


Unit:mm

Product Parameter :
Magnification：0.5 X
Working Distance：110
F No.：9.26
Tv Distortion : 0.01%
DOF : 2.96 mm
N.A.：0.027
Resolution（μm）：12.43
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
9.6x7.2	12.8x9.6	14.3x10.7	17.6x13.2

PMS-0088HT238

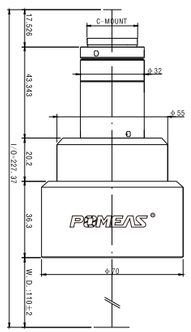


Unit:mm

Product Parameter :
Magnification：0.088X
Working Distance：238
F No.：5.6
Tv Distortion : -0.022%
DOF : 16 mm
N.A.：——
Resolution（μm）：30.5
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
54.5x40.9	72.7x54.5	81.2x60.9	Φ100

PMS-017HT110

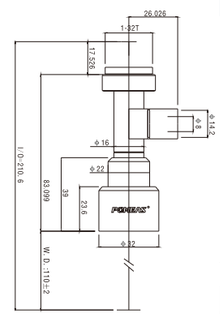


Unit:mm

Product Parameter :
Magnification：0.17X
Working Distance：110
F No.：4.048
Tv Distortion : 0.01%
DOF : 11.2 mm
N.A.：0.021
Resolution（μm）：16.00
Max. Sensor Size：1/1.8"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
28.2x21.2	37.6x28.2	42.0x31.5	——

PMS-05HT110-C

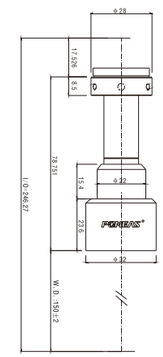


Unit:mm

Product Parameter :
Magnification：0.5 X
Working Distance：110
F No.：9.26
Tv Distortion : 0.01%
DOF : 2.96 mm
N.A.：0.027
Resolution（μm）：12.43
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
9.6x7.2	12.8x9.6	14.3x10.7	17.6x13.2

PMS-05HT150

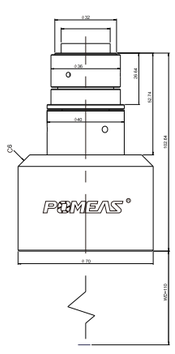


Unit:mm

Product Parameter :
Magnification：0.5X
Working Distance：150
F No.：13
Tv Distortion : 0.03%
DOF : 4.21 mm
N.A.：0.019
Resolution（μm）：17.66
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
9.6x7.2	12.8x9.6	14.3x10.7	17.6x13.2

PMS-02HT110

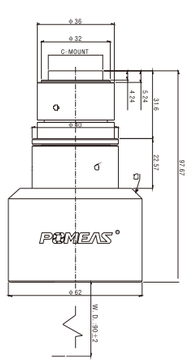


Unit:mm

Product Parameter :
Magnification：0.2X
Working Distance：110
F No.：4.99
Tv Distortion : 0.02%
DOF : 10.00 mm
N.A.：0.02
Resolution（μm）：16.78
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
24.0x18.0	32.0x24.0	35.7x26.8	44.0x33.0

PMS-023HT90

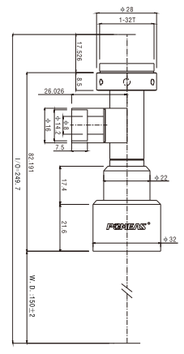


Unit:mm

Product Parameter :
Magnification：0.23X
Working Distance：90
F No.：4.79
Tv Distortion : 0.02%
DOF : 7.25 mm
N.A.：0.024
Resolution（μm）：13.98
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
20.9x15.7	27.8x20.9	31.1x23.3	338.3x28.7

PMS-05HT150-C

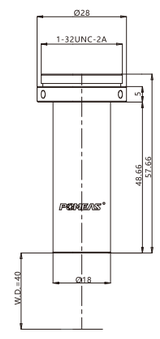


Unit:mm

Product Parameter :
Magnification：0.5X
Working Distance：150
F No.：13
Tv Distortion : 0.03%
DOF : 4.21 mm
N.A.：0.019
Resolution（μm）：17.66
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
9.6x7.2	12.8x9.6	14.3x10.7	17.6x13.2

PMS-1HT40

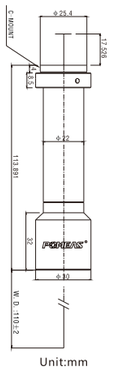


Unit:mm

Product Parameter :
Magnification：1.0X
Working Distance：40
F No.：10
Tv Distortion : 0.01%
DOF : 0.80 mm
N.A.：0.05
Resolution（μm）：6.71
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
4.8x3.6	6.4x4.8	7.1x5.4	8.8x6.6

PMS-1HT110

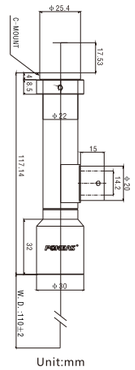


Unit:mm

Product Parameter :
Magnification：1.0X
Working Distance：110
F No.：11
Tv Distortion : 0.02%
DOF : 0.89 mm
N.A.：0.045
Resolution（μm）：7.46
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
4.8x3.6	6.4x4.8	7.1x5.4	8.8x6.6

PMS-1HT110-C

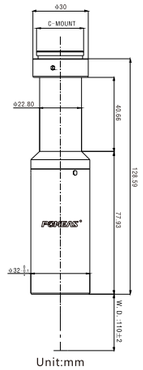


Unit:mm

Product Parameter :
Magnification：1.0X
Working Distance：110
F No.：11
Tv Distortion : 0.02%
DOF : 0.89 mm
N.A.：0.045
Resolution（μm）：7.46
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
4.8x3.6	6.4x4.8	7.1x5.4	8.8x6.6

PMS-2HT110

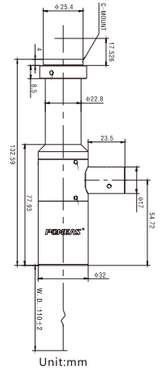


Unit:mm

Product Parameter :
Magnification：2.0X
Working Distance：110
F No.：13.5
Tv Distortion : 0.03%
DOF : 0.27 mm
N.A.：0.074
Resolution（μm）：4.53
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
2.4X1.8	3.2x2.4	3.6x2.7	4.4x3.3

PMS-2HT110-C

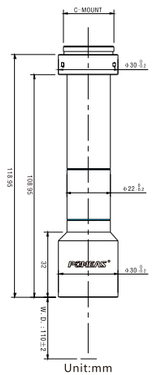


Unit:mm

Product Parameter :
Magnification：2.0X
Working Distance：110
F No.：13.5
Tv Distortion : 0.03%
DOF : 0.27 mm
N.A.：0.074
Resolution（μm）：4.53
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
2.4X1.8	3.2x2.4	3.6x2.7	4.4x3.3

PMS-1.2HT110

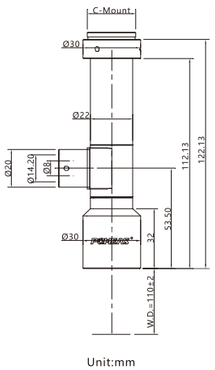


Unit:mm

Product Parameter :
Magnification：1.2 X
Working Distance：110
F No.：12
Tv Distortion : 0.01%
DOF : 0.67 mm
N.A.：0.05
Resolution（μm）：6.71
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
4.0x3.0	5.3x4.0	6.0x4.5	7.3x5.5

PMS-1.2HT110-C

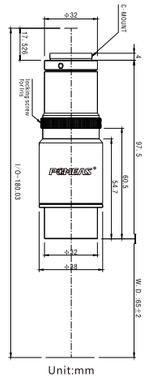


Unit:mm

Product Parameter :
Magnification：1.2 X
Working Distance：110
F No.：12
Tv Distortion : 0.01%
DOF : 0.67 mm
N.A.：0.05
Resolution（μm）：6.71
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
4.0x3.0	5.3x4.0	6.0x4.5	7.3x5.5

PMS-2HT65-S

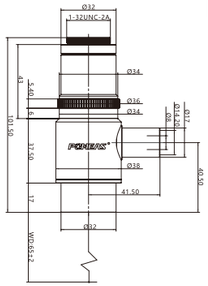


Unit:mm

Product Parameter :
Magnification：2.0X
Working Distance：65
F No.：F6.6(Adjustable)
Tv Distortion : 0.05%
DOF : 0.13 mm(Adjustable)
N.A.：0.152(Adjustable)
Resolution（μm）：2.2(Adjustable)
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
2.4x1.8	3.2x2.4	/	/

PMS-2HT65-C-S

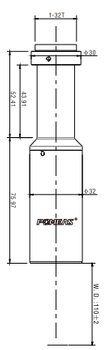


Unit:mm

Product Parameter :
Magnification：2.0X
Working Distance：65
F No.：F6.6(Adjustable)
Tv Distortion : 0.05%
DOF : 0.13 mm(Adjustable)
N.A.：0.152(Adjustable)
Resolution（μm）：2.2(Adjustable)
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
2.4x1.8	3.2x2.4	/	/

PMS-1.5HT110

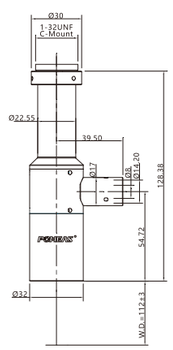


Unit:mm

Product Parameter :
Magnification：1.5X
Working Distance：110
F No.：12.5
Tv Distortion : 0.01%
DOF : 0.44 mm
N.A.：0.06
Resolution（μm）：5.59
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
3.2x2.4	4.3x3.2	4.8x3.6	5.9x4.4

PMS-1.5HT110-C



Unit:mm

Product Parameter :
Magnification：1.5X
Working Distance：110
F No.：12.5
Tv Distortion : 0.01%
DOF : 0.44 mm
N.A.：0.06
Resolution（μm）：5.59
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）			
1/3"	1/2"	1/1.8"	2/3"
3.2x2.4	4.3x3.2	4.8x3.6	5.9x4.4

Support 35mm Full Frame Sensor, 29MP, F Mount Big Fov Telecentric Lens

F mount telecentric lenses are specially design for 10MP grade resolution full frame sensor, perfectly suitablefor 4K and 8Klinear array camera.

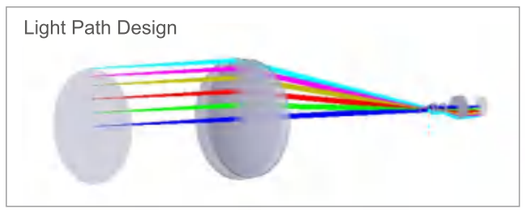
PRODUCT ADVANTAGES

1. Super big inspection FOV, high resolution bi-telecentric design,specially design for accurate measurement of big FOV objectives.
2. High telecentricity calibration, test result will be the same within DOF.
3. Superlow distortion design, the FOV tolerance is small (before calibration by software), after increase the FOV.
4. Simple and stable mechanical design, suitable for all kinds ofindustry environment.

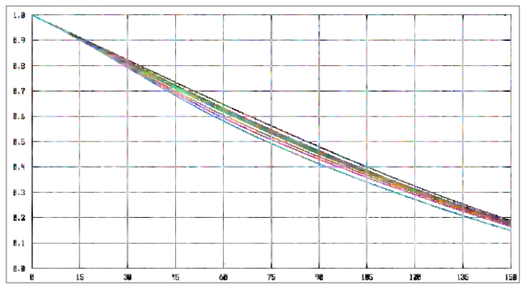
APPLICATION FIELDS

Widely used for all kind of big size objectives' accurate measurement,such as big FOV mobile screen, PCB board, flat glass, engineer motor parts, compress orparts etc..

Light Path Design



MTF Curve



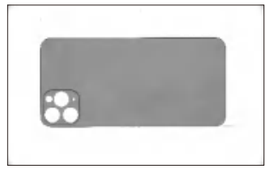
EXAMPLES OF APPLICATION

F Mount Telecentric Lens

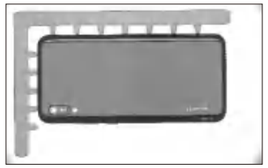
F Mount Lens

Success Cases

Mobile Phone Screen Ink Profile

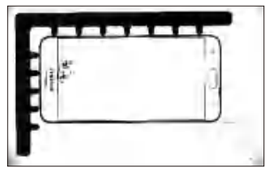


Cell Phone Glass Detection

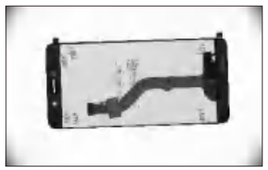


Back Cover LOGO Character

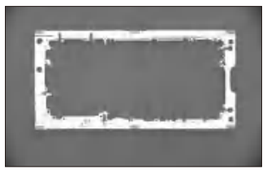
Multi-cover Silkscreen Inspection



Screen Printing Glass Inspection

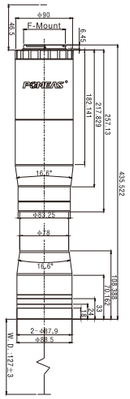


Combination Screen Margin Detection



Cell Phone Middle Frame Detection

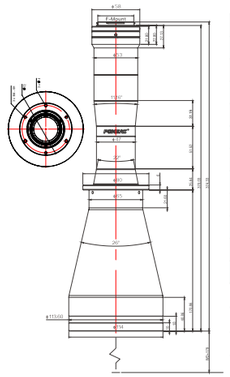
PMS-1TF127



Unit:mm

Product Parameter :	
Magnification：1.0X	
Working Distance：127	
F No.：16	
Tv Distortion：0.01%	
DOF：1.29mm	
Central MTF @70ip/mm: ＞40%	
Resolution（μm）：10.82	
Max. Sensor Size：35mm Film	
Objective Side Telecentricity: ＜0.02°	
Length：435.5	
Dia./Width：88.5mm	
Mount：F-Mount	
FOV（MM）（HxV）	
Linear Array -2K(2KX10μm)	20.0
Linear Array -4K(2KX10μm)	28.0
Linear Array -8K(2KX10μm)	40.0
35MM	36.0X24.0

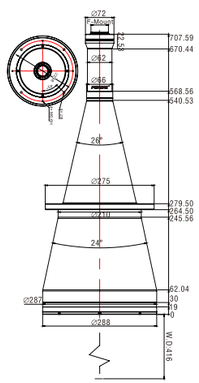
PMS-05TF179



Unit:mm

Product Parameter :	
Magnification：0.5X	
Working Distance：179	
F No.：13	
Tv Distortion：0.01%	
DOF：4.34 mm	
Central MTF @70ip/mm: ＞40%	
Resolution（μm）：18.18	
Max. Sensor Size：35mm Film	
Objective Side Telecentricity: ＜0.02°	
Length：374.3MM	
Dia./Width：114 mm	
Mount：F-Mount	
FOV（MM）（HxV）	
Linear Array -2K(2KX10μm)	41.0
Linear Array -4K(2KX10μm)	57.4
Linear Array -8K(2KX10μm)	82.0
35MM	72.0X48.0

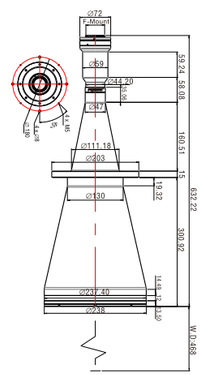
PMS-017TF416



Unit:mm

Product Parameter :	
Magnification：0.17X	
Working Distance：416	
F No.：8	
Tv Distortion：0.01%	
DOF：22.14 mm	
Central MTF @70ip/mm: ＞60%	
Resolution（μm）：31.56	
Max. Sensor Size：35mm Film	
Objective Side Telecentricity: ＜0.02°	
Length：712.0	
Dia./Width：288mm	
Mount：F-Mount	
FOV（MM）（HxV）	
Linear Array -2K(2KX10μm)	120.6
Linear Array -4K(2KX10μm)	168.8
Linear Array -8K(2KX10μm)	241.2
35MM	211.8X141.2

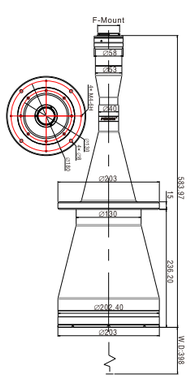
PMS-0206TF468



Unit:mm

Product Parameter :	
Magnification：0.206X	
Working Distance：468	
F No.：6.5	
Tv Distortion：0.01%	
DOF：12.24 mm	
Central MTF @70ip/mm: ＞60%	
Resolution（μm）：21.16	
Max. Sensor Size：35mm Film	
Objective Side Telecentricity: ＜0.02°	
Length：632.2	
Dia./Width：238mm	
Mount：F-Mount	
FOV（MM）（HxV）	
Linear Array -2K(2KX10μm)	99.5
Linear Array -4K(2KX10μm)	139.3
Linear Array -8K(2KX10μm)	199.0
35MM	174.8 X 116.5

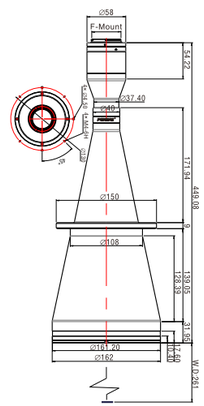
PMS-024TF398



Unit:mm

Product Parameter :	
Magnification：0.24X	
Working Distance：398	
F No.：11	
Tv Distortion：0.01%	
DOF：15.28 mm	
Central MTF @70ip/mm: ＞50%	
Resolution（μm）：30.76	
Max. Sensor Size：35mm Film	
Objective Side Telecentricity: ＜0.02°	
Length：586.7	
Dia./Width：203 mm	
Mount：F-Mount	
FOV（MM）（HxV）	
Linear Array -2K(2KX10μm)	85.4
Linear Array -4K(2KX10μm)	119.6
Linear Array -8K(2KX10μm)	170.8
35MM	150 X 100

PMS-0316TF261

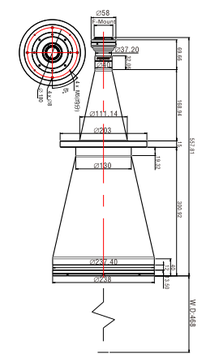


Unit:mm

Product Parameter :	
Magnification：0.316X	
Working Distance：261	
F No.：8	
Tv Distortion：0.02%	
DOF：6.43 mm	
Central MTF @70ip/mm: ＞60%	
Resolution（μm）：17.03	
Max. Sensor Size：35mm Film	
Objective Side Telecentricity: ＜0.02°	
Length：449.08	
Dia./Width：162 mm	
Mount：F-Mount	
FOV（MM）（HxV）	
Linear Array -2K(2KX10μm)	64.9
Linear Array -4K(2KX10μm)	90.8
Linear Array -8K(2KX10μm)	129.7
35MM	113.9 X 75.9

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

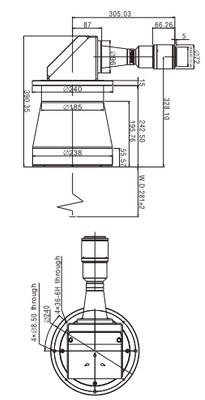
PMS-0106TF468



Unit:mm

Product Parameter :	
Magnification：0.106X	
Working Distance：468	
F No.：5.5	
Tv Distortion：0.02%	
DOF：39.31 mm	
Central MTF @50ip/mm: ＞70%	
Resolution（μm）：34.95	
Max. Sensor Size：4/3 ″	
Objective Side Telecentricity: ＜0.02°	
Length：558 MM	
Dia./Width：238 mm	
Mount：F-Mount	
FOV（MM）（HxV）	
Linear Array -2K(2KX10μm)	193.4
Linear Array -4K(2KX10μm)	——
Linear Array -8K(2KX10μm)	——
35MM	——

PMS-018TF281-M58



Unit:mm

Product Parameter :	
Magnification：0.18X	
Working Distance：281	
F No.：6.5	
Tv Distortion：0.01%	
DOF：16.10 mm	
Central MTF @70ip/mm: ＞70%	
Resolution（μm）：24.31	
Max. Sensor Size：35MM Film	
Objective Side Telecentricity: ＜0.02°	
Length：390 MM	
Dia./Width：238 mm	
Mount：M58	
FOV（MM）（HxV）	
Linear Array -2K(2KX10μm)	113.9
Linear Array -4K(2KX10μm)	159.4
Linear Array -8K(2KX10μm)	227.8
35MM	φ210

F-Mount Telecentric Lens Parameter

Code	Magnification	FOV(HxV)				Working Distance (mm)	F No.	TV Distortion	DOF (mm)	MTF Central MTF@ 70lp/mm	Resolution (μm)	Max. Sensor Size	Objective Side Telecentricity	Length (mm)	Dia./Width (mm)	Mount
		Linear Array 2K (2k×10μm)	Linear Array 4K (4k×7μm)	Linear Array 8K (8k×5μm)	35mm											
PMS-0106TF468	0.106X	193.4	/	/	/	468	5.5	0.02%	39.31	50lp/mm ＞70%	34.95	4/3″	<0.02°	558	Ø238	F Mount
PMS-017TF416	0.17X	120.6	168.8	241.2	211.8x141.2	416	8	0.01%	22.14	＞60%	31.56	35mm Film	<0.02°	712.0	Ø288	F Mount
PMS-0206TF468	0.206X	99. 5	139.3	199. 0	174.8x116.5	468	6.5	0.01%	12.24	＞60%	21.16	35mm Film	<0.02°	632.2	Ø238	F Mount
PMS-024TF398	0.24X	85. 4	119.6	170. 8	150.0x100.0	398	11	0.01%	15.28	＞50%	30.76	35mm Film	<0.02°	586.7	Ø203	F Mount
PMS-0316TF261	0.316X	64. 9	90.8	129. 7	113.9x75.9	261	8	0.02%	6.43	＞60%	17.03	35mm Film	<0.02°	449.08	Ø162	F Mount
PMS-050TF179	0.5X	41.0	57.4	82.0	72.0x48.0	179	13	0.01%	4.34	＞40%	18.18	35mm Film	<0.02°	374.3	Ø114	F Mount
PMS-100TF127	1.0X	20.0	28.0	40.0	36.0x24.0	127	16	0.01%	1.29	＞40%	10.82	35mm Film	<0.02°	435.5	Ø88.5	F Mount
PMS-018TF281-M58	0.18X	113.9	159.4	227.8	φ210	281	6.5	0.01%	16.10	＞70%	24.31	35mm Film	<0.02°	390.35	Ø238	M58

*1: Theoretical value (Diffused diameter 00.04mm). It is better that only use 1/2 of the theoretical range for better application.

Bi-Telecentric Lens

Double maanification bi-teecentric desian, supports two camera working at the same time, two macnitificationsoutput to meet different measurement requirement, specially developed for measurement of large objects.

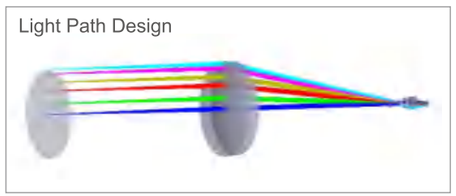
PRODUCT ADVANTAGES

1. Double ports, bi-telecentric, almost without deviation when used for measurement.
2. Big FOV and high resolution design, can achieve complete inspection at one time for large objects.
3. Low distortion and deep DOF design.

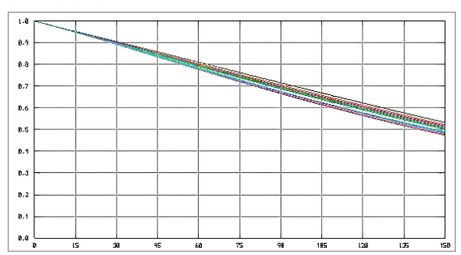
APPLICATION FIELDS

Can be applied in high precision measurement oflarge objects and machine vision industry.

Light Path Design

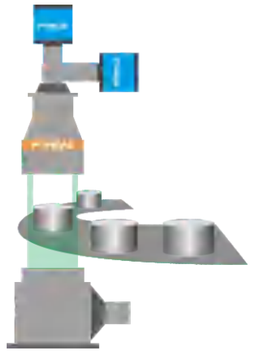


MTF Curve



POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

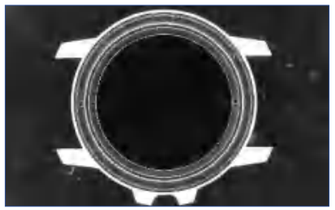
EXAMPLES OF APPLICATION



ACTUAL IMAGE

Explanation: Two ports with diferent magnifications output for two camera, which to meet different measurement requirement.

Watch Inspection Case

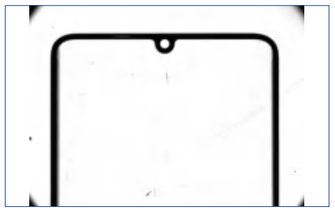


Watch Bezel-0.16X

Watch Glass-0.16X

Watch Glass-0.7X

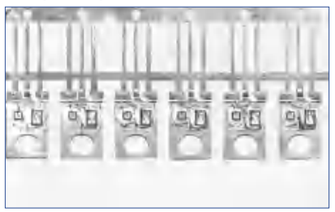
Cell Phone Screen Inspection Case



Cell Phone Screen Size-0.16X

Cell Phone Screen Size-0.7X

Chip Inspection Case



Chip-0.16X

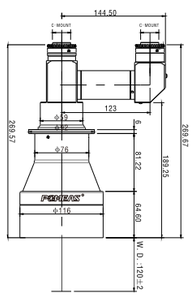
Chip-0.7X

Parameter Of Double Magnification Bi-Telecentric Lens

Code		PMS-DTCDM2-120		PMS-DTCDM4-120	
Magnification		0.088X	0.176X	0.16X	0.7X
Field Of View (HxV) (mm)	1/3"	54.5x40.9	27.3x20.5	30.0x22.5	6.9x5.1
	1/2"	72.7x54.5	36.4x27.3	40.0x30.0	9.1x6.9
	2/3"	——	50x37.5	55.0x41.3	12.6x9.4
	1"	——	——	80.0x60.0	18.3x13.7
W.D.(mm)		120	120	120	120
F.No.		4.46	8	6	8
TV Distortion		0.050%	0.050%	0.020%	0.020%
DOF(mm)		16	7.2	19.23	1.30
Central MTF@70lp/mm		>76%	>57%	>60%	>50%
Resolution(μm)		30.5	30.5	25.81	7.63
Max.Sensor Size		1/1.8"	2/3"	1"	1"
Object Side Telecentricity		< 0.02°	< 0.02°	< 0.02°	< 0.02°
Image Side Telecentricity		< 0.3°	Image-side non-telecentric	< 0.5°	< 0.5°
Length(mm)		——	——	——	——
Diameter/Width(mm)		——	——	——	——
Mount		C-Mount	C-Mount	C-Mount	C-Mount

*1: Theoreticalvalue (Diffused diameter p0.04mm). It is better that only use 1/2 of the theoretical range for better application.

PMS-DTCDM4-120



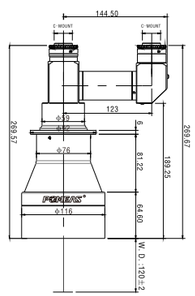
Unit:mm

Product Parameter :

- Magnification：0.016X
- Working Distance：120
- F No.：6
- Tv Distortion : 0.020%
- DOF：19.23 mm
- Central MTF @70ip/mm: ＞60%
- Resolution（μm）：25.81
- Max. Sensor Size：1"
- Objective Side Telecentricity: < 0.02°
- Image Side Telecentricity: < 0.5°
- Length：----
- Dia./Width：----
- Mount：C-Mount

FOV（MM）（HxV）			
1/3"	1/2"	2/3"	1"
30.0X22.5	40.0X30.0	55.0x41.3	80.0x60.0

PMS-DTCDM4-120



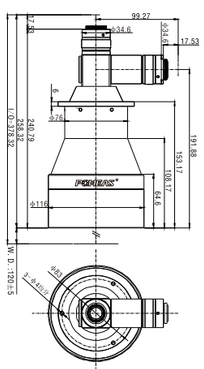
Unit:mm

Product Parameter :

- Magnification：0.7X
- Working Distance：120
- F No.：8
- Tv Distortion : 0.020%
- DOF：1.30 mm
- Central MTF @50ip/mm: ＞50%
- Resolution（μm）：7.63
- Max. Sensor Size：1"
- Objective Side Telecentricity: < 0.02°
- Image Side Telecentricity: < 0.5°
- Length：----
- Dia./Width：----
- Mount：C-Mount

FOV（MM）（HxV）			
1/3"	1/2"	2/3"	1"
6.9X5.1	12.6X9.4	12.6x9.4	18.3x13.7

PMS-DTCDM2-120



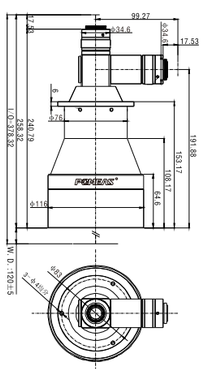
Unit:mm

Product Parameter :

- Magnification：0.088X
- Working Distance：120
- F No.：4.46
- Tv Distortion : 0.050%
- DOF：16 mm
- Central MTF @50ip/mm: ＞76%
- Resolution（μm）：30.5
- Max. Sensor Size：1"/1.8"
- Objective Side Telecentricity: < 0.02°
- Image Side Telecentricity: < 0.3°
- Length：----
- Dia./Width：----
- Mount：C-Mount

FOV（MM）（HxV）			
1/3"	1/2"	2/3"	1"
54.5X40.9	72.7X54.5	φ100	——

PMS-DTCDM2-120



Unit:mm

Product Parameter :

- Magnification：0.176X
- Working Distance：120
- F No.：8
- Tv Distortion : 0.050%
- DOF：7.2 mm
- Central MTF @50ip/mm: ＞57%
- Resolution（μm）：30.5
- Max. Sensor Size：2/3"
- Objective Side Telecentricity: < 0.02°
- Image Side Telecentricity:____
- Length：____
- Dia./Width：____
- Mount：C-Mount

FOV（MM）（HxV）			
1/3"	1/2"	2/3"	1"
27.3X20.5	36.4X27.3	50x37.5	——

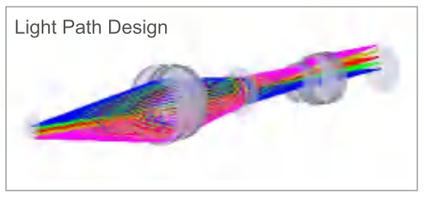
Standard Telecentric Lens

The Lenses from this series have certain magnification and working distance. Tailored service is available, which makes this series lens has super good cost effective.

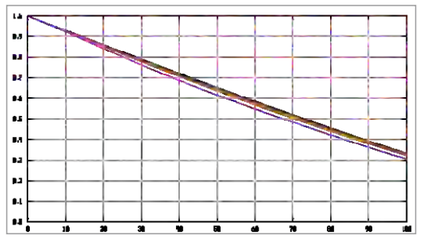
PRODUCT ADVANTAGES

1.This series telecentric lens adopts objective telecentric design, which have features of high DOF, high resolution and low distortion;
2.Support C-mount camera with max sensor size as 2/3";
3.Coaxial function is optional, coaxial light is even;
4.Standard C-mount;
5.Can work with prism;

Light Path Design



MTF Curve



APPLICATION FIELDS

Positioning inspection of mobile screen and PCB printing industry.

ACTUALIMAGE

External Coaxial Light —HDMI Cable

External Coaxial Light-LCD Top Connector.

External Coaxial Light-LCD Top Connector.

Parameter Table Of Standard Telecentric Lens:

Code	Magnification	Field Of View (mm) (H×V)					W.D. (mm)	F No.	TV Distortion	DOF*1 (mm)	N.A.	Resolution (μm)	Max Sensor Size	Mount	Light	Working Temperature
		1/4"	1/3"	1/2"	1/1.8"	2/3"										
PMS-0.5ST40	0.5X	6.4x4.8	9.6x7.2	12.8x9.6	——	——	40	5	0.07%	1.6	0.05	6.7	1/2"	C-Mount	——	-10℃~+50℃
PMS-0.8ST90	0.8X	4.0x3.0	6.0x4.5	8.0x6.0	——	——	90.5	10.67	0.02%	1.33	0.0375	8.947	1/2"	C-Mount	——	-10℃~+50℃
PMS-1ST65/ PMS-1ST65-C	1.0X	3.2x2.4	4.8x3.6	6.4x4.8	——	——	65	14.29	0.01%	1.1	0.04	10	1/2"	C-Mount	--/Coaxial	-10℃~+50℃
PMS-1ST85	1.0X	3.2x2.4	4.8x3.6	6.4x4.8	7.1x5.4	8.8x6.6	85	12.4	0.00%	1.0	0.04	8.39	2/3"	C-Mount	——	-10℃~+50℃
PMS-1ST110/ PMS-1ST110-C	1.0X	3.2x2.4	4.8x3.6	6.4x4.8	——	——	110	19.94	0.02%	1.6	0.025	13.42	1/2"	C-Mount	--/Coaxial	-10℃~+50℃
PMS-1ST200/ PMS-1ST200-C	1.0X	3.2x2.4	4.8x3.6	6.4x4.8	7.1x5.4	——	200	33.18	0.02%	2.67	0.015	22.37	1/1.8"	C-Mount	--/Coaxial	-10℃~+50℃
PMS-1.5ST110/ PMS-1.5ST110-C	1.5X	2.1x1.6	3.2x2.4	4.3x3.2	4.8x3.6	5.9x4.4	110	27.8	0.02%	0.99	0.027	12.43	2/3"	C-Mount	--/Coaxial	-10℃~+50℃
PMS-1.5ST230/ PMS-1.5ST-230-C	1.5X	2.1x1.6	3.2x2.4	4.3x3.2	4.8x3.6	——	230	37.5	0.02%	1.33	0.02	16.78	1/1.8"	C-Mount	--/Coaxial	-10℃~+50℃
PMS-2ST40/ PMS-2ST40-C	2.0X	1.6x1.2	2.4x1.8	3.2x2.4	——	——	40.4	10	0.04%	0.2	0.1	3	1/2"	C-Mount	--/Coaxial	-10℃~+50℃
PMS-2ST110/ PMS-2ST110-C	2.0X	1.6x1.2	2.4x1.8	3.2x2.4	3.6x2.7	4.4x3.3	110	25	0.01%	0.5	0.04	8	2/3"	C-Mount	--/Coaxial	-10℃~+50℃
PMS-2ST150/ PMS-2ST150-C	2.0X	1.6x1.2	2.4x1.8	3.2x2.4	——	——	150	40.1	0.03%	0.8	0.025	13.42	1/2"	C-Mount	--/Coaxial	-10℃~+50℃
PMS-8GX9.5	8.0X	0.4x0.3	0.6x0.5	——	——	——	9.5	13.33	0.07%	0.017	0.3	1.1	1/3"	M12-Mount	——	-10℃~+50℃
PMS-10GX9.4	10X	0.32x0.24	——	——	——	——	9.4	17.768	0.06%	0.014	0.28	1.20	1/4"	M12-Mount	——	-10℃~+50℃

*1: Theoretical value (Diffused diameter φ0.04mm). It is better that only use 1/2 of the theoretical range for better application.

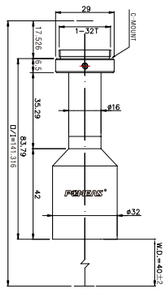
PRISM ADVANTAGE

1. Change optical path, to achieve meeting different requirements from different environments.
2. Brief structure design, which can save assembly space effectively.
3. High precision assembly, to make sure the imaging quality utmost close to the design.

Parameter Of Prism:

Code	PMS-P25.7	PMS-P31-L	PMA-P31-R
Corner Type	L Type	ZL Type-L	ZL Type-R
Inner Optical Lenth	25.7mm	31mm	31mm
Thedistance From Axial Of Lens To Surface A	8.85mm	9.75mm	9.75mm
Compatible Lens	TC series of outer diameter of lens φ16mm	TC series of outer diameter of lens φ16mm	TC series of outer diameter of lens φ16mm

PMS-0.5ST40

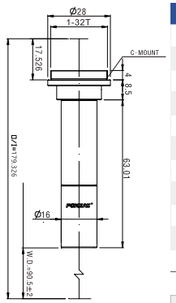


Unit:mm

Product Parameter :
Magnification：0.5X
Working Distance：40
F No.：5.0
Tv Distortion : 0.07%
DOF : 1.6 mm
N.A.：0.05
Resolution（μm）：6.7
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
6.4X4.8	9.6X7.2	12.8X9.6		

PMS-0.8ST90

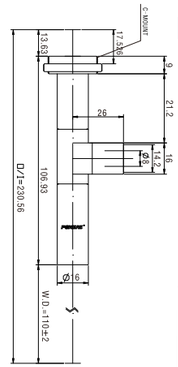


Unit:mm

Product Parameter :
Magnification：0.8X
Working Distance：90.5
F No.：10.67
Tv Distortion : 0.02%
DOF : 1.33 mm
N.A.：0.0375
Resolution（μm）：8.947
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
4.0X3.0	6.0X4.5	8.0X6.0		

PMS-1ST110-C

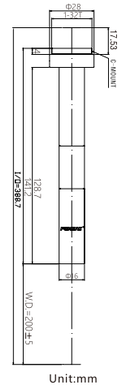


Unit:mm

Product Parameter :
Magnification：1.0X
Working Distance：110
F No.：19.94
Tv Distortion : 0.02%
DOF : 1.6mm
N.A.：0.025
Resolution（μm）：13.42
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting：Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
3.2X2.4	4.8X3.6	6.4X4.8		

PMS-1ST200

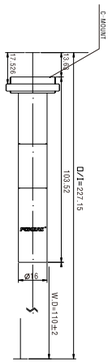


Unit:mm

Product Parameter :
Magnification：1.0 X
Working Distance：200
F No.：33.18
Tv Distortion : 0.02%
DOF : 2.67 mm
N.A.：0.015
Resolution（μm）：22.37
Max. Sensor Size：1/1.8"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
3.2X2.4	4.8X3.6	6.4X4.8	7.1X5.4	

PMS-1ST65

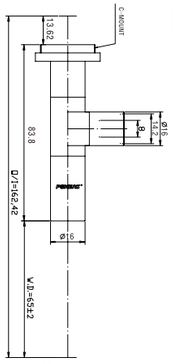


Unit:mm

Product Parameter :
Magnification：1.0X
Working Distance：65
F No.：14.29
Tv Distortion : 0.01%
DOF : 1.1mm
N.A.：0.04
Resolution（μm）：10
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
3.2X2.4	4.8X3.6	6.4X4.8		

PMS-1ST65-C

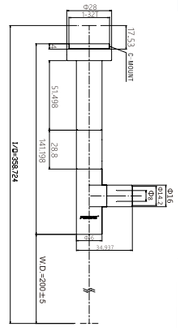


Unit:mm

Product Parameter :
Magnification：1.0X
Working Distance：65
F No.：14.29
Tv Distortion : 0.01%
DOF : 1.1mm
N.A.：0.04
Resolution（μm）：10
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
3.2X2.4	4.8X3.6	6.4X4.8		

PMS-1ST200-C

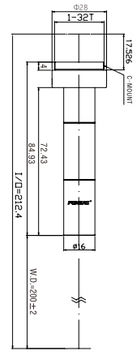


Unit:mm

Product Parameter :
Magnification：1.0 X
Working Distance：200
F No.：33.18
Tv Distortion : 0.02%
DOF : 2.67 mm
N.A.：0.015
Resolution（μm）：22.37
Max. Sensor Size：1/1.8"
Mount：C-Mount
Lighting :Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
3.2X2.4	4.8X3.6	6.4X4.8	7.1X5.4	

PMS-1.5ST110

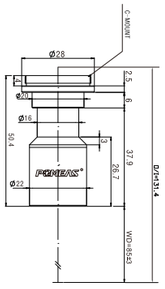


Unit:mm

Product Parameter :
Magnification：1.5 X
Working Distance：110
F No.：27.8
Tv Distortion : 0.02%
DOF : 0.99 mm
N.A.：0.027
Resolution（μm）：12.43
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
2.1X1.6	3.2X2.4	4.3X3.2	4.8X3.6	5.9X4.4

PMS-1ST85

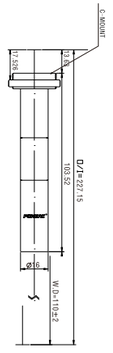


Unit:mm

Product Parameter :
Magnification：1.0X
Working Distance：85
F No.：12.4
Tv Distortion : 0.00%
DOF : 1.0 mm
N.A.：0.04
Resolution（μm）：8.39
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
3.2X2.4	4.8X3.6	6.4X4.8	7.1X5.4	8.8X6.6

PMS-1ST110

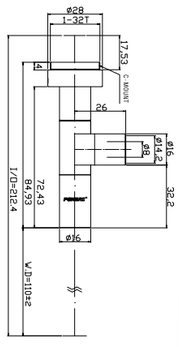


Unit:mm

Product Parameter :
Magnification：1.0X
Working Distance：110
F No.：19.94
Tv Distortion : 0.02%
DOF : 1.6mm
N.A.：0.025
Resolution（μm）：13.42
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : --/Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
3.2X2.4	4.8X3.6	6.4X4.8		

PMS-1.5ST110-C

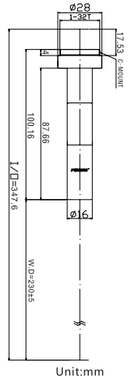


Unit:mm

Product Parameter :
Magnification：1.5 X
Working Distance：110
F No.：27.8
Tv Distortion : 0.02%
DOF : 0.99 mm
N.A.：0.027
Resolution（μm）：12.43
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
2.1X1.6	3.2X2.4	4.3X3.2	4.8X3.6	5.9X4.4

PMS-1.5ST230

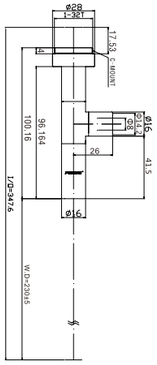


Unit:mm

Product Parameter :
Magnification：1.5 X
Working Distance：230
F No.：37.5
Tv Distortion : 0.02%
DOF :1.33 mm
N.A.：0.02
Resolution（μm）：16.78
Max. Sensor Size：1/1.8"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
2.1X1.6	3.2X2.4	4.3X3.2	4.8X3.6	

PMS-1.5ST230-C

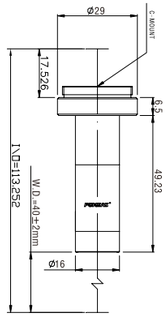


Unit:mm

Product Parameter :
Magnification：1.5 X
Working Distance：230
F No.：37.5
Tv Distortion : 0.02%
DOF :1.33 mm
N.A.：0.02
Resolution（μm）：16.78
Max. Sensor Size：1/1.8"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
2.1X1.6	3.2X2.4	4.3X3.2	4.8X3.6	

PMS-2ST40

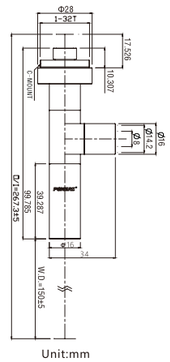


Unit:mm

Product Parameter :
Magnification：2.0 X
Working Distance：40.4
F No.：10
Tv Distortion : 0.04%
DOF : 0.2 mm
N.A.：0.1
Resolution（μm）：3
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
1.6X1.2	2.4X1.8	3.2X2.4		

PMS-2ST150-C

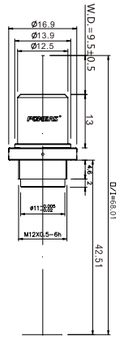


Unit:mm

Product Parameter :
Magnification：2.0 X
Working Distance：150
F No.：40.1
Tv Distortion : 0.03%
DOF : 0.8 mm
N.A.：0.025
Resolution（μm）：13.42
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
1.6X1.2	2.4X1.8	3.2X2.4		

PMS-8GX9.5

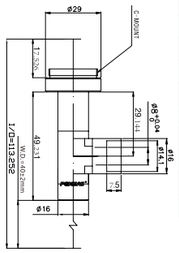


Unit:mm

Product Parameter :
Magnification：8X
Working Distance：9.5
F No.：13.33
Tv Distortion : 0.07%
DOF : 0.017 mm
N.A.：0.03
Resolution（μm）：1.1
Max. Sensor Size：1/3"
Mount：M12
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
0.4X0.3	0.6X0.5			

PMS-2ST40-C

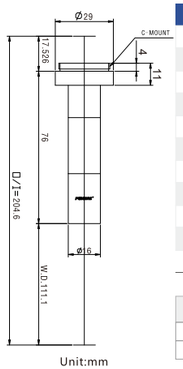


Unit:mm

Product Parameter :
Magnification：2.0 X
Working Distance：40.4
F No.：10
Tv Distortion : 0.04%
DOF : 0.2 mm
N.A.：0.1
Resolution（μm）：3
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
1.6X1.2	2.4X1.8	3.2X2.4		

PMS-2ST110

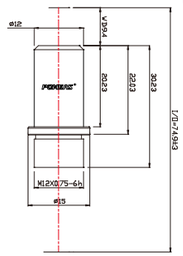


Unit:mm

Product Parameter :
Magnification：2.0 X
Working Distance：110
F No.：25
Tv Distortion : 0.01%
DOF : 0.5 mm
N.A.：0.04
Resolution（μm）：8
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
1.6X1.2	2.4X1.8	3.2X2.4	3.6X2.7	4.4X3.3

PMS-10GX9.4

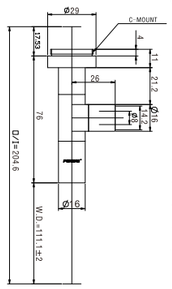


Unit:mm

Product Parameter :
Magnification：10X
Working Distance：9.4
F No.：17.768
Tv Distortion : 0.06%
DOF : 0.014 mm
N.A.：0.28
Resolution（μm）：1.20
Max. Sensor Size：1/4"
Mount：M12
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
0.32X0.24				

PMS-2ST110-C

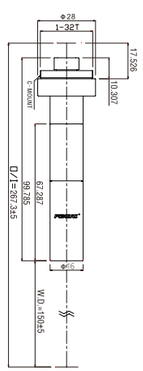


Unit:mm

Product Parameter :
Magnification：2.0 X
Working Distance：110
F No.：25
Tv Distortion : 0.01%
DOF : 0.5 mm
N.A.：0.04
Resolution（μm）：8
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : Coaxial
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
1.6X1.2	2.4X1.8	3.2X2.4	3.6X2.7	4.4X3.3

PMS-2ST150



Unit:mm

Product Parameter :
Magnification：2.0 X
Working Distance：150
F No.：40.1
Tv Distortion : 0.03%
DOF : 0.8 mm
N.A.：0.025
Resolution（μm）：13.42
Max. Sensor Size：1/2"
Mount：C-Mount
Lighting : ——
Working Temperature: -10°C~+50°C

FOV（MM）（HxV）				
1/4"	1/3"	1/2"	1/1.8"	2/3"
1.6X1.2	2.4X1.8	3.2X2.4		

Telecentric Lens With 55mm Focal Length

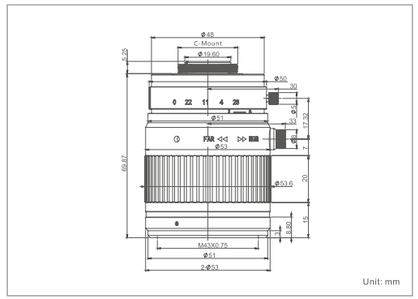
55mm Telecentric lens has excellent imaging quality, it has not just telecentric optical design to make sure low distortion, but long working distance as machine vision lens.

PRODUCT ADVANTAGES

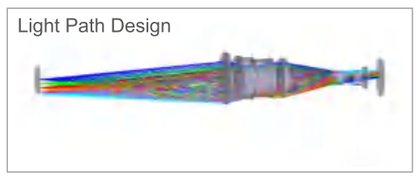
1.Supports 5MP camera with 2/3” sensor;
2.Manual iris, iris range is F2.8-C, max focal length is 55mm;
3.Deep depth of field, low distortion, high resolution;
4.Telecentric optical design, suitable in machine vision industry and automation industry;

Specification

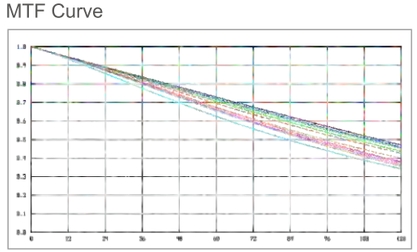
Code		PMS-TC55MC5M
Magnification		0.5X - inf.
Resolution		3.45μm@2/3" CCD
Focal Length		55mm
Iris Length		F2.8-C
Max.Sensor Size		2/3"
Field Of View(DxHxV)	2/3"	11° x 9.2° x 6.9°
	1/2"	8.4° x 6.7° x 5.0°
	1/3"	6.3° x 5.0° x 3.8°
Focus Range		0.13m - ∞
Object Dimensions (at the nearest focusing distance) (DXHXV)	2/3"	21.4mmx17.1mmx12.8mm
	1/2"	15.6mmx12.4mmx9.3mm
	1/3"	11.3mmx9.3mmx7.0mm
Control	Focus	Manual
	Iris	Manual
Distortion(at 0.5X)	2/3"	0.43%@y=5.5mm
	1/2"	0.26%@y=4.0mm
	1/3"	0.16%@y=3.0mm
Optical Back Focal Length(in air)		13.3mm
Filter Thread		M43x0.75mm
Mount		C-Mount
Illumination		——
Working Temperature		-10℃~+50℃



Light Path Design



MTF Curve



Macro Lens

High resolution, low distortion, even brightness, suitable for high precision inspection and measurement.

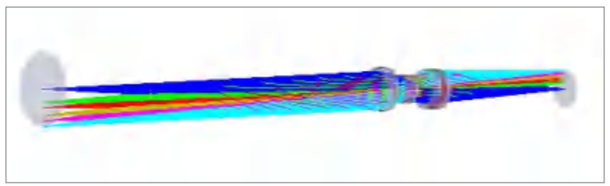
PRODUCT ADVANTAGES

1. Supports MP camera with 2/3” sensor;
2. Standard C-mount;
3. Super high cost-efficient;
4. Many magnifications is optional;

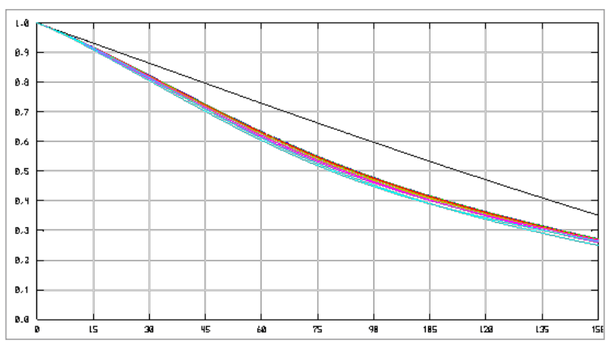
APPLICATION FIELDS

Can be applied in high precision measurement of large objects and machine vision industry.

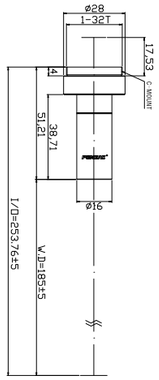
Light Path Design



MTF Curve



PMS-03ML185

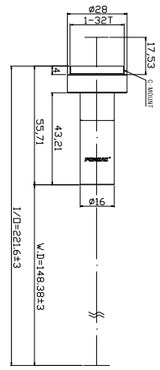


Unit:mm

Product Parameter :
Magnification：0.3X
Working Distance：185
F No.：6.26
Tv Distortion : 0.02%
DOF : 5.56 mm
N.A.：0.024
Resolution（μm）：13.98
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10℃~+50℃

FOV（MM）（HxV）			
1/4"	1/3"	1/2"	1/1.8"
16.0X12.0	21.3X16.0	23.8X17.9	29.3X22.0

PMS-04ML150

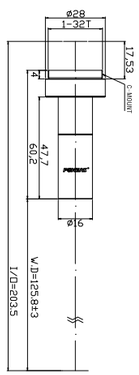


Unit:mm

Product Parameter :
Magnification：0.4 X
Working Distance：150
F No.：6.2
Tv Distortion : 0.02%
DOF : 3.03 mm
N.A.：0.033
Resolution（μm）：10.17
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10℃~+50℃

FOV（MM）（HxV）			
1/4"	1/3"	1/2"	1/1.8"
12.0X9.0	16.0X12.0	17.9X13.4	22.0X16.5

PMS-05ML130

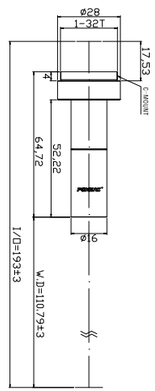


Unit:mm

Product Parameter :
Magnification：0.5X
Working Distance：130
F No.：6.2
Tv Distortion : 0.02%
DOF : 1.95 mm
N.A.：0.041
Resolution（μm）：8.18
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10℃~+50℃

FOV（MM）（HxV）			
1/4"	1/3"	1/2"	1/1.8"
9.6X7.2	12.8X9.6	14.3X10.7	17.6X13.2

PMS-06ML110

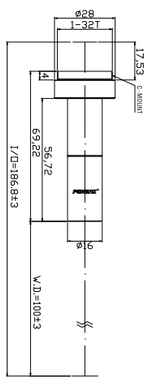


Unit:mm

Product Parameter :
Magnification：0.6X
Working Distance：110
F No.：6.67
Tv Distortion : 0.02%
DOF : 1.45 mm
N.A.：0.046
Resolution（μm）：7.29
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10℃~+50℃

FOV（MM）（HxV）			
1/4"	1/3"	1/2"	1/1.8"
8.0X6.0	10.7X8.0	11.9X8.9	14.7X11.0

PMS-07ML100

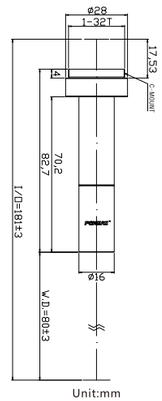


Unit:mm

Product Parameter :
Magnification：0.7X
Working Distance：100
F No.：7.1
Tv Distortion : 0.02%
DOF : 1.14 mm
N.A.：0.05
Resolution（μm）：6.71
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10℃~+50℃

FOV（MM）（HxV）			
1/4"	1/3"	1/2"	1/1.8"
6.9X5.1	9.1X6.9	10.2X7.7	12.6X9.4

PMS-1ML80



Unit:mm

Product Parameter :
Magnification：1.0 X
Working Distance：80
F No.：10.4
Tv Distortion : 0.02%
DOF : 0.83 mm
N.A.：0.048
Resolution（μm）：6.99
Max. Sensor Size：2/3"
Mount：C-Mount
Lighting : ——
Working Temperature: -10℃~+50℃

FOV（MM）（HxV）			
1/4"	1/3"	1/2"	1/1.8"
4.8X3.6	6.4X4.8	7.1X5.4	8.8X6.6

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Specification

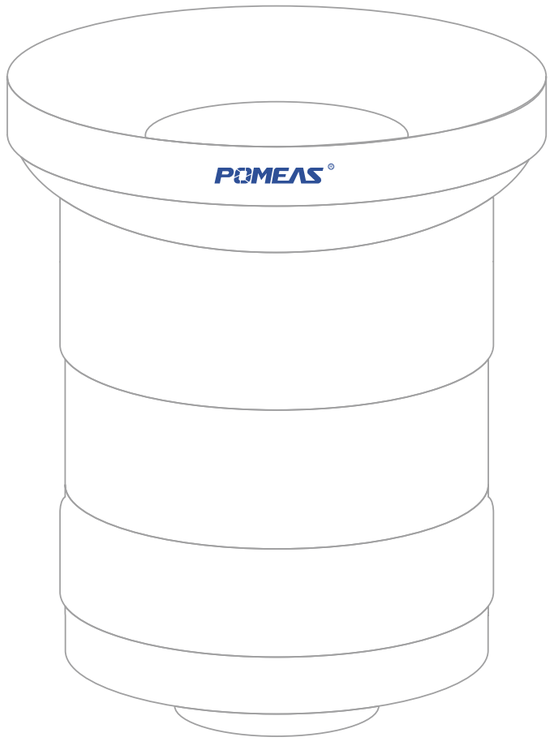
Code	Magnification	Field Of View (HxV) (mm)				W.D. (mm)	F.No.	TV Distortion	DOF (mm)	N.A.	Resolution (μm)	Max Sensor Size	Mount	Illumination	Working Temperature
		1/2"	1/1.8"	2/3"	1"										
PMS-03ML185	0.3X	16.0x12.0	21.3x16.0	23.8x17.9	29.3x22.0	185	6.26	0.02%	5.56	0.024	13.98	2/3"	C-Mount	——	-10℃~+50℃
PMS-04ML150	0.4X	12.0x9.0	16.0x12.0	17.9x13.4	22.0x16.5	150	6.2	0.02%	3.03	0.033	10.17	2/3"	C-Mount	——	-10℃~+50℃
PMS-05ML130	0.5X	9.6x7.2	12.8x9.6	14.3x10.7	17.6x13.2	130	6.2	0.02%	1.95	0.041	8.18	2/3"	C-Mount	——	-10℃~+50℃
PMS-06ML110	0.6X	8.0x6.0	10.7x8.0	11.9x8.9	14.7x11.0	110	6.67	0.02%	1.45	0.046	7.29	2/3"	C-Mount	——	-10℃~+50℃
PMS-07ML100	0.7X	6.9x5.1	9.1x6.9	10.2x7.7	12.6x9.4	100	7.1	0.02%	1.14	0.05	6.71	2/3"	C-Mount	——	-10℃~+50℃
PMS-1ML80	1.0X	4.8x3.6	6.4x4.8	7.1x5.4	8.8x6.6	80	10.4	0.02%	0.83	0.048	6.99	2/3"	C-Mount	——	-10℃~+50℃

*1：Theoretical value (Diffused diameter φ0.04mm). It is better that only use 1/2 of the theoretical range for better application.

FA/MACHINE VISION LENS SERIES

To fully meet customers requirements, Pomeas develops full range FA lenses, including 1.5MP 2/3” series, 5MP 2/3” series, 8MP 1” series and 10MP 4/3”series. OEM business is welcomed also.

Widely used in machine vision, security, automatic production, electronic communication.



Main Advantage:

1. Professional optical design, high resolution, low distortion, low chromatic abberation.
2. Uniform distribution of light, even illumination, no image vignetting.
3. Advanced coating technology, at the utmost extent, to decrease the stray light and ghost.
4. Metal cover, anodized surface finishing, reliable quality.

Low Distortion Machine Vision Lens

Professional optical path design, low distortion imaging, uniform distribution of center and edge light.

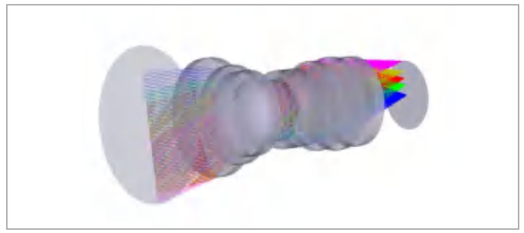
PRODUCT ADVANTAGES

1. Support 1MP/5MP/10MP 2/3"、1"、4/3" camera.
2. Focus and iris locking screw to ensure stable focusing.
3. Low distortion, sharp image.
4. Compact structure, excellent optical performance.

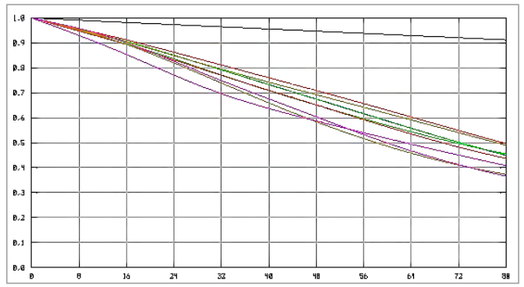
APPLICATION FIELDS

Widely used in machine vision, automatic production and electronic communication field.

Optical Pathway Diagram



MTF Curve



Machine Vision Lens Parameter

Code	Resolution	Max. Sensor Size	Focal Length	Iris Range	Focusing Range	Field Of View (HxV)			Distortion	Back Focal Length	Mount	Filter Thread
						4/3"	1"	2/3"				
PMS-16MC	1MP	2/3"	16.33mm	F12	0.30m~∞	–	–	30.4°×22.9°	–1.00%@y=5.5mm	12.67mm	C-Mount	M30.5×0.5mm
PMS-12MC1.5M	1.5MP	2/3" 8.8mm×6.6mm Ø11mm	12.3mm	F1.4~C	0.15m~∞	–	–	40.0°×30.2°	–1.80%@y=5.5mm	12.70mm	C-Mount	M30.5×0.5mm
PMS-16MC1.5M			16.33mm	F1.4~C	0.30m~∞	–	–	30.4°×22.9°	–1.00%@y=5.5mm	12.67mm	C-Mount	M30.5×0.5mm
PMS-25MC1.5M			25mm	F1.4~C	0.25m~∞	–	–	19.9°×15.0°	–0.32%@y=5.5mm	13.60mm	C-Mount	M30.5×0.5mm
PMS-35MC1.5M			35mm	F1.4~C	0.30m~∞	–	–	13.8°×10.4°	–0.33%@y=5.5mm	14.7mm	C-Mount	M30.5×0.5mm
PMS-50MC1.5M			50mm	F1.8~C	0.50m~∞	–	–	9.2°×7.6°	–0.11%@y=5.5mm	12.94mm	C-Mount	M30.5×0.5mm
PMS-75MC1.5M			75mm	F2.8~C	1.10m~∞	–	–	6.7°×5.0°	0.34%@y=5.5mm	14.35mm	C-Mount	M30.5×0.5mm
PMS-1236MC1.5M			12~36mm	F2.8~C	0.15m~∞(wide) 0.5m~∞(tele)	–	–	41.4°×31.2°(wide) 13.8°×10.4°(tele)	3.5%@y=5.5mm(wide) 2.3%@y=5.5mm(tele)	12.6mm(wide) 15.2mm(tele)	C-Mount	M35.5×0.5mm
PMS-23MC2M	2MP	2/3"	22.5mm	F1.4~11	0.1m~∞	–	–	22.1°×16.7°	–0.44%@y=5.5mm	13.60mm	C-Mount	M30.5×0.5mm
PMS-08MC5M	5MP	2/3" 8.8mm×6.6mm Ø11mm	8mm	F1.6~F22	0.1m~∞	–	–	55.8°×43.3°	–0.73%@y=5.5mm	12.44mm	C-Mount	M40.5×0.5mm
PMS-12MC5M			12mm	F1.6~F22	0.1m~∞	–	–	39.8°×30.4°	–0.53%@y=5.5mm	12.42mm	C-Mount	M37.5×0.5mm
PMS-16MC5M			16mm	F1.6~F22	0.2m~∞	–	–	30.8°×23.4°	0.07%@y=5.5mm	12.36mm	C-Mount	M37.5×0.5mm
PMS-25MC5M			25mm	F1.4~F22	0.2m~∞	–	–	20.0°×15.0°	–0.19%@y=5.5mm	12.78mm	C-Mount	M37.5×0.5mm
PMS-35MC5M			35mm	F1.4~F22	0.3m~∞	–	–	14.3°×10.8°	–0.07%@y=5.5mm	12.82mm	C-Mount	M37.5×0.5mm
PMS-50MC5M			50mm	F1.8~F22	0.4m~∞	–	–	10.1°×7.6°	0.03%@y=5.5mm	13.63mm	C-Mount	M37.5×0.5mm
PMS-75MC5M			75mm	F2.0~F22	0.9m~∞	–	–	6.7°×5.0°	0.04%@y=5.5mm	13.76mm	C-Mount	M40.5×0.5mm
PMS-1236MC5M			12~36mm	F2.8~F16	0.15m~∞(wide) 0.45m~∞(tele)	–	–	41.2°×31.2°(wide) 13.8°×10.4°(tele)	–3.4%@y=5.5mm(wide) 1.4%@y=5.5mm(tele)	18.93mm(wide) 18.87mm(tele)	C-Mount	M40.5×0.5mm
PMS-12LC5M	5MP	1" 12.8mm×9.6mm Ø16mm	12mm	F1.6~F22	1m~∞	–	57.1°×44.1°	40.6°×30.9°	–2.88%@y=8.0mm	13.54mm	C-Mount	M52.0×0.75mm
PMS-16LC5M			16mm	F1.6~F22	1m~∞	–	44.2°×33.5°	30.8°×23.2°	–3.73%@y=8.0mm	12.17mm	C-Mount	M37.5×0.5mm
PMS-20LC5M			20mm	F1.6~F22	1m~∞	–	35.8°×27.2°	25.0°×18.8°	–1.82%@y=8.0mm	13.08mm	C-Mount	M37.5×0.5mm
PMS-25LC5M			25mm	F1.6~F22	–	–	29.0°×21.8°	20.0°×15.0°	–2.06%@y=8.0mm	12.69mm	C-Mount	M33.7×0.5mm
PMS-35LC5M			35mm	F1.4~F22	–	–	18.2°×14.1°	12.9°×9.6°	0.27%@y=8.0mm	12.83mm	C-Mount	M39.0×0.5mm
PMS-08MC10M(F22)	10MP	2/3"	8mm	F2.4~F22	0.25m~∞	–	–	56.6°×44.0°	–3.16%@y=5.5mm	10.30mm	C-Mount	M37.0×0.5mm
PMS-08MC10M			8mm	F2.8~16	0.15m~∞	–	–	58.5°×45.5°	–0.81%@y=5.5mm	10.7mm	C-Mount	M32.7×P0.5mm
PMS-12MC10M(F22)			12mm	F1.8~F22	0.1m~∞	–	–	40.9°×31.0°	–2.19%@y=5.5mm	15.10mm	C-Mount	M30.5×0.5mm
PMS-12MC10M			12mm	F2.8~16	0.15m~∞	–	–	40.3°×30.8°	0.037%@y=5.5mm	8.43mm	C-Mount	M27×P0.5mm
PMS-16MC10M(F22)			16mm	F1.6~F22	0.2m~∞	–	–	30.4°×23.2°	–0.20%@y=5.5mm	13.30mm	C-Mount	M30.5×0.5mm
PMS-16MC10M			16mm	F2.8~16	0.15m~∞	–	–	30.7°×23.3°	0.29%@y=5.5mm	8.63mm	C-Mount	M27×P0.5mm
PMS-25MC10M(F22)			25mm	F1.8~F22	0.15m~∞	–	–	20.1°×15.1°	–0.72%@y=5.5mm	12.70mm	C-Mount	M30.5×0.5mm
PMS-25MC10M			25mm	F2.8~16	0.15m~∞	–	–	19.94°×15.0°	–0.016%@y=5.5mm	10.31mm	C-Mount	M27×P0.5mm
PMS-35MC10M(F22)			35mm	F2.0~F22	0.2m~∞	–	–	14.35°×10.8°	–0.16%@y=5.5mm	13.00mm	C-Mount	M30.5×0.5mm
PMS-35MC10M			35mm	F2.8~16	0.2m~∞	–	–	14.8°×11.1°	–0.172%@y=5.5mm	13.63mm	C-Mount	M27×P0.5mm
PMS-50MC10M(F22)			50mm	F2.4~F22	0.2m~∞	–	–	10.06°×7.55°	–0.01%@y=5.5mm	21.40mm	C-Mount	M30.5×0.5mm
PMS-50MC10M			50mm	F2.8~16	0.3m~∞	–	–	10.08°×7.57°	0.094%@y=5.5mm	14.24mm	C-Mount	M27×P0.5mm

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

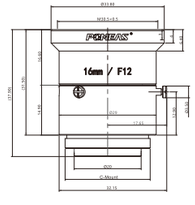
XC Series Machine Vision Lens Parameter

Code	Resolution	Max. Sensor Size	Focal Length	Iris Range	Focusing Range	Field Of View (HxV)			Distortion	Back Focal Length	Mount	Filter Thread
						4/3"	1"	2/3"				
PMS-12XC10M	10MP	4/3" 17.6mm×13.2mm Ø22mm	12mm	F2.0~F22	–	75.5°×61.1°	57.3°×44.2°	–	–2.40%@y=11.0mm	18.93mm	C-Mount	M77.0×0.75mm
PMS-16XC10M			16mm	F2.0~F22	0.1m~∞	61.0°×47.2°	44.2°×33.6°	31.0°×23.4°	–2.81%@y=11.0mm	21mm	C-Mount	M58×0.75mm
PMS-25XC10M			25mm	F2.0~F22	–	40.6°×31.0°	28.8°×21.8°	20.0°×15.1°	–0.66%@y=11.0mm	22.43mm	C-Mount	M46.0×0.75mm
PMS-35XC10M			35mm	F2.0~F22	–	29.6°×22.4°	20.8°×15.7°	14.4°×10.8°	–0.56%@y=11.0mm	18.65mm	C-Mount	M40.5×0.5mm
PMS-50XC10M			50mm	F2.0~F22	–	20.9°×15.7°	14.6°×11.0°	10.1°×7.6°	–0.14%@y=11.0mm	20.29mm	C-Mount	M40.5×0.5mm
PMS-12XC12M	12MP	4/3" (23mm)	12mm	F2.0~F22	0.15m~∞	75.6°×61.2°	57.36°×44.3°	–	–2.05%@y=11.5mm	18.8mm	C-Mount	M77.0×P0.75mm
PMS-16XC12M			16mm	F2.0~F22	0.1m~∞	61.0°×47.3°	44.3°×33.6°	–	–1.93%@y=11.5mm	21mm	C-Mount	M58.0×P0.75mm
PMS-25XC12M			25mm	F2.0~F22	0.15m~∞	40.6°×31.1°	28.9°×21.8°	–	–0.64%@y=11.5mm	22mm	C-Mount	M46.0×P0.75mm
PMS-35XC12M			35mm	F2.0~F22	0.2m~∞	29.7°×22.5°	20.8°×15.8°	–	–0.52%@y=11.5mm	18mm	C-Mount	M46×P0.75mm
PMS-50XC12M			50mm	F2.0~F22	0.3m~∞	21.0°×15.8°	14.7°×11.1°	–	–0.13%@y=11.5mm	20mm	C-Mount	M46×P0.75mm

SC&JC Series Machine Vision Lens Parameter

Code	Resolution	Max. Sensor Size	Focal Length	Iris Range	Focusing Range	Field Of View (HxV)			Distortion	Back Focal Length	Mount	Filter Thread
						1/1.8"	2/3"	1/2"				
PMS-3.5SC1.5M	1.5MP	1/1.8"	3.5mm	F2.4~C	0.15m~∞	94.4°×78.0°	87.8°×71.2°	71.2°×55.6°	–1.23%@y=4.5mm	8.57mm	C-Mount	M40.5×0.5mm
PMS-45JC10M	10MP	1/1.8"	4.5mm	F2.8~16	0.1m~∞	81.9°×52.3°	——	81.9°×52.3°	–1.2%@y=4.5mm 1.08%@y=4.0mm	8.4mm	C-Mount	——
PMS-16JC10M(H)	10MP	1/1.8"	16mm	F2.8~16	0.1m~∞	27.5°×15.7°	——	24.7°×14.0°	–0.5%@y=4.5mm –0.48%@y=4.0mm	13mm	C-Mount	M25.5×P0.5mm
PMS-25JC10M(H)	10MP	1/1.8"	25mm	F2.8~16	0.2m~∞	17.8°×10.0°	——	15.9°×8.9°	–0.1%@y=4.5mm –0.08%@y=4.0mm	12.2mm	C-Mount	M25.5×P0.5mm
PMS-35JC10M(H)	10MP	1/1.8"	35mm	F2.8~16	0.2m~∞	12.6°×7.2°	——	11.4°×6.4°	–0.09%@y=4.5mm –0.08%@y=4.0mm	11mm	C-Mount	M25.5×P0.5mm

PMS-16MC — 1MP Lens Series

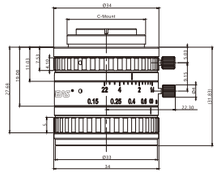


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 16.33mm		
Iris Range : F12		
Focusing Range : 0.30m-∞		
Distortion : -1.00%@y = 5.5mm		
Back Focal Length :12.67mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
30.4°X22.9°

PMS-12MC1.5M — 1.5MP Lens Series

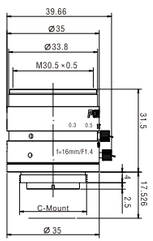


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 12.3mm		
Iris Range : F1.4-C		
Focusing Range : 0.15m-∞		
Distortion : -1.80%@y = 5.5mm		
Back Focal Length :12.70mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
40°X30.2°

PMS-16MC1.5M — 1.5MP Lens Series

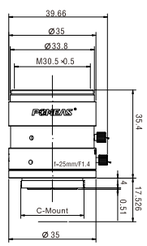


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 16.33mm		
Iris Range : F1.4-C		
Focusing Range : 0.30m-∞		
Distortion : -1.00%@y = 5.5mm		
Back Focal Length :12.67mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
30.4°X22.9°

PMS-25MC1.5M — 1.5MP Lens Series

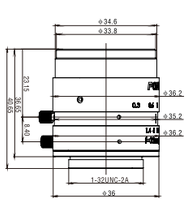


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 25 mm		
Iris Range : F1.4-C		
Focusing Range : 0.25m-∞		
Distortion : -0.32%@y = 5.5mm		
Back Focal Length :13.60mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
19.9°X15.0°

PMS-35MC1.5M — 1.5MP Lens Series

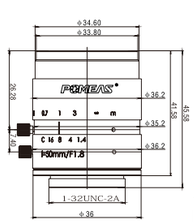


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 35 mm		
Iris Range : F1.4-C		
Focusing Range : 0.30m-∞		
Distortion : -0.33%@y = 5.5mm		
Back Focal Length :14.7mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
13.8°X10.4°

PMS-50MC1.5M — 1.5MP Lens Series

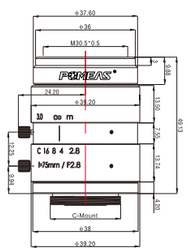


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 50 mm		
Iris Range : F1.8-C		
Focusing Range : 0.5m-∞		
Distortion : -0.11%@y = 5.5mm		
Back Focal Length :12.94mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
9.2°X7.6°

PMS-75MC1.5M — 1.5MP Lens Series

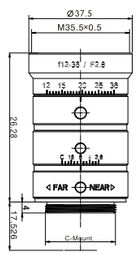


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 75 mm		
Iris Range : F2.8-C		
Focusing Range : 1.10m-∞		
Distortion : 0.34%@y = 5.5mm		
Back Focal Length:14.35mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
6.7°X5.0°

PMS-1236MC1.5M — 1.5MP Lens Series

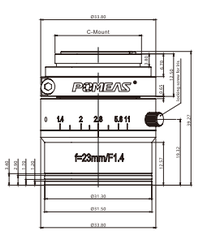


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 12-36 mm		
Iris Range : F2.8-C		
Focusing Range : 0.15m-∞(wide) 0.5m-∞ (tele)		
Distortion : 3.5%@y = 5.5mm(wide)		
2.3%@y = 5.5mm(tele)		
Back Focal Length :12.6mm(wide)		
15.2 (tele)		
Mount: C-Mount		
Filter Thread: M35.5X0.5mm		

Field of View(HxV)	
2/3"	
41.2° X 31.2° (wide)	13.8° X 10.4° (tele)

PMS-23MC2M — 2MP Lens Series

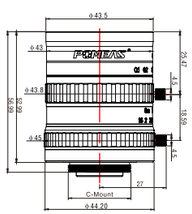


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 22.5mm		
Iris Range : F1.4-11		
Focusing Range : 0.10m-∞		
Distortion : -0.44%@y = 5.5mm(无穷远)		
Back Focal Length :13.6mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
22.1°X16.7°

PMS-08MC5M — 5MP Lens Series



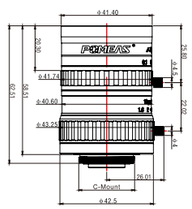
Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 8 mm		
Iris Range : F1.6-F22		
Focusing Range : 0.1m-∞		
Distortion : -0.73%@y = 5.5mm		
Back Focal Length :12.44mm		
Mount: C-Mount		
Filter Thread: M40.5X0.5mm		

Field of View(HxV)
2/3"
55.8°X43.3°

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

PMS-12MC5M — 5MP Lens Series

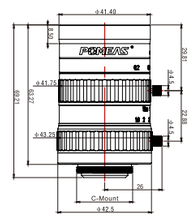


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 12 mm		
Iris Range : F1.6-F22		
Focusing Range : 0.1m-∞		
Distortion : -0.53%@y = 5.5mm		
Back Focal Length :12.42mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		

Field of View(HxV)
2/3"
39.8°X30.4°

PMS-16MC5M — 5MP Lens Series

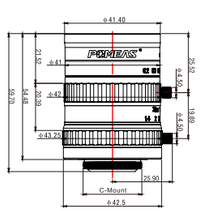


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 16 mm		
Iris Range : F1.6-F22		
Focusing Range : 0.2m-∞		
Distortion : 0.07%@y = 5.5mm		
Back Focal Length :12.36mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		

Field of View(HxV)
2/3"
30.8°X23.4°

PMS-25MC5M — 5MP Lens Series

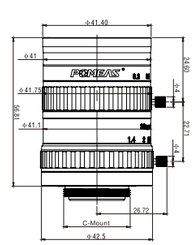


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 25 mm		
Iris Range : F1.4-F22		
Focusing Range : 0.2m-∞		
Distortion : -0.19%@y = 5.5mm		
Back Focal Length :12.78mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		

Field of View(HxV)
2/3"
20.0°X15.0°

PMS-35MC5M — 5MP Lens Series

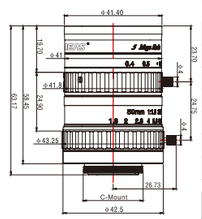


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 35 mm		
Iris Range : F1.4-F22		
Focusing Range : 0.3m-∞		
Distortion : -0.07%@y = 5.5mm		
Back Focal Length :12.82mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		

Field of View(HxV)
2/3"
14.3°X10.8°

PMS-50MC5M — 5MP Lens Series

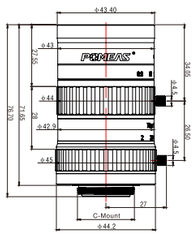


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 50 mm		
Iris Range : F1.8-F22		
Focusing Range : 0.4m-∞		
Distortion : 0.03%@y = 5.5mm		
Back Focal Length :13.63mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		

Field of View(HxV)
2/3"
10.1°X7.6°

PMS-75MC5M — 5MP Lens Series

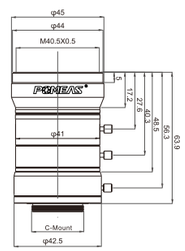


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 75 mm		
Iris Range : F2.0-F22		
Focusing Range : 0.9m-∞		
Distortion : 0.04%@y = 5.5mm		
Back Focal Length :13.76mm		
Mount: C-Mount		
Filter Thread: M40.5X0.5mm		

Field of View(HxV)
2/3"
6.7°X5.0°

PMS-1236MC5M — 5MP Lens Series

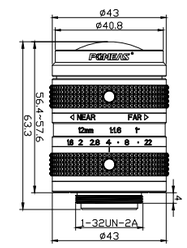


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 12-36 mm		
Iris Range : F2.8-F16		
Focusing Range : 0.15m-∞(wide) 0.45m-∞(tele)		
Distortion : -3.4%@y = 5.5mm (wide)		
1.4%@y = 5.5mm (tele)		
Back Focal Length :18.93mm (wide)		
18.87mm (tele)		
Mount: C-Mount		
Filter Thread: M40.5X0.5mm		

Field of View(HxV)	
2/3"	
41.2°X31.2° (wide)	13.8°X10.4° (tele)

PMS-12LC5M — 5MP Lens Series

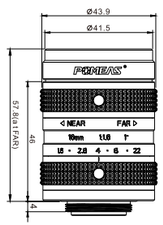


Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 12 mm		
Iris Range : F1.6-F22		
Focusing Range : 1m-∞		
Distortion : -2.88%@y = 8.0mm		
Back Focal Length :13.54mm		
Mount: C-Mount		
Filter Thread: M52.0X0.72mm		

iEld of View H(xV)	
1"	2/3"
57.1°X44.1°	40.6°X30.9°

PMS-16LC5M — 5MP Lens Series

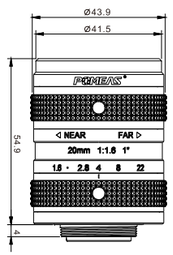


Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 16 mm		
Iris Range : F1.6-F22		
Focusing Range : 1m-∞		
Distortion : -3.73%@y = 8.0mm		
Back Focal Length :12.17mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		

Field of View(HxV)	
1"	2/3"
44.2°X33.5°	30.8°X23.2°

PMS-20LC5M — 5MP Lens Series

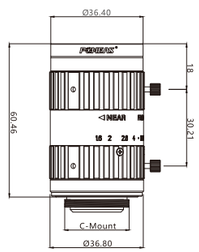


Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 16 mm		
Iris Range : F1.6-F22		
Focusing Range : 1m-∞		
Distortion : -1.82%@y = 8.0mm		
Back Focal Length :13.08mm		
Mount: C-Mount		
Filter Thread: M37.5X0.5mm		

Field of View(HxV)	
1"	2/3"
35.8°X27.2°	25.0°X18.8°

PMS-16MC10M(F22) — 10MP Lens Series

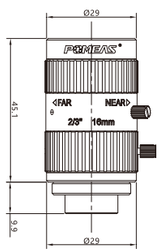


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 16mm		
Iris Range : F1.6-F22		
Focusing Range : 0.2m-∞		
Distortion : -0.2%@y = 5.5mm		
Back Focal Length :13.3mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
30.4°X23.2°

PMS-16MC10M — 10MP Lens Series

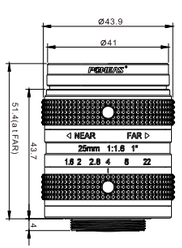


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 16mm		
Iris Range : F2.8-F16		
Focusing Range : 0.15m-∞		
Distortion : 0.29%@y = 5.5mm		
Back Focal Length :8.63mm		
Mount: C-Mount		
Filter Thread: M27XP0.5mm		

Field of View(HxV)
2/3"
30.7°X23.3°

PMS-25LC5M — 5MP Lens Series

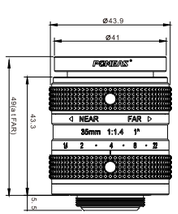


Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 25 mm		
Iris Range : F1.6-F22		
Focusing Range : 1m-∞		
Distortion : -2.06%@y = 8.0mm		
Back Focal Length :12.69mm		
Mount: C-Mount		
Filter Thread: M33.7X0.5mm		

Field of View(HxV)	
1"	2/3"
29.0°X21.8°	20.0°X15.0°

PMS-35LC5M — 5MP Lens Series

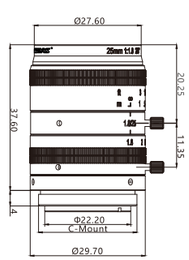


Unit: mm

Max.Sensor Size		
1"	12.8mm X 9.6mm	φ16mm
Focal Length (MM).: 35 mm		
Iris Range : F1.4-F22		
Focusing Range : 1m-∞		
Distortion : 0.27%@y = 8.0mm		
Back Focal Length :12.83mm		
Mount: C-Mount		
Filter Thread: M39.0X0.5mm		

Field of View(HxV)	
1"	2/3"
18.2°X14.1°	12.9°X9.6°

PMS-25MC10M(F22) — 10MP Lens Series

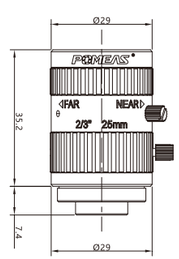


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 25mm		
Iris Range : F1.8-F22		
Focusing Range : 0.15m-∞		
Distortion : -0.72%@y = 5.5mm		
Back Focal Length :12.7mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
20.1°X15.1°

PMS-25MC10M — 10MP Lens Series



Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 25mm		
Iris Range : F2.8-16		
Focusing Range : 0.15m-∞		
Distortion : -0.016%@y = 5.5mm		
Back Focal Length :10.31mm		
Mount: C-Mount		
Filter Thread: M27XP0.5mm		

Field of View(HxV)
2/3"
19.94°X15.0°

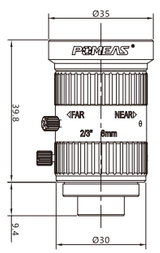
PMS-08MC10M(F22) — 10MP Lens Series

Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 8mm		
Iris Range : F2.4-F22		
Focusing Range : 0.25m-∞		
Distortion : -3.16%@y = 5.5mm		
Back Focal Length :10.3mm		
Mount: C-Mount		
Filter Thread: M37X0.5mm		

Field of View(HxV)
2/3"
56.6°X44°

PMS-08MC10M — 10MP Lens Series

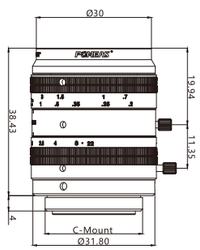


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 8mm		
Iris Range : F2.8-F16		
Focusing Range : 0.15m-∞		
Distortion : -0.81%@y = 5.5mm		
Back Focal Length :10.7mm		
Mount: C-Mount		
Filter Thread: M32.7XP0.5mm		

Field of View(HxV)
2/3"
58.5°X45.5°

PMS-35MC10M(F22) — 10MP Lens Series

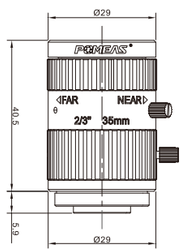


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 35mm		
Iris Range : F2.0-F22		
Focusing Range : 0.2m-∞		
Distortion : -0.16%@y = 5.5mm		
Back Focal Length :13mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
14.35°X10.8°

PMS-35MC10M — 10MP Lens Series

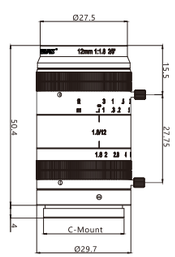


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 35mm		
Iris Range : F2.8-16		
Focusing Range : 0.2m-∞		
Distortion : -0.172%@y = 5.5mm		
Back Focal Length :13.63mm		
Mount: C-Mount		
Filter Thread: M27XP0.5mm		

Field of View(HxV)
2/3"
14.8°X11.1°

PMS-12MC10M(F22) — 10MP Lens Series

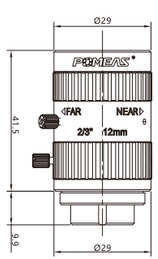


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 12mm		
Iris Range : F1.8-F22		
Focusing Range : 0.1m-∞		
Distortion : -2.19%@y = 5.5mm		
Back Focal Length :15.1mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
40.9°X31°

PMS-12MC10M — 10MP Lens Series

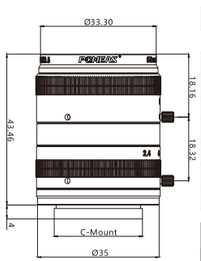


Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 12mm		
Iris Range : F2.8-16		
Focusing Range : 0.15m-∞		
Distortion : 0.037%@y = 5.5mm		
Back Focal Length :8.43mm		
Mount: C-Mount		
Filter Thread: M27XP0.5mm		

Field of View(HxV)
2/3"
40.3°X30.8°

PMS-50MC10M(F22) — 10MP Lens Series



Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 50mm		
Iris Range : F2.4-F22		
Focusing Range : 0.2m-∞		
Distortion : -0.01%@y = 5.5mm		
Back Focal Length :21.40mm		
Mount: C-Mount		
Filter Thread: M30.5X0.5mm		

Field of View(HxV)
2/3"
10.06°X7.55°

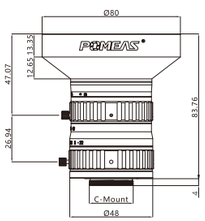
PMS-50MC10M — 10MP Lens Series

Unit: mm

Max.Sensor Size		
2/3"	8.8mm X 6.6mm	φ11mm
Focal Length (MM).: 50mm		
Iris Range : F2.8-16		
Focusing Range : 0.30m-∞		
Distortion : 0.094%@y = 5.5mm		
Back Focal Length :14.24mm		
Mount: C-Mount		
Filter Thread: M27XP0.5mm		

Field of View(HxV)
2/3"
10.08°X7.57°

PMS-12XC10M — 10MP Lens Series

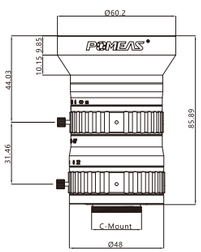


Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 12.0 mm		
Iris Range : F2.0-F22		
Focusing Range : ——		
Distortion : -2.4%@y = 11.0mm		
Back Focal Length :18.93mm		
Mount: C-Mount		
Filter Thread: M77X0.75mm		

Field of View(HxV)	
4/3"	1"
75.5°X61.1°	57.3°X44.2°

PMS-16XC10M — 10MP Lens Series



Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 16 mm		
Iris Range : F2.0-F22		
Focusing Range : 0.1m-∞		
Distortion : -2.81%@y = 11.0mm		
Back Focal Length :21mm		
Mount: C-Mount		
Filter Thread: M58X0.75mm		

Field of View(HxV)		
4/3"	1"	2/3"
61.0°X47.2°	44.2°X33.6°	31.0°x23.4°

PMS-35XC12M — 12MP Lens Series

Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ23mm
Focal Length (MM).: 35mm		
Iris Range : F2.0-F22		
Focusing Range : 0.2m-∞		
Distortion : -0.52%@y = 11.5mm		
Back Focal Length :18mm		
Mount: C-Mount		
Filter Thread: M46.0XP0.75mm		

Field of View(HxV)	
4/3"	1"
29.7°X22.5°	20.8°X15.8°

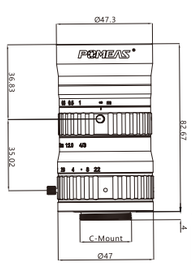
PMS-50XC12M — 12MP Lens Series

Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ23mm
Focal Length (MM).: 50mm		
Iris Range : F2.0-F22		
Focusing Range : 0.3m-∞		
Distortion : -0.13%@y = 11.5mm		
Back Focal Length :20mm		
Mount: C-Mount		
Filter Thread: M46.0XP0.75mm		

Field of View(HxV)	
4/3"	1"
21.0°X15.8°	14.7°X11.1°

PMS-25XC10M — 10MP Lens Series

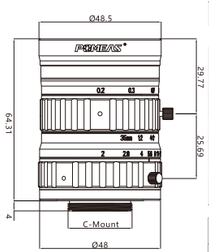


Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 25 mm		
Iris Range : F2.0-F22		
Focusing Range : 0.15m-∞		
Distortion : -0.66%@y = 11.0mm		
Back Focal Length :22.43mm		
Mount: C-Mount		
Filter Thread: M46.0X0.75mm		

Field of View(HxV)		
4/3"	1"	2/3"
40.6°X31.0°	28.8°X21.8°	20.0°x15.1°

PMS-35XC10M — 10MP Lens Series

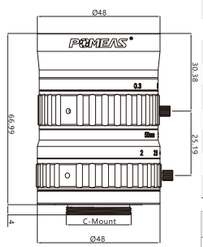


Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 35 mm		
Iris Range : F2.0-F22		
Focusing Range : 0.15m-∞		
Distortion : -0.56%@y = 11.0mm		
Back Focal Length :18.65mm		
Mount: C-Mount		
Filter Thread: M40.5X0.5mm		

Field of View(HxV)		
4/3"	1"	2/3"
29.6°X22.4°	20.8°X15.7°	14.4°X110.8°

PMS-50XC10M — 10MP Lens Series

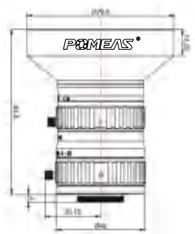


Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ22mm
Focal Length (MM).: 50 mm		
Iris Range : F2.0-F22		
Focusing Range : 0.3m-∞		
Distortion : -0.14%@y = 11.0mm		
Back Focal Length :20.29mm		
Mount: C-Mount		
Filter Thread: M40.5X0.5mm		

Field of View(HxV)		
4/3"	1"	2/3"
20.9°X15.7°	14.6°X11.0°	10.1°X7.6°

PMS-12XC12M — 12MP Lens Series



Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ23mm
Focal Length (MM).: 12 mm		
Iris Range : F2.0-F22		
Focusing Range : 0.15m-∞		
Distortion : -2.05%@y = 11.5mm		
Back Focal Length :18.8mm		
Mount: C-Mount		
Filter Thread: M77.0XP0.75mm		

Field of View(HxV)	
4/3"	1"
75.6°X61.2°	57.36°X44.3°

PMS-16XC12M — 12MP Lens Series

Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ23mm
Focal Length (MM).: 16 mm		
Iris Range : F2.0-F22		
Focusing Range : 0.1m-∞		
Distortion : -1.93%@y = 11.5mm		
Back Focal Length :21mm		
Mount: C-Mount		
Filter Thread: M58.0XP0.75mm		

Field of View(HxV)	
4/3"	1"
61.0°X47.3°	44.3°X33.6°

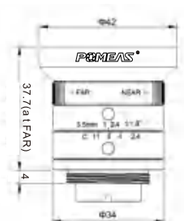
PMS-25XC12M — 12MP Lens Series

Unit: mm

Max.Sensor Size		
4/3"	17.6mm X 13.2mm	φ23mm
Focal Length (MM).: 25mm		
Iris Range : F2.0-F22		
Focusing Range : 0.15m-∞		
Distortion : -0.64%@y = 11.5mm		
Back Focal Length :22mm		
Mount: C-Mount		
Filter Thread: M46.0XP0.75mm		

Field of View(HxV)	
4/3"	1"
40.6°X31.1°	28.9°X21.8°

PMS-3.5SC1.5M — 1.5MP Lens Series

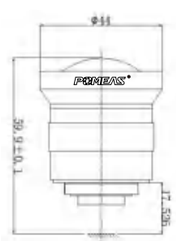


Unit: mm

Max.Sensor Size	
1/1.8"	φ9mm
Focal Length (MM).: 3.5 mm	
Iris Range : F2.4-C	
Focusing Range : 0.15m-∞	
Distortion : -1.23%@y = 4.5mm	
Back Focal Length :8.57mm	
Mount: C-Mount	
Filter Thread: M40.5X0.5mm	

Field of View(HxV)		
1/1.8"	2/3"	1/2"
94.4°X78.0°	87.8°X71.2°	71.2°X55.6°

PMS-45JC10M — 10MP Lens Series

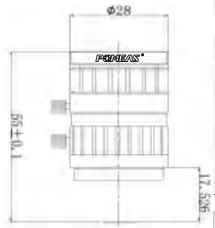


Unit: mm

Max.Sensor Size	
1/1.8"	φ9mm
Focal Length (MM).: 4.5 mm	
Iris Range : F2.8-16	
Focusing Range : 0.1m-∞	
Distortion : -1.2%@y = 4.5mm	
Back Focal Length :8.4mm	
Mount: C-Mount	
Filter Thread: ——	

Field of View(HxV)	
1/1.8"	1/2"
81.9°X52.3°	81.9°X52.3°

PMS-16JC10M(H) — 10MP Lens Series

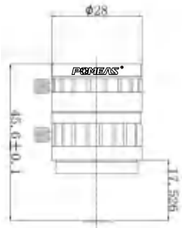


Unit: mm

Max.Sensor Size	
1/1.8"	φ9mm
Focal Length (MM).: 16 mm	
Iris Range : F2.8-16	
Focusing Range : 0.1m-∞	
Distortion : -0.5%@y = 4.5mm	
Back Focal Length : 13mm	
Mount: C-Mount	
Filter Thread: M25.5XP0.5mm	

Field of View(HxV)	
1/1.8"	1/2"
27.5°X15.7°	24.7°X14.0°

PMS-25JC10M(H) — 10MP Lens Series

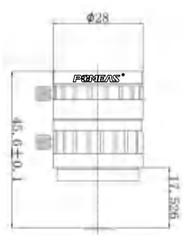


Unit: mm

Max.Sensor Size	
1/1.8"	φ9mm
Focal Length (MM).: 25 mm	
Iris Range : F2.8-16	
Focusing Range : 0.2m-∞	
Distortion : -0.1%@y = 4.5mm	
Back Focal Length : 12.2mm	
Mount: C-Mount	
Filter Thread: M25.5XP0.5mm	

Field of View(HxV)	
1/1.8"	1/2"
17.8°X10.0°	15.9°X8.9°

PMS-35JC10M(H) — 10MP Lens Series



Unit: mm

Max.Sensor Size	
1/1.8"	φ9mm
Focal Length (MM).: 35 mm	
Iris Range : F2.8-16	
Focusing Range : 0.2m-∞	
Distortion : -0.09%@y = 4.5mm	
Back Focal Length : 11mm	
Mount: C-Mount	
Filter Thread: M25.5XP0.5mm	

Field of View(HxV)	
1/1.8"	1/2"
12.6°X7.2°	11.4°X6.4°

FA Lens Series / 8mp 1” Low Distortion Machine Vision Lens

Professional optical path design, low distortion imaging, uniform distribution of center and edge light.

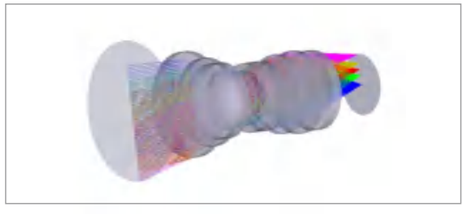
PRODUCT ADVANTAGES

1. Support 8MP 1” camera.
2. Focus and iris locking screw to ensure stable focusing.
3. Low distortion imaging.
4. Compact structure, excellent optical performance.

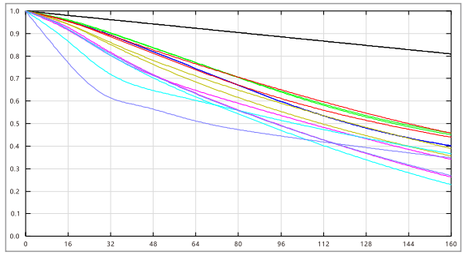
APPLICATION FIELDS

Widely used in machine vision, automatic production and electronic communication field.

Optical Pathway Diagram



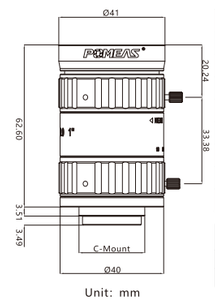
MTF Curve



Machine Vision Lens Parameter

Code	Object Size(mm)		Resolution	Focal Length (mm)	Iris Range	Focusing Range	Field Of View (HxV)			Distortion	Back Focal Length	Mount	Filter Thread
							1"	1/2"	1/3"				
PMS-12LC8M	1"	155.01x130.05x90.3	8MP	12	F2.0-C	0.1m~∞	60.71°x40.33°	30.11°x22.74°	/	-4.1%@y=8.0mm	15.07mm	C-Mount	M35.5x0.5mm
	1/2"	74.93x59.76x44.73								-1.27%@y=4.0mm			
	1/3"	/								/			
PMS-16LC8M	1"	112.75x89.28x66.33		16	F2.0-C	0.1m~∞	43.92°x33.45°	22.62°x16.97°	16.98°x12.94°	-2.02%@y=8.0mm	11.20mm	C-Mount	M34X0 5mm
	1/2"	55.09x43.96x32.82								-0.68%@y=4.0mm			
	1/3"	41.19x33.32x24.58								-0.39%@y=3.0mm			
PMS-25LC8M	1"	92.4x73.3x54.6		25	F1.8-C	0.15m~∞	29.08°x21.86°	14.72°x11.08°	11.08°x8.34°	-1.41%@y=8.0mm	12.68mm	C-Mount	M30.5X0 5mm
	1/2"	45.5x36.4x27.2								-0.32%@y=4.0mm			
	1/3"	34.2x27.3x20.5								-0.18%@y=3.0mm			
PMS-35LC8M	1"	81.1x64.88x48.66		35	F2.0-C	0.2m~∞	20.83°x15.72°	10.65°x7.94°	7.92°x6.00°	0.28%@y=8.0mm	12.96mm	C-Mount	M30.5X0 5mm
	1/2"	40.52x32.42x24.31								0.07%@y=4.0mm			
	1/3"	30.42x24.34x18.25								0.04%@y=3.0mm			
PMS-50LC8M	1"	72.5x57.94x43.34		50	F2.0-C	0.25m~∞	14.7°x10.98°	7.42°x5.5°	5.53°x4.16°	-0.013%@y=8.0mm	21.35mm	C-Mount	M37.5X0 5mm
	1/2"	36.18x28.76x21.66								0.010%@y=4.0mm			
	1/3"	27.26x21.74x16.34								0.008%@y=3.0mm			

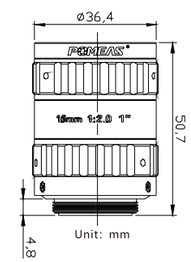
PMS-12LC8M — 8MP Lens Series



Code: PMS-12LC8M
Image Size: 1"(16mm)
Wavelength: 420~1000nm
Focal Length (MM).: 12 mm
Iris Range : F2.0-C
Focusing Range : 0.1m-∞
Back Focal Length :15.07mm
Mount: C-Mount
Filter Thread: M35.5X0.5mm

Field of View(HxV)	
1"	1/2"
60.71°×40.33°	30.11°×22.74°

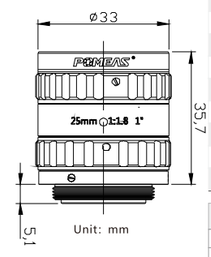
PMS-16LC8M — 8MP Lens Series



Code:PMS-12LC8M
Image Size: 1"(16mm)
Wavelength:420~1000nm
Focal Length (MM).: 16 mm
Iris Range : F2.0-C
Focusing Range : 0.1m-∞
Back Focal Length :11.20mm
Mount: C-Mount
Filter Thread: M34X0.5mm

Field of View(HxV)		
1"	1/2"	1/3"
43.92°×33.45°	22.62°×16.97°	6.98°×12.94°

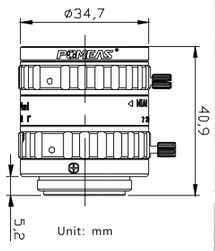
PMS-25LC8M — 8MP Lens Series



Code:PMS-25LC8M
Image Size: 1"(16mm)
Wavelength:420~1000nm
Focal Length (MM).: 25 mm
Iris Range : F1.8-C
Focusing Range : 0.15m-∞
Back Focal Length :12.68mm
Mount: C-Mount
Filter Thread: M30X0.5mm

Field of View(HxV)		
1"	1/2"	1/3"
29.08°×21.86°	14.72°×11.08°	11.08°×8.34°

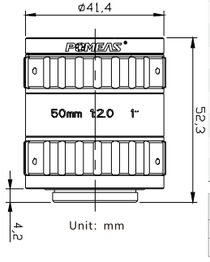
PMS-35LC8M — 8MP Lens Series



Code:PMS-35LC8M
Image Size: 1"(16mm)
Wavelength:420~1000nm
Focal Length (MM).: 35 mm
Iris Range : F2.0-close
Focusing Range : 0.2m-∞
Back Focal Length :12.96mm
Mount: C-Mount
Filter Thread: M30.5X0.5mm

Field of View(HxV)		
1"	1/2"	1/3"
20.83°×15.72°	10.65°×7.94°	7.92°×6.00°

PMS-50LC8M — 8MP Lens Series



Code:PMS-50LC8M
Image Size: 1"(16mm)
Wavelength:420~1000nm
Focal Length (MM).: 50 mm
Iris Range : F2.0-C
Focusing Range : 0.25m-∞
Back Focal Length :21.35mm
Mount: C-Mount
Filter Thread: M37.0X0.5mm

Field of View(HxV)		
1"	1/2"	1/3"
14.70°×10.98°	7.42°×5.5°	5.53×4.16°

20 MP 1.1" Low Distortion Hd Industrial Lens

Professional optical path design, low distortion imaging, uniform distribution of center and edge light.

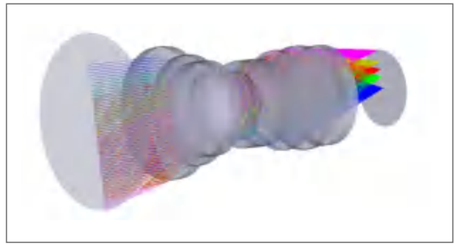
PRODUCT ADVANTAGES

1. Support 20 MP 1.1" camera.
2. With focus locking screw and aperture locking screw.
3. Low aberration imaging.
4. Compact structure design and excellent optical performance.

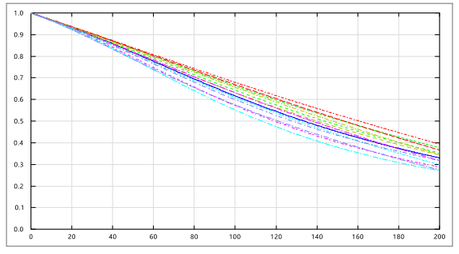
APPLICATION FIELDS

Widely used in machine vision production automation and other fields.

Optical Pathway Diagram



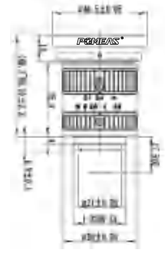
MTF Curve



Machine Vision Lens Parameter

Code	Sensor Size	Effective Image Area Size	Focal Length	Iris Range	Resolution	Distortion	Optical Back Focal Length	Mechanical Backscatter	Focusing Range	Field Of View	Object Size	Operation Method	Mount
PMS-12UC20M(F16)	1.1"	17.6mm	12mm	F2.8~F16	20MP	-1.05%	14.45mm	10.63mm	0.1m~∞	66.9°×56°×43.3°	230mm×184mm×137mm	Manual	C-Mount
PMS-12UC20M(F22)	1.1"	17.6mm	12mm	F2.8~F22	20MP	-0.85%	10.6mm	——	0.1m~∞	70.6°x59.2°x45.4°	166.4mm×133.1mm×99.8mm	Manual	C-Mount
PMS-16UC20M(F16)	1.1"	17.6mm	16mm	F2.8~F16	20MP	-1%	9.67mm	9.5mm	0.15m~∞	56.3°×47.7°×33.7°	181mm×148.9mm×101.7mm	Manual	C-Mount
PMS-16UC20M(H)	1.1"	17.6mm	16mm	F2.8	20MP	-0.73%	11.2mm	——	——	58.6°×46.8°×35.2°	——	Manual	C-Mount
PMS-16UC20M(F22)	1.1"	17.6mm	16mm	F2.8~F22	20MP	-0.73%	11.2mm	——	0.1m~∞	58.6°×46.88°×35.16°	124.8mm×99.84mm×74.88mm	Manual	C-Mount
PMS-25UC20M(F16)	1.1"	17.6mm	25mm	F2.8~F16	20MP	0.50%	12.7mm	11.3mm	0.1m~∞	32.7°×26.4°×19.9°	94.4mm×75.4mm×56.5mm	Manual	C-Mount
PMS-25UC20M(H)	1.1"	17.6mm	25mm	F2.8	20MP	-0.59%	12.6mm	——	——	39.4°×31.5°×23.6°	——	Manual	C-Mount
PMS-25UC20M(F22)	1.1"	17.6mm	25mm	F2.8~F22	20MP	-0.59%	12.6mm	——	0.15m~∞	39.46°×31.56°×23.6°	101.76mm×81.4mm×61.1mm	Manual	C-Mount
PMS-35UC20M(F16)	1.1"	17.6mm	35mm	F2.8~F16	20MP	0.30%	10.52mm	8.9mm	0.2m~∞	23.33°×19.33°×13.32°	90.8mm×74.81mm×51.18mm	Manual	C-Mount
PMS-35UC20M(H)	1.1"	17.6mm	35mm	F2.8	20MP	-0.37%	12.9mm	——	——	28.2°×22.5°×16.9°	——	Manual	C-Mount
PMS-35UC20M(F22)	1.1"	17.6mm	35mm	F2.8~F22	20MP	0.37%	12.9mm	——	0.2m~∞	28.18°×22.54°×16.9°	88.72mm×70.96mm×53.24mm	Manual	C-Mount
PMS-50UC20M(F16)	1.1"	17.6mm	50mm	F2.8~F16	20MP	0.05%	10.3mm	10.08mm	0.25m~∞	18.6°×15°×11.2°	69mm×55mm×41mm	Manual	C-Mount
PMS-50UC20M(H)	1.1"	17.6mm	50mm	F2.8	20MP	-0.06%	21.3mm	——	——	19.9°×15.9°×11.9°	——	Manual	C-Mount
PMS-50UC20M(F22)	1.1"	17.6mm	50mm	F2.8~F22	20MP	-0.06%	21.3mm	——	0.25m~∞	19.96°×15.96°×11.96°	79.3mm×63.44mm×47.58mm	Manual	C-Mount

PMS-12UC20M(F16) 20MP Lens Series



Unit: mm

- Sensor Size : 1.1"
- Effective Image Area Size : 17.6mm
- Focal Length : 12mm
- Iris Range : F2.8-F16
- Resolution : 20MP
- Distortion : -1.05%
- Optical Back Focal Length : 14.45mm
- Mechanical Backscatter : 10.63mm
- Focusing Range : 0.1m-∞
- Operation Method : Manual
- Mount : C-Mount

Field Of View (DxHxV)
66.9°X56°X43.3°

Object Size (DxHxV)
230mmX184mmX137mm

PMS-12UC20M(F22) 20MP Lens Series

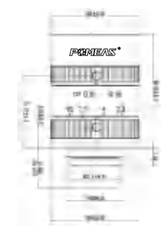
Unit: mm

- Sensor Size : 1.1"
- Effective Image Area Size : 17.6mm
- Focal Length : 12mm
- Iris Range : F2.8-F22
- Resolution : 20MP
- Distortion : -0.85%
- Optical Back Focal Length : 10.6mm
- Mechanical Backscatter : ——
- Focusing Range : 0.1m-∞
- Operation Method : Manual
- Mount : C-Mount

Field Of View (DxHxV)
70.6°X59.2°X45.4°

Object Size (DxHxV)
166.4mmX133.1mmX99.8mm

PMS-16UC20M(F16) 20MP Lens Series



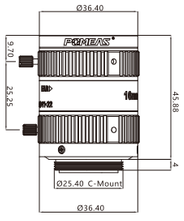
Unit: mm

- Sensor Size : 1.1"
- Effective Image Area Size : 17.6mm
- Focal Length : 16mm
- Iris Range : F2.8-F16
- Resolution : 20MP
- Distortion : -1%
- Optical Back Focal Length : 9.67mm
- Mechanical Backscatter : 9.5mm
- Focusing Range : 0.15m-∞
- Operation Method : Manual
- Mount : C-Mount

Field Of View (DxHxV)
56.3°X47.7°X33.7°

Object Size (DxHxV)
181mmX148.9mmX101.7mm

PMS-16UC20M(H) 20MP Lens Series



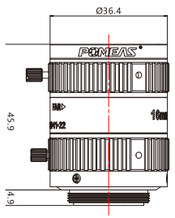
Unit: mm

- Sensor Size : 1.1"
- Effective Image Area Size : 17.6mm
- Focal Length : 16mm
- Iris Range : F2.8
- Resolution : 20MP
- Distortion : -0.73%
- Optical Back Focal Length : 11.20mm
- Mechanical Backscatter : ——
- Focusing Range : ——
- Operation Method : Manual
- Mount : C-Mount

Field Of View (DxHxV)
58.6°X46.8°X35.2°

Filter Size (mm)
M34x0.5mm

PMS-16UC20M(F22) 20MP Lens Series



Unit: mm

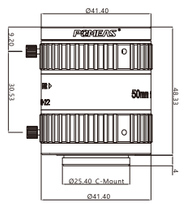
Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 16mm	
Iris Range : F2.8-F22	
Distortion : -0.73%	
Optical Back Focal Length : 11.20mm	
Mechanical Backscatter : ——	
Focusing Range : 0.1m-∞	
Mount : C-Mount	
Field Of View (DxHxV)	
58.6°X46.88°X35.16°	
Object Size (DxHxV)	
124.8mmX99.84mmX74.88mm	

PMS-25UC20M(F16) 20MP Lens Series

Unit: mm

Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 25mm	
Iris Range : F2.8-F16	
Distortion : 0.50%	
Optical Back Focal Length : 12.7mm	
Mechanical Backscatter : 11.3mm	
Focusing Range : 0.1m-∞	
Mount : C-Mount	
Field Of View (DxHxV)	
32.7°X26.4°X19.9°	
Object Size (DxHxV)	
94.4mmX75.4mmX56.5mm	

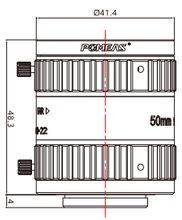
PMS-50UC20M(H) 20MP Lens Series



Unit: mm

Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 50mm	
Iris Range : F2.8	
Distortion : -0.06%	
Optical Back Focal Length : 21.3mm	
Mechanical Backscatter : ——	
Focusing Range : ——	
Mount : C-Mount	
Field Of View (DxHxV)	
19.9°X15.9°X11.9°	
Filter Size (mm)	
M37x0.5mm	

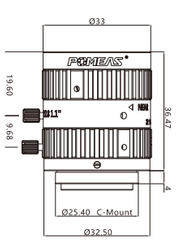
PMS-50UC20M(F22) 20MP Lens Series



Unit: mm

Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 50mm	
Iris Range : F2.8-F22	
Distortion : -0.06%	
Optical Back Focal Length : 21.3mm	
Mechanical Backscatter : ——	
Focusing Range : 0.25m-∞	
Mount : C-Mount	
Field Of View (DxHxV)	
19.96°X15.96°X11.96°	
Object Size (DxHxV)	
79.3mmX63.44mmX47.58mm	

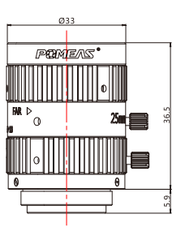
PMS-25UC20M(H) 20MP Lens Series



Unit: mm

Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 25mm	
Iris Range : F2.8	
Distortion : -0.59%	
Optical Back Focal Length : 12.6mm	
Mechanical Backscatter : ——	
Focusing Range : ——	
Mount : C-Mount	
Field Of View (DxHxV)	
39.4°X31.5°X23.6°	
Filter Size (mm)	
M30.5x0.5mm	

PMS-25UC20M(F22) 20MP Lens Series



Unit: mm

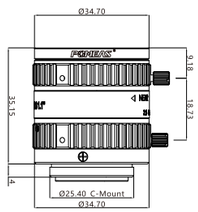
Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 25mm	
Iris Range : F2.8-F22	
Distortion : -0.59%	
Optical Back Focal Length : 12.6mm	
Mechanical Backscatter : ——	
Focusing Range : 0.15m-∞	
Mount : C-Mount	
Field Of View (DxHxV)	
39.46°X31.56°X23.6°	
Object Size (DxHxV)	
101.76mmX81.4mmX61.1mm	

PMS-35UC20M(F16) 20MP Lens Series

Unit: mm

Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 35mm	
Iris Range : F2.8-F16	
Distortion : 0.30%	
Optical Back Focal Length : 10.52mm	
Mechanical Backscatter : 8.9mm	
Focusing Range : 0.2m-∞	
Mount : C-Mount	
Field Of View (DxHxV)	
23.33°X19.33°X13.32°	
Object Size (DxHxV)	
90.8mmX74.81mmX51.18mm	

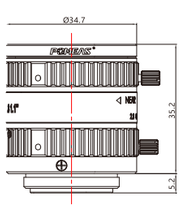
PMS-35UC20M(H) 20MP Lens Series



Unit: mm

Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 35mm	
Iris Range : F2.8	
Distortion : -0.37%	
Optical Back Focal Length : 12.9mm	
Mechanical Backscatter : ——	
Focusing Range : ——	
Mount : C-Mount	
Field Of View (DxHxV)	
28.2°X22.5°X16.9°	
Filter Size (mm)	
M30.5x0.5mm	

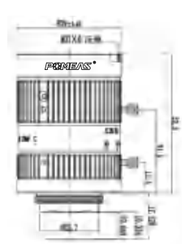
PMS-35UC20M(F22) 20MP Lens Series



Unit: mm

Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 35mm	
Iris Range : F2.8-F22	
Distortion : 0.37%	
Optical Back Focal Length : 12.9mm	
Mechanical Backscatter : ——	
Focusing Range : 0.2m-∞	
Mount : C-Mount	
Field Of View (DxHxV)	
28.18°X22.54°X16.9°	
Object Size (DxHxV)	
88.72mmX70.96mmX53.24mm	

PMS-50UC20M(F16) 20MP Lens Series

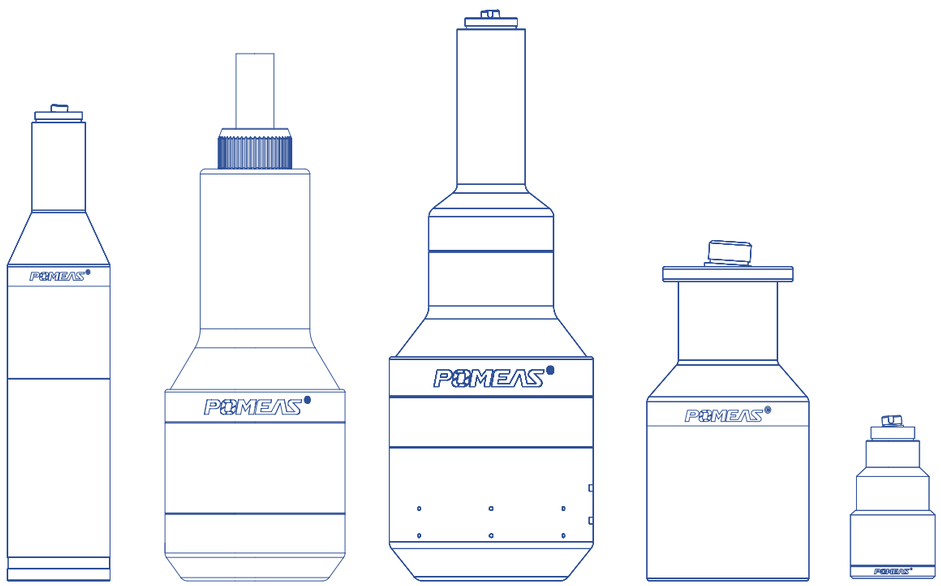


Unit: mm

Sensor Size : 1.1"	
Effective Image Area Size : 17.6mm	
Focal Length : 50mm	
Iris Range : F2.8-F16	
Distortion : 0.05%	
Optical Back Focal Length : 10.3mm	
Mechanical Backscatter : 10.08mm	
Focusing Range : 0.25m-∞	
Mount : C-Mount	
Field Of View (DxHxV)	
8.6°X15°X11.2°	
Object Size (DxHxV)	
69mmX55mmX41mm	

SPECTRAL CONFOCAL SENSOR

Measurement Principle : The spectral confocal displacement sensor uses a special color-coded lens to produce an axial dispersion output of visible light, and then analyzes the confocal return signal through a spectral resolver.
The wavelength and displacement conversion curve is used to calculate the workpiece displacement measurement value.



APPLICATION FEATURES

1. Stable measurement of various materials, such as metal/ceramic/mirror/glass, etc.
2. It is suitable for measuring the characteristic dimensions of various workpiece shapes (including deep hole/slant/arc), such as height/section difference/thickness/planarity/profile, etc.
3. It can also be used under severe operating conditions such as high temperature and high pressure.
4. Lightweight probe structure, easy to integrate in various industries of automated measurement applications.

Spectral Confocal Displacement Sensors

Suitable for all materials - Accurate and stable measurement - Complete application solutions

PRODUCT ADVANTAGES

1. Non-contact measurement, small measurement spot, high measurement accuracy.
2. Coaxial optical path design, measurement does not exist similar to the point laser triangulation measurement light is blocked and can not measure the problem.
3. It can measure the surface of plastic, glass, ceramic, metal, liquid and other materials.
4. The measurement wavelength range can be achieved without any continuous measurement.

APPLICATION FIELDS

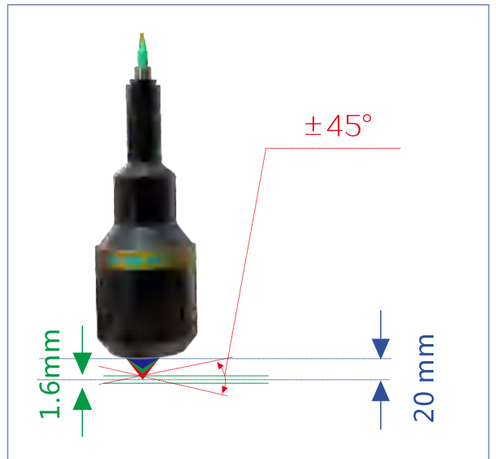
1. Mobile phone, tablet, computer and other metal case processing manufacturing industry.
2. PCB board, connector, IC chip and other electronic industries.
3. Panel, glass, tempered film and other industries.
4. Semiconductor wafer, green energy, photovoltaic industry, etc.

Spectral Confocal Sensors Parameter Table

Code		8020	8022	8040	8055	8080
Nearest Measurement Distance		20mm	22mm	40mm	55mm	80mm
Measuring Range		1.6mm	2mm	7mm	6mm	6mm
Maximum Light Angle		±45°	±17°	±20.2°	±13.6°	±11°
N.A.		0.56	0.27	0.31	0.23	0.2
Spot Diameter	Φ20μm	Φ2.9μm	Φ15.5μm	Φ13.6μm	Φ17μm	Φ14μm
	Φ50μm	Φ7.3μm	Φ38.8μm	Φ34μm	Φ42.6μm	Φ35μm
	Φ110μm	Φ16μm	Φ85.4μm	Φ74.8μm	Φ93.7μm	Φ77μm
Outer Diameter		Φ90mm	Φ31mm	Φ69mm	Φ35mm	Φ50mm
Length		250.39mm	62mm	162.5mm	66.8mm	235.78mm
Maximum Linearity Error		0.5μm	0.5μm	1μm	1μm	1μm

Note: Conventional standard fiber diameter is Φ50μm.

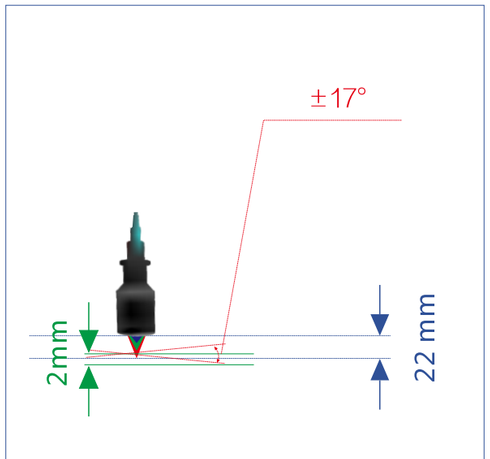
8020 Sensing Head Accuracy Comparison



Different Fiber Diameters Corresponding
To The Minimum Spot Diameter

Φ20μm Φ2.9μm	Φ50μm Φ7.3μm	Φ110μm Φ16μm

8022 Sensing Head Accuracy Comparison

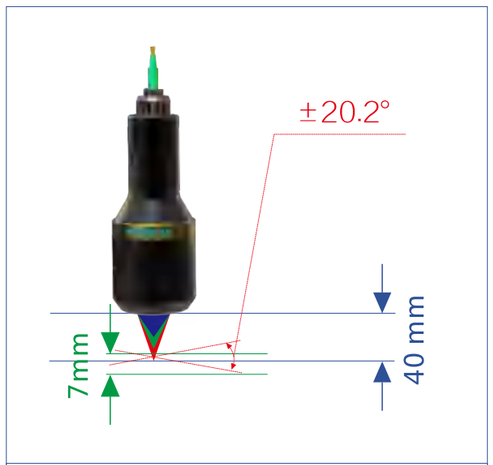


Different Fiber Diameters Corresponding
To The Minimum Spot Diameter

Φ20μm Φ15.5μm	Φ50μm Φ38.8μm	Φ110μm Φ85.4μm

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

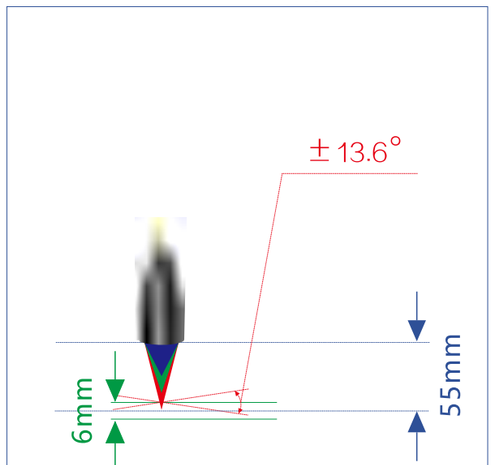
8040 Sensing Head Accuracy Comparison



Different Fiber Diameters Corresponding
To The Minimum Spot Diameter

Φ20μm Φ13.6μm	Φ50μm Φ34μm	Φ110μm Φ74.8μm

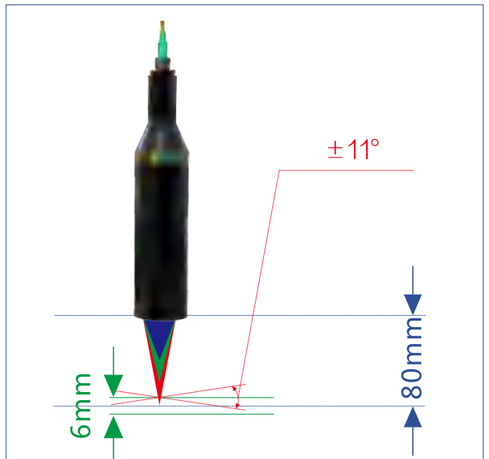
8055 sensor head Accuracy comparison



Different Fiber Diameters Corresponding
To The Minimum Spot Diameter

Φ20μm Φ17μm	Φ50μm Φ42.6μm	Φ110μm Φ93.7μm

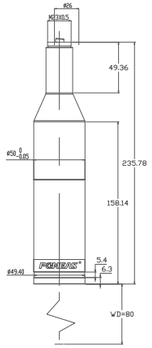
8080 Sensing Head Accuracy Comparison



Different Fiber Diameters Corresponding
To The Minimum Spot Diameter

Φ20μm Φ14μm	Φ50μm Φ35μm	Φ110μm Φ77μm

PMS-8080

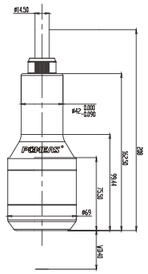


Unit:mm

Product Parameter
Nearest Measurement Distance : 80mm
Measuring Range : 6mm
Maximum Light Angle : ±11°
N.A. : 0.2
Outer Diameter : Φ50mm
Length : 235.78mm
Maximum Linearity Error : 1μm
Ambient Humidity : 20-85%RH(non-condensing)
Scanning Frequency : 200/500/1000/2000 Hz

Different Fiber Diameters Corresponding To The Minimum Spot Diameter		
Φ20μm Φ14μm	Φ50μm Φ35μm	Φ110μm Φ77μm

PMS-8040

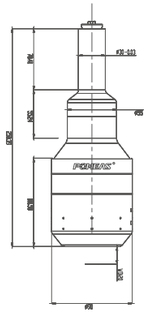


Unit:mm

Product Parameter
Nearest Measurement Distance : 40mm
Measuring Range : 7mm
Maximum Light Angle : ±20.2°
N.A. : 0.31
Outer Diameter : Φ69mm
Length :162.5mm
Maximum Linearity Error : 1μm
Ambient Humidity : 20-85%RH(non-condensing)
Scanning Frequency : 200/500/1000/2000 Hz

Different Fiber Diameters Corresponding To The Minimum Spot Diameter		
Φ20μm Φ13.6μm	Φ50μm Φ34μm	Φ110μm Φ74.8μm

PMS-8020

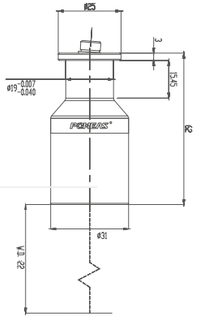


Unit:mm

Product Parameter
Nearest Measurement Distance : 20mm
Measuring Range : 1.6mm
Maximum Light Angle : ±45°
N.A. : 0.56
Outer Diameter : Φ90mm
Length : 250.39mm
Maximum Linearity Error : 0.5μm
Ambient Humidity : 20-85%RH(non-condensing)
Scanning Frequency : 200/500/1000/2000 Hz

Different Fiber Diameters Corresponding To The Minimum Spot Diameter		
Φ20μm Φ2.9μm	Φ50μm Φ7.3μm	Φ110μm Φ16μm

PMS-8022

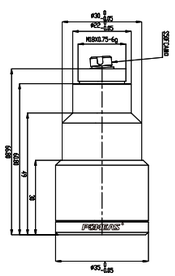


Unit:mm

Product Parameter
Nearest Measurement Distance : 22mm
Measuring Range : 2mm
Maximum Light Angle : ±17°
N.A. : 0.27
Outer Diameter : Φ31mm
Length : 62mm
Maximum Linearity Error : 0.5μm
Ambient Humidity : 20-85%RH(non-condensing)
Scanning Frequency : 200/500/1000/2000 Hz

Different Fiber Diameters Corresponding To The Minimum Spot Diameter		
Φ20μm Φ15.5μm	Φ50μm Φ38.8μm	Φ110μm Φ85.4μm

PMS-8055



Unit:mm

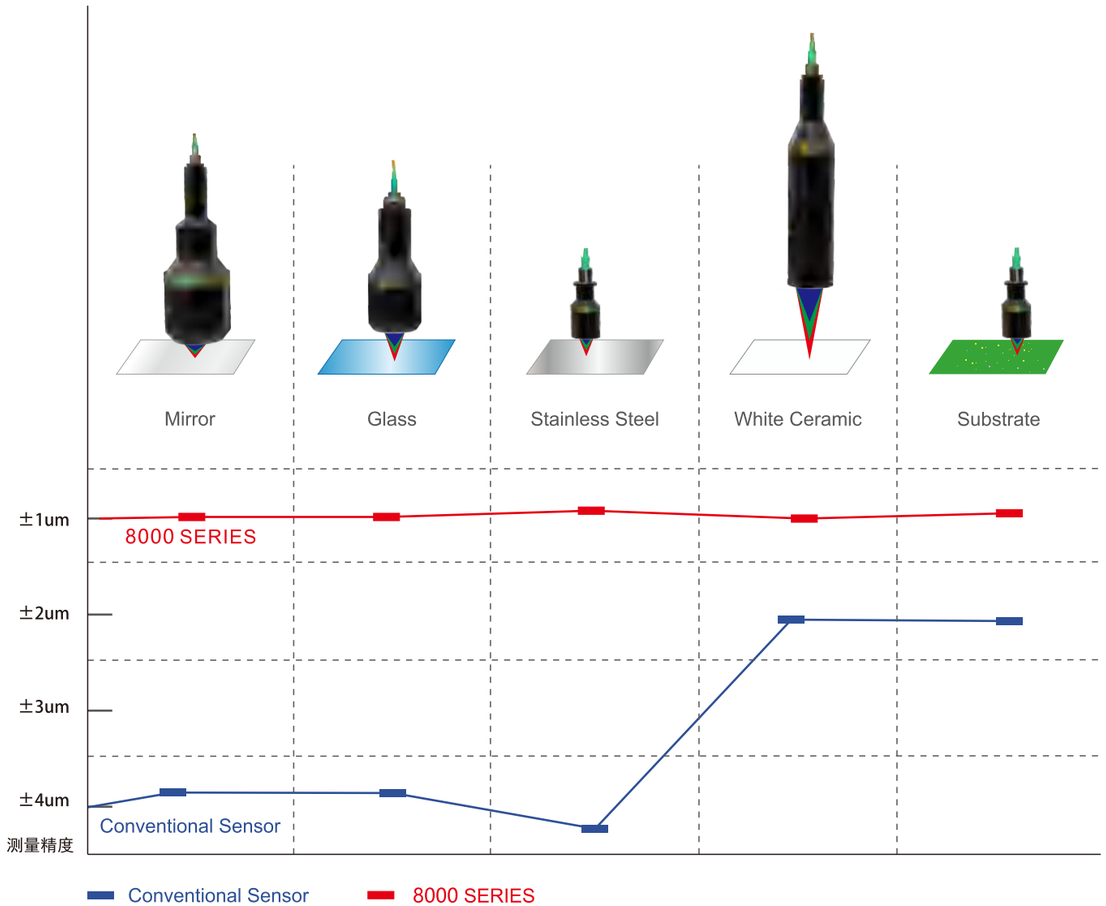
Product Parameter
Nearest Measurement Distance : 55mm
Measuring Range : 6mm
Maximum Light Angle : ±13.6°
N.A. : 0.23
Outer Diameter : Φ35mm
Length : 66.8mm
Maximum Linearity Error : 1μm
Ambient Humidity : 20-85%RH(non-condensing)
Scanning Frequency : 200/500/1000/2000 Hz

Different Fiber Diameters Corresponding To The Minimum Spot Diameter		
Φ20μm Φ17μm	Φ50μm Φ42.6μm	Φ110μm Φ93.7μm

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Comparison Of Measurement Accuracy Of Various Materials

Applicable to all materials.

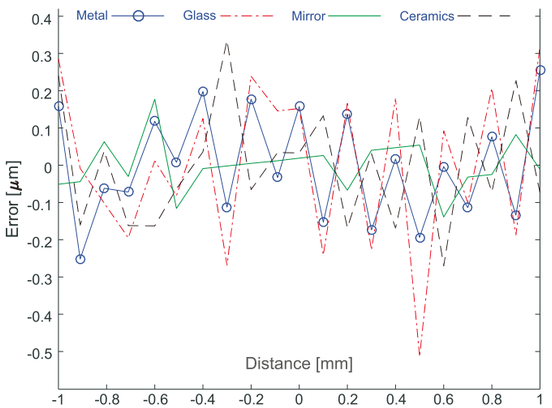


CONVENTIONAL SENSOR Poor measurement accuracy for reflective surfaces, different materials with different measurement accuracy.

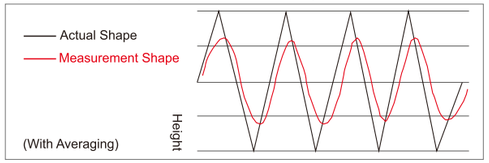
8000 SERIES Stable measurement within 1um accuracy regardless of the surface.

Better Than Traditional Measurement Accurate

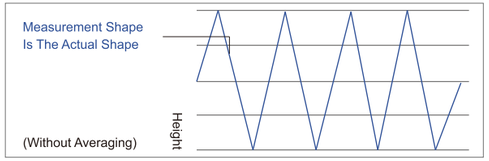
The POMEAS confocal displacement sensor not only has higher accuracy than traditional triangulation sensors, but also provides stable and consistent results when measuring different materials or different shapes.

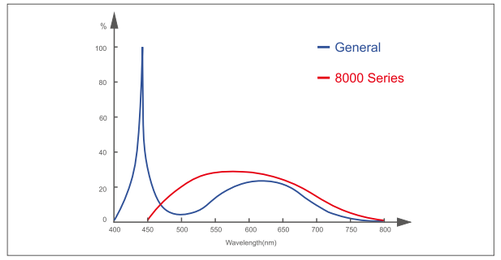


Conventional Spectral Confocal Displacement Sensor

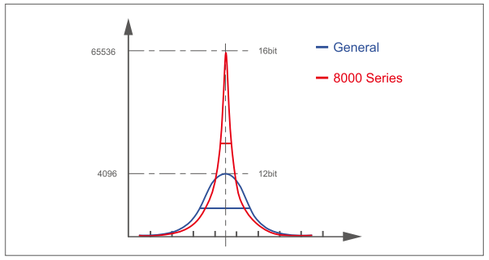


POMEAS 8000 Series



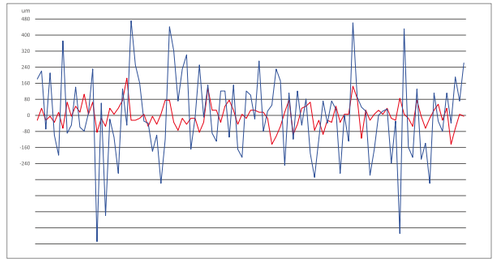


Original color light source breakthrough conventional LED light source brightness distribution uneven limitations, full range of higher precision, greater stability.



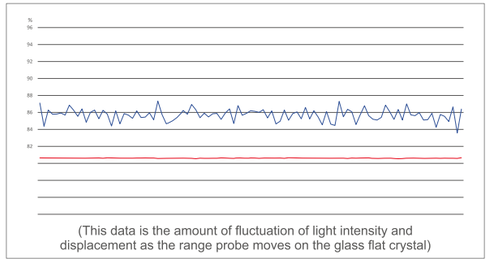
Color light source with the latest CMOS chip, half-peak width is smaller than conventional type more than 1/2, sampling accuracy is conventional type 1.33 times.

Dynamic Displacement Fluctuation



Without any moving average modification, the scanning stability is 4 times that of conventional models, and can fully realize 100 nm resolution and precision.

Dynamic Light Intensity Fluctuation



Dynamic intensity fluctuations are 10 times more stable than conventional models, and the intensity of light can be used as another dimensional determination.

8000 Series Application Examples

Wide range of applications.

APPLICATION INDUSTRIES

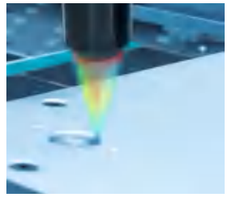
1. Mobile phone, tablet, computer and other metal case processing manufacturing industry.
2. PCB board, connector, IC chip and other electronic industries.
3. Panel, glass, tempered film and other industries.
4. Semiconductor wafer, green energy, photovoltaic industry, etc.

APPLICATION FEATURES

1. Stable measurement of various materials, such as metal/ceramic/mirror/glass, etc.
2. Suitable for measuring various workpiece shapes (including deep holes, bevels and curved surfaces). Such as height /section difference/thickness/flatness/profile, etc.
3. High temperature and high pressure operating conditions can also be used.
4. The head is lightweight and easy to integrate into automated measurement applications in various industries.

Semiconductor Wafers

Cell Phone Metal Frame



PCB Boards

High-Gloss Metal /Glass /Ceramics

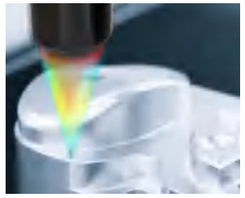


IMAGE 3 SERIES Datasheet

Height | Flatness | Segment Difference | Contour | Thickness

8000 Series_PC Side - Panel Function And Control

Manually Adjust The Brightness: You can increase or decrease the brightness level of each output channel by “+" and "_" buttons on the panel respectively, and use "-" button. set the brightness value to 000, at this time the corresponding channel is turned off and no voltage is output.

Channel Selection: The controller is easy to operate, the front and rear panels are extremely simple, the front panel has two three-digit tube display the first CH display for the "channel" of display bit, can be selected by the "SL" button”.

Remote Digital Brightness Adjustment: Set the current level of each output channel on the computer application software interface via RS232 or USB interface.

8000 Series_FPGA Side - Panel Function And Control

A/B: Optical Head Interface1/2: Fiber optic socket for connecting optical head (2 optical heads can be accessed at the same time).

C: Start button for collecting dark signal.

D: Reset analog output to zero button.

E: Setting button.

F/G: 2 status LED indicators.

H: Interface connector for analog output and synchronization signal.

I: 24V 3A power input connector.

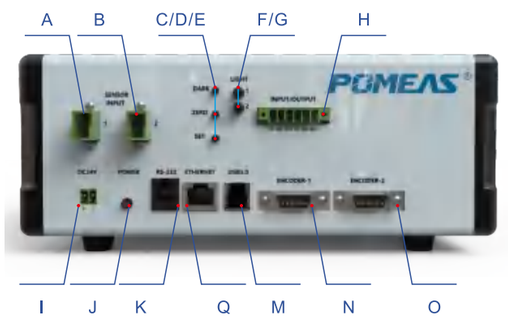
J: Switch button.

K: RS-232 connection port for connecting to the host computer.

Q: Standard network port for connecting to the host computer.

M: Standard USB port for connecting to the host computer.

N/O: Encoder interface for receiving pulse signal, which can be used for trigger acquisition.



Point Spectral Confocal Measurement Microscope System

Simple Structure - High Measurement Accuracy

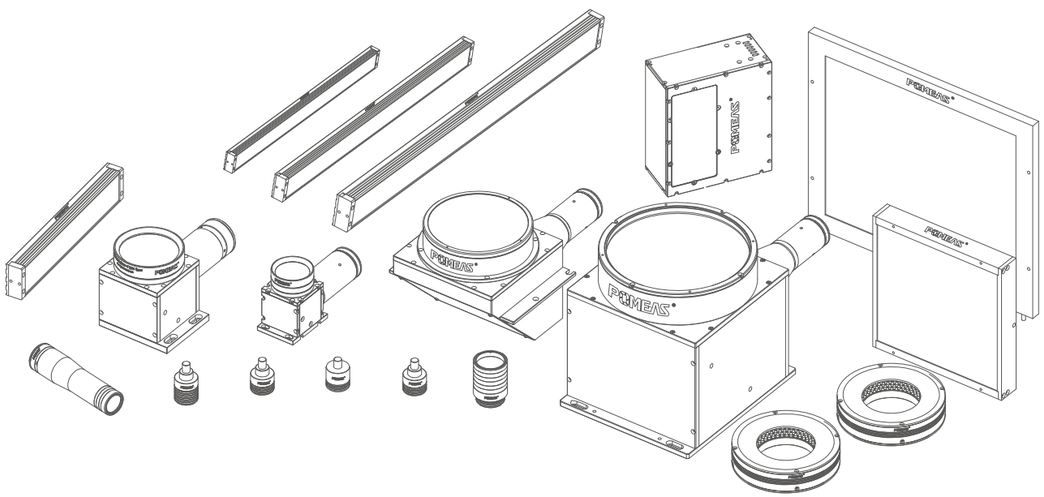
PRODUCT ADVANTAGES

1. The objective lens can choose independent interface, but also can choose 6 holes nose wheel module connection.
2. The mainstream objectives at home and abroad can be adapted.
3. Spectral confocal module has simple structure, high measurement accuracy and fast speed.
4. The most suitable for the observation of the surface with high reflectivity, the surface of transparent objects is also applicable.
5. Support differential interference observation method.
6. It can be integrated with motion control unit to achieve high speed and accurate focusing.
7. Spectral confocal module measurement and the main imaging optical path co-axial, there is no blocking problem, and focus detection spot is small, can be accurate measurement of grooves, holes, pits and other areas.

Point Spectral Confocal Measurement Microscope System Parameter Table

Product Name		Point spectral confocal measurement microscope system
Support Objective Lens		Olympus, Mitutoyo, Nikon, etc
Camera Sensor		Supports up to 1 inch
Camera Interface		C-Mount
Spot Spectrum Confocal Module	Measurement Method	Spot spectral confocal measurement
	Measuring Range	+150um (20X objective lens)
	Measurement Accuracy	Objective depth of field / 4
	Application Range	General Function: Measure height, flatness, segment difference, contour, thickness, etc;
		Special Features:Microscope high speed auto-focus

ILLUMINATION SERIES



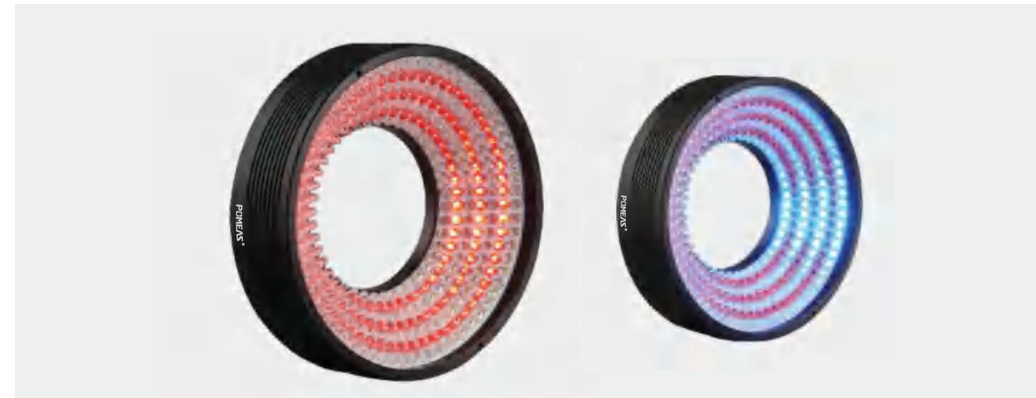
Main Advantages:

1. All sizes of parallel light, point light, ring light, surface light, coaxial light and bar light available.
2. Specially design for machine vision and inspection field, more use friendly.
3. Imported LED chips, more reliable performance.
4. Can offer custom service based on customer'requirements.

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Ring Light Source Series

High brightness, no diagonal irradiation shadow, a variety of color optional ring light.



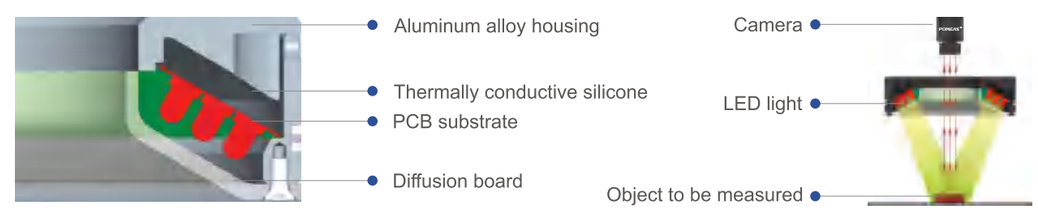
PRODUCT ADVANTAGES

Ring light source from the LED by the structure of the optimized design array, stable performance and easy to install. With different irradiation angles, different color combinations directly irradiated on the measured Objects, can avoid the shadow phenomenon, highlighting the imaging characteristics. It can also be used in combination with a diffuser plate to make the light more uniform and soft. It is one of the most widely used light sources in machine vision. It is one of the most widely used light sources in machine vision.

APPLICATION FIELDS

1. IC and other semiconductor products appearance character inspection.
2. PCB circuit substrate and component inspection.
3. Product package appearance and label inspection.
4. Dimension measurement of round products.
5. Character detection of electronic components.

LIGHT SOURCE STRUCTURE



Parameter Description

Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C；Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension cable: 1/3/5m (optional standard length 0.5m)					
Expected Service Life	At an ambient temperature of 25°C, the white light source works reliably at 50% brightness for more than 30,000h (when the attenuation is 50%)					
Product Advantage	All products are delivered one year standard free technical support, and according to customer requirements for the measured object characteristics, working distance, irradiation angle color and field of view Customized.					

Product Model Specification

Serial Number	Model	Outer Diameter	Angle	Color	Voltage	Power	CT /Wavelength	Number Of LED Rings	Option
1	PMS-RL25-75R/W/B	Ø25mm	75°	Red	24V	0.4W	625nm	1	Diffusion Board
		Ø25mm	75°	White	24V	0.8W	6500K	1	Diffusion Board
		Ø25mm	75°	Blue	24V	0.8W	470nm	1	Diffusion Board
2	PMS-RL34-75R/W/B	Ø34mm	75°	Red	24V	0.8W	625nm	2	Diffusion Board
		Ø34mm	75°	White	24V	1.2W	6500K	2	Diffusion Board
		Ø34mm	75°	Blue	24V	1.2W	470nm	2	Diffusion Board
3	PMS-RL40-90R/W/B	Ø40mm	90°	Red	24V	0.5W	625nm	1	Diffusion Board
		Ø40mm	90°	White	24V	0.8W	6500K	1	Diffusion Board
		Ø40mm	90°	Blue	24V	0.8W	470nm	1	Diffusion Board
4	PMS-RL42-65R/W/B	Ø42mm	65°	Red	24V	1.4W	625nm	2	Diffusion Board
		Ø42mm	65°	White	24V	2.5W	6500K	2	Diffusion Board
		Ø42mm	65°	Blue	24V	2.5W	470nm	2	Diffusion Board
5	PMS-RL50-15R/W/B	Ø50mm	15°	Red	24V	1.2W	625nm	2	Diffusion Board
		Ø50mm	15°	White	24V	1.5W	6500K	2	Diffusion Board
		Ø50mm	15°	Blue	24V	1.5W	470nm	2	Diffusion Board
6	PMS-RL50-30R/W/B	Ø50mm	30°	Red	24V	1.8W	625nm	2	Diffusion Board
		Ø50mm	30°	White	24V	2.9W	6500K	2	Diffusion Board
		Ø50mm	30°	Blue	24V	2.9W	470nm	2	Diffusion Board
7	PMS-RL50-45R/W/B	Ø50mm	45°	Red	24V	2.9W	625nm	3	Diffusion Board
		Ø50mm	45°	White	24V	4.3W	6500K	3	Diffusion Board
		Ø50mm	45°	Blue	24V	4.3W	470nm	3	Diffusion Board
8	PMS-RL52-60R/W/B	Ø52mm	60°	Red	24V	1.3W	625nm	2	Diffusion Board
		Ø52mm	60°	White	24V	2W	6500K	2	Diffusion Board
		Ø52mm	60°	Blue	24V	2W	470nm	2	Diffusion Board
9	PMS-RL53-90R/W/B	Ø53mm	90°	Red	24V	1.2W	625nm	2	Diffusion Board
		Ø53mm	90°	White	24V	2W	6500K	2	Diffusion Board
		Ø53mm	90°	Blue	24V	2W	470nm	2	Diffusion Board
10	PMS-RL54-80R/W/B	Ø54mm	80°	Red	24V	1.8W	625nm	2	Diffusion Board
		Ø54mm	80°	White	24V	3.2W	6500K	2	Diffusion Board
		Ø54mm	80°	Blue	24V	3.2W	470nm	2	Diffusion Board
11	PMS-RL60-00R/W/B	Ø60mm	0°	Red	24V	1.1W	625nm	1	\
		Ø60mm	0°	White	24V	1.6W	6500K	1	\
		Ø60mm	0°	Blue	24V	1.6W	470nm	1	\
12	PMS-RL60-30R/W/B	Ø60mm	30°	Red	24V	1.2W	625nm	2	Diffusion Board
		Ø60mm	30°	White	24V	2.2W	6500K	2	Diffusion Board
		Ø60mm	30°	Blue	24V	2.2W	470nm	2	Diffusion Board
13	PMS-RL60-60R/W/B	Ø60mm	60°	Red	24V	1.5W	625nm	2	Diffusion Board
		Ø60mm	60°	White	24V	2.7W	6500K	2	Diffusion Board
		Ø60mm	60°	Blue	24V	2.7W	470nm	2	Diffusion Board
14	PMS-RL60-90R/W/B	Ø60mm	90°	Red	24V	2.8W	625nm	2	Diffusion Board
		Ø60mm	90°	White	24V	3W	6500K	2	Diffusion Board
		Ø60mm	90°	Blue	24V	3W	470nm	2	Diffusion Board
15	PMS-RL73-90R/W/B	Ø73mm	90°	Red	24V	2.4W	625nm	3	Diffusion Board
		Ø73mm	90°	White	24V	3.6W	6500K	3	Diffusion Board
		Ø73mm	90°	Blue	24V	3.6W	470nm	3	Diffusion Board

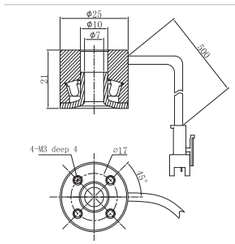
POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Serial Number	Model	Outer Diameter	Angle	Color	Voltage	Power	CT /Wavelength	Number Of LED Rings	Option
16	PMS-RL74-30R/W/B	Ø74mm	30°	Red	24V	1.7W	625nm	2	Diffusion Board
		Ø74mm	30°	White	24V	2.6W	6500K	2	Diffusion Board
		Ø74mm	30°	Blue	24V	2.6W	470nm	2	Diffusion Board
17	PMS-RL74-60R/W/B	Ø74mm	60°	Red	24V	2.4W	625nm	3	Diffusion Board
		Ø74mm	60°	White	24V	3.6W	6500K	3	Diffusion Board
		Ø74mm	60°	Blue	24V	3.6W	470nm	3	Diffusion Board
18	PMS-RL90-30R/W/B	Ø90mm	30°	Red	24V	3.4W	625nm	3	Diffusion Board
		Ø90mm	30°	White	24V	5.3W	6500K	3	Diffusion Board
		Ø90mm	30°	Blue	24V	5.3W	470nm	3	Diffusion Board
19	PMS-RL90-45R/W/B	Ø90mm	45°	Red	24V	6.5W	625nm	4	Diffusion Board
		Ø90mm	45°	White	24V	10.8W	6500K	4	Diffusion Board
		Ø90mm	45°	Blue	24V	10.8W	470nm	4	Diffusion Board
20	PMS-RL90-70R/W/B	Ø90mm	70°	Red	24V	4.1W	625nm	4	Diffusion Board
		Ø90mm	70°	White	24V	6.2W	6500K	4	Diffusion Board
		Ø90mm	70°	Blue	24V	6.2W	470nm	4	Diffusion Board
21	PMS-RL90-80R/W/B	Ø90mm	80°	Red	24V	3.5W	625nm	3	Diffusion Board
		Ø90mm	80°	White	24V	7.2W	6500K	3	Diffusion Board
		Ø90mm	80°	Blue	24V	7.2W	470nm	3	Diffusion Board
22	PMS-RL96-00R/W/B	Ø96mm	0°	Red	24V	1.6W	625nm	1	\
		Ø96mm	0°	White	24V	2.4W	6500K	1	\
		Ø96mm	0°	Blue	24V	2.4W	470nm	1	\
23	PMS-RL100-90R/W/B	Ø100mm	90°	Red	24V	5.1W	625nm	5	Diffusion Board
		Ø100mm	90°	White	24V	8.4W	6500K	5	Diffusion Board
		Ø100mm	90°	Blue	24V	8.4W	470nm	5	Diffusion Board
24	PMS-RL105-70R/W/B	Ø105mm	70°	Red	24V	5.8W	625nm	3	Diffusion Board
		Ø105mm	70°	White	24V	7.2W	6500K	3	Diffusion Board
		Ø105mm	70°	Blue	24V	7.2W	470nm	3	Diffusion Board
25	PMS-RL116-00R/W/B	Ø116mm	0°	Red	24V	1.7W	625nm	1	\
		Ø116mm	0°	White	24V	2.7W	6500K	1	\
		Ø116mm	0°	Blue	24V	2.7W	470nm	1	\
26	PMS-RL120-30R/W/B	Ø120mm	30°	Red	24V	5.6W	625nm	3	Diffusion Board
		Ø120mm	30°	White	24V	8.6W	6500K	3	Diffusion Board
		Ø120mm	30°	Blue	24V	8.6W	470nm	3	Diffusion Board
27	PMS-RL120-50R/W/B	Ø120mm	50°	Red	24V	11W	625nm	4	Diffusion Board
		Ø120mm	50°	White	24V	16.5W	6500K	4	Diffusion Board
		Ø120mm	50°	Blue	24V	16.5W	470nm	4	Diffusion Board
28	PMS-RL120-60R/W/B	Ø120mm	60°	Red	24V	9.1W	625nm	6	Diffusion Board
		Ø120mm	60°	White	24V	14W	6500K	6	Diffusion Board
		Ø120mm	60°	Blue	24V	14W	470nm	6	Diffusion Board
29	PMS-RL120-70R/W/B	Ø120mm	70°	Red	24V	6W	625nm	4	Diffusion Board
		Ø120mm	70°	White	24V	11W	6500K	4	Diffusion Board
		Ø120mm	70°	Blue	24V	11W	470nm	4	Diffusion Board
30	PMS-RL120-80R/W/B	Ø120mm	80°	Red	24V	8.6W	625nm	4	Diffusion Board
		Ø120mm	80°	White	24V	13.7W	6500K	4	Diffusion Board
		Ø120mm	80°	Blue	24V	13.7W	470nm	4	Diffusion Board
31	PMS-RL120-90R/W/B	Ø120mm	90°	Red	24V	5.1W	625nm	3	Diffusion Board
		Ø120mm	90°	White	24V	8.7W	6500K	3	Diffusion Board
		Ø120mm	90°	Blue	24V	8.7W	470nm	3	Diffusion Board
32	PMS-RL132-20R/W/B	Ø132mm	20°	Red	24V	5.1W	625nm	3	Diffusion Board
		Ø132mm	20°	White	24V	8W	6500K	3	Diffusion Board
		Ø132mm	20°	Blue	24V	8W	470nm	3	Diffusion Board
33	PMS-RL146-00R/W/B	Ø140mm	0°	Red	24V	1.9W	625nm	1	\
		Ø140mm	0°	White	24V	2.9W	6500K	1	\
		Ø140mm	0°	Blue	24V	2.9W	470nm	1	\
34	PMS-RL150-30R/W/B	Ø150mm	30°	Red	24V	8.6W	625nm	3	Diffusion Board
		Ø150mm	30°	White	24V	17.3W	6500K	3	Diffusion Board
		Ø150mm	30°	Blue	24V	17.3W	470nm	3	Diffusion Board
35	PMS-RL150-60R/W/B	Ø150mm	60°	Red	24V	9W	625nm	4	Diffusion Board
		Ø150mm	60°	White	24V	18W	6500K	4	Diffusion Board
		Ø150mm	60°	Blue	24V	18W	470nm	4	Diffusion Board
36	PMS-RL150-90R/W/B	Ø150mm	90°	Red	24V	19.3W	625nm	4	Diffusion Board
		Ø150mm	90°	White	24V	28W	6500K	4	Diffusion Board
		Ø150mm	90°	Blue	24V	28W	470nm	4	Diffusion Board

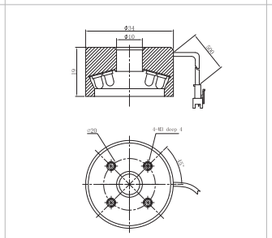
Serial Number	Model	Outer Diameter	Angle	Color	Voltage	Power	CT /Wavelength	Number Of LED Rings	Option
37	PMS-RL170-20R/W/B	Ø170mm	20°	Red	24V	7W	625nm	3	Diffusion Board
		Ø170mm	20°	White	24V	14W	6500K	3	Diffusion Board
		Ø170mm	20°	Blue	24V	14W	470nm	3	Diffusion Board
38	PMS-RL172-00R/W/B	Ø172mm	0°	Red	24V	1.8W	625nm	1	\
		Ø172mm	0°	White	24V	4W	6500K	1	\
		Ø172mm	0°	Blue	24V	4W	470nm	1	\
39	PMS-RL180-30R/W/B	Ø180mm	30°	Red	24V	9.7W	625nm	5	Diffusion Board
		Ø180mm	30°	White	24V	14.9W	6500K	5	Diffusion Board
		Ø180mm	30°	Blue	24V	14.9W	470nm	5	Diffusion Board
40	PMS-RL180-60R/W/B	Ø180mm	60°	Red	24V	9.4W	625nm	4	Diffusion Board
		Ø180mm	60°	White	24V	14.4W	6500K	4	Diffusion Board
		Ø180mm	60°	Blue	24V	14.4W	470nm	4	Diffusion Board
41	PMS-RL180-90R/W/B	Ø180mm	90°	Red	24V	22.5W	625nm	6	Diffusion Board
		Ø180mm	90°	White	24V	30W	6500K	6	Diffusion Board
		Ø180mm	90°	Blue	24V	30W	470nm	6	Diffusion Board
42	PMS-RL208-20R/W/B	Ø208mm	20°	Red	24V	9.2W	625nm	3	Diffusion Board
		Ø208mm	20°	White	24V	15.2W	6500K	3	Diffusion Board
		Ø208mm	20°	Blue	24V	15.2W	470nm	3	Diffusion Board
43	PMS-RL208-60R/W/B	Ø208mm	60°	Red	24V	8.7W	625nm	3	Diffusion Board
		Ø208mm	60°	White	24V	14.4W	6500K	3	Diffusion Board
		Ø208mm	60°	Blue	24V	14.4W	470nm	3	Diffusion Board
44	PMS-RL213-00R/W/B	Ø213mm	0°	Red	24V	4.8W	625nm	1	\
		Ø213mm	0°	White	24V	9.6W	6500K	1	\
		Ø213mm	0°	Blue	24V	9.6W	470nm	1	\
45	PMS-RL260-60R/W/B	Ø260mm	60°	Red	24V	29.5W	625nm	7	Diffusion Board
		Ø260mm	60°	White	24V	35.3W	6500K	7	Diffusion Board
		Ø260mm	60°	Blue	24V	35.3W	470nm	7	Diffusion Board
46	PMS-RL272-20R/W/B	Ø272mm	20°	Red	24V	10.5W	625nm	3	Diffusion Board
		Ø272mm	20°	White	24V	16W	6500K	3	Diffusion Board
		Ø272mm	20°	Blue	24V	16W	470nm	3	Diffusion Board
47	PMS-RL350-30R/W/B	Ø350mm	30°	Red	24V	25.2W	625nm	3	Diffusion Board
		Ø350mm	30°	White	24V	41.8W	6500K	3	Diffusion Board
		Ø350mm	30°	Blue	24V	41.8W	470nm	3	Diffusion Board

Product Size Diagram

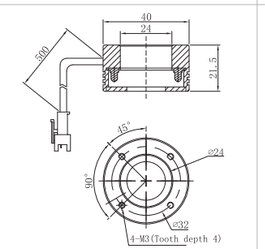
PMS-RL25-75R/W/B



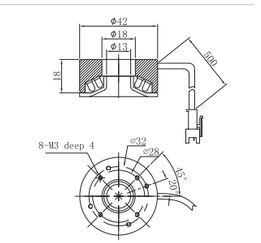
PMS-RL34-75R/W/B



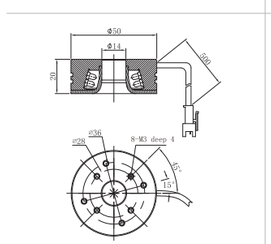
PMS-RL40-90R/W/B



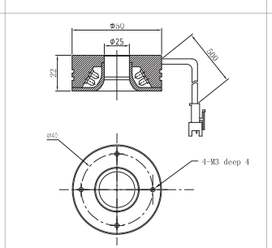
PMS-RL42-65R/W/B



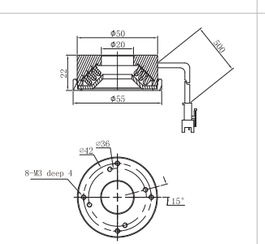
PMS-RL50-15R/W/B



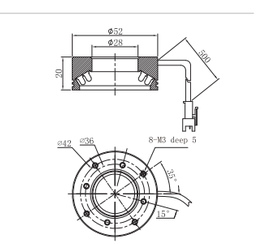
PMS-RL50-30R/W/B



PMS-RL50-45R/W/B

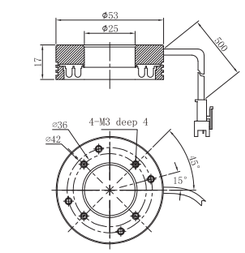


PMS-RL50-45R/W/B

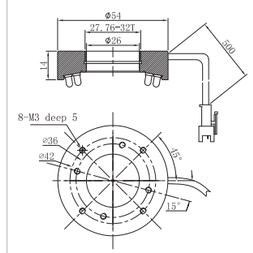


POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

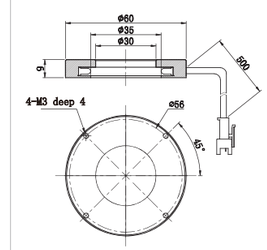
PMS-RL53-90R/W/B



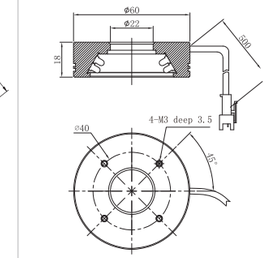
PMS-RL54-80R/W/B



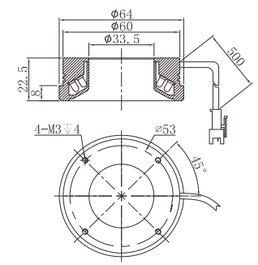
PMS-RL60-00R/W/B



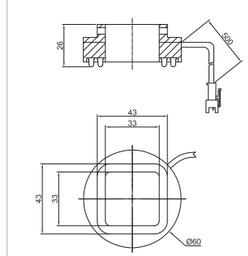
PMS-RL60-30R/W/B



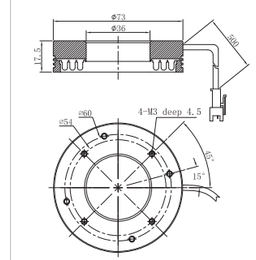
PMS-RL60-60R/W/B



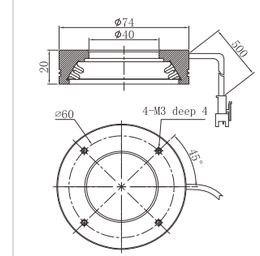
PMS-RL60-90R/W/B



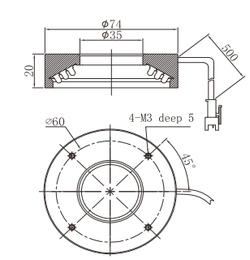
PMS-RL73-90R/W/B



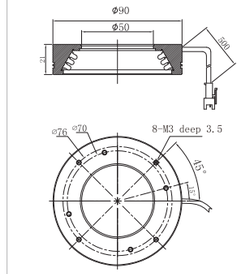
PMS-RL74-30R/W/B



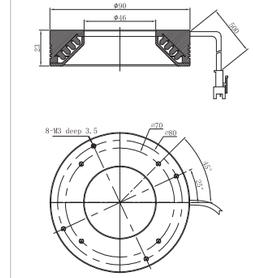
PMS-RL74-60R/W/B



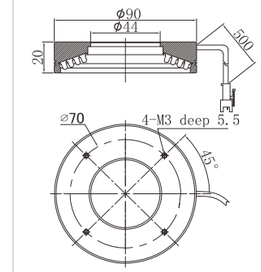
PMS-RL90-30R/W/B



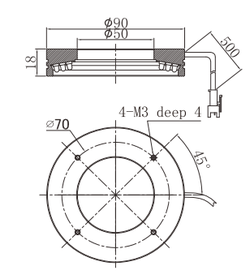
PMS-RL90-45R/W/B



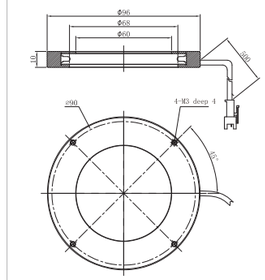
PMS-RL90-70R/W/B



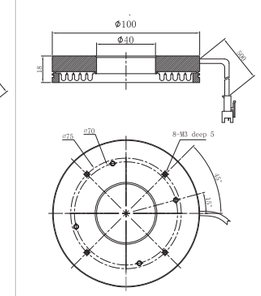
PMS-RL90-80R/W/B



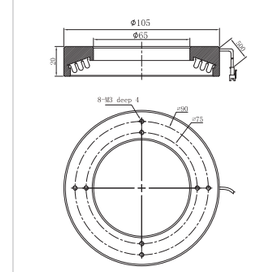
PMS-RL96-00R/W/B



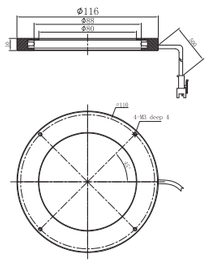
VP-GRL-100-90R/W/B



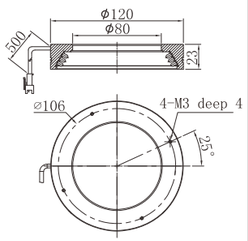
PMS-RL105-70R/W/B



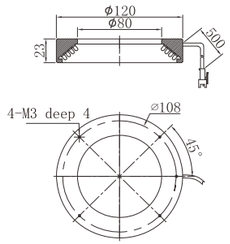
PMS-RL116-00R/W/B



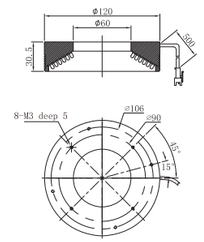
PMS-RL120-30R/W/B



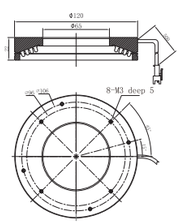
PMS-RL120-50R/W/B



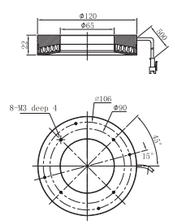
PMS-RL120-60R/W/B



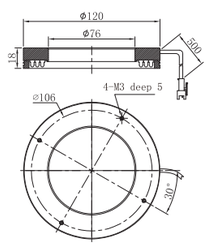
PMS-RL120-70R/W/B



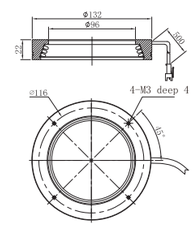
PMS-RL120-80R/W/B



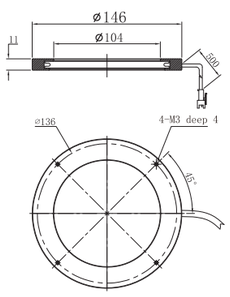
PMS-RL120-90R/W/B



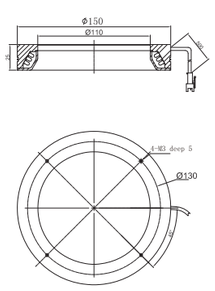
PMS-RL132-20R/W/B



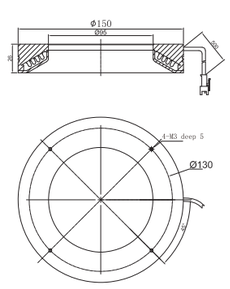
PMS-RL146-00R/W/B



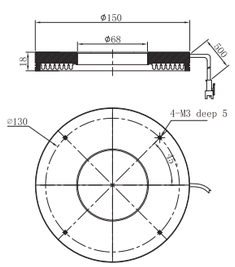
PMS-RL150-30R/W/B



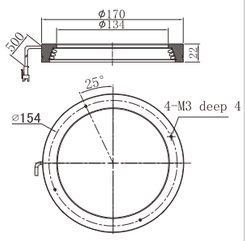
PMS-RL150-60R/W/B



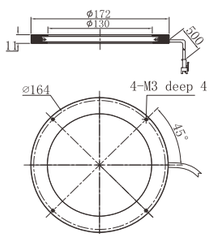
PMS-RL150-90R/W/B



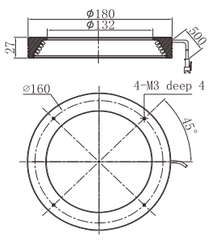
PMS-RL170-20R/W/B



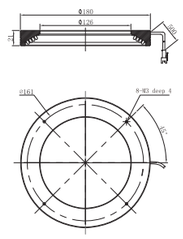
PMS-RL172-00R/W/B



PMS-RL180-30R/W/B

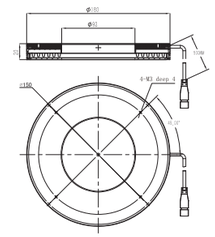


PMS-RL180-60R/W/B

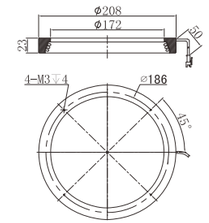


POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

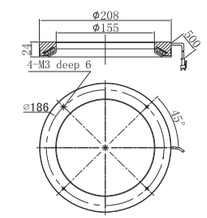
PMS-RL180-90R/W/B



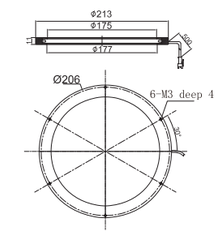
PMS-RL208-20R/W/B



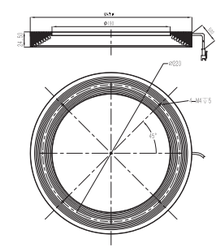
PMS-RL208-60R/W/B



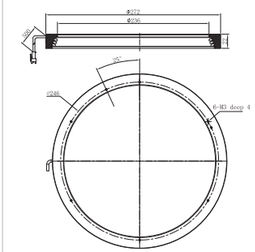
PMS-RL213-00R/W/B



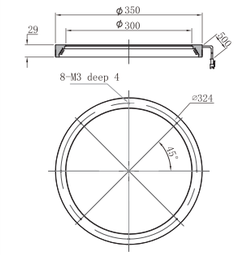
PMS-RL260-60R/W/B



PMS-RL272-20R/W/B



PMS-RL350-30R/W/B



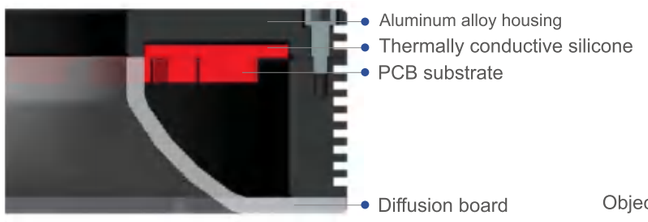
Shadowless Ring Light Source Series

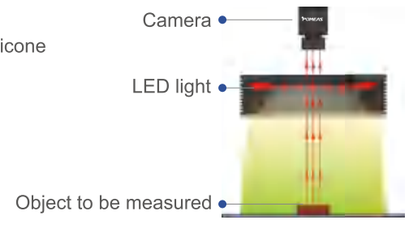
High brightness, no diagonal irradiation shadow, a variety of color optional ring light.

PRODUCT ADVANTAGES

Ring shadowless light source of high brightness LED by the structure of the optimized design array of light through the special diffusion plate, in the lower part of the formation of a uniform lighting area.

LIGHT SOURCE STRUCTURE





Parameter Description

Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C；Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension cable: 1/3/5m (optional standard length 0.5m)					
Expected Service Life	At an ambient temperature of 25°C, the white light source works reliably at 50% brightness for more than 30,000h (when the attenuation is 50%)					
Product Advantage	All products are delivered one year standard free technical support, and according to customer requirements for the measured object characteristics, working distance, irradiation angle color and field of view Customized.					

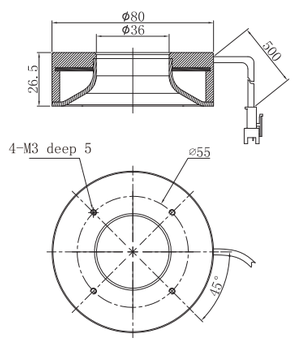
POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Product Model Specification

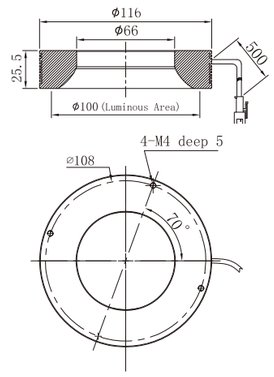
Serial Number	Model	Outer Diameter	Color	Voltage	Power	CT /Wavelength	Number Of LED Rings	Option
1	PMS-SRL-80R/W/B	Ø80mm	Red	24V	8W	625nm	1	Diffusion Board
		Ø80mm	White	24V	13W	6500K	1	Diffusion Board
		Ø80mm	Blue	24V	13W	470nm	1	Diffusion Board
2	PMS-SRL-116R/W/B	Ø116mm	Red	24V	11W	625nm	1	Diffusion Board
		Ø116mm	White	24V	16W	6500K	1	Diffusion Board
		Ø116mm	Blue	24V	16W	470nm	1	Diffusion Board
3	PMS-SRL-132R/W/B	Ø132mm	Red	24V	14.4W	625nm	1	Diffusion Board
		Ø132mm	White	24V	20.2W	6500K	1	Diffusion Board
		Ø132mm	Blue	24V	20.2W	470nm	1	Diffusion Board
4	PMS-SRL-166R/W/B	Ø166mm	Red	24V	16W	625nm	1	Diffusion Board
		Ø166mm	White	24V	26W	6500K	1	Diffusion Board
		Ø166mm	Blue	24V	26W	470nm	1	Diffusion Board
5	PMS-SRL-196R/W/B	Ø196mm	Red	24V	26W	625nm	1	Diffusion Board
		Ø196mm	White	24V	31W	6500K	1	Diffusion Board
		Ø196mm	Blue	24V	31W	470nm	1	Diffusion Board

Product Size Diagram

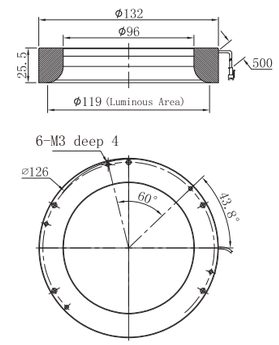
PMS-SRL-80R/W/B



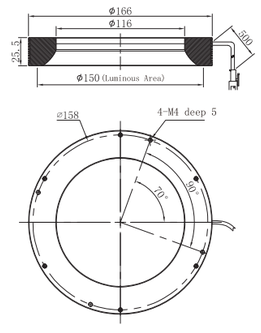
PMS-SRL-116R/W/B



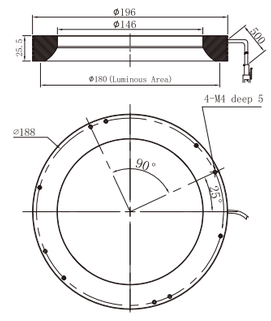
PMS-SRL-132R/W/B



PMS-SRL-166R/W/B

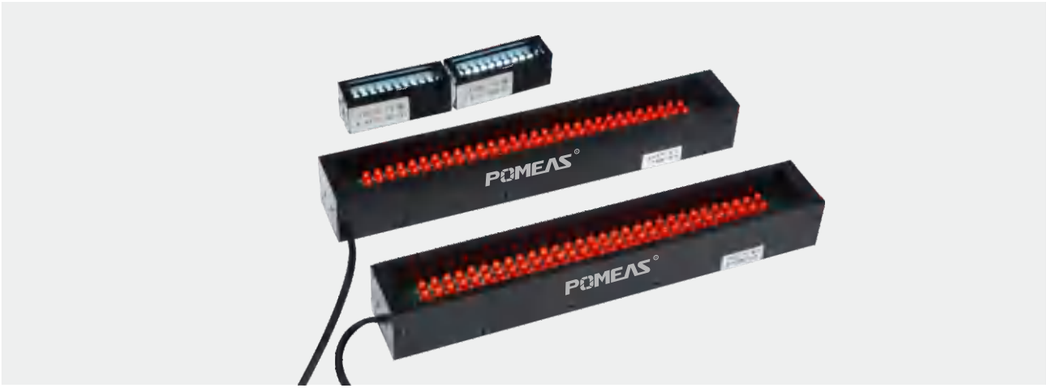


PMS-SRL-196R/W/B



Bar Light Source Series

The bar light source is particularly suitable for imaging large features.



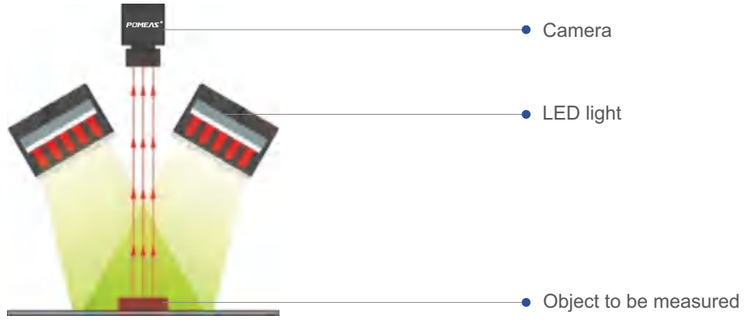
PRODUCT ADVANTAGES

The bar light source is particularly suitable for imaging large features with lengths ranging from + a few millimeters to several meters, and the light source color can be selected according to actual requirements. Multiple strip light sources can be freely combined, and the irradiation angle can be adjusted at will according to inspection needs. It is one of the most widely used light sources in machine vision.

APPLICATION FIELDS

1. Detect package breakage
2. Detect LCD characters and position markers.
3. Detect expansion film breakage, stretch film breakage.
4. Detect masking tape breakage.
5. Detect connector pin flatness.
6. Detect liquid crystal components.
7. Detect large area object surface scratches, etc.

LIGHT SOURCE STRUCTURE



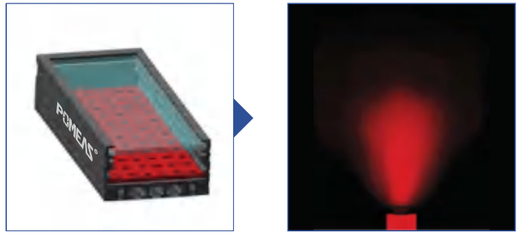
POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Parameter Description

Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C；Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension cable: 1/3/5m (optional standard length 0.5m)					
Expected Service Life	At an ambient temperature of 25°C, the white light source works reliably at 50% brightness for more than 30,000h (when the attenuation is 50%)					
Product Advantage	All products are delivered one year standard free technical support, and according to customer requirements for the measured object characteristics, working distance, irradiation angle color and field of view Customized.					

CHIP DISPERSION TYPE STRIP LIGHT SOURCE

Adopt large angle SMD LED, light source luminous angle, uniform light, suitable for large field of view of the medium and high angle irradiation.



14 Series Product Model Specifications

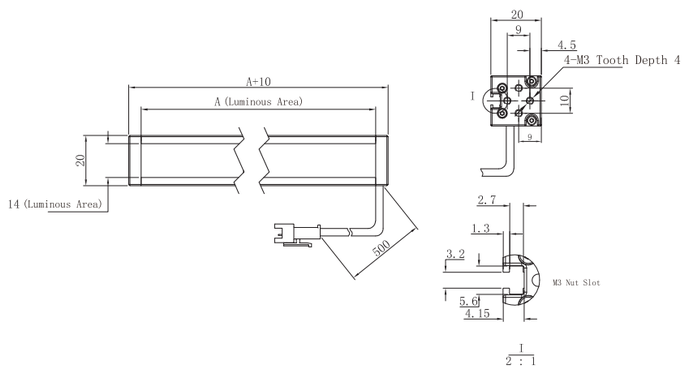
Serial Number	Model	Luminous area	Color	Voltage	Power	CT /Wavelength	Number Of LED Rows	Option
1	PMS-GBRL-50X14R/W/B	50mm x 14mm	Red	24V	0.8W	625nm	3 rows	Diffusion Board
		50mm x 14mm	White	24V	1.2W	6500K	3 rows	Diffusion Board
		50mm x 14mm	Blue	24V	1.2W	470nm	3 rows	Diffusion Board
2	PMS-GBRL-100X14R/W/B	100mm x 14mm	Red	24V	1.6W	625nm	3 rows	Diffusion Board
		100mm x 14mm	White	24V	2.4W	6500K	3 rows	Diffusion Board
		100mm x 14mm	Blue	24V	2.4W	470nm	3 rows	Diffusion Board
3	PMS-GBRL-150X14R/W/B	150mm x 14mm	Red	24V	2.4W	625nm	3 rows	Diffusion Board
		150mm x 14mm	White	24V	3.6W	6500K	3 rows	Diffusion Board
		150mm x 14mm	Blue	24V	3.6W	470nm	3 rows	Diffusion Board
4	PMS-GBRL-200X14R/W/B	200mm x 14mm	Red	24V	3.2W	625nm	3 rows	Diffusion Board
		200mm x 14mm	White	24V	4.8W	6500K	3 rows	Diffusion Board
		200mm x 14mm	Blue	24V	4.8W	470nm	3 rows	Diffusion Board
5	PMS-GBRL-250X14R/W/B	250mm x 14mm	Red	24V	8W	625nm	3 rows	Diffusion Board
		250mm x 14mm	White	24V	12W	6500K	3 rows	Diffusion Board
		250mm x 14mm	Blue	24V	12W	470nm	3 rows	Diffusion Board
6	PMS-GBRL-300X14R/W/B	300mm x 14mm	Red	24V	9.6W	625nm	3 rows	Diffusion Board
		300mm x 14mm	White	24V	14.4W	6500K	3 rows	Diffusion Board
		300mm x 14mm	Blue	24V	14.4W	470nm	3 rows	Diffusion Board

34 Series Product Model Specifications

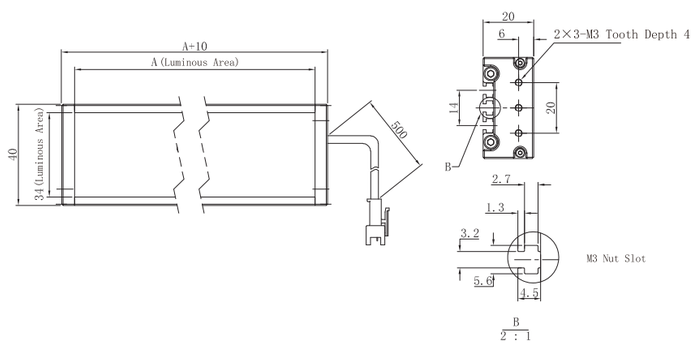
Serial Number	Model	Luminous area	Color	Voltage	Power	CT /Wavelength	Number Of LED Rows	Option
1	PMS-GBRL-50X34R/W/B	50mm x 34mm	Red	24V	1.6W	625nm	6 rows	Diffusion Board
		50mm x 34mm	White	24V	2.4W	6500K	6 rows	Diffusion Board
		50mm x 34mm	Blue	24V	2.4W	470nm	6 rows	Diffusion Board
2	PMS-GBRL-100X34R/W/B	100mm x 34mm	Red	24V	3.2W	625nm	6 rows	Diffusion Board
		100mm x 34mm	White	24V	4.8W	6500K	6 rows	Diffusion Board
		100mm x 34mm	Blue	24V	4.8W	470nm	6 rows	Diffusion Board
3	PMS-GBRL-150X34R/W/B	150mm x 34mm	Red	24V	4.8W	625nm	6 rows	Diffusion Board
		150mm x 34mm	White	24V	7.2W	6500K	6 rows	Diffusion Board
		150mm x 34mm	Blue	24V	7.2W	470nm	6 rows	Diffusion Board
4	PMS-GBRL-200X34R/W/B	200mm x 34mm	Red	24V	6.4W	625nm	6 rows	Diffusion Board
		200mm x 34mm	White	24V	9.6W	6500K	6 rows	Diffusion Board
		200mm x 34mm	Blue	24V	9.6W	470nm	6 rows	Diffusion Board
5	PMS-GBRL-250X34R/W/B	250mm x 34mm	Red	24V	8W	625nm	6 rows	Diffusion Board
		250mm x 34mm	White	24V	12W	6500K	6 rows	Diffusion Board
		250mm x 34mm	Blue	24V	12W	470nm	6 rows	Diffusion Board
6	PMS-GBRL-300X34R/W/B	300mm x 34mm	Red	24V	9.6W	625nm	6 rows	Diffusion Board
		300mm x 34mm	White	24V	14.4W	6500K	6 rows	Diffusion Board
		300mm x 34mm	Blue	24V	14.4W	470nm	6 rows	Diffusion Board

Product Size Diagram

PMS-14 Series



PMS-34 Series



Coaxial Light Source Series

Coaxial light source using high-density LED arrays, suitable for the detection of mirror-reflective objects.

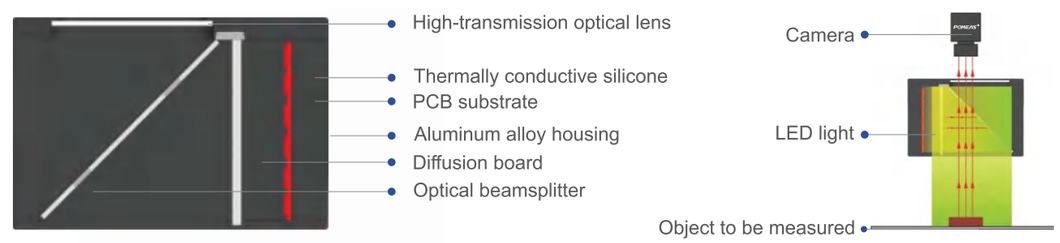
PRODUCT ADVANTAGES

The coaxial light source uses a high-density array of LEDs to emit high-intensity uniform light through a semi-lens surface with a special coating that keeps the reflected light from the workpiece and the CCD The camera is on the same axis and eliminates ghost images of the collected images. This series of light sources has a very uniform light distribution, suitable for passing smooth workpiece surface Scratch detection.

APPLICATION FIELDS

1. Detect laser markings on wafers.
2. Detecting engraved characters on metal surfaces, bearings, beverage cans.
3. Detecting 2D codes printed on metal and glass plates.
4. LCD screen defects.

LIGHT SOURCE STRUCTURE



Parameter Description

Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C; Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension cable: 1/3/5m (optional standard length 0.5m)					
Expected Service Life	At an ambient temperature of 25°C, the white light source works reliably at 50% brightness for more than 30,000h (when the attenuation is 50%)					
Product Advantage	All products are delivered one year standard free technical support, and according to customer requirements for the measured object characteristics, working distance, irradiation angle color and field of view Customized.					

Product Model Specification

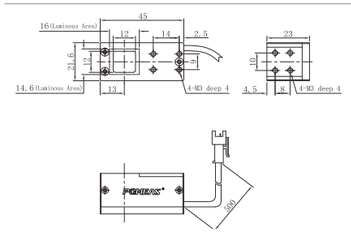
Serial Number	Model	Luminous Area	Color	Voltage	Power	CT /Wavelength
1	PMS-GCOL-14X14R/W/B	14mm x 14mm	Red	24V	0.8W	625nm
		14mm x 14mm	White	24V	1.2W	6500K
		14mm x 14mm	Blue	24V	1.2W	470nm
2	PMS-GCOL-18X18R/W/B	18mm x 18mm	Red	24V	0.8W	625nm
		18mm x 18mm	White	24V	1.4W	6500K
		18mm x 18mm	Blue	24V	1.4W	470nm
3	PMS-GCOL-30X30R/W/B	30mm x 30mm	Red	24V	1.2W	625nm
		30mm x 30mm	White	24V	1.8W	6500K
		30mm x 30mm	Blue	24V	1.8W	470nm
4	PMS-GCOL-40X40R/W/B	40mm x 40mm	Red	24V	2.0W	625nm
		40mm x 40mm	White	24V	3W	6500K
		40mm x 40mm	Blue	24V	3W	470nm
5	PMS-GCOL-50X50R/W/B	50mm x 50mm	Red	24V	2.0W	625nm
		50mm x 50mm	White	24V	4.2W	6500K
		50mm x 50mm	Blue	24V	4.2W	470nm
6	PMS-GCOL-55X40R/W/B	55mm x 40mm	Red	24V	2.0W	625nm
		55mm x 40mm	White	24V	3.9W	6500K
		55mm x 40mm	Blue	24V	3.9W	470nm
7	PMS-GCOL-60X60R/W/B	60mm x 60mm	Red	24V	2.9W	625nm
		60mm x 60mm	White	24V	5.8W	6500K
		60mm x 60mm	Blue	24V	5.8W	470nm
8	PMS-GCOL-80X80R/W/B	80mm x 80mm	Red	24V	6.5W	625nm
		80mm x 80mm	White	24V	10W	6500K
		80mm x 80mm	Blue	24V	10W	470nm
9	PMS-GCOL-90X90R/W/B	90mm x 90mm	Red	24V	8W	625nm
		90mm x 90mm	White	24V	12W	6500K
		90mm x 90mm	Blue	24V	12W	470nm
10	PMS-GCOL-100X100R/W/B	100mm x 100mm	Red	24V	9.1W	625nm
		100mm x 100mm	White	24V	14W	6500K
		100mm x 100mm	Blue	24V	14W	470nm
11	PMS-GCOL-120X120R/W/B	120mm x 120mm	Red	24V	11.7W	625nm
		120mm x 120mm	White	24V	18W	6500K
		120mm x 120mm	Blue	24V	18W	470nm
12	PMS-GCOL-140X140R/W/B	140mm x 140mm	Red	24V	13.7W	625nm
		140mm x 140mm	White	24V	23.1W	6500K
		140mm x 140mm	Blue	24V	23.1W	470nm
13	PMS-GCOL-180X130R/W/B	180mm x 130mm	Red	24V	12.6W	625nm
		180mm x 130mm	White	24V	20.9W	6500K
		180mm x 130mm	Blue	24V	20.9W	470nm
14	PMS-GCOL-270X180R/W/B	270mm x 180mm	Red	24V	32W	625nm
		270mm x 180mm	White	24V	40W	6500K
		270mm x 180mm	Blue	24V	40W	470nm
15	PMS-GCOL-320X150R/W/B	320mm x 150mm	Red	24V	49W	625nm
		320mm x 150mm	White	24V	62W	6500K
		320mm x 150mm	Blue	24V	62W	470nm

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

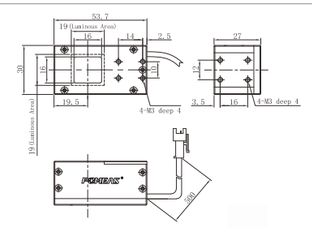
Serial Number	Model	Luminous Area	Color	Voltage	Power	CT /Wavelength
16	PMS-GCOL-450X160R/W/B	450mm x 160mm	Red	24V	55.3W	625nm
		450mm x 160mm	White	24V	69W	6500K
		450mm x 160mm	Blue	24V	69W	470nm
17	PMS-GCOL-450X270R/W/B	450mm x 270mm	Red	24V	68.8W	625nm
		450mm x 270mm	White	24V	86W	6500K
		450mm x 270mm	Blue	24V	86W	470nm
18	PMS-GCOL-500X184R/W/B	500mm x 184mm	Red	24V	96W	625nm
		500mm x 184mm	White	24V	120W	6500K
		500mm x 184mm	Blue	24V	120W	470nm

Product Size Diagram

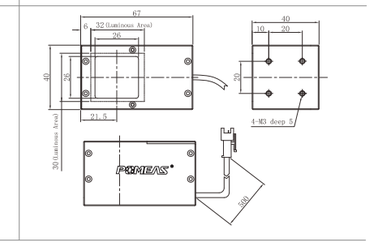
PMS-GCOL-14X14R/W/B



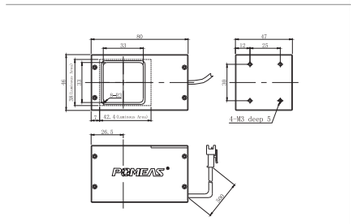
PMS-GCOL-18X18R/W/B



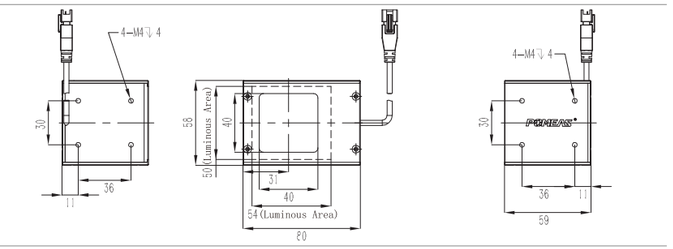
PMS-GCOL-30X30R/W/B



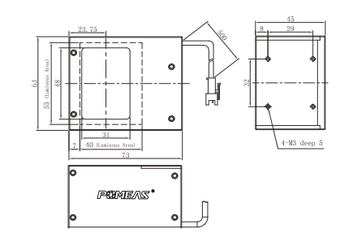
PMS-GCOL-40X40R/W/B



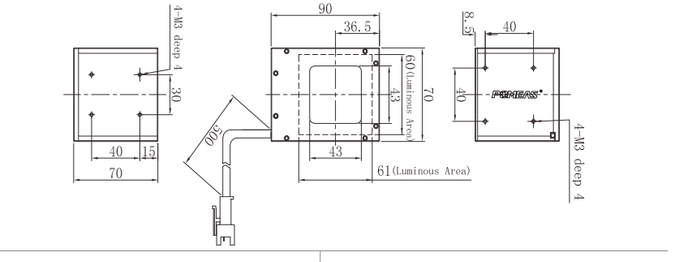
PMS-GCOL-50X50R/W/B



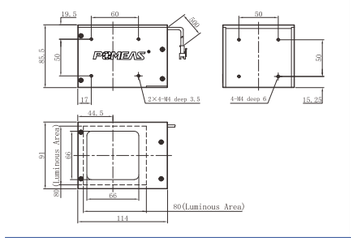
PMS-GCOL-55X40R/W/B



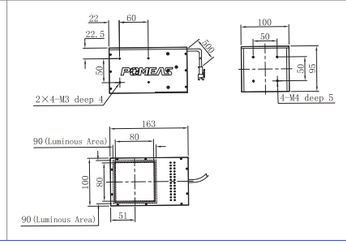
PMS-GCOL-60X60R/W/B



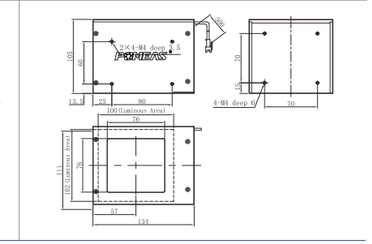
PMS-GCOL-80X80R/W/B



PMS-GCOL-90X90R/W/B

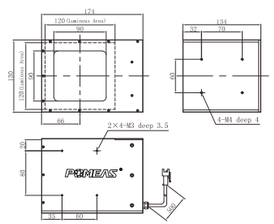


PMS-GCOL-100X100R/W/B

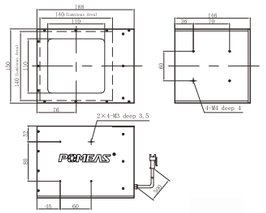


Product Model Specification

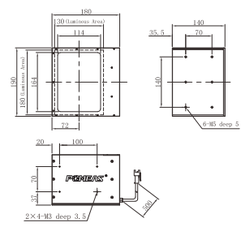
PMS-GCOL-120X120R/W/B



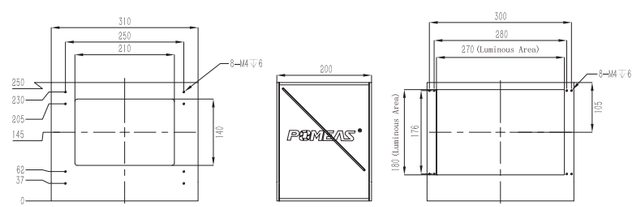
PMS-GCOL-140X140R/W/B



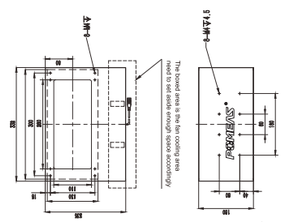
PMS-GCOL-180X130R/W/B



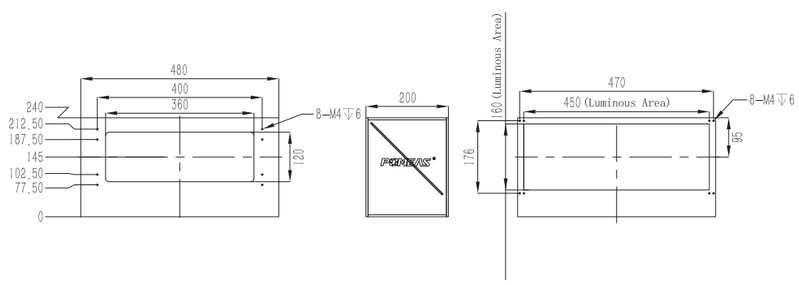
PMS-GCOL-270X180R/W/B



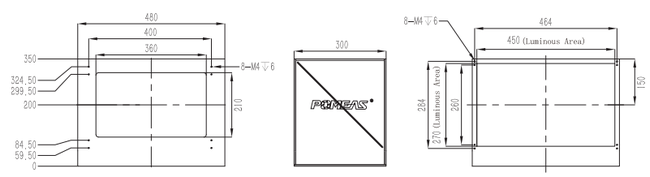
PMS-GCOL-320X150R/W/B



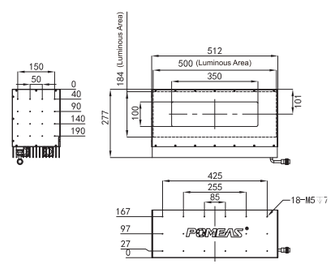
PMS-GCOL-450X160R/W/B



PMS-GCOL-450X270R/W/B



PMS-GCOL-500X184R/W/B



Surface Light Source Series

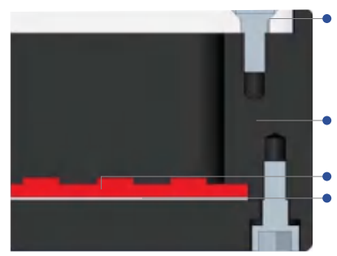
PRODUCT ADVANTAGES

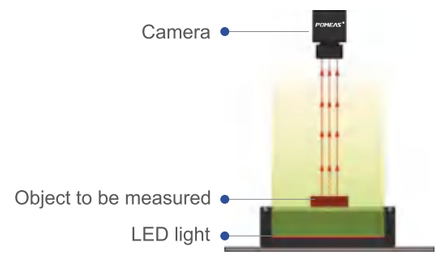
Surface light source is a flat lighting source, LED by the structure of the optimization of uniform cloth in the bottom of the light source, after diffusion guide plate on the surface to form a uniform irradiation light. Externally with Pumis designed light-boosting sheet, its light source brightness can be increased by 20% to 50%, better than other similar light sources in the market. Usually used for profile inspection.

APPLICATION FIELDS

1. Profile measurement.
2. Size measurement.
3. Glass bottle breakage, foreign body detection.
4. Surface scratch, stain or internal foreign body, breakage detection of transparent objects.

LIGHT SOURCE STRUCTURE





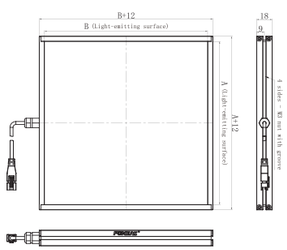
Parameter Description

Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C；Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension cable: 1/3/5m (optional standard length 0.5m)					
Expected Service Life	At an ambient temperature of 25°C, the white light source works reliably at 50% brightness for more than 30,000h (when the attenuation is 50%)					
Product Advantage	All products are delivered one year standard free technical support, and according to customer requirements for the measured object characteristics, working distance, irradiation angle color and field of view Customized.					

Product Model Specification

Serial Number	Model	Luminous Area	Color	Voltage	Power	CT /Wavelength
1	PMS-BKL-200X250R/W/B	200mm x 250mm	Red	24V	27W	625nm
		200mm x 250mm	White	24V	40W	6500K
		200mm x 250mm	Blue	24V	40W	470nm
2	PMS-BKL-200X300R/W/B	200mm x 300mm	Red	24V	32W	625nm
		200mm x 300mm	White	24V	48W	6500K
		200mm x 300mm	Blue	24V	48W	470nm
3	PMS-BKL-200X350R/W/B	200mm x 350mm	Red	24V	37W	625nm
		200mm x 350mm	White	24V	56W	6500K
		200mm x 350mm	Blue	24V	56W	470nm
4	PMS-BKL-200X400R/W/B	200mm x 400mm	Red	24V	43W	625nm
		200mm x 400mm	White	24V	64W	6500K
		200mm x 400mm	Blue	24V	64W	470nm
5	PMS-BKL-250X250R/W/B	250mm x 250mm	Red	24V	33W	625nm
		250mm x 250mm	White	24V	50W	6500K
		250mm x 250mm	Blue	24V	50W	470nm
6	PMS-BKL-250X300R/W/B	250mm x 300mm	Red	24V	40W	625nm
		250mm x 300mm	White	24V	60W	6500K
		250mm x 300mm	Blue	24V	60W	470nm
7	PMS-BKL-250X350R/W/B	250mm x 350mm	Red	24V	47W	625nm
		250mm x 350mm	White	24V	70W	6500K
		250mm x 350mm	Blue	24V	70W	470nm
8	PMS-BKL-250X400R/W/B	250mm x 400mm	Red	24V	53W	625nm
		250mm x 400mm	White	24V	80W	6500K
		250mm x 400mm	Blue	24V	80W	470nm
9	PMS-BKL-300X300R/W/B	300mm x 300mm	Red	24V	48W	625nm
		300mm x 300mm	White	24V	72W	6500K
		300mm x 300mm	Blue	24V	72W	470nm
10	PMS-BKL-300X350R/W/B	300mm x 350mm	Red	24V	56W	625nm
		300mm x 350mm	White	24V	84W	6500K
		300mm x 350mm	Blue	24V	84W	470nm
11	PMS-BKL-300X400R/W/B	300mm x 400mm	Red	24V	64W	625nm
		300mm x 400mm	White	24V	96W	6500K
		300mm x 400mm	Blue	24V	96W	470nm

PMS-BKL SERIES INSTALLATION SIZE DIAGRAM

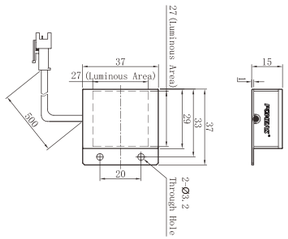
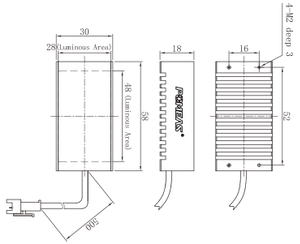
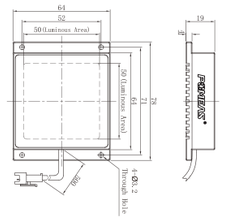
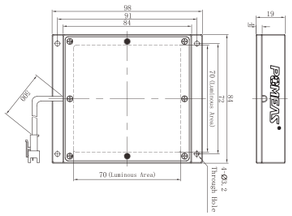
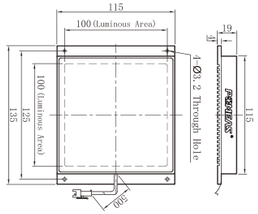
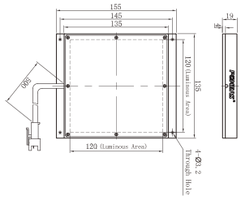
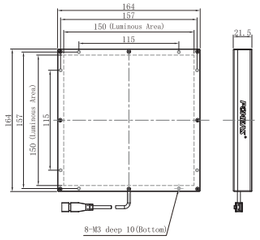
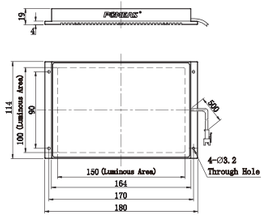
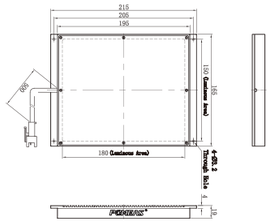
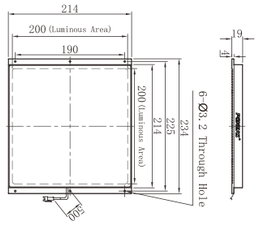
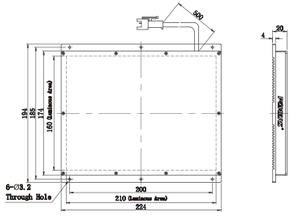
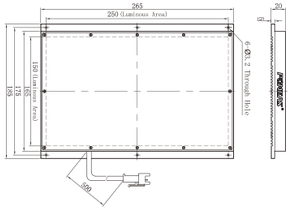
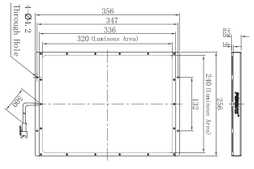


POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Product Model Specification

Serial Number	Model	Luminous Area	Color	Voltage	Power	CT /Wavelength
1	PMS-BKL-27X27R/W/B	27mm x 27mm	Red	24V	0.8W	625nm
		27mm x 27mm	White	24V	1.2W	6500K
		27mm x 27mm	Blue	24V	1.2W	470nm
2	PMS-BKL-48X28R/W/B	48mm x 28mm	Red	24V	1.6W	625nm
		48mm x 28mm	White	24V	2.4W	6500K
		48mm x 28mm	Blue	24V	2.4W	470nm
3	PMS-BKL-50X50R/W/B	50mm x 50mm	Red	24V	2.4W	625nm
		50mm x 50mm	White	24V	3.6W	6500K
		50mm x 50mm	Blue	24V	3.6W	470nm
4	PMS-BKL-70X70R/W/B	70mm x 70mm	Red	24V	4W	625nm
		70mm x 70mm	White	24V	6W	6500K
		70mm x 70mm	Blue	24V	6W	470nm
5	PMS-BKL-100X100R/W/B	100mm x 100mm	Red	24V	5.8W	625nm
		100mm x 100mm	White	24V	13W	6500K
		100mm x 100mm	Blue	24V	13W	470nm
6	PMS-BKL-120X120R/W/B	120mm x 120mm	Red	24V	8W	625nm
		120mm x 120mm	White	24V	11W	6500K
		120mm x 120mm	Blue	24V	11W	470nm
7	PMS-BKL-150X150R/W/B	150mm x 150mm	Red	24V	12W	625nm
		150mm x 150mm	White	24V	19W	6500K
		150mm x 150mm	Blue	24V	19W	470nm
8	PMS-BKL-150X100R/W/B	150mm x 100mm	Red	24V	8W	625nm
		150mm x 100mm	White	24V	13.2W	6500K
		150mm x 100mm	Blue	24V	13.2W	470nm
9	PMS-BKL-180X150R/W/B	180mm x 150mm	Red	24V	12.5W	625nm
		180mm x 150mm	White	24V	19.2W	6500K
		180mm x 150mm	Blue	24V	19.2W	470nm
10	PMS-BKL-200X200R/W/B	200mm x 200mm	Red	24V	20.2W	625nm
		200mm x 200mm	White	24V	29W	6500K
		200mm x 200mm	Blue	24V	29W	470nm
11	PMS-BKL-210X160R/W/B	210mm x 160mm	Red	24V	22W	625nm
		210mm x 160mm	White	24V	30W	6500K
		210mm x 160mm	Blue	24V	30W	470nm
12	PMS-BKL-250X150R/W/B	250mm x 150mm	Red	24V	18W	625nm
		250mm x 150mm	White	24V	28W	6500K
		250mm x 150mm	Blue	24V	28W	470nm
13	PMS-BKL-320X240R/W/B	320mm x 240mm	Red	24V	37W	625nm
		320mm x 240mm	White	24V	56W	6500K
		320mm x 240mm	Blue	24V	56W	470nm

Product Size Diagram

PMS-BKL-27X27R/W/B	PMS-BKL-48X28R/W/B	PMS-BKL-50X50R/W/B
		
PMS-BKL-70X70R/W/B	**PMS-BKL-100X100R/W/B**	**PMS-BKL-120X120R/W/B**
		
PMS-BKL-150X150R/W/B	**PMS-BKL-150X100R/W/B**	**PMS-BKL-180X150R/W/B**
		
PMS-BKL-200X200R/W/B	**PMS-BKL-210X160R/W/B**	**PMS-BKL-250X150R/W/B**
		
PMS-BKL-320X240R/W/B		
		

Parallel Surface Light Source Series

PRODUCT ADVANTAGES

Parallel surface light source is a kind of surface light source, this light source has better directionality, LED by structure optimization evenly distributed in the bottom of the light source, after diffuse light guide plate insurface to form a uniform brightness of irradiated light, in the surface configuration of special optical materials, so that the irradiated light is further optimized. Usually used for profile inspection.

APPLICATION FIELDS

1. Profile measurement.
2. Size measurement.
3. Glass bottle breakage, foreign body detection.
4. Surface scratch, stain or internal foreign body, breakage detection of transparent objects.

LIGHT SOURCE STRUCTURE

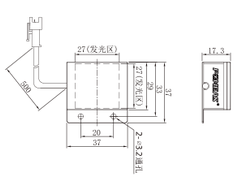
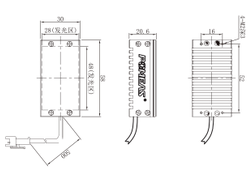
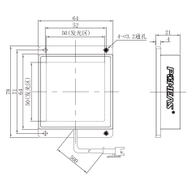
Parameter Description

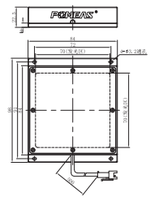
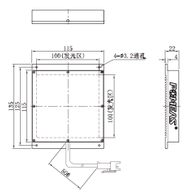
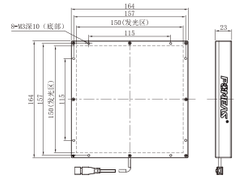
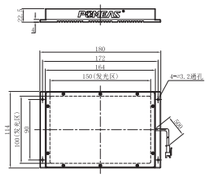
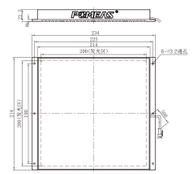
Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C；Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension cable: 1/3/5m (optional standard length 0.5m)					
Expected Service Life	At an ambient temperature of 25°C, the white light source works reliably at 50% brightness for more than 30,000h (when the attenuation is 50%)					
Product Advantage	All products are delivered one year standard free technical support, and according to customer requirements for the measured object characteristics, working distance, irradiation angle color and field of view Customized.					

Product Model Specification

Serial Number	Model	Luminous Area	Color	Voltage	Power	CT /Wavelength
1	PMS-BHL-27X27R/W/B	27mm x 27mm	Red	24V	0.8W	625nm
		27mm x 27mm	White	24V	1.2W	6500K
		27mm x 27mm	Blue	24V	1.2W	470nm
2	PMS-BHL-48X28R/W/B	48mm x 28mm	Red	24V	1.6W	625nm
		48mm x 28mm	White	24V	2.4W	6500K
		48mm x 28mm	Blue	24V	2.4W	470nm
3	PMS-BHL-50X50R/W/B	50mm x 50mm	Red	24V	2.4W	625nm
		50mm x 50mm	White	24V	3.6W	6500K
		50mm x 50mm	Blue	24V	3.6W	470nm
4	PMS-BHL-70X70R/W/B	70mm x 70mm	Red	24V	4W	625nm
		70mm x 70mm	White	24V	6W	6500K
		70mm x 70mm	Blue	24V	6W	470nm
5	PMS-BHL-100X100R/W/B	100mm x 100mm	Red	24V	5.8W	625nm
		100mm x 100mm	White	24V	13W	6500K
		100mm x 100mm	Blue	24V	13W	470nm
6	PMS-BHL-150X150R/W/B	150mm x 150mm	Red	24V	12W	625nm
		150mm x 150mm	White	24V	19W	6500K
		150mm x 150mm	Blue	24V	19W	470nm
7	PMS-BHL-150X100R/W/B	150mm x 100mm	Red	24V	8W	625nm
		150mm x 100mm	White	24V	13.2W	6500K
		150mm x 100mm	Blue	24V	13.2W	470nm
8	PMS-BHL-200X200R/W/B	200mm x 200mm	Red	24V	20.2W	625nm
		200mm x 200mm	White	24V	29W	6500K
		200mm x 200mm	Blue	24V	29W	470nm

Product Size Diagram

PMS-BHL-27X27R/W/B	PMS-BHL-48X28R/W/B	PMS-BHL-50X50R/W/B
		

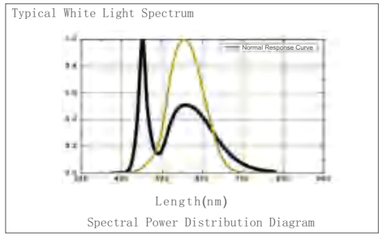
PMS-BHL-70X70R/W/B	PMS-BHL-100X100R/W/B	PMS-BHL-150X150R/W/B
		
PMS-BHL-150X100R/W/B	PMS-BHL-200X200R/W/B	
		

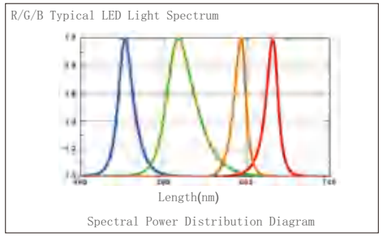
Parallel Light Source Series

With telecentric lens, support 35~265mm aperture parallel light source.

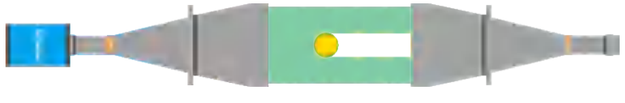
PRODUCT ADVANTAGES

1. Telecentric parallel LED light, specially design for backlight;
2. Improve the profile image contrast of the tested objective of the machine vision system;
3. Maximum show the telecentric lens DOF and telecentrity.





SKETCH MAP



Product Parameter Table

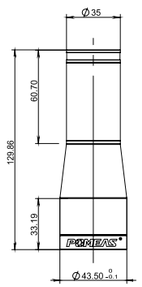
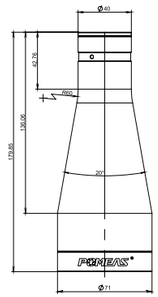
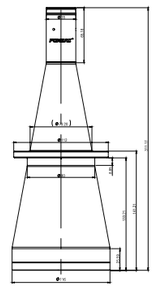
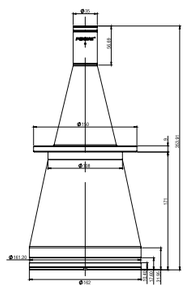
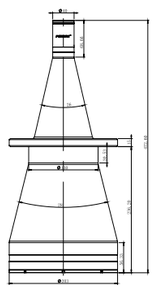
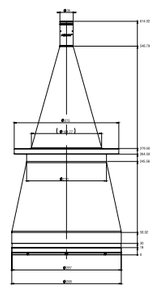
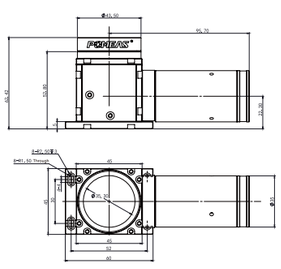
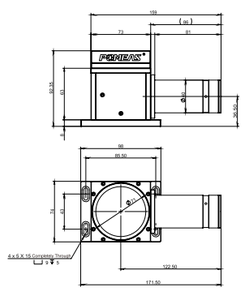
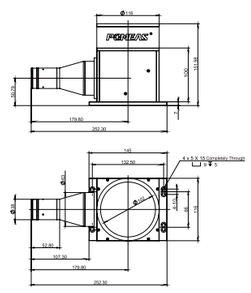
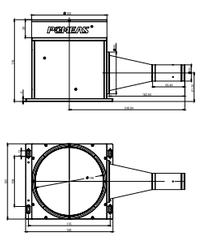
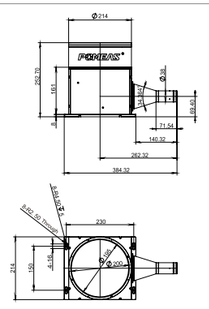
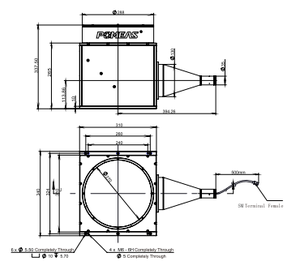
Model	Beam Diameter	Working Distance	Mechanical Specifications		Forward Voltage	Forward Current	Available Colors
			Outer Diameter	Length			
PMS-LTD-30R/G/B/W	30mm	45-90mm	43.5mm	121.16mm	3.5V	350mA	
PMS-LTD-60R/G/B/W	60mm	90-180mm	72mm	180mm			
PMS-LTD-100R/G/B/W	100mm	150-300mm	174mm	276mm			
PMS-LTD-145R/G/B/W	145mm	100-300mm	162mm	358mm			
PMS-LTD-189R/G/B/W	189mm	250-500mm	203mm	472.6mm			
PMS-LTD-265R/G/B/W	265mm	150-500mm	275mm	609mm			

Corner Parallel Light Source Series

Product Parameter Table

Model	Beam Diameter	Working Distance	Mechanical Specifications			Forward Voltage	Forward Current	Available Colors
			Length	Width	Thickness			
PMS-LTD-30LR/G/B/W	30mm	45-90mm	121.16mm	43.5mm	62.39mm	3.5V	350mA	
PMS-LTD-60LR/G/B/W	60mm	90-180mm	171.5mm	73mm	92mm			
PMS-LTD-100LR/G/B/W	100mm	150-300mm	235.5mm	116mm	147.5mm			
PMS-LTD-145LR/G/B/W	145mm	100-300mm	325mm	162mm	176mm			
PMS-LTD-189LR/G/B/W	189mm	250-500mm	356mm	214mm	252mm			
PMS-LTD-265LR/G/B/W	265mm	150-500mm	438.26mm	340mm	337.5mm			

Product Size Diagram

PMS-LTD-30R/G/B/W	PMS-LTD-60R/G/B/W	PMS-LTD-100R/G/B/W
		
PMS-LTD-145R/G/B/W	PMS-LTD-189R/G/B/W	PMS-LTD-265R/G/B/W
		
PMS-LTD-30LR/G/B/W	PMS-LTD-60LR/G/B/W	PMS-LTD-100LR/G/B/W
		
PMS-LTD-145LR/G/B/W	PMS-LTD-189LR/G/B/W	PMS-LTD-265LR/G/B/W
		

Dome Light Source Series

Dome light source is suitable for objects with undulating and reflective surfaces.

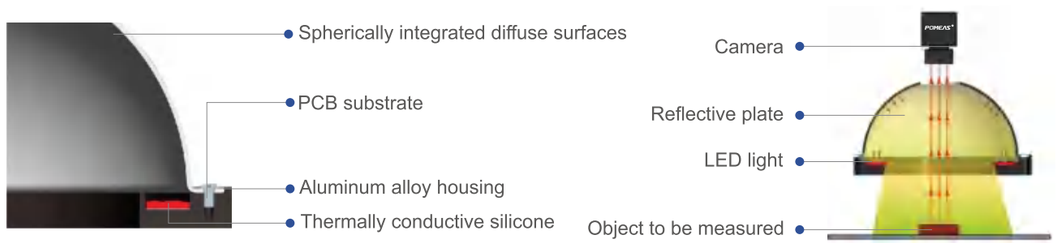
PRODUCT ADVANTAGES

Dome light source is a diffuse reflection shadowless light source, structure optimization after the arrangement of the light emitted by the LED spherical diffuse reflection, smooth, uniform irradiation on the measured. Object surface, the series of light sources have a large light diffusion surface, can be all-round uniform irradiation on the object to be measured.
Suitable for objects with undulations and reflections on the surface. Even curved metal surfaces can be uniformly irradiated.

APPLICATION FIELDS

1. Detect reflective, uneven surface
2. Detect IC surface characters
3. Detecting the broken surface of capacitor, etc.
4. Detecting the spray code on the bottom of cans
5. Detect the instrument panel with glass surface
6. Detecting the polarity of the capacitor with uneven height on the circuit board"

LIGHT SOURCE STRUCTURE



Parameter Description

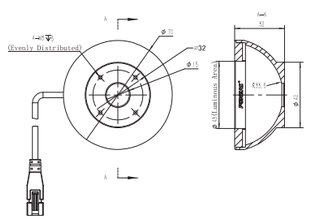
Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C；Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension cable: 1/3/5m (optional standard length 0.5m)					
Expected Service Life	At an ambient temperature of 25°C, the white light source works reliably at 50% brightness for more than 30,000h (when the attenuation is 50%)					
Product Advantage	All products are delivered one year standard free technical support, and according to customer requirements for the measured object characteristics, working distance, irradiation angle color and field of view Customized.					

Product Model Specification

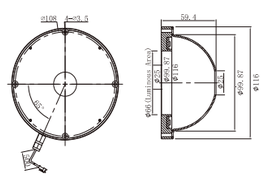
Serial Number	Model	Outer Diameter	Hole Size	Color	Voltage	Power	CT /Wavelength
1	PMS-GR-70-H15R/W/B	Ø70mm	Ø15mm	Red	24V	0.8W	625nm
		Ø70mm	Ø15mm	White	24V	2.6W	6500K
		Ø70mm	Ø15mm	Blue	24V	2.6W	470nm
2	PMS-GR-116-H25R/W/B	Ø116mm	Ø25mm	Red	24V	7W	625nm
		Ø116mm	Ø25mm	White	24V	9.7W	6500K
		Ø116mm	Ø25mm	Blue	24V	9.7W	470nm
3	PMS-GR-175-H35R/W/B	Ø175mm	Ø35mm	Red	24V	9W	625nm
		Ø175mm	Ø35mm	White	24V	12W	6500K
		Ø175mm	Ø35mm	Blue	24V	12W	470nm
4	PMS-GR-198-H30R/W/B	Ø198mm	Ø30mm	Red	24V	12W	625nm
		Ø198mm	Ø30mm	White	24V	15W	6500K
		Ø198mm	Ø30mm	Blue	24V	15W	470nm
5	PMS-GR-260-H48R/W/B	Ø260mm	Ø48mm	Red	24V	14W	625nm
		Ø260mm	Ø48mm	White	24V	17W	6500K
		Ø260mm	Ø48mm	Blue	24V	17W	470nm
6	PMS-GR-325-H50R/W/B	Ø325mm	Ø50mm	Red	24V	29W	625nm
		Ø325mm	Ø50mm	White	24V	36W	6500K
		Ø325mm	Ø50mm	Blue	24V	36W	470nm

Product Size Diagram

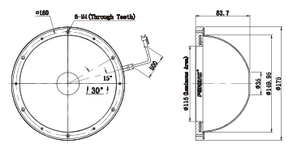
PMS-GR-70-H15R/W/B



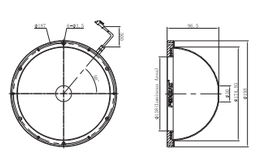
PMS-GR-116-H25R/W/B



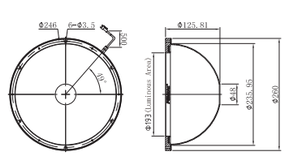
PMS-GR-175-H35R/W/B



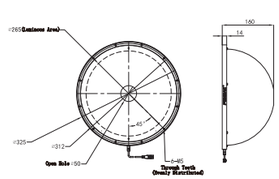
PMS-GR-198-H30R/W/B



PMS-GR-260-H48R/W/B



PMS-GR-325-H50R/W/B



POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Point Light Source Series

Point light source with high brightness, small light-emitting area and other advantages.

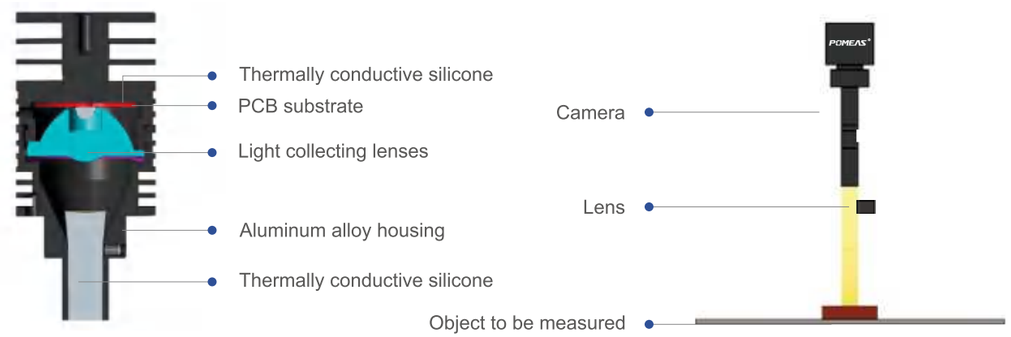
PRODUCT ADVANTAGES

The point light source has the advantages of high brightness and small light-emitting area, etc. The point light source with a tip diameter of 8mm or 9mm and a light-emitting surface diameter of 6mm, in the machine vision system. It can be used alone or with microscope head or telecentric lens with coaxial function.

APPLICATION FIELDS

1. Detecting tiny components
2. For vision systems with small installation space
3. Use with microscope head
4. Used with LED solid state machine

LIGHT SOURCE STRUCTURE



Parameter Description

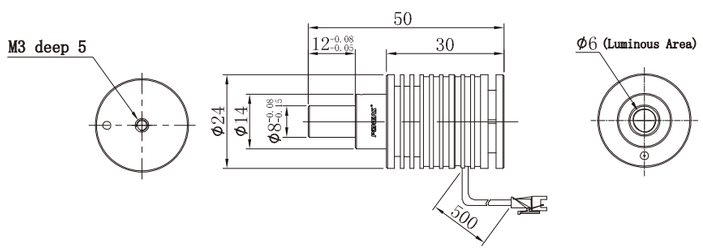
Peak Wavelength	Red: 620-630nm 645-660nm	Green: 525nm	Blue: 470nm	White: 6500k(color temperature)	Infrared: 850-950nm	UV: 365-395nm
Matching Controller	PMS-DPI2404-4-RS232T					
Use Environment	Temperature:0-40°C；Humidity:20-85%RH(non-condensing)					
Optional	Diffusion plate (part of the standard) Extension cable: 1/3/5m (optional standard length 0.5m)					
Expected Service Life	At an ambient temperature of 25°C, the white light source works reliably at 50% brightness for more than 30,000h (when the attenuation is 50%)					
Product Advantage	All products are delivered one year standard free technical support, and according to customer requirements for the measured object characteristics, working distance, irradiation angle color and field of view Customized.					

Product Model Specification

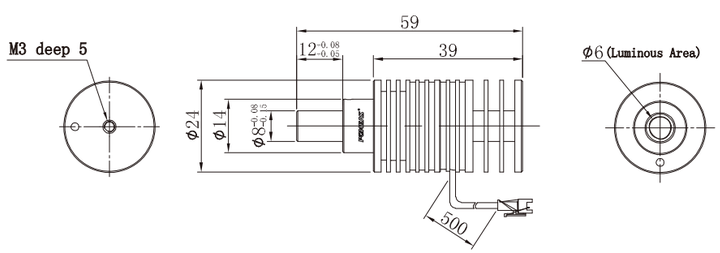
Serial Number	Model	Diameter	Color	Voltage	Power	CT /Wavelength
1	PMS-GPI-0801R/W/B	Ø8mm	Red	5V	1W	625nm
		Ø8mm	White	5V	1W	6500K
		Ø8mm	Blue	5V	1W	470nm
2	PMS-GPI-0803R/W/B	Ø8mm	Red	5V	3W	625nm
		Ø8mm	White	5V	3W	6500K
		Ø8mm	Blue	5V	3W	470nm

Product Size Diagram

PMS-GPI-0801R/W/B



PMS-GPI-0803R/W/B



POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Infrared Light Source Series

Infrared light source has stronger penetration than conventional visible light.

PRODUCT ADVANTAGES

Pomeas infrared series light source using near-infrared wavelength LED has stronger penetration performance than conventional visible light, suitable for the light source penetration requirements of high testing projects.

APPLICATION FIELDS

1. Number of bagged products detection.
2. film wrapped product contour detection.
3. Pixel edge detection of cell phone screen.

Product Model Specification

Category	Serial Number	Model	Outer Diameter	Angle	Luminous area	Color	Voltage	Power	Wavelength
Toroidal Light Source	1	PMS-RL42-65-IR850/940	Ø42mm	65°	——	Infrared	24V	1.1W	850/940nm
	2	PMS-RL52-60-IR850/940	Ø52mm	60°	——	Infrared	24V	1.3W	850/940nm
	3	PMS-RL73-90-IR850/940	Ø73mm	90°	——	Infrared	24V	2.4W	850/940nm
	4	PMS-RL74-60-IR850/940	Ø74mm	60°	——	Infrared	24V	2.4W	850/940nm
	5	PMS-RL74-30-IR850/940	Ø74mm	30°	——	Infrared	24V	1.7W	850/940nm
	6	PMS-RL90-70-IR850/940	Ø90mm	70°	——	Infrared	24V	4.1W	850/940nm
	7	PMS-RL90-30-IR850/940	Ø90mm	30°	——	Infrared	24V	3.4W	850/940nm
Strip Light Source	8	PMS-GBRL-54X18-IR850/940	——	——	54mm × 18mm	Infrared	24V	0.8W	850/940nm
	9	PMS-GBRL-86X29-IR850/940	——	——	86mm × 29mm	Infrared	24V	2.4W	850/940nm
	10	PMS-GBRL-90X19-IR850/940	——	——	90mm × 19mm	Infrared	24V	1.6W	850/940nm
Surface Light Source	11	PMS-BKL-48X28-IR850/940	——	——	48mm × 28mm	Infrared	24V	1.6W	850/940nm
	12	PMS-BKL-50X50-IR850/940	——	——	50mm × 50mm	Infrared	24V	6W	850/940nm
Coaxial Light Source	13	PMS-GCOL-40-IR850/940	——	——	40mm × 40mm	Infrared	24V	2W	850/940nm
	14	PMS-GCOL-60-IR850/940	——	——	60mm × 60mm	Infrared	24V	2.9W	850/940nm
Point Source	15	PMS-GPI-0803-IR850/940	Ø8mm	——	——	Infrared	5V	3W	850/940nm

Ultraviolet Light Source Series

UV light source with more energy than conventional visible wavelength light.

PRODUCT ADVANTAGES

Pomeas ultraviolet light with visible light band light stronger energy, some with phosphor glue and materials after ultraviolet light irradiation, can be excited by different color of visible light, so UV light is often used in detection projects with anti-counterfeiting needs.

APPLICATION FIELDS

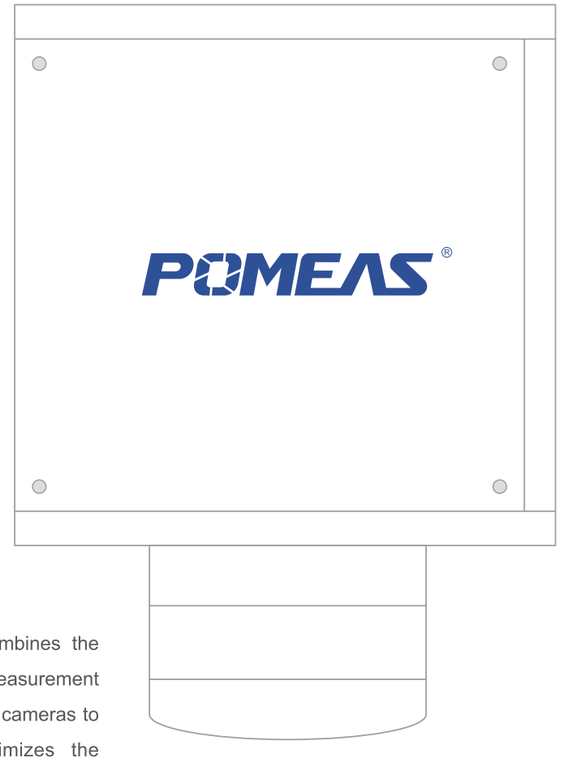
1. Capacitive screen ITO circuit detection.
2. UV glue overflow detection.
3. Anti-counterfeit code content detection.
4. UV glue curing.

Product Model Specification

Category	Serial Number	Model	Outer Diameter	Angle	Luminous area	Color	Voltage	Power	Wavelength
Toroidal Light Source	1	PMS-RL-42-65-UV365/395	Ø42mm	65°	——	Ultraviolet	24V	1.7W	365/395nm
	2	PMS-RL-52-60-UV365/395	Ø52mm	60°	——	Ultraviolet	24V	2W	365/395nm
	3	PMS-RL-73-90-UV365/395	Ø73mm	90°	——	Ultraviolet	24V	3.6W	365/395nm
	4	PMS-RL-74-60-UV365/395	Ø74mm	60°	——	Ultraviolet	24V	3.6W	365/395nm
	5	PMS-RL-74-30-UV365/395	Ø74mm	30°	——	Ultraviolet	24V	2.6W	365/395nm
	6	PMS-RL-90-70-UV365/395	Ø90mm	70°	——	Ultraviolet	24V	6.2W	365/395nm
	7	PMS-RL-90-30-UV365/395	Ø90mm	30°	——	Ultraviolet	24V	5.3W	365/395nm
Strip Light Source	8	PMS-GBRL-54X18-UV365/395	——	——	54mm × 18mm	Ultraviolet	24V	1.2W	365/395nm
	9	PMS-GBRL-86X29-UV365/395	——	——	86mm × 29mm	Ultraviolet	24V	3.6W	365/395nm
	10	PMS-GBRL-90X19-UV365/395	——	——	90mm × 19mm	Ultraviolet	24V	2.4W	365/395nm
Surface Light Source	11	PMS-BKL-48X28-UV365/395	——	——	48mm × 28mm	Ultraviolet	24V	2.4W	365/395nm
	12	PMS-BKL-50X50-UV365/395	——	——	50mm × 50mm	Ultraviolet	24V	3.6W	365/395nm
Coaxial Light Source	13	PMS-GCOL-40-UV365/395	——	——	40mm × 40mm	Ultraviolet	24V	3W	365/395nm
	14	PMS-GCOL-60-UV365/395	——	——	60mm × 60mm	Ultraviolet	24V	5.8W	365/395nm
Point Source	15	PMS-GPI-0803-UV365/395	Ø8mm	——	——	Ultraviolet	5V	3W	365/395nm

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

INDUSTRY CAMERA SERIES



According to customer requirements, and combines the characteristics of the machine vision and measurement industry, Pomeas make personalized design of cameras to match with POMEAS lenses, which maximizes the performance of the system. It is suitable for machine vision, industrial inspection, microscopic imaging, visual positioning, dimensional measurement and other industries.

Gigabit Ethernet Industrial Camera Series

Second-generation industrial surface array camera with a new hardware platform to achieve lower power consumption, equipped with Sony's IMX296 global shutter CMOS chip, low noise, image excellent quality and high cost performance. Image transfer via Gigabit Ethernet interface for fast, real-time transmission of uncompressed data at up to 65.2 fps at full resolution.

PRODUCT ADVANTAGES

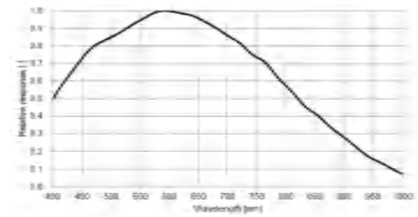
1. New hardware platform, optimize logic resources, significantly reduce power consumption.
2. Support automatic or manual adjustment of gain, exposure time, white balance, LUT, Gamma correction, etc.
3. Camera implanted with noise reduction, CCM and other functions, excellent image quality.
4. Gigabit network interface, without relay, the maximum transmission distance can reach 100m, new generation appearance result design, support four-sided installation.
5. Compatible with GigE Vision V2.0 protocol GenICam standard, seamlessly connect to third-party software.

APPLICATION FIELDS

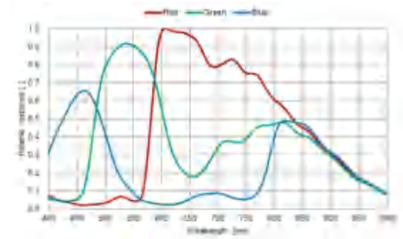
Suitable for electronic semiconductor, factory automation, food and beverage, pharmaceutical packaging, and image measurement industries.

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Sensor Response Curve

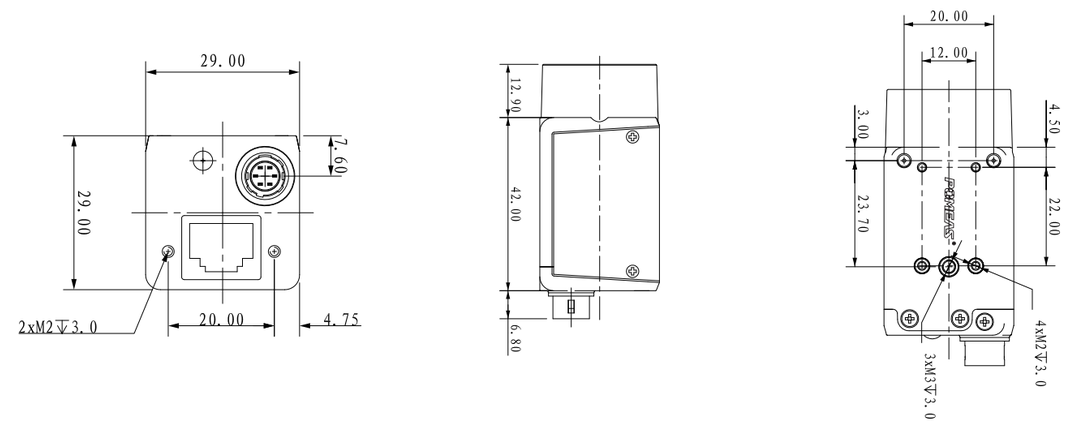


PMS-CCN-016B14BSC Quantum Efficiency

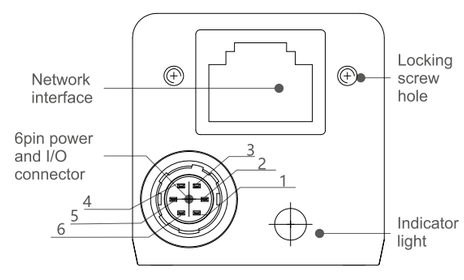


PMS-CCN-016B14CSC Quantum Efficiency

Product Size Diagram



I/O Interface



Pins	Signal	Description
1	Power	+6V-26V DC power supply
2	Line1	Optocoupler isolated input
3	Line2	Configurable IO input/output ports
4	Line0	Optocoupler isolated output
5	IO GND	Optocoupler isolated ground
6	GND	DC power ground

Product Parameter Table

Model	Pixel	Sensor Type	Resolution	Frame Rate(fps)	Dynamic Range	Data Interface	Color	Image Element (μm)	Target Surface
PMS-CCN-013B15BSC	1.3MP	CMOS	1280×960	54	71.1db	GigE, POE	B&W	3.75×3.75	1/3"
PMS-CCN-013B15CSC	1.3MP	CMOS	1280×960	54	71.1db	GigE, POE	Color	3.75×3.75	1/3"
PMS-CCN-013D15BSC	1.3MP	CMOS	1280×1024	60	60db	GigE, POE	B&W	4.8×4.8	1/2"
PMS-CCN-013D15CSC	1.3MP	CMOS	1280×1024	60	60db	GigE, POE	Color	4.8×4.8	1/2"
PMS-CCN-016B14BSC	1.6MP	CMOS	1440×1080	65.2	74db	GigE, POE	B&W	3.45×3.45	1/2.9"
PMS-CCN-016B14CSC	1.6MP	CMOS	1440×1080	65.2	74db	GigE, POE	Color	3.45×3.45	1/2.9"
PMS-CCN-020M15BSC	2MP	CMOS	1920×1080	22	Support DOL mode HDR	GigE, POE	B&W	2.9×2.9	1/2.8"
PMS-CCN-020M15CSC	2MP	CMOS	1920×1080	22	Support DOL mode HDR	GigE, POE	Color	2.9×2.9	1/2.8"
PMS-CCN-020Q25BSC-30	2MP	CMOS	1920×1200	39	70db	GigE, POE	B&W	5.86×5.86	1/1.2"
PMS-CCN-020Q25CSC-30	2MP	CMOS	1920×1200	39	70db	GigE, POE	Color	5.86×5.86	1/1.2"
PMS-CCN-050E15BSC	5MP	CMOS	2448×2048	20	70db	GigE, POE	B&W	3.45×3.45	2/3"
PMS-CCN-050E15CSC	5MP	CMOS	2448×2048	20	70db	GigE, POE	Color	3.45×3.45	2/3"
PMS-CCN-050G15BSC	5MP	CMOS	2592×2048	20	60db	GigE, POE	B&W	4.8×4.8	1"
PMS-CCN-050G15CSC	5MP	CMOS	2592×2048	20	60db	GigE, POE	Color	4.8×4.8	1"
PMS-CCN-060C15BSC	6MP	CMOS	3072×2048	18	66db	GigE, POE	B&W	2.4×2.4	1/1.8"
PMS-CCN-060C15CSC	6MP	CMOS	3072×2048	18	66db	GigE, POE	Color	2.4×2.4	1/1.8"
PMS-CCN-090G15BSC	9MP	CMOS	4096×2160	13	70db	GigE, POE	B&W	3.45×3.45	1"
PMS-CCN-090G15CSC	9MP	CMOS	4096×2160	13	70db	GigE, POE	Color	3.45×3.45	1"
PMS-CCN-100K15BSC	10 MP	CMOS	3840×2748	10	65db	GigE, POE	B&W	1.67×1.67	1/2.3"
PMS-CCN-120P15BSC	12 MP	CMOS	4096×3000	9	70db	GigE, POE	B&W	3.45×3.45	1.1"
PMS-CCN-120P15CSC	12 MP	CMOS	4096×3000	9	70db	GigE, POE	Color	3.45×3.45	1.1"
PMS-CCN-200G25BSC	20 MP	CMOS	5472×3648	5.8	66db	GigE, POE	B&W	2.4×2.4	1"
PMS-CCN-200G25CSC	20 MP	CMOS	5472×3648	5.8	66db	GigE, POE	Color	2.4×2.4	1"
PMS-CCN-250P15BSC	25MP	CMOS	5120×5120	4	64db	GigE, POE	B&W	2.5×2.5	1.1"
PMS-CCN-250P15CSC	25MP	CMOS	5120×5120	4	64db	GigE, POE	Color	2.5×2.5	1.1"

Large surface array industrial camera Series

PRODUCT ADVANTAGES

1. Gigabit Ethernet interface, providing 1Gbps bandwidth and maximum transmission distance up to 100m.
2. 256MB on-board cache for data transmission or image retransmission in burst mode.
3. Support multiple trigger modes such as software trigger/hardware trigger/free run.
4. Support ISP functions such as noise reduction, auto exposure, black level correction, gamma correction, LUT, etc.
5. The color camera supports interpolation, white balance, color conversion matrix, chroma, saturation, etc.
6. Support multiple image data formats output, ROI, Binning, mirroring, etc.
7. Conform to GigEVision V2.0 protocol and GenICam standard
8. Support DC12-24V wide voltage power supply.
9. Conform to CE, FCC, UL, RoHS certification.

APPLICATION FIELDS

Suitable for various industrial inspection and scientific research such as railroad industry, LCD industry, glass surface inspection, etc.

Product Parameters

Model	Sensor	Shutter Type	Resolution	Frame Rate(fps)	Bit Depth (bit)	Interface	Color	Image Element (μm)	Target Surface
PMS-CCN-120H15BSF	PYTHON12K CMOS	Global	4096×3072	9	10	GigE	B&W	4.5×4.5	4/3"
PMS-CCN-120H15CSF	PYTHON12K CMOS	Global	4096×3072	9	10	GigE	Color	4.5×4.5	4/3"
PMS-CCN-310J15BSM	IMX342 CMOS	Global	6464×4852	3.6	12	GigE	B&W	3.45×3.45	APS-C

Product Parameters

Model	PMS-CCN-120H15BSF	PMS-CCN-120H15CSF	PMS-CCN-310J15BSM
Pixel	12MP	12MP	31MP
Signal To Noise Ratio	＞41dB	＞41dB	＞40dB
Wide Dynamic	58db	58db	73db
GPIO General Purpose Interface	12-core Hirose interface for external power supply, 3 optically isolated inputs, 3 optically isolated outputs, 1 way RS232 serial port		
Image Format	Mono8/10/10Packed	Mono8, BayerRG8/10/10Packed, BayerGB8/10/10Packed, YUV422Packed	Mono8/10/10Packed/12/12Packed
ROI	Support		
Gain	X1~X32	X1~X32	X1~X32
Gamma	Range 0~4, Support LUT		
Shutter Exposure	1μS~1S	1μS~1S	3μS~15S
Image Acquisition Mode	Software Triggered/Hardware Triggered/Free Running		
Image Cache	256MB data cache	256MB data cache	256MB data cache
Storage Channel	Support 2 groups of user-defined configuration saving		
Size	72mm×72mm×46mm	72mm×72mm×46mm	72mm×72mm×64mm
Weight	430g	430g	487g
Power Supply Method	DC12V-26V	DC12V-26V	DC12V-26V
Power Consumption	24V=9W	24V=9W	24V≈7.86W
Lens Interface	M58x0.75		
Temperature	Storage temperature:-30°C~+80°C; Working temperature:-30°C~+50°C		

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

VGA Interface Camera Series

PRODUCT ADVANTAGES

1. Progressive scan, to ensure a clear picture without flicker;
2. The unique industrial camera using SD card as storage device:
3. Industrial camera directly connected to the monitor, colorful;
4. Up to 30 frames per second output, no delay phenomenon
5. Million high resolution, pixels up to 1280x1024;
6. 8:8:8 RGB full color display output;
7. Built-in function menu, easy to adjust;

Product Parameter Table

Model	PMS-CCV-SS-908S-B
Image Resolution	1280x1024
Frame Rate(fps)	60
Pixel Size	2.75μmx2.75μm
Chip Size	1/3"
Output Digital	VGA interface
White Balance Adjustment	Single button setting/manual setting
Suppress Glare Selection	3 levels selection
Edge Enhancement Mode	3 levels selection
Color Adjustment	R/G/B independently adjustable
Auxiliary Lines	Crosshairs, horizontal lines, vertical lines
Line Width	1 pixel point
Lens Interface	C-Mount
Voltage Input	DC-5V/12V
Dimension	61mmX61mmX66mm
Operating Temperature	0°C~70°C
Photo Storage SD	Memory card (supports up to 32G), photo grip/button

HDMI Industrial Cameras Series

PRODUCT ADVANTAGES

1. The target surface contains 1/2.8 inches to 1/1.7 inches, with pixels up to 12MP;
2. 60fps high speed image photography without trailing and delay phenomenon:
3. New visual algorithm for auto-focus function
4. HDMI digital HD output, support 16:9 display:
5. Exposure and white balance support manual, automatic adjustment;
6. With cross center line, scale line, moveable line function
7. Support SD card and U disk photo storage and video;
8. With a complete measurement function.

Product Parameter Table

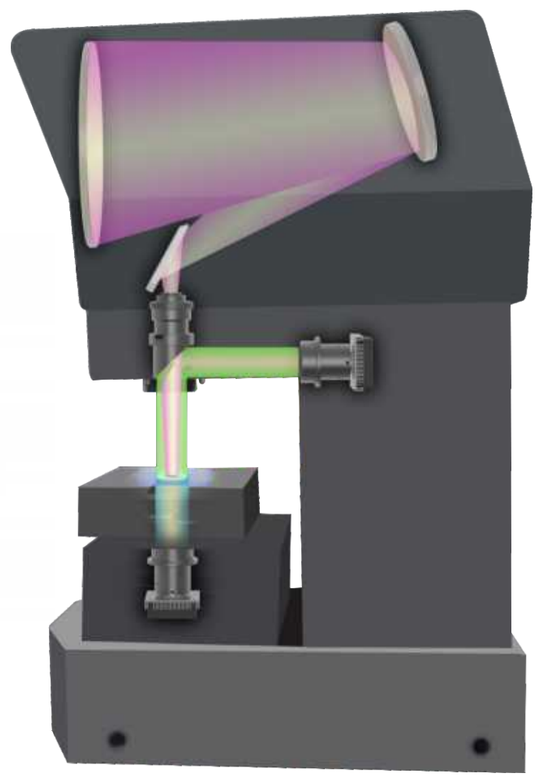
Product Model	PMS-CCH-020M26CSC	PMS-CCH-050M26CSC	PMS-CCH-050M26CSCU	PMS-CCH-120M26CSCU
Image Sensor	CMOS Color	CMOS Color	CMOS Color	CMOS Color
Effective Pixels	2MP	5MP	5MP	12MP
Sensor Size	1/2.8"	1/1.8"	1/1.8"	1/1.7"
Menu	Full digital UI design	Full digital UI design	Full digital UI design	Full digital UI design
Operation Method	Mouse operation	Mouse operation	PC software / mouse operation	PC software / mouse operation
Lens Interface	C/CS type	C type	C type	C type
Power Supply DC	DC5V	DC5V	DC5V	DC5V
Output Method	HDMI	HDMI	HDMI/USB	HDMI/USB
White Balance	Manual/Auto	Manual/Auto	Manual/Auto	Manual/Auto
Exposure Method	Manual/Auto	Manual/Auto	Manual/Auto	Manual/Auto
Display Frame Rate	1080P@60fps	1080P@60fps 1080P@50fps	1080P@60fps 1080P@50fps	1920*1080@30fps 2592*1944@30fps 3840*2160@20fps 4000*3000@20fPS

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Product Model	PMS-CCH-020M26CSC	PMS-CCH-050M26CSC	PMS-CCH-050M26CSCU	PMS-CCH-120M26CSCU
Scanning Method	Progressive scan	Progressive scan	Progressive scan	Progressive scan
Electronic Shutter Speed	1/50s(1/60s)~1/1000s	1/50s(1/60s)~1/1000s	1/30s~1/1000s	1/30s~1/1000s
Working Temperature	0°C-50°C	0°C-50°C	0°C-50°C	0°C-50°C
Digital Magnification	Support	Support	Support	Support
Storage Function	Support external U disk storage	Support external U disk storage	Support external U disk storage	Support external U disk storage

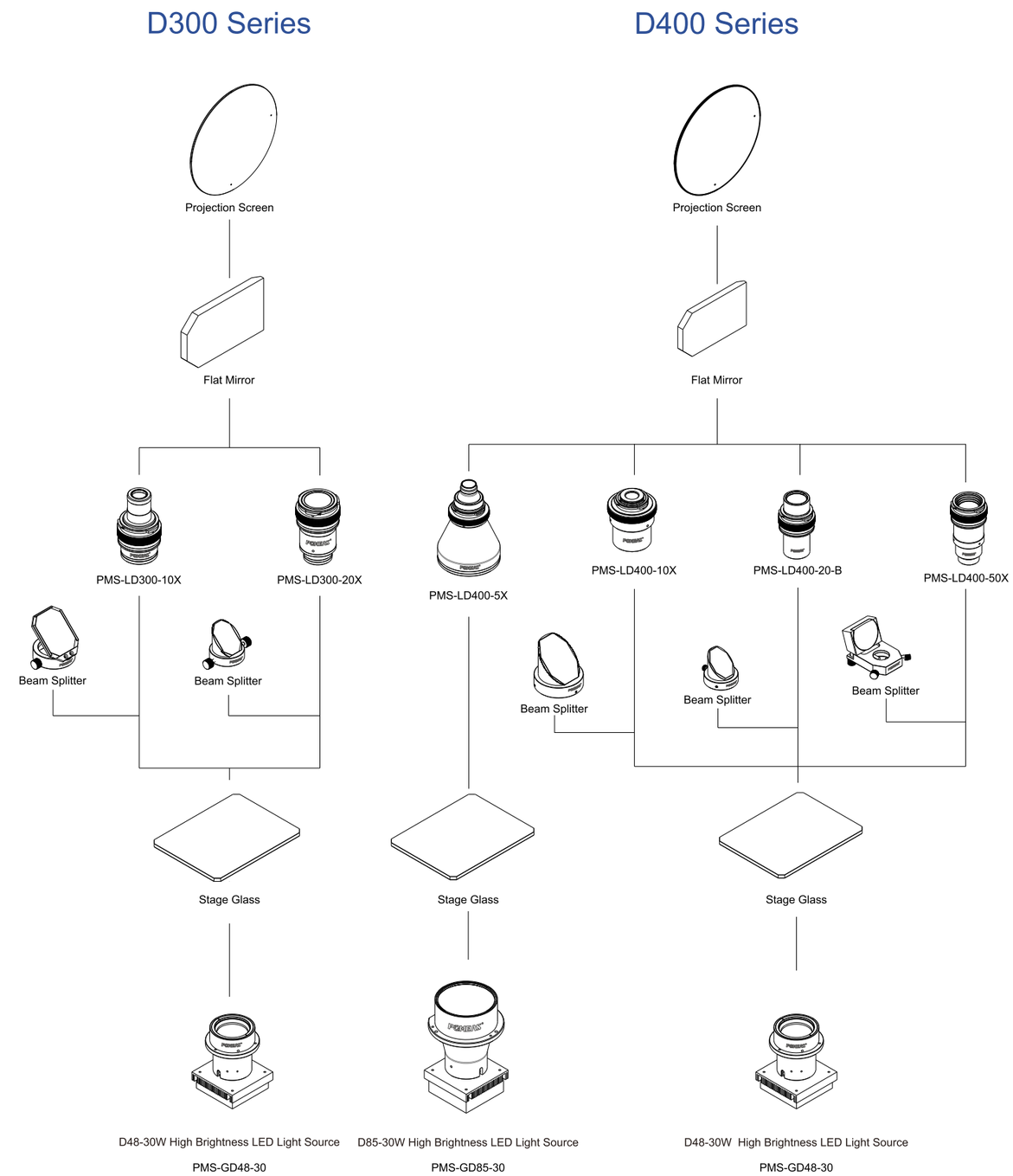
MEASUREMENT PROFILE PROJECTOR PARTS SERIES

Main Products Include: Projection lens, projection LED light source, projection screen, flat reflector, carrier glass.



POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Measurement Projector Series



Support D300, D400, 5X-50X Projection Objective Lens

PRODUCT ADVANTAGES

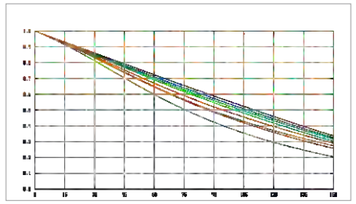
1. High resolution design.
2. Ultra-low distortion.
3. Telecentric.
4. Adjustable magnification.
5. Equipped with coaxial optical module.

Projection Lens D300 Series

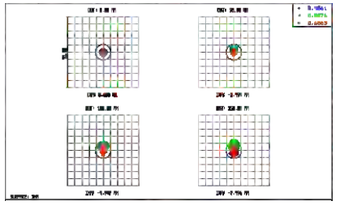
Code	Magnification	Object Resolution(lp/mm)	Telecentricity(°)	Distortion	Object Distance(mm)	Object Field Of View(mm)	Field Of View(mm)	I/O Distance(mm)
PMS-PLD300-10X	10X	Center/Peripheral：125/63	<0.02	<0.01%	80	Ø30	Ø300	1087
PMS-PLD300-20X	20X	Center/Peripheral：160/80	<0.02	<0.01%	67.7	Ø15	Ø300	1087

Light Path Diagram

MTF Graph



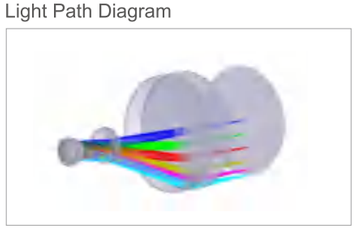
Spot



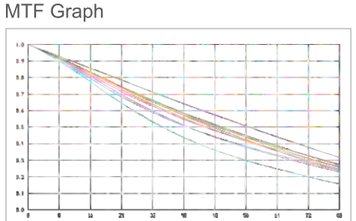
Projection Lens D400 Series

Code	Magnification	Object Resolution(lp/mm)	Telecentricity(°)	Distortion	Object Distance(mm)	Object Field Of View(mm)	Field Of View(mm)	I/O Distance(mm)
PMS-PLD400-5X	5X	Center/Peripheral：80/50	<0.02	<0.01%	58.3	Ø80	Ø400	1234
PMS-PLD400-10X	10X	Center/Peripheral: 125/63	<0.02	<0.01%	79	Ø40	Ø400	1234
PMS-PLD400-200-B	20X	Center/Peripheral：160/80	<0.02	<0.01%	81.5	Ø20	Ø400	1234
PMS-PLD400-50X	50X	Center/Peripheral：160/125	<0.02	<0.01%	52	Ø8	Ø400	1234

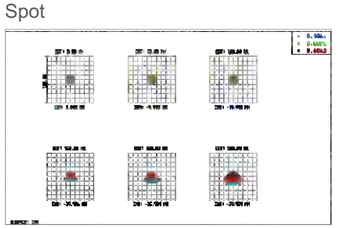
Light Path Diagram



MTF Graph



Spot



Projection Screen With Uniform Surface Frosted Density Andlow Dispersion Loss

PRODUCT ADVANTAGES

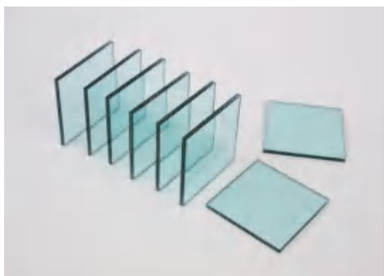
1. Low dispersion loss reduces light energy loss.
2. Surface matte density is uniform, can form a uniform diffusion.
3. Precision scale, clear and sharp lines.

Parameters Table

Code	Diameter / Length And Width (mm)	Thickness (mm)
PMS-PA-320	Ø320	6
PMS-PA-368	Ø368	5
PMS-PA-392	Ø392	6
PMS-PA-380	Ø380	6
PMS-PA-312	Ø312	6

The above can be customized other specifications.

Stage Glass With Visible Light Transmittance> 95% And Flatness <0.01mm



PRODUCT ADVANTAGES

1. Material selection of ultra-white high-quality float glass.
2. Visible light transmittance> 95%.
3. Flatness<0.01mm.
4. The refractive index is 1.51.
5. It can absorb ultraviolet light below 280mm.

Parameters Table

Code	Diameter / Length And Width (mm)	Thickness (mm)
PMS-PG-200/120	200×120	30
PMS-PG-155/155	155×155	6
PMS-PG-126/100	126×100	8
PMS-PG-200/130	200×130	6

Plane Reflector With High Reflectivity And High Surface Accuracy

Parameters Table

Code	Diameter / Length And Width (mm)	Thickness (mm)
PMS-PM-120/60	120×60	12.75
PMS-PM-260	0260	19
PMS-PM-240	0240	19
PMS-PM-80/45	80×45	10
PMS-PM-190	0190	19
PMS-PM-350	0350	19
PMS-PM-280	0280	19
PMS-PM-406	0406	25
PMS-PM-381	0381	19
PMS-PM-470	0470	19
PMS-PM-686	0686	38
PMS-PM-533	0533	38
PMS-PM-762	0762	38
PMS-PM-838	0838	38
PMS-PM-914	0914	51
PMS-PM-240	0240	15
PMS-PM-100	100×10	5
PMS-PM-136/80	130×80	11

The above can be customized other specifications.

PRODUCT ADVANTAGES

1. High surface accuracy.
2. Metallized reflective film with high reflectivity.
3. There is a protective film on the surface to avoid scratching and aging of the reflective film.

High Brightness, High Flatness, Good Uniformity Projection Led Light Source

PRODUCT ADVANTAGES

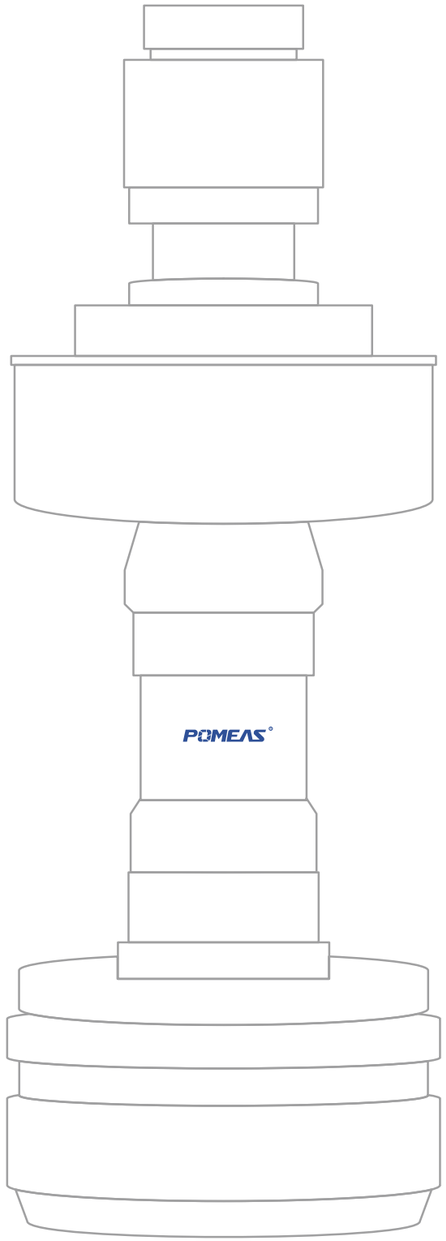
1. High brightness.
2. High parallelism.
3. Good uniformity.

Parameters Table

Code	Beam Diameter (mm)	Forward Voltage (V)	Maximum Current (A)	Colour
PMS-PGS-48/30	48	3.2~3.6	9	yellow-green
PMS-PGS-85/30	85	3.2~3.6	9	yellow-green

MICROSCOPE SERIES

Microscope series includes auto-focus video microscope, metallographic microscope, all-in-one microscope, body microscope, 3D microscope, DIC video microscope module.



Metallographic Microscope Series

POMEAS metallographic microscope is a high-precision and high-efficiency micro-measurement instrument, integrating software, light, mechanic and electricity. It closely follows the internationally leading design trend from appearance to performance, and is committed to expanding the new industrial field. POMEAS adheres to the continuous exploration and continuation of the brand design concept, to provide customers with complete industrial testing solutions.

PRODUCT ADVANTAGES

1. Newly adopts half complex Shaw technology, covering bright field, dark field, polarized light, differential interference and other observation methods, to provide you with efficient solutions;
2. Adopt the illumination system and optical system of the research-grade microscope, the illumination is uniform and the imaging is clear;
3. The new operating system mechanism adopts ergonomic design to replace the operator's fatigue;
4. The design of the faulty component can freely combine the system functions to meet the professional field needs of industrial inspection and metallographic analysis;
5. Highly integrated software system, let you operate more convenient.

The Following Model Are Available

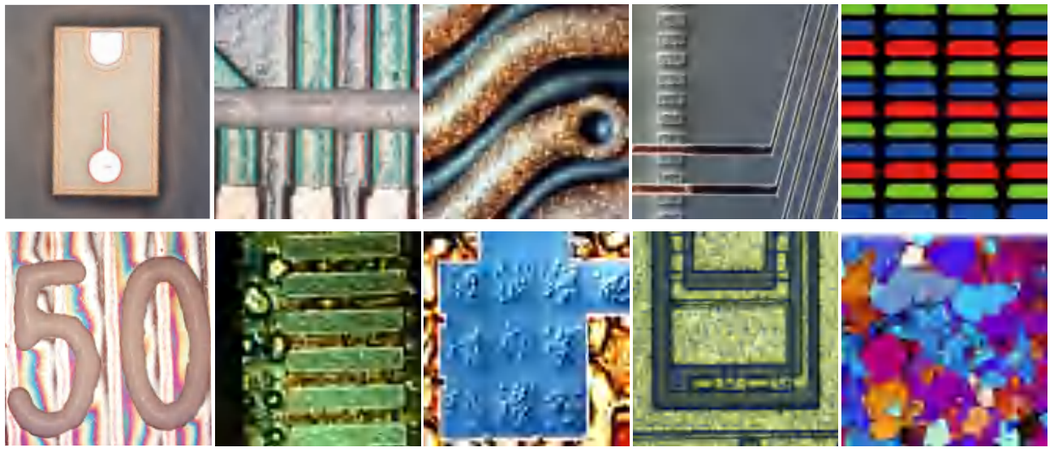
Model	Specification
PMS-MM-CX40M	Brightfield, polarized light; infinitely long working distance plan achromatic metallurgical objective lens (5X / 10X / 20X / 50X); swing-out achromatic condenser N.A 0.9.
PMS-MM-MX40R	Infinity light chromatic aberration optical system; bright field, dark field, polarized light, DIC; infinity long working distance plan achromatic metallurgical objective lens (5X-DIC / 10X-DIC / 20X-DIC / 50X).
PMS-MM-RX60M	Infinity light chromatic aberration optical system; bright field, dark field, polarized light, DIC bright and dark field semi-apochromatic metallographic objective lens (5X / 10X / 20X / 50X) swing-out achromatic condenser NA 0.9, variable volume diaphragm, center Adjustable.

Note: For more model is coming.

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

APPLICATION FIELDS

Widely used for electronic components, precision modules, precision tools, springs, plastics, rubber, oil-sealed check valves, camera parts, auto parts, PCB processing and other fields.



Metallurgical Microscope Technical Parameter

Optical System	Infinity chromatic aberration correction optical system.
Observation Tube	30° tilt, positive image, infinity hinged three-way observation tube, pupil distance adjustment: 50mm~76mm, two-stage split ratio binocular: trinocular = 100:0 or 0:100.
	30° tilt, inverted image, infinity hinged three-way observation tube, pupil distance adjustment: 50mm~76mm, three-stage splitting ratio binocular: trinocular = 100:0 or 20:80 or 0:100.
Eyepiece	High eye point wide field plan eyepiece PL10X25mm, adjustable diopter.
	High eye point wide field plan eyepiece PL10X25mm with single adjustable diopter scale cross reticle.
	High eye point wide field plan eyepiece PL10X26.5mm, adjustable diopter.
	High eye point wide field plan eyepiece PL10X26.5mm, with single adjustable diopter scale cross reticle.
Objective Lens	Bright and dark field semi-apochromatic metallurgical objectives (5X / 10X / 20X / 50X / 100X).
	Brightfield semi-apochromatic metallurgical objectives (5X / 10X / 20X / 50X / 100X).
Objective Lens Converter (With DIC Slot)	Bright and dark field 5 hole converter, bright and dark field 6 hole converter.
	Brightfield 6-hole converter, Brightfield 7-hole converter.
Frame	Transflective dual-purpose frame, low-hand position coarse and fine adjustment coaxial focusing mechanism. The coarse adjustment stroke is 25mm, and the fine adjustment accuracy is 0.001mm. Equipped with anti-tilt adjustment elastic device and upper limit device. Built-in 100-240V wide voltage system, using digital dimming, with light intensity setting and reset function, reflected / transmitted light switch, built-in transmitted light filter (LBD / ND6 / ND25).
	Frame for reflection, low-hand coarse and fine coaxial focusing mechanism. The coarse adjustment stroke is 25mm, and the fine adjustment accuracy is 0.001mm. Equipped with adjustable elastic device and upper limit device to prevent alignment. Built-in 100-240V wide voltage system, using digital dimming, with light intensity setting and reset function.
Stage	Right-handed 4-inch mechanical platform, travel 105mmX102mm, with Y-axis locking mechanism, light barrier for transmission system, with glass stage plate.
Condenser	Shake-out achromatic condenser (N.A.0.9).
Reflective Illuminator	Bright and dark field reflection illuminator, with variable beam diaphragm, field diaphragm, adjustable center; with bright and dark field illumination switching device; with color filter slot, with polarizer/analyzer slot.
Lamp Room	12V100W halogen lamp room, transparent, universal reflection, reservation center.
Other Attachments	Photographic camera accessories: 0.5X, C-type interface, adjustable focus.
	Polarizer insert, fixed analyzer insert, 360° rotating analyzer insert.
	DIC differential servo component.
	Interference filter for reflection:blue≤480nm, green:520nm~570nm,red:630-750nm, red:630nm~750nm, color balance sheet (white)
	Advanced micrometer with a grid value of 0.01mm.

Automatical Focus Video Microscope Series

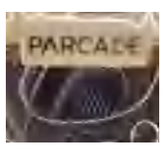
Video microscope can inspect the samples in the display from the new perspective, without eyepieces. It can show and save high quality color static image, dynamic high resolution video. PMS-XHD-AF series video microscope is with all in one mechanical structure, full self-developed optical system, light switch function, continuous zooming in/out, auto focusing function. It will help you improve the quality control career.

PRODUCT ADVANTAGES

01

Help Accelerate Your Work Process

1. Without eyepiece, big screen for better inspection;
2. Real time focusing, save time, compare with manual focusing type;
3. Continuous zooming, quick change the magnification.



Move the inspected parts to the focusing area, the clear image will be gotton.

02

Help You To find More Details

1. Special HDR function can improve edge profile,the image will be clearer;
2. Electronic magnification 180X, see more details;
3. 2MP high resolution camera, 60fps high photo speed.

Common inspection (IC 180x)

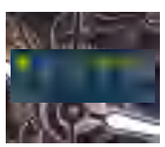
HDR inspection (IC 180x)

03

Bring You More Convenient

1. Portable TF card, can save image and dynamic video;
2. Simple human-computer interface improves the operation efficiency;
3. Varies of lights are optional, can be selected according to customers, demands.

TF card can save the image and dynamic video



Simple and easy human-computer operation interface

APPLICATION FIELDS

- Electronic
- Phone
- Hardware
- Car
- Clocks
- Mechanical

Type	Parameter	Value	
Specifications	Code	PMS-XHD-AF	
	Dimension	320*308.5*417.5mm	
	Tested Item	Height MAX: 50mm	
Optical Parameter	System Magnification (1-6X)	Min.29.92-179.5X	
		Max.192.34-1154X	
	Optical Magnification	0.35-2.25X	
	Display	21.5 inches	
	Resolution	Min. < 8.77μm Max. < 3.94μm	
	WD	88±2mm	
	FOV (D*H*V) mm	Min. 18.3*15.9*8.95	Max. 2.84*2.47*1.39
Camera parameter	Image Sensor	CMOS Color	
	Effective Pixel	200W (1920*1080)	
	Sensor	1/2.8"	
	Menu	POMEAS Software	
	Operation Manual	USB Mouse/Controller	
	Output Mode	HDMI	
	WB	Manual/Auto/One Click	
	Exposure	Manual/Auto	
	Frame Rate	1080P@60FPS	
	Scanning Mode	Line by line	
	Electronic Shutter Speed	1/50S(1/60S~1/10000S)	
	Working Temperature	0℃~50℃	
	Electronic Magnify	Support	
	Storage Function	Support TF card storage	
Instrument	Optional Light	Ring light /Side lights /Bottom lights /Outside coaxial light	
	Optional Lens	Without /With magnification output	

Clock And Watch Application

Clock movement is high precision parts. It is very small and it is difficult to inspect the failed parts by eyes. It takes a lot of time to inspect with traditional microscope. XHD-AF video microscope can quickly find and focus the inspected parts, with its zooming and focusing function.

Mobile Industry Application

As there are many screws with different size and height in mobile cover. Working distance is needed to adjust frequently for better focusing, if using traditional microscope. XHD-AF video microscope can quickly find and focus the inspected parts, with its zooming and focusing function.

Electronic Industry Application

As there are many parts with different size and height on PCB board. Working distance is needed to adjust frequently for better focusing, if using traditional microscope.XHD-AF video microscope can quickly find and focus the inspected parts, with its zooming and focusing function.

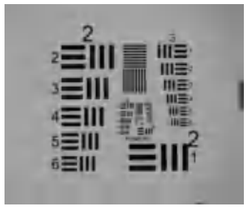
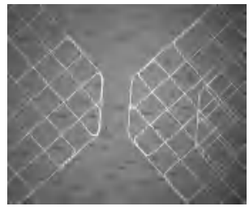
All-In-One Video Microscope Series

PRODUCT ADVANTAGES

1. Integrated integrated design, easy to use, small and beautiful;
2. Real-time storage of SD card images to improve quality analysis and judgment;
3. Original suppression of reflection, enhanced depth of field, and better imaging effect;
4. Telecentric optical path design lens, excellent optical performance, low distortion, clear imaging;
5. Full-view metal brushed LCD 10-inch display with a resolution of 1280*800, high-definition imaging, durable wear-resistant;
6. HDMI high-definition digital signal camera, 60 frames per second frequency, handle-type button adjustment, high-speed image transmission, no attenuation, delicate and realistic colors.

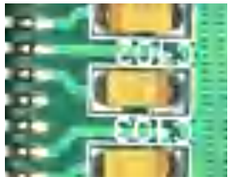
APPLICATION FIELDS

- Electronic
- Phone
- Hardware
- Car
- Clocks
- Mechanical

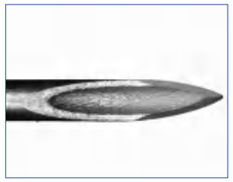
Electronic Application

The integrated video microscope can be used to observe various parts on the PCB board. Simple adjustment can focus to achieve quick observation, as well as LED chips, etc.



Hardware Application

Use the integrated video microscope to observe the shape of various shaped parts such as drills, turning tools, milling cutters, and dies; syringe needles in medical devices.



Parameter Table Of All-In-One Video Microscope

Code		PMS-VA90	PMS-VA90F	PMS-VH90	PMS-VH90F	PMS-VH90-B
Lens	Type	Zoom Lens	12mm Fine Focus+Coaxial	Zoom Lens	12mm Fine Focus+Coaxial	Zoom Lens
	Lens Magnification	0.7X-4.5X(6:5:1)	0.7X-4.5X(6:5:1)	0.7X-4.5X(6:5:1)	0.7X-4.5X(6:5:1)	0.7X-4.5X(6:5:1)
	TV Adapter Magnification	0.5X	0.5X	0.5X	0.5X	0.5X
Camera	Resolution	1.3MP	1.3MP	1.3MP	1.3MP	2MP
	Sensor Size	1/3"	1/3"	1/3"	1/3"	1/3"
	FPS	30FPS(1280*800)	30FPS(1280*800)	60FPS(1920*1080)	60FPS(1920*1080)	60FPS(1280*800)
	Video Output Format	VGA	VGA	HDMI	HDMI	HDMI
Illumination		White Ring Light Illumination	White Coaxial Illumination	White Ring Light Illumination	White Coaxial Illumination	30mm White Ring Light Illumination
Display		17" High Resolution LCD Display (Non Standard Delivery)		17" High Resolution LCD Display (Non Standard Delivery)		10 Inches LCD Display, Metal Wire Drawing(1280*800)
Stage		Base 32cm×28.5cm×3.3cm Rod Ø2.4×28cm		Base 32cm×28.5cm×3.3cm Rod Ø2.4×28cm		Base 32cm×28.5cm×3.3cm Rod Ø2.4×28cm
Picture Effect	Optical Magnification	0.35X-2.25X	0.35X-2.25X	0.35X-2.25X	0.35X-2.25X	0.35X-2.25X
	Eletronlc Magnification	14X-90X	14X-90X	14X-90X	14X-90X	14X-90X
	Working Distance	90±2mm	90±2mm	90±2mm	90±2mm	90±2mm
	Color	Colored	Colored	Colored	Colored	Colored
	Working Temperature	-10℃~50℃	-10℃~50℃	-10℃~50℃	-10℃~50℃	-10℃~50℃

Optional Accessories Of All-In-One Video Microscope

Zoom Lens Magnification	0.7X	1X	2X	3X	4X	4.5X
TV Adapter	0.5X	0.5X	0.5X	0.5X	0.5X	0.5X
Electronic Magnification	14X	20X	40X	60X	80X	90X

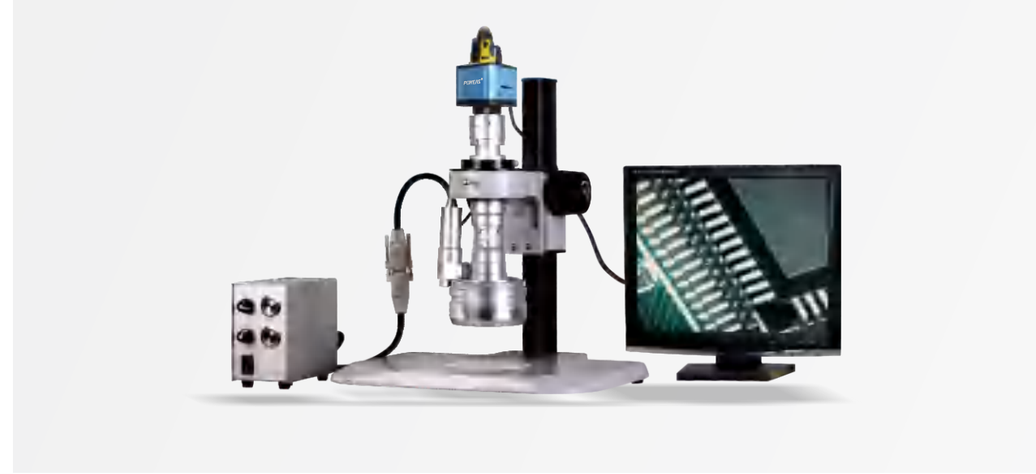
Body Microscope Series

Using excellent optical system, has a clearer image, and can maintain high-quality and bright imaging at any magnification. It is the first choice for modern electronic industry inspection and equipment. Suitable for PCB/LCD/IC assembly inspection.

Model	PMS-SM45S	PMS-SM60S	PMS-SM45D
Observation Head	45° tilted binocular observation head, pupil distance adjustment: 54mm-75mm, fixed eyepiece tube	45° tilted binocular observation head, pupil distance adjustment: 54mm-75mm, fixed eyepiece tube	45° tilted binocular observation head, pupil distance adjustment: 52mm-76mm, fixed eyepiece tube, with fixed and fixed locking function
	45° tilted trinocular head, interpupillary distance adjustment: 54mm-75mm, ffixed eyepiece tube	45° tilted trinocular head, interpupillary distance adjustment: 54mm-75mm, ffixed eyepiece tube	45° tilted trinocular head, interpupillary distance adjustment: 52mm-76mm, fixed eyepiece tube, with fixed and fixed locking function
	/	60° tilted binocular observation head, pupil distance adjustment: 54mm-75mm, fixed eyepiece tube	/
Eyepiece	High eye point large field eyepiece WF10TX20mm, adjustable diopter, micrometer can be installed	High eye point large field eyepiece WF10TX22mm, adjustable visual acuity with micrometer	High eye point large field flat field eyepiece PL10X/22mm, adjustable diopter
	High eye point large field eyepiece WF15TX15mm, adjustable diopter, micrometer can be installed	High eye point large field eyepiece WF15TX16mm, adjustable visual acuity with micrometer	High eye point large field flat field eyepiece PL15X/16mm, adjustable diopter
	High eye point large field eyepiece WF20TX10mm, adjustable diopter, micrometer can be installed	High eye point large field eyepiece WF20TX12mm, adjustable visual acuity with micrometer	High eye point large field flat field eyepiece PL20X/12mm, adjustable diopter
Objective Lens	0.70X~4.5X zoom lens, working distance 100mm	0.67X-4.5X zoom lens, working distance 100mm	0.67X-4.5X zoom lens, working distance 110mm
	/	0.8X-5.0X zoom lens, working distance 100mm	/
	/	1.0X-6.7X s zoom lens, working distance 100mm	/
Auxiliary Objective	0.3X/287mm, 0.4X/217mm, 0.5X/177mm, 0.7X/120mm, 1.5X/47mm, 2X/26mm		
Frame	Integrated stand arm type with frame		
	Dismantable column type, can be equipped with any frame		
Base	Flat base		
	Base with light source		
Photographic Device	0.35X/0.5X/0.65X/1X Camera receiver C-type interface, focusable		

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

3D Video Microscope Series



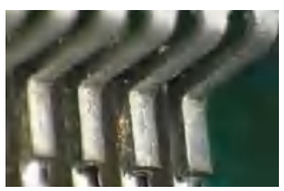
1. 3D video microscope is mainly used in semiconductor, SMT solder joint, QFP, capacitor, connector, medical apparatus, biochemical industry,etc.,to observe the 3D stereo image which is not easy to observe under the traditional 2D microscope.
2. The 3D video microscope has various 3D viewing angles: 30°35°, 40°, 45° DC motor driven 3D conversion with 360° rotation around the sample, real-time image transmission on the high-definition display online observation. 3D video microscope can set the rotation speed, clockwise and counterclockwise viewing direction and adjust the brightness of the ring light source through the standard control box to achieve the perfect observation of the sample. The 3D video microscope is equipped with the standard control box.
3. 3D video microscope adopts block design, you can choose different magnification enhancement mirror or depth-of-field enhancement mirror to achieve large magnification or high depth-of-field visual observation to meet the individual needs of different customers.
4. You can choose VGA-A3 camera to take pictures of the sample, store them on SD card and import them to computer to share with others through Internet or other communication methods.

PRODUCT ADVANTAGES

1. Live inspection, 360°rotating for all direction inspection;
2. Vivid image with high contrast;
3. Rotating speed is adjustable, continual zoom, multiple angle inspection;
4. Use 360 panoramic microscope to obtain a greater depth of field, all-round observation effect;
5. Deep DOF, High resolution（supported by digital camera).

APPLICATION FIELDS

Applied in semiconductor, SMT welded head, QFP, capacitor, connector, medical instrument, biology industry, chemical industry etc, to gain a 3D inspection which can't be achieved by traditional 2D microscope.



Product Parameter Table

Code	PMS-VHL-3010	PMS-VHL-3020
Optical Magnification	0.35X-2.25X	0.35X-2.25X
Video Magnification	24X-152X	24X-152X
Inspection Angle	45°	30°
Rotary Augle	360°	360°
Illumination	Adjustable LED light	Adjustable LED light
Rotary Speed Control	Adjustable DC Motor	Adjustable DC Motor
VGA Camera	1/3" Colored CMOS	1/3" Colored CMOS
Display	17" Colored LCD	17" Colored LCD
Power	90-250V /50Hz /60Hz	90-250V /50Hz /60Hz
Application	SMT、PCB、BGA、etc	SMT、PCB、BGA、etc

High Contrast, Uniform Interference Color Dic Micro Vision System Series

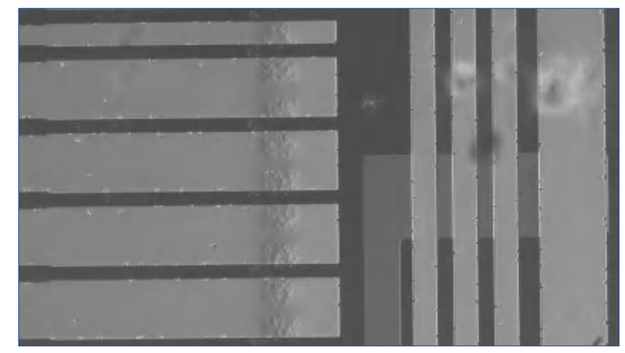
The lens tube adopts infinity optical design, with a professional average achromatic long working distance objective lens, using DIC technology, and a coaxial light source, that is specifically designed to make the small height difference on the surface of the measured object produce an obvious relief effect, which can crack , Bumps, particles and holes are clearly identified, the entire field of view has uniform interference colors, clear images and high contrast.

APPLICATION FIELDS

LCD /OLED /PCB /FPC /FPD and semiconductor testing.

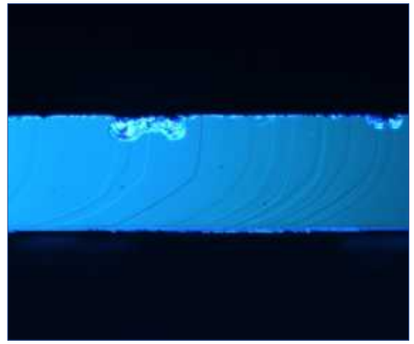
APPLICATION CASES

Liquid crystal display conductive
substrate conductive particle detection

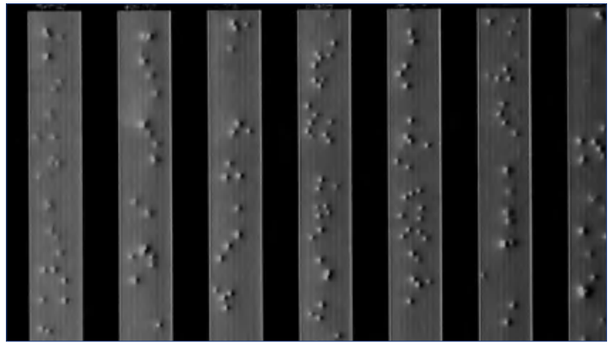


Liquid crystal display conductive
substrate conductive particle detection

APPLICATION CASES



Splice pattern detection



Conductive particles

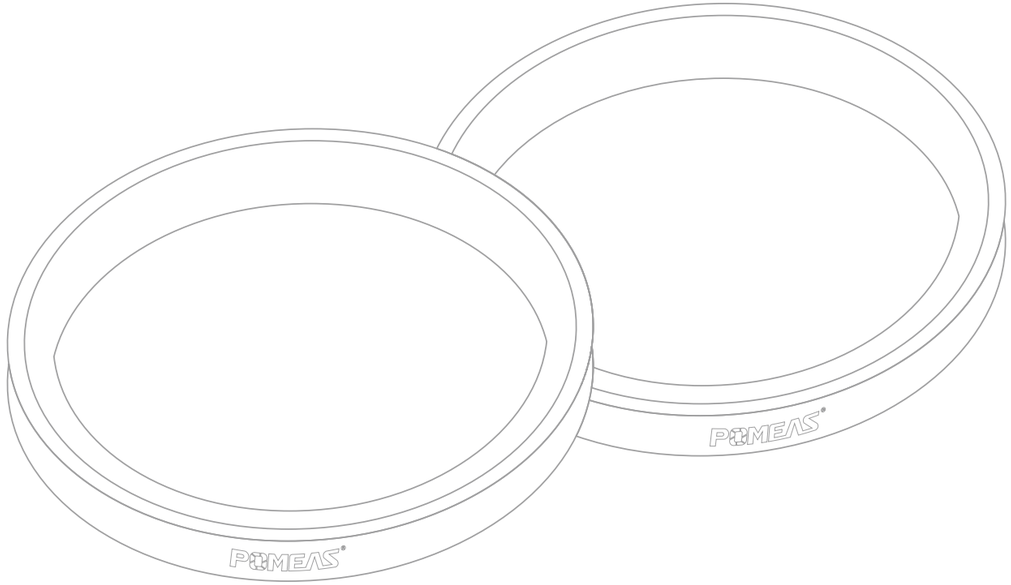
OPTIONAL ACCESSORIES

1. APO objective lens 5X, 10X, 20X, 50X, etc.;
2. Nose wheel assembly.

Long Working Distance Apo Objective Lens Parameter Table

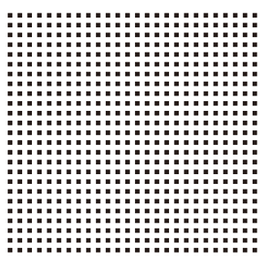
Code	Magnification	Numerical Apertureworking	Distance (mm)	Focal Length (mm)	Depth Of Field (μm)	Resolution (μm)	Field Of View	
							Eyepiece WF 10/24	CCD Sensor 1/2"
PMS-IC5X	5X	0.14	45	40	14	2	Φ4.8	0.96×1.28
PMS-IC10X	10X	0.28	34	20	3.5	1	Φ2.4	0.48×0.64
PMS-IC20X	20X	0.29	30.8	10	3.5	1	Φ1.2	0.24×0.32
PMS-IC50X	50X	0.42	20.5	4	1.6	0.7	Φ0.48	0.10×0.13

ACCESSARY SERIES

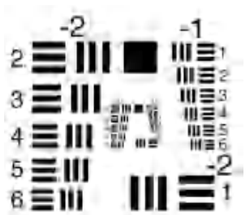


Testing Board Series

Testing board is used to test resolution、contrast 、MTF、DOF 、distortion、telecentricity and so on for the machine vision system . It can estimate imaging system performance .Choosing a suitable testing method can assess the imaging system is good or not , setting up a estimating standard can help solve the quality issues .



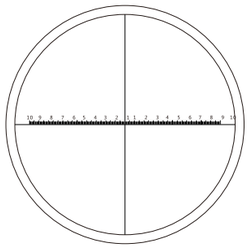
Distortion Test Board



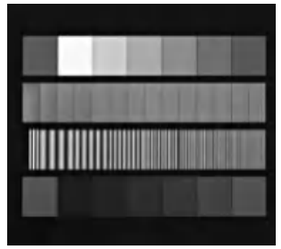
Resolution Test Board

Concentric Square Test Board

DOF Test Board



Contact Pavtition Boavd

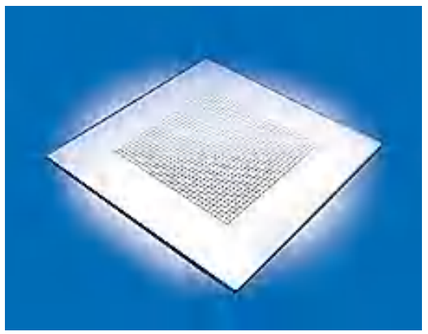


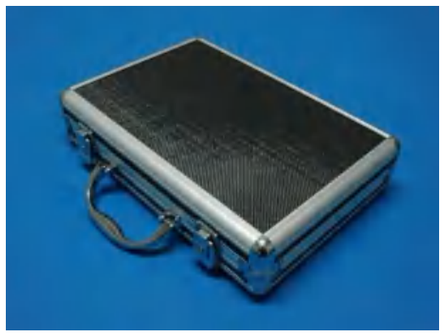
Contrast Test Board

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

Grid Calibration Board Series

Grid calibration board is used to modify vision system and microscope stage , it provide repeatable parallel lines of XY.





PRODUCT ADVANTAGES

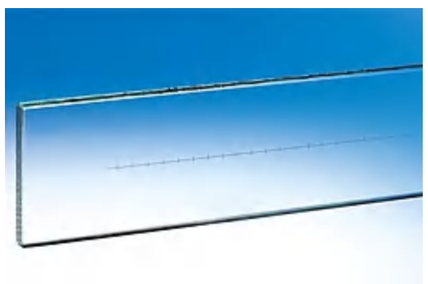
1. Test and modify distortion of vision machine system.
2. Modify microscope stage perspective error.
3. Measure vision field.

Product Parameter Table

Grid Size	Thickness	Photolithography Base Material	Minium Line Width	Contact Hole	CD Tolerance	Uniform	Alignment Accuracy	Flaw Size	Flaw Density
550x450mm	4.8mm	Quartz	1.0μm	1.5x1.5μm	+/-0.1μm	0.12μm	0.12μm	0.8μm	0.6DPSI
540x420mm	3.0mm	SodaLime	1.0μm	1.5x1.5μm	+/-0.1μm	0.12μm	0.12μm	0.8μm	0.6DPSI

Glass Ruler Series

Standard glass ruler is a widely application for research institutes and workshops , it can modify the accuracy of measuring tools and equipment . it is a measuring component of vision measuring machine measuring microscope and profile projector , the allowable tolerance is ±0.2μm.



1. Specification: 100mm, 200mm, vernier grid reading: 1mm (national standard : class two).
2. Specification: 300mm, 400mm, 500mm, 600mm, 700mm, 800mm, 900mm, 1000mm, vernier grid reading: 0.1mm (corporation standard).

Light Source Controller Series

POMEAS support RS232 serial communication, multi-channel control of digital light source controller, through the front panel or serial communication (remote control), can provide 0-255 total 256 levels of brightness adjustment. (and POMEAS light source with the best effect)

Light Controller (white)

Light Controller (black)

PRODUCT ADVANTAGES

1. Optional panel or remote control, each channel brightness independently controllable.
2. 256 levels of digital modulation can be software precise control of the brightness of the load light source.
3. Overload automatic protection function.
4. External trigger high and low level optional, the use of flexible.
5. External trigger using high-speed optocoupler isolation, high response speed, high stability.

Light Source Dimmer Parameter Table

Model	RS232 Control	Channel	Output Voltage	Output Current	Trigger Function	Recommended Load
PMS-PI0508-4-RS232T	Yes	4	5V	800mA	Yes	1 LED or group
PMS-PI0501-4-RS232T	Yes	4	5V	400mA	Yes	1 LED or group
PMS-PI2404-4-RS232T	Yes	4	24V	400mA	Yes	2-3 LEDs in series or group
PMS-PI2408-2-RS232T	Yes	2	24V	800mA	Yes	4-6 LEDs in series or group
PMS-PI1208-4-RS232T	Yes	4	12V	800mA	Yes	4-6 LEDs in series or group

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

High Glass Filter Series

APPLICATION FIELDS

1. Adopt multilayer films coating technology for dual surface of glass,reduce reflected light of surface.
2. Adopt high precision grinding technology, high surface smoothness.
3. Excellent aluminum with black frame,reduce reflected ray effectively.
4. Super thin filter frame, avoid vignetting effectively.
5. Embossing design for the frame,anti-skidding,easy assembly and more convenient usage.

High Glass Filter Parameter

Model	Spectral Specifications			Aperture	Thread Size
	Central Wavelength	Transmittance Band (transmittance >95%avg)	Ending Band (transmittance <1%avg)		
PMS-F850-355	850nm	830nm~870nm	350nm~80nm&900nm~1000nm	32.3mm	M35.5x0.5
PMS-F850-305	850nm	830nm~870nm	350nm~800nm&900nm~1000nm	26mm	M30.5x0.5
PMS-F465-305	465nm	445nm~485nm	350nm~415nm&515nm~1200nm	26mm	M30.5x0.5
PMS-FTBR-375	460nm&650nm	440nm~480nm&630nm~670nm	350nm~410nm&510nm~600nm&700nm~1000nm	34.3mm	M37.5x0.5
PMS-FTBW-305	460nm&650nm	440nm~480nm&630nm~671nm	350nm~410nm&510nm~600nm&700nm~1000nm	26mm	M30.5x0.5
PMS-F405-305	405nm	385nm~425nm	350nm~475nm&455nm~1000nm	26mm	M30.5x0.5
PMS-F405-375	405nm	385nm~426nm	350nm~475nm&455nm~1000nm	34.3mm	M37.5x0.5
PMS-FTHR-305	——	400nm~665nm	350nm~385nm&675nm~1000nm	26mm	M30.5x0.5
PMS-F635-230	635nm	605nm~655nm	350nm~595nm&675nm~1000nm	20mm	M23x0.5
PMS-F530-230	530nm	510nm~550nm	350nm~490nm&570nm~1000nm	20mm	M23x0.5
PMS-F405-230	405nm	385nm~426nm	350nm~475nm&455nm~1000nm	20mm	M23x0.5
PMS-FTHW-230	——	400nm~665nm	350nm~385nm&675nm~1000nm	20mm	M23x0.5

Optical Polarizer Series

APPLICATION FIELDS

1. Adopt multilayer films coating technology for dualsurface of glass,to achieve a high transmittance.
2. Adopt high precision grinding technology, high surface smoothness.
3. Excellent aluminum with black frame,reduce reflected ray effectively.Super thin filter frame,avoid vignetting effectively.
4. Embossing design for the frame, anti-skidding, easy assembly and more convenient usage.

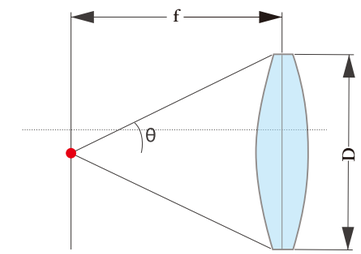
Optical Polarizer Parameter

Code	Specification	Aperture	Screw Dimension
PMS-CPL-305	Polarizing filter (Rotatable structure)	26mm	M30.5×0.5
PMS-CPL-355	Polarizing filter (Rotatable structure)	32.3mm	M35.5×0.5
PMS-CPL-405	Polarizing filter (Rotatable structure)	35.7mm	M40.5×0.5
PMS-CPL-375	Polarizing filter (Rotatable structure)	34.4mm	M37.5×0.5

Optical Terms

1. Numerical Aperture N.A.

1. When the incident pupil half-angle of an object is u, and the refractive index is n, n*sin u is the numerical aperture N.A. of the object.
2. When the incident pupil half-angle of the object is u', and the refractive index is n', n'*sin u' is the image-squared numerical aperture N.A.'.
3. N.A. in this catalog refers to the numerical aperture of the object side, numerical aperture is a measure of lens resolution and luminosity of an important indicator. NA=n×sin u, NA'=n'xsin u', the higher the N.A. value, the higher the resolution and luminosity.



Numerical Aperture Overview Diagram

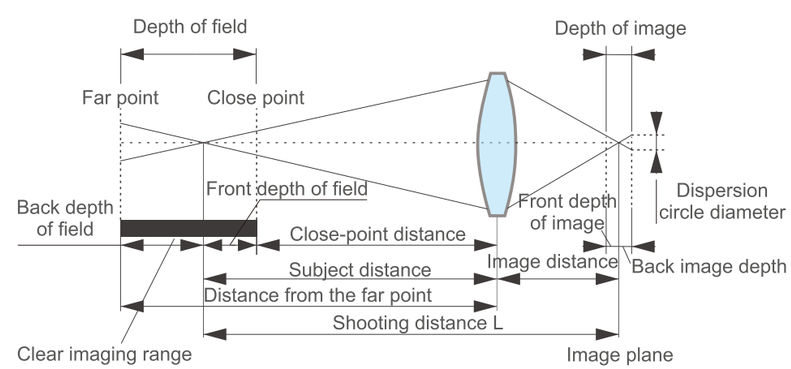
2. Depth Of Field

1. Depth of field is the distance at which acceptable image sharpness can be maintained without refocusing.
2. Depth Of Field Calculation Formula:

Depth of field = 2 × (allowable scattering circle × effective F.no/magnification²)
= Allowable mass circle / (NA × magnification)

(Note: Effective F.no = Magnification/2N.A.)

3. Imaging through the lens is theoretically a point-based image. This point is formed even if a little blurred, it can be clearly visible, the actual allowable "blurred" image. The size of the actual allowable "blur" image is called the allowable dispersion circle depth of field in this catalog is for 1/2.5" CCD cameras envisage the equivalent level of 320 TV line resolution calculated value. (Imaging surface allowable dispersion circle: 40um)



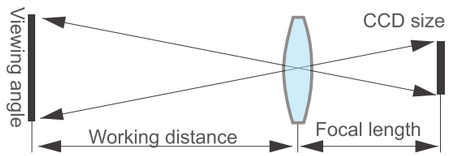
Depth Of Field Overview Diagram

3. Field Of View

1. Field of view is the size of the range where the object can be seen when the lens is connected to the CCD camera.
2. Field of view size = (CCD format size) / (optical magnification)
3. Example: Optical magnification = 0.4, CCD 1/3" (4.8mmx3.6mm)

Field Of View Size: Length=4.8/0.4=12(mm)

Width=3.6/0.4=9(mm)



Focal Length, Field Of View Overview Chart

4. Focal Length F/Back Intercept/Front Intercept

1. Focal length is the distance from the center of the optical system to the focal point.
2. The back intercept is the distance from the last lens to the back side of the focal point.
3. Front intercept is the distance from the front lens to the front focal point.

5. Relationship Between Depth-Of-Field Resolution And Depth Of Field

The standard size is made on the principle of resolution priority, but the depth of field of the subject increases due to the change of the set F value. (Optional service: Standard size can freely set the F value, and the barrel can also be made according to the magnification)

6.C Mounting

JISB7127 is one of the specifications for lens fixed thread.

Name	Basic Outer Diameter	Number Of Threads	Flange Liner
U1	25.400mm	32 threads	17.526mm

7. Flange liner

The flange liner is the distance between the camera mounting surface and the imaging surface. (in air)

8. Effective F-Number / Aperture Number

Effective F-number shows the lens brightness of the object at a limited distance. Used to indicate the actual use of the lens brightness value, the higher the optical magnification, the darker the lens.

Effective F No. (Effective F.no) = (1 + β) x F.no

POMEAS
PROFESSIONAL MANUFACTURER
OF VISION SYSTEM

9. Magnification

1. Electronic Magnification: It is the magnification of the image taken with the camera and presented on the monitor.
2. Optical Magnification (β): The magnification of the image size relative to the object.

β=image/object=N.A./N.A.'=CCD camera element size/field of view actual size.

3. Display Magnification: The photographed object through the lens imaging displayed on the display magnification.

Display magnification = (optical magnification) x (electronic magnification)

4. Example: Optical magnification = 3X, CCD size 1/3" (diagonal length of 6mm), monitor 17"

Electronic magnification = 17 x 25.4/6 = 71.97 (times)

Display magnification = 3 x 71.97 = 215.9 (times)

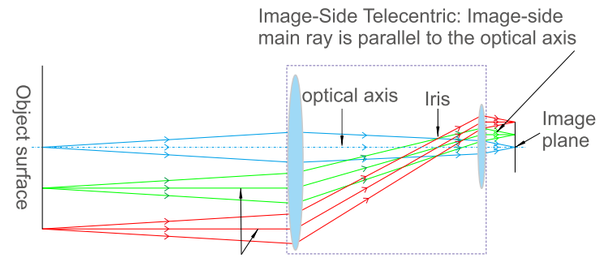
(1 inch = 25.4mm)

10. F-Number / Aperture Number

1. Shows the luminosity, which he calculated by dividing the focal length of the lens by the effective diameter (incident light pupil D mm) observed from the object side of the lens. It can be calculated using N.A. and the optical magnification of the lens (β) is calculated.

11. Telecentric Optical System

A telecentric optical system is an optical system in which the principal light is parallel to the optical axis. An optical system in which the object-side principal ray is parallel to the optical axis is called an object-side telecentric optical system. An optical system in which the image-side principal ray is parallel to the optical axis is called an image-side telecentric optical system.



Schematic Diagram Of The Object-side Telecentric Optical System

12. Resolution

1. The ability to clearly distinguish the smallest interval of the fine structure of the object being measured. That is, the ability to clearly distinguish the smallest distance between two adjacent object points. The larger the resolution, the smaller the minimum distance between two points that can still be distinguished. The larger the numerical aperture (N.A.), the higher the resolution.

2. Resolution Formula: (the following formula is generally used to determine the resolutio)

Resolution (ε) = 0.61 x λ / N.A. (Reyleigh's formula)

λ: The wavelength or radiation used (λ = 0.55μm for visible light)

N.A.: Numerical aperture of the objective lens

3. Example: When The Optical Magnification Is: 4.5 times (N.A. = 0.085), and the λ is 0.55 μm

ε=0.61 x λ / N.A.=0.3355 / N.A.=0.3355/0.085=3.94μm

The resolution in this catalog refers to the theoretical resolution at a wavelength of 550 nm.